

**544 UNION AVE  
BROOKLYN, NEW YORK**

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# **Remedial Investigation Report**

**NYC BCP Site Number: 12CBCP039K**

**Prepared for:**

544 Unioncon, LLC  
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Islandia, New York 11749

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March 2012

# **REMEDIAL INVESTIGATION REPORT**

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## LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
CAMP	Community Air Monitoring Plan
COC	Contaminant of Concern
CPP	Citizen Participation Plan
CSM	Conceptual Site Model
DER-10	New York State Department of Environmental Conservation Technical Guide 10
FID	Flame Ionization Detector
GPS	Global Positioning System
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
IRM	Interim Remedial Measure
NAPL	Non-aqueous Phase Liquid
NYC BCP	New York City Brownfield Cleanup Program
NYC DOHMH	New York City Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
NYS DOH ELAP	New York State Department of Health Environmental Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PID	Photoionization Detector
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RIR	Remedial Investigation Report
SCO	Soil Cleanup Objective
SPEED	Searchable Property Environmental Electronic Database

# CERTIFICATION

I, Robert Wolff, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the 544 Union Ave, Brooklyn, NY Site, (NYC BCP Site No. 12CBCP039K). I am responsible for the content of this Remedial Investigation Report (RIR, have reviewed its contents, and certify that this RIR is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

Robert Wolff

Qualified Environmental Professional

Date

Signature

# EXECUTIVE SUMMARY

The Remedial Investigation Report (RIR) provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy pursuant to RCNY§ 43-1407(f). The remedial investigation (RI) described in this document is consistent with applicable guidance.

## **Site Location and Current Usage**

544 Unioncon, LLC plans to enroll in the New York City Brownfield Cleanup Program (NYC BCP) to investigate and remediate a 0.819-acre site located at 544 Union Avenue in the Williamsburg section of Brooklyn, New York (the “Site”) as shown on Figure 1. A mixed commercial residential use is proposed for the property. The RI work was performed between July 2007 and January 2012. This RIR summarizes the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

## **Summary of Proposed Redevelopment Plan**

The proposed development at the Site includes the construction of a six-story mixed use building with commercial space occupying the ground floor with residential space above. The structure will be constructed of reinforced concrete (Construction Class: 1-C as per the New York City Building Code) with a Steel Monotube pile foundation. There will be no basement or sub-grade parking. The building will include commercial, parking, recreational and mechanical space and a lobby on the first floor. The building will house 92 residential apartments including 13 studio apartments, 53 one-bedroom apartments and 26 two-bedroom apartments on floors two through six. The gross floor area is approximately 117,608 square feet. The building footprint will cover approximately 98% of the entire lot with the remaining 2% of the lot fronting Union Avenue covered with a combination of concrete sidewalks and planted landscape beds as required by the Zoning Resolution.

The current zoning designation is M1-2/R6A/MX-8 and M1-2/R6B/MX-8, which is mixed use with manufacturing/commercial uses and residential uses allowed in the same building,

according to the New York City Planning Commission website (2012). The proposed use is consistent with existing zoning for the property.

### **Summary of Past Uses of Site and Areas of Concern**

A review of historical records as described in the Phase I Investigation (CA Rich, 2007), indicated that a portion of the Site was initially developed during or prior to 1887 as an Iron Foundry. By 1905, the Site was completely developed as an Iron Works. Over time, through the 1960's, the Site was identified as a foundry; an iron, bronze and wire works; and a metal finisher. The Site was predominantly a warehouse by 1996 and was vacant and undeveloped by 2007. Foundation piles were installed throughout most of the Site in 2007-2008 by the previous owner. The property is currently owned by 544 Unioncon, LLC.

Based on the Site history and Phase II analytical results, the entire site is considered an area of concern.

### **Summary of the Work Performed under the Remedial Investigation**

1. Evaluation of CA Rich's 2007 RI and identification of data gaps;
2. A Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
3. Installation of thirty soil borings across the entire project Site, and collection of 124 soil samples for chemical analysis from the borings to evaluate soil contamination and quality;
4. Installation of seven temporary groundwater monitoring wells throughout the Site to establish groundwater contamination and collection of fourteen groundwater samples for chemical analysis to evaluate groundwater quality; and
5. Installation of four soil vapor points throughout the Site and collected three samples for chemical analysis.

### **Summary of Environmental Findings**

1. Elevation of the property ranges from approximately 7.5ft to 9ft above mean sea level. These elevations refer to Brooklyn Highway datum (*Barret, Bonacci & Van Weele, 2010*).

2. Depth to groundwater at the site is highly variable and ranges from approximately 4.5ft bgs to 10ft bgs at the Site.
3. Groundwater flow is generally from an east to west direction beneath the Site according to CA RICH Phase II ESA (2007) and surface topography.
4. Bedrock has not been encountered during any of the previous environmental and/or geotechnical investigations.
5. The stratigraphy of the site, from the surface down, consists of approximately 15 feet of fill underlain by approximately 2 to 15 feet of peat. According to URS's geotechnical evaluation, below the peat layer is a sand and silt layer containing varying proportions of sand and silt. The sand and silt layer is described as dense to very dense. Bedrock was not encountered during the geotechnical evaluation.
6. Soil/fill samples collected during the RI showed ubiquitous metals contamination in site soils (fill). Tables 1 and 2 summarize the results of soil and TCLP soil sampling during URS' remedial investigation. PCBs were not detected in any of the soil samples. The analytical results indicated that VOCs, SVOCs, and pesticides exceeded the NYSDEC Part 375 Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs), but did not exceed the Restricted Use (Track 2) Restricted Residential SCOs. The analytical results indicated that metals exceeded the NYSDEC Part 375 Restricted Use (Track 2) Restricted Residential SCOs.
7. Groundwater samples collected during the RI showed low-level exceedances of VOCs during CA RICH's Phase II investigation in 2007. Compounds exceeding NYSGWQS included 1,1-Dichloroethane, 1,1,1-Trichloroethane, Chloroethane, and Methylene Chloride. The VOC exceedances were attributed by CA RICH to a regional up gradient off-site source. Groundwater samples analyzed for metals, both filtered and unfiltered, showed that exceedances of groundwater quality standards were directly attributable to the sediment suspended in the unfiltered samples. There were no exceedances in any of the filtered metals groundwater samples during either URS' or CA RICH investigations.
8. Soil vapor samples collected during the RI showed that VOCs are present in the soil vapor. The VOC compounds detected were compared to NYSDOH 2006 Guidance for

Evaluating Soil Vapor Intrusion in the State of New York air guidance values (AGV's), the Health Effects Institute (HEI) 95<sup>th</sup> percentile concentrations for indoor air, and the EPA Building Assessment and Survey Evaluation (BASE) 90<sup>th</sup> percentile value. The analytical results indicate low level BTEX contamination, minor tetrachloroethene (PCE) detections, 1,1,1-trichloroethane (TCA) detections (maximum concentration of 116 ug/m<sup>3</sup>), and trichloroethene (TCE) detections (maximum concentration of 72.9 ug/m<sup>3</sup>). Table 4 summarizes the results of soil vapor sampling during URS' remedial investigation.

# REMEDIAL INVESTIGATION REPORT

## 1.0 SITE BACKGROUND

544 Unioncon, LLC has enrolled in the New York City Brownfield Cleanup Program (NYC BCP) to investigate and remediate a 0.819-acre site located at 544 Union Ave in Williamsburg section of Brooklyn, New York (the “Site”) as shown on Figure 1. A mixed commercial residential use is proposed for the property. The RI work was performed between July 2007 and January 2012. This RIR summarizes the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

## 1.1 SITE LOCATION AND CURRENT USAGE

The Site is located at 544 Union Avenue in the Williamsburg section of Brooklyn, New York and is identified as Block 2736 and Lots 1, 9, and 48 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 35,692-square feet and is bounded by Frost Street and 568 Union Avenue to the north, Withers Street to the south, a warehouse and 3-story residential buildings to the east, and a vacant lot and auto body shop to the west across Union Avenue. Currently, the Site is unimproved and vacant with exposed soil and approximately 220 foundation piles throughout the site, installed by the former owner. There is currently a temporary office trailer on the west side of the site. Figure 2 shows the current site plan.

## 1.2 PROPOSED REDEVELOPMENT PLAN

The proposed future use of the Site includes the construction of a six-story mixed use building with commercial space occupying the ground floor with residential space above. The structure will be constructed of reinforced concrete (Construction Class: 1-C as per the New York City Building Code) with a Steel Monotube pile foundation. There will be no basement or sub-grade parking. The building will include commercial, parking, recreational and mechanical space and a lobby on the first floor. The building will house 92 residential apartments including 13 studio apartments, 53 one-bedroom apartments and 26 two-bedroom apartments on floors two through six. The gross floor area is approximately 117,608 square feet. The building footprint

will cover approximately 98% of the entire lot with the remaining 2% of the lot fronting Union Avenue covered with a combination of concrete sidewalks and planted landscape beds as required by the Zoning Resolution.

Layout of the proposed site development is presented in Figure 3. The current zoning designation is M1-2/R6A/MX-8 and M1-2/R6B/MX-8, which is mixed use with manufacturing/commercial uses and residential uses allowed in the same building, according to the New York City Planning Commission website (2012). The proposed use is consistent with existing zoning for the property.

Excavations as part of site development will include site grading, installation of piles and pile caps, elevator pit installation, and small trenches for underground utilities. Excavation to a depth of one foot will occur across the site for construction and development purposes. Utility trench and pile cap excavations are not planned to go beyond a maximum depth of 5ft bgs. Excavations related to the installation of the elevator pits are anticipated to be installed to a maximum depth of 8 feet bgs. A limited amount of dewatering may be necessary in the vicinity of the elevator pits. It is anticipated that excavations related to development of the site will be approximately 3,000 cubic yards. No demolition activities are planned as part development.

### **1.3 DESCRIPTION OF SURROUNDING PROPERTY**

The Site is bounded to the north by Frost Street and a mixed-use apartment building with ground level retail space. To the west of the Site there is a one-story manufacturing building and a three-story apartment building. To the south is Withers Street and a vacant lot (538 Union Avenue) and to the west is Union Avenue with a vacant lot and an auto body facility.

The neighborhood is primarily residential with some commercial use and a few miscellaneous factory/light manufacturing facilities. A NYC Transit Authority subway line runs beneath Union Avenue.

In the surrounding area is a day care facility, Williamsburg Neighborhood Nursery School, 211 feet west of the Site. There are no public schools or hospitals within a 500-foot radius of the Site.

Figure 4 shows the surrounding land usage.

## **2.0 SITE HISTORY**

### **2.1 PAST USES AND OWNERSHIP**

A review of historical records as described in the Phase I Investigation (CA Rich, 2007), indicated that a portion of the Site was initially developed during or prior to 1887 as an Iron Foundry. By 1905, the Site was completely developed as an Iron Works. Over time, through the 1960's, the Site was identified as a foundry; an iron, bronze and wire works; and a metal finisher. The Site was predominantly a warehouse by 1996 and was vacant and undeveloped by 2007. Foundation piles were installed throughout most of the Site in 2007-2008 by the previous owner. The property is currently owned by 544 Unioncon, LLC.

### **2.2 PREVIOUS INVESTIGATIONS**

A Phase I investigation was completed in 2007 by CA Rich in conformance with ASTM Practice E 1527-2005. After visiting the site and reviewing historical documentation, there was one recognized environmental condition (REC). The REC was the historical use of the property as a foundry and small quantity generator of regulated hazardous waste from 1947-2006 while the property was used as a machine shop. There was evidence of staining throughout the property during the site visit. Additionally, this Site has an E designation from the New York City Department of Planning for HAZMAT (hazardous materials) due to its manufacturing history. A copy of the CA Rich Phase I is found in Appendix A.

Based on the findings of the Phase I, a Phase II investigation was completed in 2007 by CA Rich for the previous owner, 544 Union Owner, LLC. The Phase II identified the presence of Arsenic, Barium, Cadmium, Calcium, Cooper, Lead and Magnesium, and Mercury, Selenium and Zinc above the New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 or Eastern USA Background guidance values in one or more soil boring locations. Additionally, several SVOCs were detected above TAGM values in several soil samples. The typical SVOCs included those found in construction fill in urban areas of New York City. Most VOCs in soil were below TAGM values while the VOCs detected in the groundwater were attributed to regional off-site sources. After CA Rich's completion of the Phase II Investigation, 29.19 tons of hazardous lead soil was removed from the eastern portion of the Site in 2007. Copies of the hazardous waste manifests are provided in Appendix B.

Following URS's review of CA Rich's Phase II, remediation documentation and current site conditions, URS determined that a supplemental Phase II Remedial Investigation was needed to assist in re-characterizing the Site. Consequently, URS implemented an investigation focused on three targeted metals: Lead, Mercury and Arsenic. The CA Rich and URS Phase II Investigation reports and their combined results serve as the Remedial Investigation described in this Report. A copy of the CA Rich Phase II is found in Appendix C.

Also a Geotechnical Evaluation was completed by URS in 2007 and updated in 2011. This evaluation included review of the existing piles installed at the Site in 2007-2008 and recommendations on any future pile driving at the Site based on the characterization of the Site soil and geology. URS recommended a static load test performed on any additional piles to be driven, if they are different than the currently installed Tapertube piles. They also recommended that a vapor barrier be installed beneath the cellar slab as groundwater is at approximately four feet bgs. A copy of the URS Geotechnical Evaluation is found in Appendix D.

### **2.3 SITE INSPECTION**

The Site was inspected on December 7, 2011 by URS Environmental Scientist, Ms. Megan Dascoli. The Site was undeveloped with no permanent structures and surrounded on all sides by an eight-foot high plywood fence. The ground was mostly overgrown with weeds, though there were some muddy areas. The site topography was generally level and at grade with the street. Areas of stressed vegetation and staining were not visible throughout the site. A temporary office trailer was located on the west side of the property, two backhoes were parked on the Site, and on the north side was a stockpile of large concrete blocks. There were numerous foundation piles visible throughout the site. Site Photographs are presented in Appendix E.

### **2.4 AREAS OF CONCERN**

Based on the Site history and Phase II analytical results, the entire site is considered an area of concern. The Site has evidence of industrial usage as an Iron Foundry starting in 1887 with continuous usage through 2006 as a foundry and as a machine shop/ warehouse. At the time of the Phase I site visit, there was an existing structure with chemical/ petroleum staining on floors in the former manufacturing areas, floor sumps and pits containing unknown liquid, and oil stained soil and absorbent material (CA Rich, 2007). Therefore, there is the potential that

releases of chemical solvents, petroleum products, and metals occurred throughout the footprint of the site. The lone site structure was demolished by the previous owner sometime after the Phase I and Phase II investigations by CA RICH in 2007. The Phase II Report by CA RICH is presented in Appendix B.

### **3.0 PROJECT MANAGEMENT**

#### **3.1 PROJECT ORGANIZATION**

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is Robert Wolff

The project geologists and environmental scientists include Ms. Mira Abdelaziz, Ms. Megan Dascoli, and Ms. Cary Friedman

#### **3.2 HEALTH AND SAFETY**

All work described in this RIR was performed in full compliance with applicable laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements.

URS prepared a Health and Safety Plan that covered areas of common hazards including contamination, tool and material handling, cold stress, and drilling safety. The Health and Safety Plan identified the nearest hospital and included safety standards for reference. There were toolbox talks conducted with the drilling subcontractor, Zebra Drilling, before each day of field work was started to review the hazards of the site and the general hazards of the tasks. The Health and Safety Plan is provided as Appendix F.

#### **3.3 MATERIALS MANAGEMENT**

All material encountered during the RI was managed in accordance with applicable laws and regulations.

During the soil sampling and groundwater sampling events, all soil was returned to the boring after completion. Purge water generated was poured into the borehole after sampling. All garbage generated during field activities was placed in a black trash bag and disposed of as non-hazardous waste.

## **4.0 REMEDIAL INVESTIGATION ACTIVITIES**

The Remedial Investigation included the Phase II investigation completed in 2007 by CA Rich for 544 Union Owner LLC and supplemental Phase II investigation activities completed by URS in 2011/2012 for 544 Unioncon LLC, the current site owner. The combined scope of work for the two investigations includes the following:

1. Evaluation of CA Rich's 2007 RI and identification of data gaps;
2. A Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
3. Installation of thirty soil borings across the entire project Site, and collection of 124 soil samples for chemical analysis from the borings to evaluate soil contamination and quality;
4. Installation seven temporary groundwater monitoring wells throughout the Site to establish groundwater contamination and collected fourteen groundwater samples for chemical analysis to evaluate groundwater quality; and
5. Installation of four soil vapor points throughout the Site and collected three samples for chemical analysis.

### **4.1 GEOPHYSICAL INVESTIGATION**

CA Rich conducted a geophysical investigation around proposed boring locations as part of their Phase II investigation in 2007. The purpose of the survey was to determine if USTs or subsurface structures were present that would interfere with proposed drilling activities. Naeva Geophysics conducted the survey using a Software Noggin Smart Cart Ground Penetrating Radar. The survey did not discover any subsurface anomalies.

A geophysical survey was not conducted as part of URS's Remedial Investigation. Any utilities on site were disconnected at the street prior to the structural piles being driven in 2007. No subsurface obstructions were encountered during the current drilling program.

Prior to commencing drilling activities, URS obtained a permit from New York City Metropolitan Transit Authority (MTA). The permit was obtained due to drilling locations falling within 200ft of the MTA subway beneath Union Ave. The permit application is included in Appendix G.

## **4.2 BORINGS AND MONITORING WELLS**

### **Drilling and Soil Logging**

On June 26, 2007, CA Rich advanced ten continuous soil borings utilizing a Geoprobe from the surface to shallow groundwater across the Site. The soil sample from 0-2 feet bgs and the sample containing the highest PID reading or the deepest soil/fill sample collected just above the groundwater were submitted for chemical analyses.

On December 7 and 8, 2011, twenty soil borings (B-1 through B-20) were advanced by URS on the Site in a grid pattern to evaluate potential targeted metals contamination (Mercury, Lead and Arsenic) throughout the Site. The borings were advanced to 15 ft bgs using a track mounted Geoprobe® with 2-inch diameter rods. Continuous soil cores were collected from each boring using 5-foot long macrocores fitted with dedicated acetate liners. Each soil core was classified using the Unified Soil Classification System.

Samples were collected in two-foot intervals from four to 14 ft bgs and analyzed for metals (mercury, lead, arsenic), with selected samples analyzed for toxic characteristic leachate procedure (TCLP) mercury, lead, and arsenic.

Boring logs were prepared by an environmental professional and are attached in Appendix H. A map showing the location of soil borings and monitor wells is shown in Figure 5.

### **Groundwater Monitoring Well Construction**

In June 2007, CA Rich installed three temporary monitoring wells (GW-1, 2 and 3) at soil borings SB-2, 6 and 10 via a Geoprobe. The depth to water at these borings was measured at approximately 10 feet below grade.

During December 7-8, 2011 field activities, unfiltered groundwater samples were collected from temporary points at borings B-2, B-4, B-12, and B-14 using a 5-foot long screen point sampler with a slot size of 0.020 inches installed at a depth deep enough below grade to have enough of a volume of groundwater to collect a sample (10 ft -15 ft bgs). The unfiltered samples contained substantial sediment and were not exclusively representative of groundwater conditions. Therefore, filtered groundwater samples were collected on January 14, 2012 from temporary points that were drilled at locations approximately five feet from the original boring locations listed above. These locations are labeled B-2B, B-4B, B-12B, and B-14B. Groundwater

samples were collected using a 5-foot long screen point sampler with a slot size of 0.020 inches installed at a depth deep enough below grade to have enough of a volume of groundwater to collect a sample (5 to 10 ft bgs). See Table 1, below, for temporary well construction details from the URS investigation.

**Table 1- Temporary Well Construction Details**

<b>Boring/ Temporary Well ID</b>	<b>Date Installed</b>	<b>Depth</b>	<b>Screened Interval</b>	<b>Sampling Method</b>
B-2, B-4, B-12, B-14	12/7-8/11	15 ft bgs	10 ft- 15 ft	¼” tubing with check valve through drill rods
B-2B, B- 4B, B-12B, B-14B	1/14/2012	10 ft bgs	5 ft – 10 ft	Peristaltic Pump
GW-1, GW-2, GW-3	6/26/2007	N/A	N/A	N/A

Temporary well locations are shown in Figure 5.

### **Survey**

Soil borings and soil gas points were drilled according to locations identified on the MTA approved site plan. Borings and soil gas point locations were measured from the Site property lines to correspond to locations on the approved site plan.

A Topographic Survey was conducted by Barrett, Bonaci & Van Weele, PC for the Site and a drawing produced dated August 2, 2010. This drawing depicts property and surrounding curb lines, fencing, utilities, drains, spot elevations, on-site pile locations, and other physical features of the site. The site survey is provided as Appendix I.

## **Water Level Measurement**

During soil sampling in December 2011, water levels were generally identified at approximately five to seven ft bgs, however variation was noted throughout the site. In addition, soil sampling on December 7 and 8 occurred during a rain event so a precise determination of the depth to groundwater was difficult given the unconsolidated nature of site soils. On January 14, 2012 water levels were measured at 10 ft bgs in some soil borings but was measured between 4ft and 5ft bgs in temporary well points. During the CA RICH Phase II investigation in 2007, water levels were identified at approximately 10ft bgs. During URS' geotechnical investigations in 2007 and 2011, the depth to water was identified at approximately 4ft to 6ft bgs.

### **4.3 SAMPLE COLLECTION AND CHEMICAL ANALYSIS**

Sampling performed as part of the field investigation was conducted for all Areas of Concern and also considered other means for bias of sampling based on professional judgment, area history, discolored soil, stressed vegetation, drainage patterns, field instrument measurements, odor, or other field indicators. All media including soil, groundwater and soil vapor have been sampled and evaluated in the RIR. Discrete (grab) samples have been used for final delineation of the nature and extent of contamination and to determine the impact of contaminants on public health and the environment. The sampling performed and presented in this RIR provides sufficient basis for evaluation of remedial action alternatives, establishment of a qualitative human health exposure assessment, and selection of a final remedy.

#### **Soil Sampling**

Soil samples collected for laboratory analysis were collected using dedicated, disposable sampling equipment. Drill rods and reusable hardware was decontaminated using water and Alconox, a cleanser dissolved in the water, and brush action to remove sediment. Samples were handled using disposable nitrile gloves and were placed in laboratory supplied containers and shipped in coolers under chain of custody procedures via laboratory courier in accordance with EPA protocols. Samples collected during the 2007 field activities were shipped to a laboratory.

Samples collected during the 2011/2012 field activities were shipped to a different laboratory. Both laboratories are New York State Department of Health (NYSDOH) - certified laboratory.

One Hundred and twenty-four (124) soil samples were collected for chemical analysis during URS and CA RICH investigations. Data on soil sample collection for chemical analyses, including dates of collection and sample depths, is reported below in Table 2 and summarized in Table 3. Figure 5 shows the location of samples collected in this investigation. Laboratories and analytical methods are also shown below.

**Table 2 – Analytical Methods Summary (Soils)**

<b>Boring Location</b>	<b>Collection Date(s)</b>	<b>Analyte(s)/Analytical Method</b>	<b>Analytical Laboratory</b>
SB-1 thru SB-10	6/26/2007	TCL VOCs (EPA 8260); SVOCs (EPA 8270); Pesticides (EPA 8081); PCBs (EPA 8082); TAL Metals	AAL
B-1 thru B-20	12/7 and 12/8 2011	TAL Metals (Mercury, Lead and Arsenic)	HCV

**Notes:**

1. TCL VOCs – Target Compound List Volatile Organic Compounds
2. TCL SVOCs - Target Compound List Semivolatile Organic Compounds
3. PCBs – Polychlorinated Biphenyls
4. TAL – Target Analyte List
5. The soil sample collected at 12 ft-14 ft bgs was held in contingency awaiting the analyses results of the 10 ft-12 ft bgs sample. If the 10 ft-12 ft sample exceeding the SCO, then the 12 ft-14 ft bgs sample was analyzed in an attempt to vertically delineate soil contamination.

Additionally, a targeted Toxicity Characteristic Leaching Procedure (TCLP) was implemented for selected soil boring locations. Table 4 below, shows the select boring locations with sample collection depths and recommended analysis. Similar to the sampling scheme outlined for the targeted TAL metals above, the lowest sampling interval, 12 ft-14 ft, would be collected and held in contingency until the 10 ft-12 ft results were known. If the 10 ft-12 ft

sample exhibited results above the criteria, then the 12 ft-14 ft sample would be analyzed for TCLP of the compound which exceeded the criteria. A map depicting TCLP Chemistry Results is provided as Figure 6.

**Table 4- TCLP Analytical Methods Summary (Soil)**

Sample Depths	Soil Borings			
	B-1	B-5	B-7	B-8
4 ft – 6 ft	Lead	Lead	Arsenic	Mercury
8 ft – 10 ft	Lead	Lead	Arsenic	Mercury
10 ft – 12 ft	Lead	Lead	Arsenic	Mercury
12 ft – 14 ft*	Lead	Sample & hold	Sample & hold	Sample & hold

### Groundwater Sampling

During the June 2007 field program, three groundwater quality samples were collected from soil borings SB-2, SB-6 and SB-10 via a Geoprobe and identified as GW-1, GW-2 and GW-3.

Unfiltered groundwater samples were collected during the December 7-8, 2011 sampling event and appeared dark brown and very turbid throughout purging and sample collection. The samples, therefore, contained substantial amounts of sediment which did not accurately represent groundwater conditions.

Subsequently, filtered groundwater samples were collected on January 14, 2012. Samples were collected through a five-foot long screen point sampler with a slot size of 0.020 inches that was installed across the observed water table from 5 ft to 10 ft bgs. Disposable polyethylene tubing fitted with a reusable, decontaminated check valve was lowered through the drill rods into the screened area. Approximately three well volumes of water were purged from the temporary well before a sample was collected. The purge water appeared dark brown and turbid. The groundwater sample was pumped using a peristaltic pump through a disposable, one-time use

0.45-micron filter to remove suspended sediment. Filtered samples appeared clear and free of sediment. All samples were collected directly into clean, laboratory provided containers, placed in coolers and shipped via laboratory courier in accordance with EPA protocols. Groundwater samples were analyzed by a laboratory, for Target Analyte List (TAL) metals. Additionally, a duplicate sample and a field blank were collected to provide QA/QC.

Fourteen (14) groundwater samples were collected for chemical analysis during both URS and CA RICH investigations. Groundwater sample analytical methods are reported in Table 5 below. Figures 5 and 7 show the location of groundwater sample locations and the results of laboratory analytical sampling.

**Table 5 – Groundwater Analytical Methods**

<b>Sample ID</b>	<b>Date</b>	<b>Analyte(s)/Analytical Method</b>	<b>Analytical Laboratory</b>
GW-1 thru GW-3	6/26/2007	TCL VOCs (EPA 8260); SVOCs (EPA 8270); Pesticides (EPA 8081); PCBs (EPA 8082); TAL Metals	AAL
B-2(B), B-4(B), B-12(B), B-14(B)	12/7-12/8 2011 and 1/14/2012	Selected TAL Metals filtered/unfiltered (EPA 6010B/7471A)	HCV

### **Soil Vapor Sampling**

Soil vapor monitoring points were installed by advancing borings to depths of 4 ft bgs, and in one case, 2.5 ft bgs. The depths of the newly installed soil vapor points was determined by the amount of moisture and/or the density of subsurface soils in the location of the soil vapor boring. Soil vapor points consist of 6-inch stainless steel implants with connected Teflon tubing placed in the borehole, the vapor points is then backfilled around the screen with sand. The point was sealed above the sand with hydrated bentonite. Soil vapor samples were collected from each monitoring point using 6 –liter (6L), batch-certified SUMMA canisters each equipped with a vacuum gauge and flow regulator set to collect a 6L sample over a 2-hour sampling period, corresponding to a flow rate of approximately 50 milliliters per minute (mL/min). Prior to sample collection, the sampling points were purged of two sample volumes using a SKC low flow air sampling pump. Purged vapors were collected into a Tedlar bag and field-screened for organic vapors using a calibrated MiniRae 2000 PID. Following purging, helium tracer gas was used to confirm that the sample was being extracted exclusively from the soil. The area where the probe intersects the ground surface was shrouded with a plastic container and then the atmosphere under the shroud was enriched with helium. A Tedlar bag was filled with a sample from the soil gas point and analyzed with a Dielectric Helium Detector to confirm that the

sample was less than 2% helium. When this threshold was achieved, the soil vapor samples were collected using the vacuum from the SUMMA canister.

For each soil vapor sample, immediately after opening the flow control valve equipped with the 2-hour regulator, the initial SUMMA canister vacuum (inches of mercury) was noted. After two hours, the flow controller valve was closed, the final vacuum noted, and the canister placed in a shipping carton for delivery by FedEx to Pace Environmental Laboratory.

Four (4) soil vapor probes were installed on December 8, 2011 (see Table 6 below for installation depths and Appendix J for soil gas point construction logs). Three soil vapor samples were collected for chemical analysis during this RI on January 16, 2011 for volatile organic compounds (VOCs) by method TO-15. One ambient air sample was collected using a 6L Summa canister connected to a vacuum gauge and flow regulator set to collect a 6L sample over a 2-hour period, which ran concurrently with the soil vapor probe sampling. Samples were collected at three of four soil gas points. In the point SG-4, no flow through the vapor point and tubing could be established, so a sample could not be collected from that soil gas point. Soil vapor sampling locations are shown in Figure number 5.

**Table 6 – Soil Gas Installation Depths**

<b>Soil Gas Point ID</b>	<b>Installation Depth (ft bgs)</b>	<b>Sampling Date</b>	<b>PID Reading before sampling (ppm)</b>	<b>Analytical Method/Laboratory</b>
SG-1	4	1/16/12	0	VOCs (EPA TO-15)/Pace
SG-2	2.5	1/16/12	0	VOCs (EPA TO-15)/Pace
SG-3	4	1/16/12	0	VOCs (EPA TO-15)/Pace
SG-4	4	No sample collected	Not recorded	No sample collected

Methodologies used for soil vapor assessment conform to the *NYS DOH Final Guidance on Soil Vapor Intrusion, October 2006*.

### Chemical Analysis

Chemical analytical work presented in this RIR has been performed in the following manner:

<b>Factor</b>	<b>Description</b>
Quality Assurance Officer	The chemical analytical quality assurance is directed by Robert Wolff
Chemical Analytical Laboratory	<p>Chemical analytical laboratory(s) used in the RI is NYS ELAP certified and were:</p> <p>For soil and water analysis:</p> <p style="padding-left: 40px;">Hampton-Clarke/Veritech 175 Route 46 West Fairfield, NJ 07004</p> <p>For soil gas samples:</p> <p style="padding-left: 40px;">Pace Environmental 1700 Elm Street SE Suite 200 Minneapolis, MN 55414</p>
Chemical Analytical Methods	<p>Soil analytical methods:</p> <ul style="list-style-type: none"> <li>• TAL Metals by EPA Method 6010C (rev. 2007);</li> <li>• TCLP Extraction by EPA Method 1311TCLP Lead and Arsenic by EPA Method 6010</li> <li>• TCLP Mercury by EPA Method 7470</li> </ul> <p>Groundwater analytical methods:</p> <ul style="list-style-type: none"> <li>• TAL Metals by EPA Method 6010C (rev. 2007);</li> </ul> <p>Soil vapor analytical methods:</p>

	<ul style="list-style-type: none"><li>• VOCs by TO-15 VOC parameters.</li></ul>
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### **Results of Chemical Analyses**

Laboratory data for soil, groundwater and soil vapor are summarized in Table 3, 7, 8, and 9, respectively. Laboratory data deliverables for all URS samples evaluated in this RIR are provided in digital form in Appendices K, L, and M. Results are discussed in Section 5.2

## **5.0 ENVIRONMENTAL EVALUATION**

### **5.1 GEOLOGICAL AND HYDROGEOLOGICAL CONDITIONS**

#### **Stratigraphy**

Soil borings throughout the site were drilled to 15 ft bgs during the 2011 field activities. Fill was encountered consisting of sand, silt, and clay with foreign material including bricks, metal, wire, pottery, concrete, recycled concrete aggregate (RCA) and possible paint chips. A peat layer was noted in three of the borings at 15 ft bgs. The previous Geotechnical Evaluation (URS, 2011) drilled one boring to 102 ft bgs, two borings to 57 ft bgs, and three borings to 52 ft bgs. According to the corresponding boring logs, these deeper borings did not reach bedrock, but did confirm a 2-15 foot thick peat layer at around 15-20 ft bgs. They also described the layer below 15 ft bgs as sand and silt in varying proportions. The sand was dense to very dense. Three borings in the northeast corner of the site (B-16, B-19, and B-20) contained faint to moderate petroleum odors and an intermittent sheen was noted in some of the saturated soil samples.

#### **Hydrogeology**

The average depth to groundwater is 5.2ft bgs and the range in depth is from 4.5ft to 10ft bgs based on previous investigations. The Geotechnical Evaluation indicates groundwater elevations in December 2005 averaging 4.8 ft bgs and in July 2007 at 4-6 ft bgs for an average of 4.7 ft bgs (URS, 2007). Past studies report the area of the Site having a groundwater elevation of approximately 6 ft bgs with groundwater moving from east to west, towards the East River (USGS, 1997). Actual groundwater flow can be affected by many factors, including subsurface opening or obstructions such as basements, underground utilities, tunnels (including the NYCT subway tunnel adjacent to the site), bedrock geology, and other factors beyond the scope of this assessment.

### **5.2 SOIL CHEMISTRY**

Data collected during the RI is sufficient to delineate the vertical and horizontal distribution of contaminants in soil/fill at the Site. A summary table of data for chemical analyses performed on soil samples is included in Table 3. Figure 6 shows the location and posts the values for soil/fill that exceed the 6NYCRR Part 375-6.8 Restricted Use (Track 2) Restricted Residential

Soil Cleanup Objectives (RR SCOs) and subsequently TCLP extractions were performed. Laboratory data reports are provided in Appendix K.

The RR SCOs for the targeted metals at this site are 0.81 mg/kg for mercury, 400 mg/kg for lead, and 16 mg/kg for arsenic. There were TCLP extractions performed for selected metals, borings, and intervals. The Maximum Concentrations of Contaminants for Toxicity Characterization are 0.2 mg/l for mercury, 5 mg/l for lead, and 5 mg/l for arsenic. Soil samples collected by CA RICH as part of their 2007 Phase II investigation were compared to NYSDEC Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels (1994). They are also compared to the current SCOs, for the purposes of this RI.

For ease of discussion, the Site has been divided into quadrants based on directions. The borings are divided as follows:

1. The northeast quadrant contains URS borings B-14, B-15, B-16, B-19, and B-20.
2. The southeast quadrant contains URS borings B-11, B-12, B-13, B-17, and B-18.
3. The southwest quadrant contains URS borings B-1, B-2, B-3, B-8, B-9, and B-10.
4. The northwest quadrant contains URS borings B-4, B-5, B-6, and B-7.

### **1. Northeast Quadrant**

The northeast quadrant contains URS soil borings B-14, B-15, B-16, B-19, and B-20 which were sampled at intervals 4-6 ft, 8-10 ft, 10-12 ft, and 12-14 ft and were analyzed for mercury (Hg), lead (Pb), and arsenic (As). The 12-14 ft sample was held in contingency and analyzed depending on the 10-12 ft interval sample results. Four borings had intervals analyzed for TCLP extraction: B-14 for TCLP Pb (4-6 ft), B-15 for TCLP Pb and TCLP As (10-12 ft), B-16 for TCLP Hg, Pb, and As (12-14 ft), and B-20 for TCLP As (4-6 ft, 8-10 ft, 10-12 ft).

The CA Rich Phase II located one boring (SB-7) in the northeast quadrant and collected a shallow and a deep interval (2 ft and 9-10 ft). The boring was sampled for VOCs, SVOCs, metals, PCBs and pesticides. The CA Rich data indicated an exceedance of the commercial SCO for Benzo-a-Pyrene no exceedances of the SCO for VOCs and exceedances of the restricted residential SCOs for lead, mercury and arsenic.

Laboratory results from URS's investigations indicated mercury exceedances at each interval 4-6 ft, 8-10 ft, and 10-12 ft in all five borings; except B-16 8-10 ft where there was a detection, but not an exceedance; and at B-20, 12-14 ft, because it was not analyzed. The exceedances ranged from 0.95 mg/kg (B-19 at 10-12 ft) to 390 mg/kg (B-16 at 12-14 ft). A soil sample from boring B-16 interval 12 -14 ft was submitted for TCLP Hg, but there was no detection of mercury using this method.

Lead was detected in every interval of the five borings in the northeast quadrant. In boring B-14, lead exceeded the RR SCOs in each interval sampled. The results ranged from 980 mg/kg at 10-12 ft to 16,000 mg/kg at 4-6 ft. The 4-6 ft interval at B-14 was submitted for TCLP Pb analysis and the results were 160 mg/l, an exceedance of the criteria. Boring B-15 lead results were 1000 mg/kg for 4-6 ft, 500 mg/kg for 8-10 ft, and 2400 mg/kg for 10-12 ft. The 12-14 ft interval was detected below the RR SCOs. There was a TCLP Pb extraction at B-15 from 10-12 ft that was 3.9 mg/l, less than the 5 mg/l criteria. Boring B-16 had one exceedance value of 4700 mg/kg for lead at the 12-14 ft interval. This interval was also submitted for TCLP Pb and the results were an exceedance of 15 mg/l. Boring B-19 had exceedances at 4-6 ft (850 mg/kg) and 12-14 ft (810 mg/kg). At B-20, the 8-10 ft interval result was 550 mg/kg, the only exceedance at that boring location. Consequently, the 12-14 ft interval sample was not submitted for analysis.

Arsenic was another metal targeted for analysis. The northeast quadrant contained the borings with the greatest number of arsenic exceedances on the site. Boring B-14 had exceedances at each interval ranging from 19 mg/kg at 12-14 ft to 27 mg/kg at 4-6ft. Borings B-15 and B-16 had arsenic exceedances at 10-12 ft and 12-14 ft: 130 and 32 mg/kg at B-15 and 65 and 1800 mg/kg at B-16. The B-15 interval of 10-12 ft was submitted for TCLP and the arsenic was not detected by the laboratory. The B-16 interval of 12-14 ft was submitted for TCLP and arsenic was detected at 0.21 mg/l, not an exceedance of the criteria. Boring B-19 had arsenic exceedances at 4-6 ft (28 mg/kg), 8-10 ft (17 mg/kg) and 10-12 ft (23 mg/kg). Boring B-20 had an exceedance at 8-10 ft of 31 mg/kg, the only exceedance at that boring location. Consequently, the 12-14 ft interval sample was not submitted for analysis.

## **2. Southeast**

The southeast quadrant contains soil borings B-11, B-12, B-13, B-17, and B-18 which were sampled at intervals 4-6 ft, 8-10 ft, 10-12 ft, and 12-14 ft and were analyzed for mercury

(Hg), lead (Pb), and arsenic (As). The 12-14 ft sample was held in contingency and analyzed depending on the 10-12 ft interval sample results. Boring B-12 had multiple intervals analyzed for TCLP Lead (6-8 ft, 8-10 ft, 10-12 ft, and 12-14 ft).

The CA Rich Phase II located three borings (SB-5, -6, and -10) in the southeast quadrant. The borings were sampled for VOCs, SVOCs, metals, PCBs and pesticides at a shallow and a deep interval (approximately 0-3 ft and 8-10 ft). The CA Rich data indicated an exceedance of the Commercial SCO for Benzo-a-Pyrene at the shallow interval in SB-5 and -6, no exceedances of the SCO for VOCs, PCBs and pesticides and exceedances of the restricted residential SCOs for lead and mercury.

URS's investigation detected mercury throughout the sampled depth intervals and exceedances in each boring as follows. In boring B-11, mercury was detected in amounts that exceed the criteria in each interval at a range of 1.1 to 4.5 mg/kg. The 12-14 ft interval sample for B-11 was not submitted for analysis. In boring B-12, there was one exceedance of 12 mg/kg at 12-14 ft. In boring B-13, intervals 8-10 ft through 12-14 ft had exceedances in the range of 1.3 to 2.7 mg/kg. Boring B-17 exceedances were 1.7 and 2.4 mg/kg and were found at 8-10 ft and 10-12 ft, respectively. Boring B-18 had exceedances at the 4-6 ft interval of 1 mg/kg and at 8-10 ft of 1.6 mg/kg.

Lead detections were found in each depth interval in each boring in the southeast quadrant. Boring B-11 had one exceedance of 520 mg/kg at 10-12 ft. Boring B-12 had exceedances at 4-6 ft, 10-12 ft, and 12-14 ft of 710, 1200, and 590 mg/kg, respectively. Boring B-12 also was analyzed for TCLP Pb. The results found detections at 8-10 ft and 10-12 ft, but no exceedances of TCLP criteria. Boring B-13 samples exhibited lead detections at each interval, but the results did not exceed the criteria. Boring B-17 had exceedances at 4-6 ft, 8-10 ft, and 10-12 ft of 1700, 1200, and 820 mg/kg, respectively. The 12-14 ft sample was analyzed and resulted in a lead detection, but not an exceedance. Boring B-18 yielded one lead exceedance at 450 mg/kg at 8-10 ft. The 12-14 ft interval sample for B-18 was not submitted for analysis.

Arsenic was detected in three of the five borings in concentrations that exceeded the criteria. Borings B-11 and B-18 had arsenic detections, but no exceedances. The 12-14 ft interval sample for B-18 was not submitted for analysis. In boring B-12, arsenic exceedances of 17 and 22 mg/kg were found at 4-6 ft and 12-14 ft, respectively. At boring B-13, arsenic exceedances of

29 and 17 mg/kg were found at 10-12 ft and 12-14 ft, respectively. At boring B-17, an arsenic exceedance of 16 mg/kg was detected at 10-12 ft.

### **3. Southwest**

The southwest quadrant contains soil borings B-1, B-2, B-3, B-8, B-9, and B-10 which were sampled at intervals 4-6 ft, 8-10 ft, 10-12 ft, and 12-14 ft and were analyzed for mercury (Hg), lead (Pb), and arsenic (As). The 12-14 ft sample was held in contingency and analyzed depending on the 10-12 ft interval sample results, which was only analyzed for B-1. Three borings had intervals analyzed for TCLP extraction: B-1 for TCLP Pb (4-6 ft, 8-10 ft, 10-12 ft, and 12-14 ft), B-2 for TCLP Pb at 8-10 ft, and B-8 for TCLP Hg (4-6ft, 8-10 ft, and 10-12 ft).

The CA Rich Phase II located three borings (SB-3, -4 and -8) in the southwest quadrant. The borings were sampled for VOCs, SVOCs, metals, PCBs and pesticides at a shallow and a deep interval (approximately 0-2 ft and 5 ft or 10 ft). The CA Rich data indicated an exceedance of the commercial SCO for Benzo-a-Pyrene at the shallow interval of SB-3 and -8, no exceedances of the SCO for VOCs, PCBs and pesticides and exceedances of the restricted residential SCOs for lead, mercury and arsenic.

URS's investigation indicated mercury detections throughout the depth intervals and exceedances in each boring as follows. In B-1 mercury was detected in amounts exceeding the criteria in each interval ranging from 1.8 to 6 mg/kg. In boring B-2, there were exceedances at 8-10 ft and 10-12 ft and the results were 4.3 and 0.81 mg/kg, respectively. At B-3, there was an exceedance at 10-12 ft of 5.3 mg/kg. In B-8, B-9, and B-10 there were exceedances in the 4-6 ft, 8-10 ft, and 10-12 ft samples. The range of exceedances at B-8 was 1.5 to 41 mg/kg at 10-12 ft to 8-10 ft, respectively. The range at B-9 was 1.6 to 3.5 mg/kg, at 8-10 ft and 4-6 ft, respectively. The range at B-10 was 1.5 to 5.4 mg/kg at 10-12 ft and 8-10 ft, respectively. Boring B-8 was submitted for TCLP mercury analysis and the results were non-detect.

Lead detections were found in each analyzed depth interval in each boring in the southwest quadrant. There were exceedances found at B-1 and B-2 at 4-6 ft and 8-10 ft. At B-1, the results were 510 and 1,400 mg/kg, respectively, and at B-2 the results were 550 and 5,100 mg/kg, respectively. Boring B-1 was submitted for TCLP Pb and there were detections at each interval, but no exceedances. Boring B-2 depth interval 8-10 ft was submitted for TCLP Pb analysis and was found to exceed the criteria with a result of 24 mg/l. The lead exceedances at B-

3 were found at 4-6 ft and 10-12 ft and were 630 and 600 mg/kg, respectively. The borings B-8 and B-9 had lead detections, but no exceedances. The B-10 boring had exceedances at 4-6 ft and 8-10 ft of 490 and 820 mg/kg, respectively.

Arsenic was detected throughout the borings and intervals sampled in this quadrant. There were exceedances found at the 8-10 ft interval at three borings: B-1 of 22 mg/kg, at B-2 of 28 mg/kg, and at B-9 of 21 mg/kg.

#### **4. Northwest**

The northwest quadrant contains soil borings B-4, B-5, B-6, and B-7 which were sampled at intervals 4-6 ft, 8-10 ft, 10-12 ft, and 12-14 ft and were analyzed for mercury (Hg), lead (Pb), and arsenic (As). The 12-14 ft sample was held in contingency and analyzed depending on the 10-12 ft interval sample results. Based on the results from the 10-12 ft samples, the 12-14 ft samples were not analyzed. Two borings had intervals analyzed for TCLP extraction: B-5 for TCLP Pb (4-6 ft, 8-10 ft, and 10-12 ft), and B-7 for TCLP As (4-6ft, 8-10 ft, and 10-12 ft).

The CA Rich Phase II located three borings (SB-1, -2 and -9) in the northwest quadrant. The borings were sampled for VOCs, SVOCs, metals, PCBs and pesticides at a shallow and a deep interval (approximately 0-2 ft and 7 ft or 10 ft).

The CA Rich data indicated an exceedance of the commercial SCO for Benzo-a-Pyrene in the shallow interval of SB-1 and -9, no exceedances of the SCOs for VOCs, PCBs, pesticides and exceedances of the restricted residential SCOs for lead and mercury.

URS's investigation indicated mercury detections throughout the sampled depth intervals and one to two exceedances in each boring as follows. In B-4 at 8-10 ft, the result was 4.3 mg/kg. In B-5 at 4-6 ft and 10-12 ft the results were 3.9 and 1.7 mg/kg, respectively. At B-6 at 4-6 ft and 8-10 ft the results were 4.5 and 8.7 mg/kg, respectively. In B-7, at 8-10 ft, the result was 3.1 mg/kg.

Similar to the mercury findings, lead detections were found in each boring throughout the sampled depth intervals. The exceedances are as follows: At boring B-4 at 8-10 ft, the result was 490 mg/kg. At boring B-5 at 4-6 ft and 10-12 ft, the results were 940 and 630 mg/kg, respectively. Also at B-5, there were TCLP Pb samples collected at 6-8 ft, 8-10 ft, and 10-12 ft. There was detection of lead of 2.4 mg/l at 10-12 ft, but no exceedances. At B-6, at 4-6 ft and 8-

10 ft the results were 960 and 490 mg/kg, respectively, and at B-7, the exceedance of 810 mg/kg was detected at 8-10 ft.

Arsenic was detected in the northwest quadrant borings, at each depth interval sampled, but only one exceedance of the RR SCOs was reported. The result at B-5 at 4-6 ft was 19 mg/kg. At boring B-7, TCLP As was collected and analyzed for the 6-8 ft, 8-10 ft, and 10-12 ft intervals. TCLP Arsenic was not detected at these intervals.

### **5. Toxicity Characterization Leaching Procedure (TCLP) Sampling**

Based on the results of the CA RICH Phase II investigation (2007) and URS' limited Phase II investigation, select samples collected by URS during the 2011 investigation were analyzed for TCLP of the compound (arsenic, lead, or mercury) which exceeded its SCOs by at least two orders of magnitude. Figure 6 shows the locations and results of TCLP sampling and the associated soil samples which triggered TCLP analysis. The soil at three of these locations (B-2, B-14, and B-16) exceeded EPA's maximum toxicity guidance values for lead and therefore meet the definition of EP Toxicity, that is, carry a hazardous waste code under RECRA (40 CFR Part 261). The soil in these borings is considered a characteristic hazardous waste. As such, soil at these locations will be excavated and disposed of off-site in accordance with all applicable laws and regulations.

In summary, the site lithology was consists of urban fill. The soil chemistry shows a heterogeneous mix of selected metals contamination, heavier in the northeast quadrant, but present at different depths throughout the site. There are exceedances of the RR SCOs for mercury, lead, and arsenic, in some cases as much as two or three orders of magnitude above the SCOs. Because of the heterogeneous character of the fill on-site, complete delineation of metals contamination on-site was not feasible; therefore the TCLP sampling plan was implemented. The TCLP sampling was used to determine the presence and location of potentially hazardous soil at the site.

### **5.3 GROUNDWATER CHEMISTRY**

Data collected during the RI is sufficient to delineate the distribution of contaminants in groundwater at the Site. A summary table of data for chemical analyses performed on

groundwater samples is included in Table 5. Exceedence of applicable groundwater standards are shown in Table 8. Laboratory data reports are provided in Appendix K.

Additional groundwater data was collected in 2007 by CA RICH as part of its Phase II investigation. Samples collected during that investigation were submitted for analysis for VOCs, SVOCs, PCBs, Pesticides, and filtered and unfiltered TAL Metals samples. Results were compared to NYSDEC TOGS Ambient Water Quality Standards and Guidance Values. Groundwater data in 2007 indicated that metals exceedances were only present in unfiltered samples, no SVOCs were detected above criteria, PCBs and pesticides were not detected at all in site groundwater, and low-level VOC exceedances were limited to chlorinated solvent breakdown products (1,1-dichloroethane, 1,1,1-trichloroethane, chloroethane, and methylene chloride). CA RICH attributed the presence of these compounds to an up gradient off-site regional source. CA RICH's Phase II investigation is provided as Appendix C.

Figure 7 shows the location and posts the values for groundwater that exceed the New York State 6NYCRR Part 703.5 Class GA groundwater standards, where the criteria for mercury is 0.7 ug/L, lead is 25 ug/L, and arsenic is 25 ug/L.

Groundwater samples were collected during two different field events. On December 7-8, 2011 unfiltered samples were collected at B-2, B-4, B-12, and B-14. The unfiltered samples appeared very turbid and brown in color. These results did not fully represent site groundwater conditions because of the quantity of sediment found in the samples. Total metals analysis indicated the presence of the three targeted metals, mercury, lead, and arsenic which exceeded their respective Class GA standards.

On January 14, 2012, filtered samples were collected at B-2B, B-4B, B-12B, and B-14B. The filtered samples were visually clear of sediment. The samples were analyzed for dissolved metals, specifically mercury, lead, and arsenic. In the B-2B and B-14B samples targeted metals analysis was non-detect. In the B-4B and B-12B samples, targeted metals analysis did not detect mercury and arsenic. Lead was detected, but the results do not exceed the Class GA groundwater standard.

The analytical results suggest that the metals detections in the unfiltered (total) analysis are primarily due to suspended sediments.

## 5.4 SOIL VAPOR CHEMISTRY

Concentrations of VOCs detected in the soil gas samples were compared to the NYSDOH 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York air guideline values (AGVs), the Health Effects Institute (HEI) 95<sup>th</sup> percentile concentrations for indoor air, the EPA Building Assessment and Survey Evaluation (BASE) 90<sup>th</sup> percentile value, and the ambient air sample for outdoor air quality on-site. The guidance values provide a means of comparison to background underground conditions; however, these values refer to indoor air quality conditions. NYSDOH “does not have any standards, criteria, or guidance values for concentrations of volatile chemicals in subsurface vapors (either soil vapor or sub-slab vapor)” (NYSDOH, 2006).

Concentrations of detected VOCs in soil vapor ranged from 0.57  $\mu\text{g}/\text{m}^3$  of benzene at SG-1 to 129  $\mu\text{g}/\text{m}^3$  of 1,4-Dichlorobenzene in SG-2. Seven VOCs were detected in one or more of the soil gas samples above their respective HEI and/or EPA background values. These compounds are carbon disulfide, 1,4-dichlorobenzene, 1,1-dichloroethene, cis-1,2-dichloroethene, n-hexane, methylene chloride, and trichloroethene. Carbon tetrachloride was not detected in any of the samples. 1,1,1-trichloroethane (TCA) was detected in SG-1, SG-2, and SG-3 with results of 82.8  $\mu\text{g}/\text{m}^3$  in SG-1, 12.7  $\mu\text{g}/\text{m}^3$  in SG-2 and 116  $\mu\text{g}/\text{m}^3$  in SG-3. TCA was not detected in the ambient air sample. Trichloroethene (TCE) was detected in SG-1, SG-2, and SG-3 above the NYSDOH guidance value of 5  $\mu\text{g}/\text{m}^3$  with results of 11  $\mu\text{g}/\text{m}^3$  in SG-1, 72.9  $\mu\text{g}/\text{m}^3$  in SG-2, and 7.4  $\mu\text{g}/\text{m}^3$  in SG-3. Methylene chloride was detected at 95.1  $\mu\text{g}/\text{m}^3$  in SG-3, a value above the NYSDOH guidance of 60  $\mu\text{g}/\text{m}^3$ . The ambient air sample 01162012\_AA\_1, which was located in the center portion of the site detected twelve different VOCs, with 1,4-dichlorobenzene detected over the HEI background value.

Data collected during the RI is sufficient to delineate the distribution of contaminants in soil vapor at the Site. A summary table of data for chemical analyses performed on soil vapor samples is included in Table 6. Exceedances of guidance values are shown on Table 9. Laboratory data reports are provided in Appendix K.

## **5.5 PRIOR ACTIVITY**

Based on an evaluation of the data and information from the RIR, disposal of significant amounts of hazardous waste is not suspected at this site.

## **5.6 IMPEDIMENTS TO REMEDIAL ACTION**

There are existing impediments to remedial action at this property. They include the presence of approximately 220 piles that are driven throughout the site. Widespread soil excavation would be difficult and result in the existing piles having to be removed and re-driven. Additionally, the water table at 544 Union Ave is shallow so large scale excavating of the site below the water table would require a prohibitive amount of site dewatering, collection and disposal.

## References

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CA Rich Consultants, Inc., Phase II Environmental Site Assessment for 544 Union Avenue, Brooklyn, New York #07DEPTECH336K. Dated July 12, 2007.

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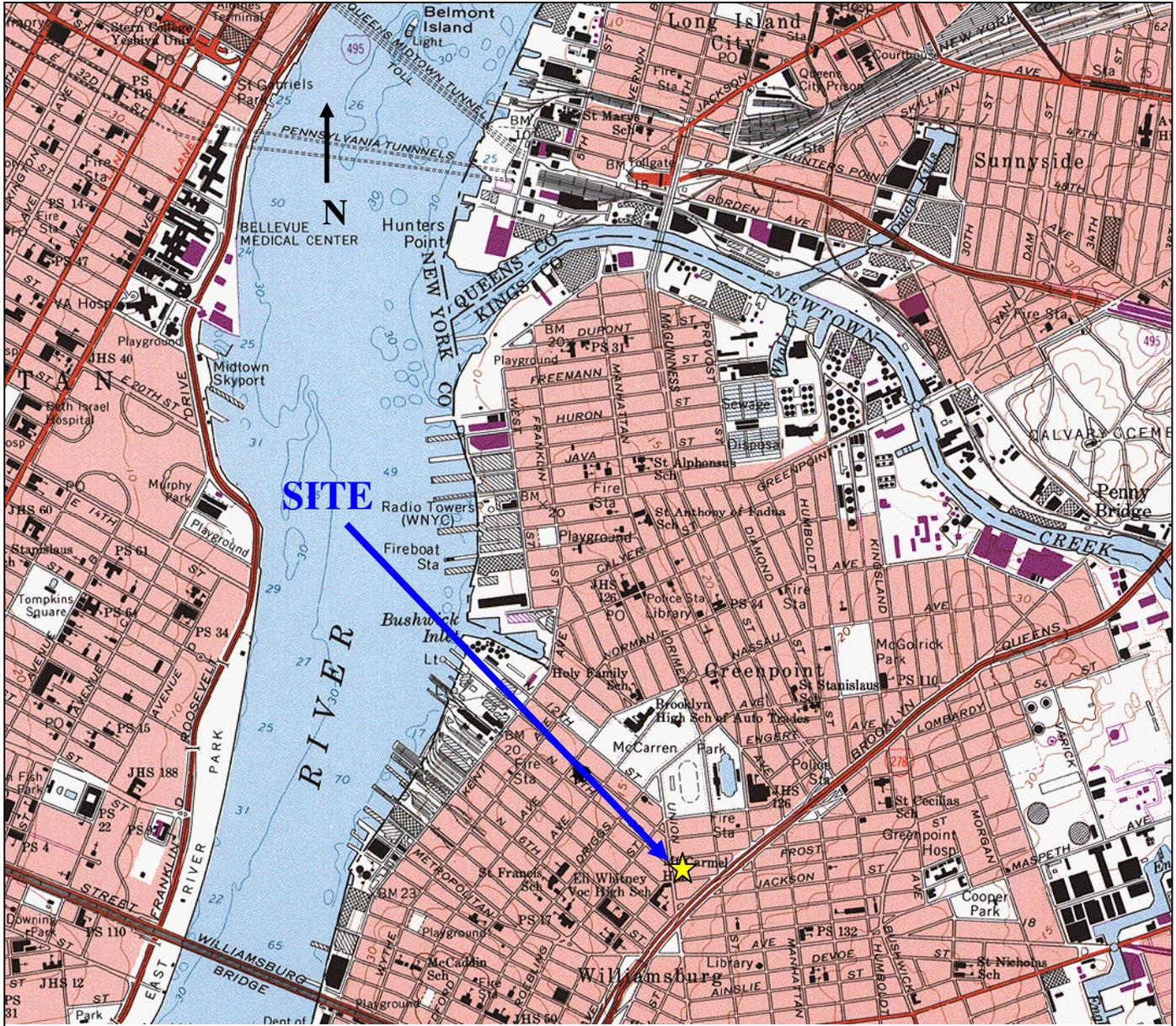
USGS Fact Sheet FS134-97. *Water-Table Altitude in Kings and Queens Counties, New York, in March 1997*. November 1997.

URS Corporation, Geotechnical Evaluation for 544 Union Avenue, Brooklyn, New York. Original Report dated July 25, 2007. Updated Report dated January 28, 2011.

## Site-Specific Standards, Criteria and Guidance

- 6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes
- 6 NYCRR Part 375 - Inactive Hazardous Waste Disposal Sites
- 6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations Technical Guidance for Screening Contaminated Sediments (January 1999)
- DER Interim Strategy for Groundwater Remediation at Contaminated Sites in New York State
- NYSDEC Technical Administrative Guidance Memorandum Determination of Soil Cleanup Objectives and Cleanup Levels; January 24, 1994.

# Figures



**544 Union Avenue  
Brooklyn, NY**

**URS Corporation**

**Date: January 2012**

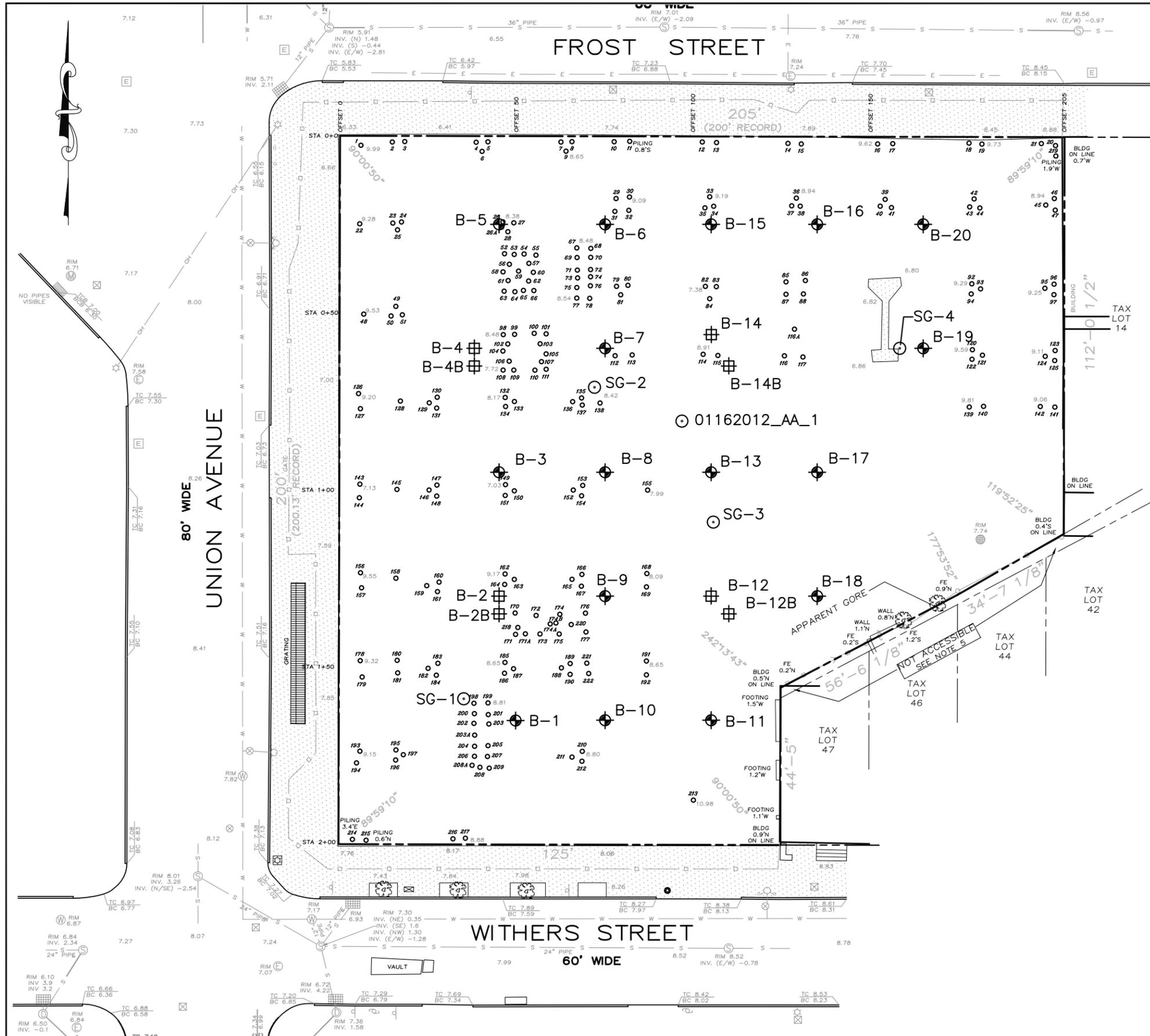
**Reference: USGS 7.5 Minute Quadrangle:**

**Brooklyn, NY 1967**

**Photorevised: 1979**

**SITE LOCATION MAP**

**FIGURE 1**

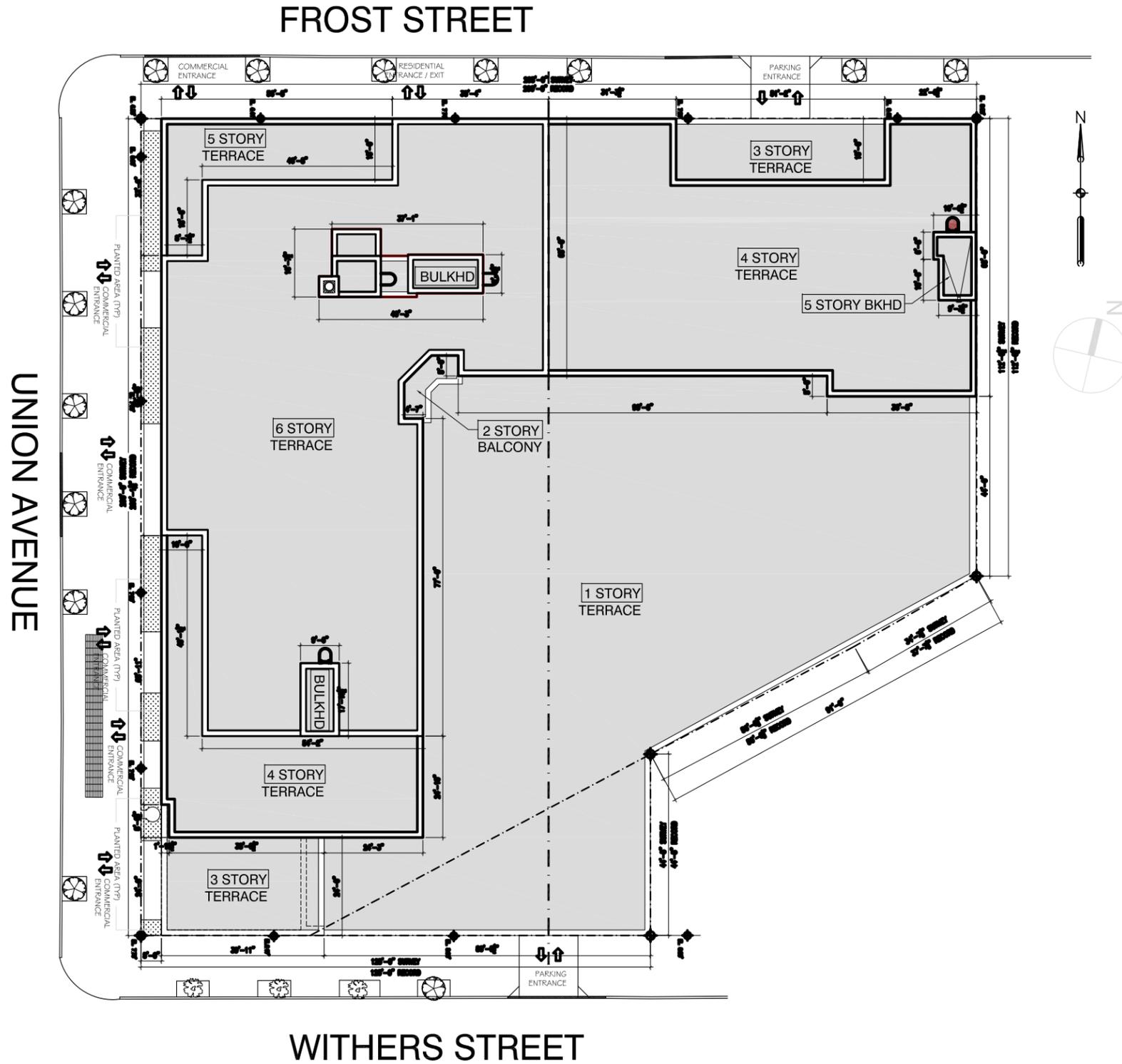


**LEGEND**

	MASONRY CURB
	DROP CURB
	WALL
	OVERHEAD WIRES
	ELECTRIC LINE
	GAS MAIN
	DRAINAGE LINE
	WATER MAIN
	SANITARY LINE
	GUY WIRE
	UTILITY POLE
	STRUCTURE - MANHOLE
	STRUCTURE - DRAINAGE
	STRUCTURE - ELECTRIC
	STRUCTURE - WATER
	STRUCTURE - SANITARY
	ELECTRIC CONTROL BOX
	GAS VALVE
	WATER VALVE
	FIRE HYDRANT
	TRAFFIC POLE
	SIGNAL BOX
	CATCH BASIN
	DRAINAGE INLET / STRUCTURE
	METAL PILING
	SIGN
	LIGHT POLE
	BOLLARD
	CONSTRUCTION FENCE
	CONCRETE
	WATER SAMPLING STATION
	TREE
	TOP/BOTTOM OF CURB
	SPOT ELEVATION
	SOIL BORING LOCATIONS
	SOIL BORING WITH GROUNDWATER SAMPLE LOCATION
	SOIL GAS POINT
	PROPERTY LINE

0    15    30    60  
SCALE (FEET)

<b>SITE PLAN</b> 544 UNION AVENUE BROOKLYN, N.Y. 11211				
 WAYNE, NEW JERSEY				
DR. BY	ET	SCALE	AS SHOWN	DWG. NO. RIR-40128-02
CK'D. BY	CF	DATE	JANUARY 24, 2012	PROJ. NO. 11140128
			FIG. NO.	2



ZONING MAP #13a

BASE PLANE CALCULATION

FROST STREET ELEVATIONS

- 6.33'
- 6.41'
- 7.74'
- 7.89'
- 8.45'
- 8.88'
- 45.70'/6 = 7.62'

WITHERS STREET ELEVATIONS

- 8.83'
- 8.06'
- 8.17'
- 7.76'
- 32.82'/4 = 8.21'

UNION AVENUE ELEVATIONS

- 7.76'
- 7.85'
- 7.59'
- 7.00'
- 6.66'
- 6.33'
- 43.19'/6 = 7.20'

MEAN ELEVATION (3 STREETS)

- 7.62'
- 8.21'
- 7.20'
- 23.03'/3 = 7.68'

BASE PLANE ELEVATION = 7.68'

BASE FLOOD ELEVATION CALCULATION

BFE = FZ - NGVD

FZ: \*AE\* = 10'  
 NGVD OF BROOKLYN = 2.547'

BFE = 10' - 2.547' = 7.453'

7.68' > 7.453' THEREFORE WATERPROOFING MEASURES ARE NOT REQUIRED

NOTES

1. SLAB ELEVATION AT STREET WALL IS AT OR ABOVE THE BASE FLOOD ELEVATION THEREFORE WATERPROOFING OF FOUNDATION WALL AND UNDERSLAB IS NOT REQUIRED.

2. EXTERIOR WALLS AT SIDEWALK ELEVATION WILL BE TREATED WITH WATERPROOFING MATERIAL AS IDENTIFIED ON THE WALL SECTIONS AND ENLARGED DETAILS. ALL EJECTOR PITS AND THE ELEVATOR SHAFT SHALL BE FULLY WATERPROOFED WITH PREPRUFE 300R OR EQUAL.

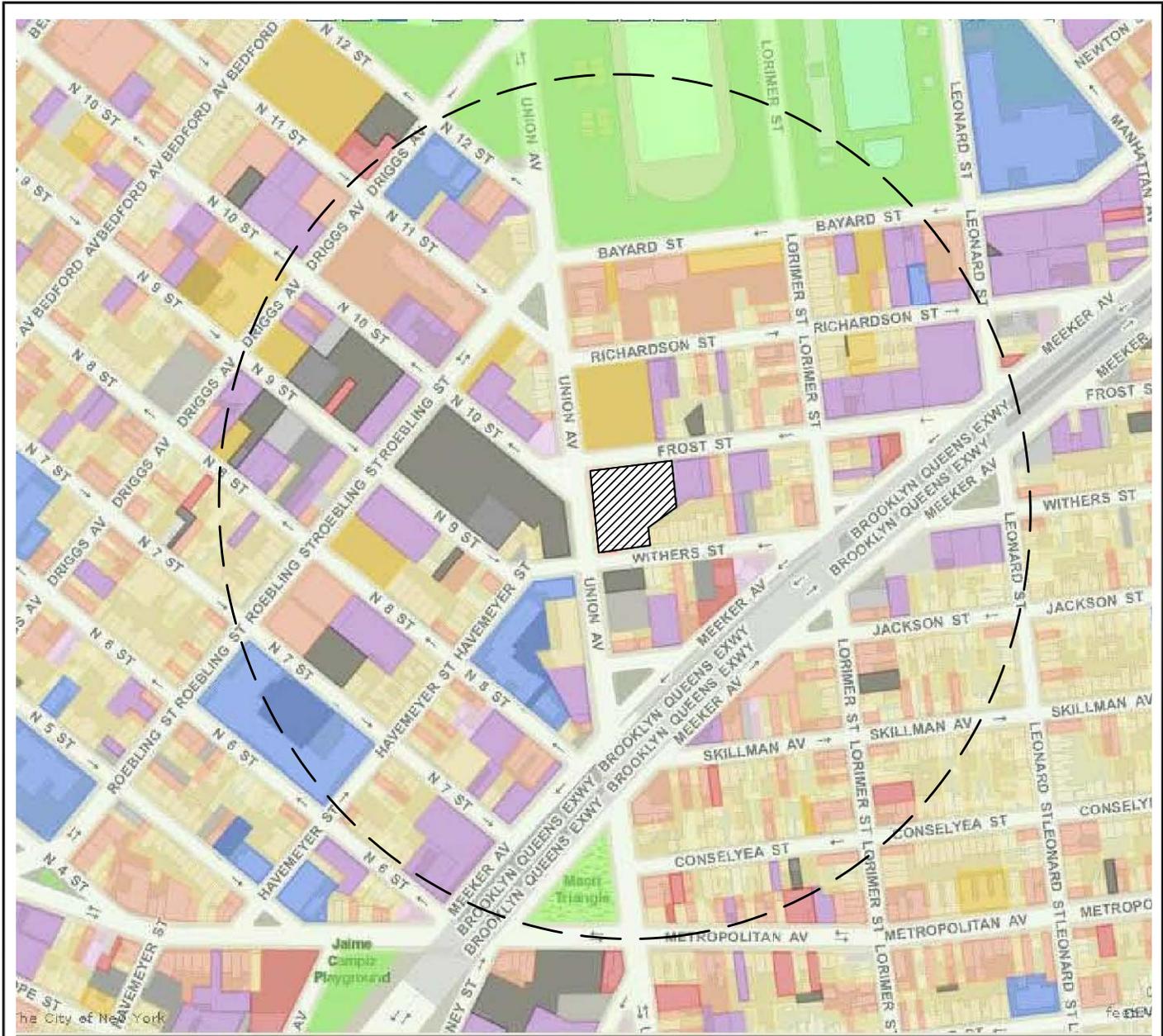
ABBREVIATIONS

- BPE: BASE PLAN ELEVATION
- BFE: BASE FLOOD ELEVATION
- FZ: FLOOD ZONE
- NGVD: NATIONAL GEODETIC VERTICAL DATUM

REDEVELOPMENT PLAN  
 544 UNION AVENUE  
 BROOKLYN, N.Y. 11211



DR. BY	KM	SCALE	1/32"=1'-0"	DWG. NO.	RIR-40128-03	PROJ. NO.	11140128
CK'D. BY	CF	DATE	FEBRUARY 16, 2012	FIG. NO.	3		



**LEGEND:**

- One & Two Family Residence
- Multi-Family Residence (Walkup)
- Multi-Family Residence (Elevator)
- Mixed Residential & Commercial
- Commercial Use
- Industrial / Manufacturing
- Transportation / Utility
- Public Facilities and Institutions
- Open Space & Recreation
- Parking
- Vacant Land
- Project Site Location
- Project Site 1000ft. Buffer

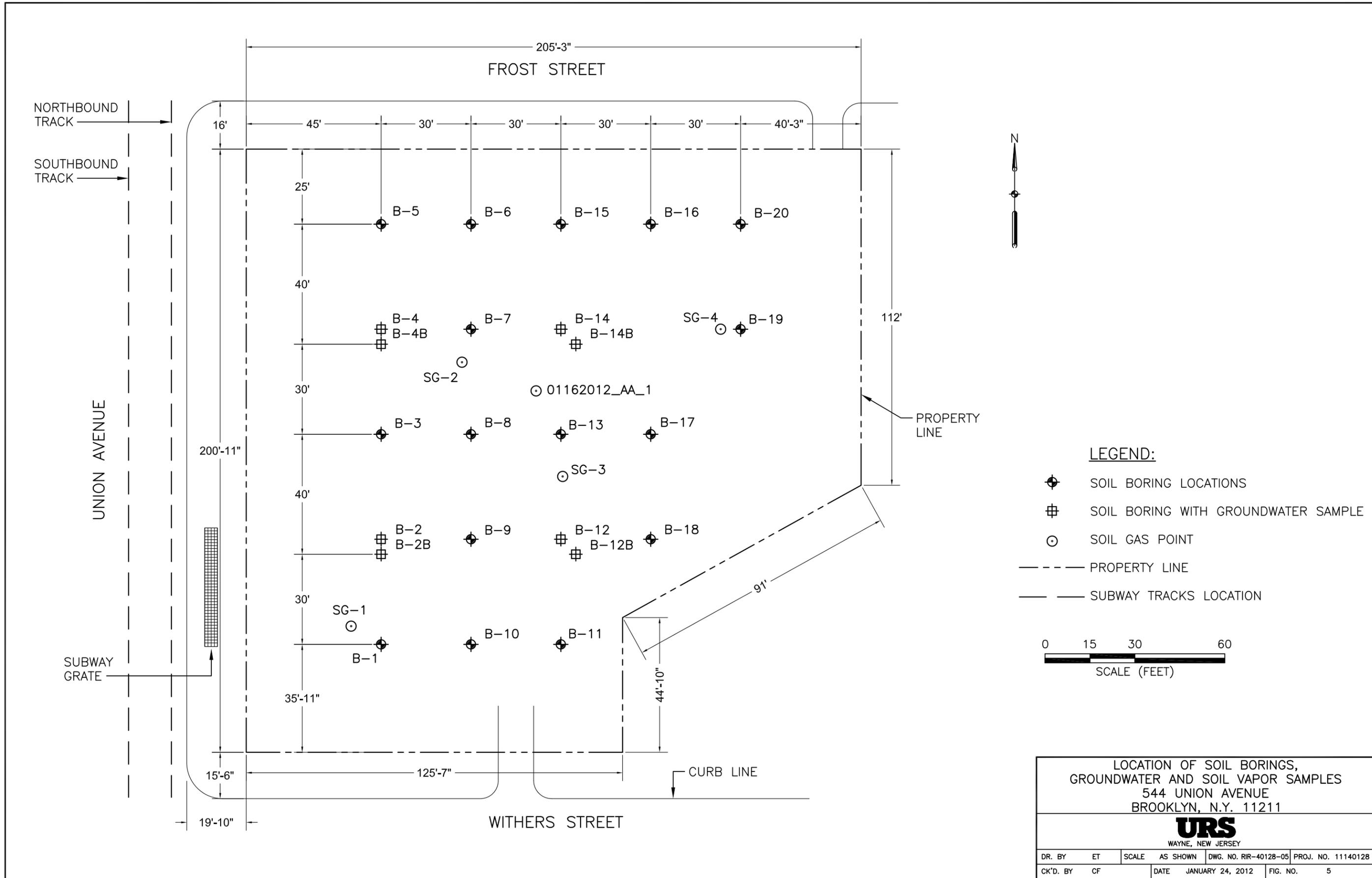
SOURCE:  
NYCDEP (NYC Dept. of City Planning) GIS database



SURROUNDING LAND USE PLAN  
544 UNION AVENUE  
BROOKLYN, N.Y. 11211

**URS**  
WAYNE, NEW JERSEY

DR. BY	KM	SCALE	AS SHOWN	DWG. NO. RIR-40128-04	PROJ. NO. 11140128
CK'D. BY	CF	DATE	FEBRUARY 21, 2012	FIG. NO.	4



**LEGEND:**

- ⊕ SOIL BORING LOCATIONS
- ⊕ SOIL BORING WITH GROUNDWATER SAMPLE
- ⊙ SOIL GAS POINT
- - - - - PROPERTY LINE
- — — — — SUBWAY TRACKS LOCATION

0 15 30 60  
SCALE (FEET)

LOCATION OF SOIL BORINGS, GROUNDWATER AND SOIL VAPOR SAMPLES 544 UNION AVENUE BROOKLYN, N.Y. 11211					
<b>URS</b> WAYNE, NEW JERSEY					
DR. BY	ET	SCALE	AS SHOWN	DWG. NO. RIR-40128-05	PROJ. NO. 11140128
CK'D. BY	CF	DATE	JANUARY 24, 2012	FIG. NO.	5

K:\Cadd\1140128\544 Union Ave\MT\ANRIR-40128-06-Fig.6.dwg, FIG.5, 3/5/2012 11:34:35 AM

Boring ID	Sampling Depth	Results Pb (mg/kg)	TCLP Pb (ug/L)
B-5	6-8'	N/A	ND
	8-10'	28	2400
	10-12'	630	ND

Boring ID	Sampling Depth	Results Hg (mg/kg)	TCLP Hg (ug/L)
B-16	12-14'	390	ND
		Results Pb (mg/kg)	TCLP Pb (ug/L)
	12-14'	4700	15000
		Results As (mg/kg)	TCLP As (ug/L)
	12-14'	1800	210

Boring ID	Sampling Depth	Results Pb (mg/kg)	TCLP Pb (ug/L)
B-15	10-12'	2400	3900
		Results As (mg/kg)	TCLP As (ug/L)
	10-12'	130	ND

Boring ID	Sampling Depth	Results As (mg/kg)	TCLP As (ug/L)
B-20	6-8'	N/A	ND
	8-10'	31	ND
	10-12'	7.2	ND

Boring ID	Sampling Depth	Results Pb (mg/kg)	TCLP Pb (ug/L)
B-14	4-6'	16000	160000

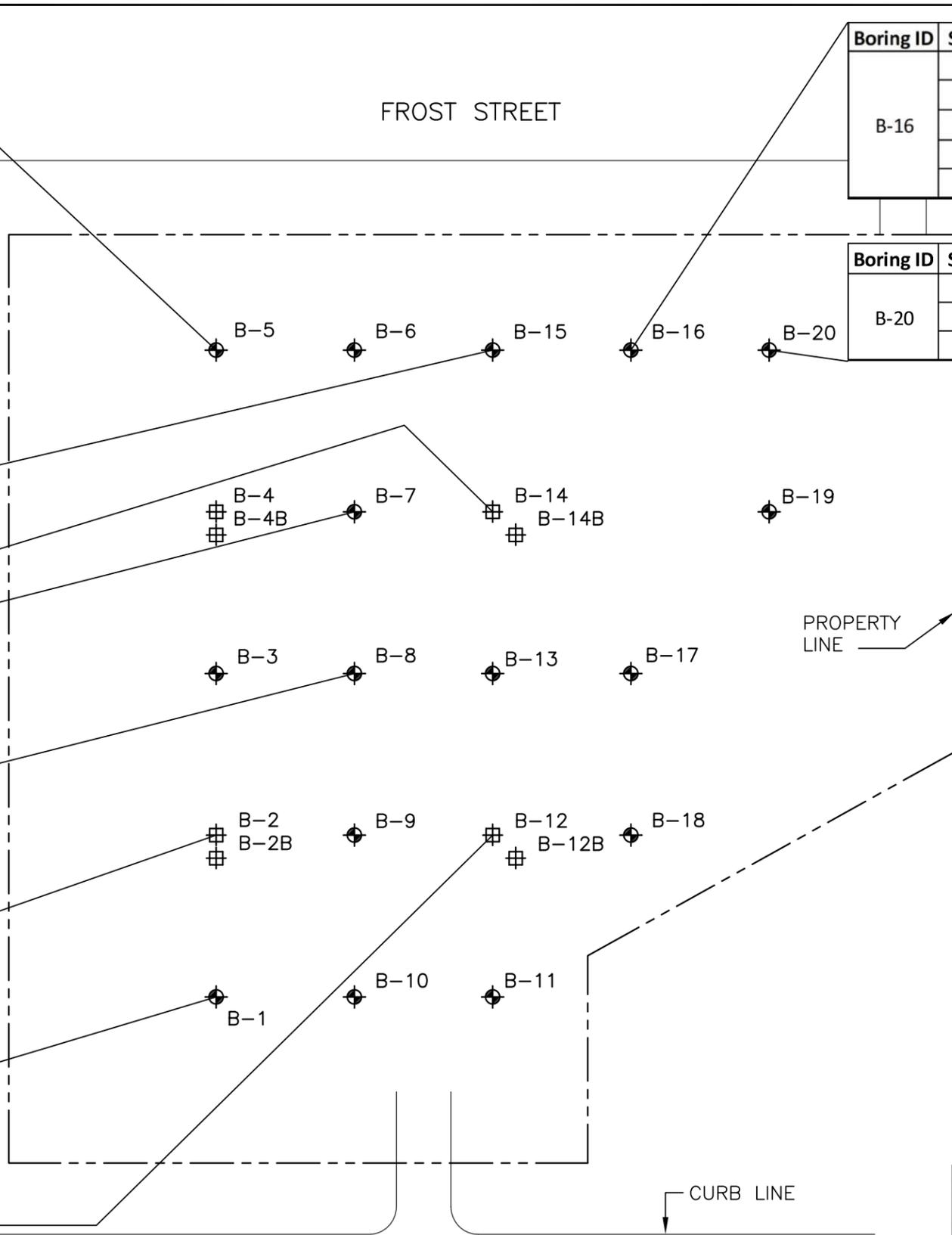
Boring ID	Sampling Depth	Results As (mg/kg)	TCLP As (ug/L)
B-7	6-8'	N/A	ND
	8-10'	8.9	ND
	10-12'	4.9	ND

Boring ID	Sampling Depth	Results Hg (mg/kg)	TCLP Hg (ug/L)
B-8	6-8'	N/A	ND
	8-10'	41	ND
	10-12'	1.5	ND

Boring ID	Sampling Depth	Results Pb (mg/kg)	TCLP Pb (ug/L)
B-2	8-10'	5100	24000

Boring ID	Sampling Depth	Results Pb (mg/kg)	TCLP Pb (ug/L)
B-1	4-6'	510	220
	8-10'	1400	1000
	10-12'	340	2900
	12-14'	250	470

Boring ID	Sampling Depth	Results Pb (mg/kg)	TCLP Pb (ug/L)
B-12	6-8'	N/A	ND
	8-10'	93	190
	10-12'	1200	2500



**LEGEND:**

- SOIL BORING LOCATIONS
- SOIL BORING WITH GROUNDWATER SAMPLE LOCATION
- PROPERTY LINE
- NA NOT ANALYZED
- ND NOT DETECTED



MAP OF TCLP AND SOIL CHEMISTRY RESULTS  
544 UNION AVENUE  
BROOKLYN, N.Y. 11211

**URS**  
WAYNE, NEW JERSEY

DR. BY	KM	SCALE	AS SHOWN	DWG. NO. RIR-40128-06	PROJ. NO. 11140128
CK'D. BY	CF	DATE	FEBRUARY 17, 2012	FIG. NO.	6



NORTHBOUND TRACK

SOUTHBOUND TRACK

FROST STREET

UNION AVENUE

SUBWAY GRATE

WITHERS STREET

PROPERTY LINE

CURB LINE

Sample ID: B-14	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	340
Lead	25	29000
Mercury	0.7	140
Sample ID: B-14B	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	ND
Lead	25	ND
Mercury	0.7	ND

Sample ID: B-12	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	370
Lead	25	10000
Mercury	0.7	38
Sample ID: B-12B	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	ND
Lead	25	ND
Mercury	0.7	ND

Sample ID: B-4	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	360
Lead	25	17000
Mercury	0.7	68
Sample ID: B-4B	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	ND
Lead	25	4.4
Mercury	0.7	ND

Sample ID: B-2	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	560
Lead	25	29000
Mercury	0.7	370
Sample ID: B-2B	NYSGWQS (ug/L)	Results (ug/L)
Arsenic	25	ND
Lead	25	ND
Mercury	0.7	ND

- LEGEND:**
- SOIL BORING LOCATIONS
  - SOIL BORING WITH GROUNDWATER SAMPLE LOCATION
  - SOIL GAS POINT
  - PROPERTY LINE
  - SUBWAY TRACKS LOCATION

- NOTES:**
- B-14 UNFILTERED GROUNDWATER SAMPLE
  - B-14B FILTERED GROUNDWATER SAMPLE

NYSGWQS: NEW YORK STATE GROUNDWATER QUALITY STANDARD CLASS GA



MAP OF GROUNDWATER CHEMISTRY RESULTS  
544 UNION AVENUE  
BROOKLYN, N.Y. 11211



DR. BY	KM	SCALE	AS SHOWN	DWG. NO. RIR-40128-07	PROJ. NO. 11140128
CK'D. BY	CF	DATE	FEBRUARY 17, 2012	FIG. NO.	7

# Tables

**Table 3**  
**544 Union Avenue Brooklyn, New York**  
**Soil Analytical Results for Selected Metals**  
**December 2011**

Track 2 Restricted Residential SCOs (mg/kg)	<b>0.81</b>	<b>400</b>	<b>16</b>
---	-------------	------------	-----------

Boring Number	Depth Below Ground Surface	Mercury (mg/kg) <sup>1</sup>	Lead (mg/kg) <sup>2</sup>	Arsenic (mg/kg) <sup>3</sup>
B-1	4-6'	3.4	510	8.8
	8-10'	4.7	1400	22
	10-12'	6	340	7.2
	12-14'	1.8	250	7.6
B-2	4-6'	0.47	550	10
	8-10'	4.3	5100	28
	10-12'	0.81	250	4.9
	12-14'	NA	NA	NA
B-3	4-6'	ND	630	13
	8-10'	0.37	170	6.5
	10-12'	5.3	600	10
	12-14'	0.42	71	5.5
B-4	4-6'	0.37	54	5.2
	8-10'	4.3	490	8.7
	10-12'	0.49	360	7.8
	12-14'	NA	NA	NA
B-5	4-6'	3.9	940	19
	8-10'	0.19	28	5.2
	10-12'	1.7	630	11
	12-14'	NA	NA	NA
B-6	4-6'	4.5	960	15
	8-10'	8.7	490	11
	10-12'	0.39	46	11
	12-14'	NA	NA	NA
B-7	4-6'	0.38	47	4.2
	8-10'	3.1	810	8.9
	10-12'	0.48	97	4.9
	12-14'	NA	NA	NA
B-8	4-6'	2.8	240	14
	8-10'	41	390	11
	10-12'	1.5	270	9.9
	12-14'	NA	NA	NA
B-9	4-6'	3.5	280	8.3
	8-10'	1.6	200	21
	10-12'	2.7	270	7.3
	12-14'	NA	NA	NA
B-10	4-6'	2.5	490	14
	8-10'	5.4	820	12
	10-12'	1.5	250	12
	12-14'	NA	NA	NA
B-11	4-6'	4.5	230	6.1
	8-10'	2.9	220	6
	10-12'	1.1	520	15
	12-14'	NA	NA	NA
B-12	4-6'	0.75	710	17
	8-10'	0.42	93	7.4
	10-12'	0.68	1200	ND
	12-14'	12	590	22
B-13	4-6'	0.76	180	7.4
	8-10'	2.7	280	8.3
	10-12'	2.4	320	29
	12-14'	1.3	380	17
B-14	4-6'	5	16000	27
	8-10'	11	1300	21
	10-12'	4	980	26
	12-14'	18	1500	19
B-15	4-6'	45	1000	14
	8-10'	4.5	500	9.4
	10-12'	15	2400	130
	12-14'	2	250	32
B-16	4-6'	1	330	8.9
	8-10'	0.68	110	3.7
	10-12'	3.6	330	65
	12-14'	390	4700	1800
B-17	4-6'	0.59	1700	6.2
	8-10'	1.7	1200	11
	10-12'	2.4	820	16
	12-14'	0.33	140	8.5
B-18	4-6'	1	240	8.6
	8-10'	1.6	450	11
	10-12'	0.23	59	3.4
	12-14'	NA	NA	NA
B-19	4-6'	4.3	850	28
	8-10'	0.96	230	17
	10-12'	0.95	250	23
	12-14'	3.9	810	8.3
B-20	4-6'	2.6	380	7.7
	8-10'	15	550	31
	10-12'	2.7	170	7.2
	12-14'	NA	NA	NA

**Notes:**

1. 6 NYCRR Part 375-6 Remedial Soil Cleanup Objective, restricted residential, for Mercury is 0.81 mg/kg.
  2. 6 NYCRR Part 375-6 Remedial Soil Cleanup Objective, restricted residential, for Lead is 400 mg/kg.
  3. 6 NYCRR Part 375-6 Remedial Soil Cleanup Objective, restricted residential, for Arsenic is 16 mg/kg.
- ND denotes Not Detected  
NA denotes Not Analyzed  
Numbers in red indicate an exceedance of Track 2 SCO's

**Table 4**  
**544 Union Avenue Brooklyn, New York**  
**TCLP Soil Analytical Results for Selected Metals**  
**December 2011 and January 2012**

Environmental Protection Agency Maximum Concentration of Contaminants for Toxicity Characterization (ug/l)	Total Hg	Pb	As
	200	5,000	5,000

Boring Number	Sampling Depth	Results		
		ug/l	ug/l	ug/l
B-1	4-6'	—	220	—
	8-10'	—	1,000	—
	10-12'	—	2,900	—
	12-14'	—	470	—
B-2	8'-10'	—	<b>24,000</b>	—
B-5	6-8'	—	ND	—
	8-10'	—	2,400	—
	10-12'	—	ND	—
	12-14'	—	NA	—
B-7	6-8'	—	—	ND
	8-10'	—	—	ND
	10-12'	—	—	ND
	12-14'	—	—	NA
B-8	6-8'	ND	—	—
	8-10'	ND	—	—
	10-12'	ND	—	—
	12-14'	NA	—	—
B-12	6-8'	—	ND	—
	8-10'	—	190	—
	10-12'	—	2,500	—
	12-14'	—	NA	—
B-14	4'-6'	—	<b>160,000</b>	—
B-15	10'-12'	—	3,900	ND
B-16	12'-14'	ND	<b>15,000</b>	210
B-20	6-8'	—	—	ND
	8-10'	—	—	ND
	10-12'	—	—	ND
	12-14'	—	—	NA

ND denotes Not Detected

NA denotes Not Analyzed

Numbers in red indicate an exceedance of EPA Toxicity Standard

**Table 8**  
**544 Union Avenue Site Characterization**  
**Groundwater Sampling Results for Selected Metals**

NYSDEC Part 703.5 Groundwater Quality Standards, Water Class GA	<b>Mercury (ug/l)</b>	<b>Lead (ug/l)</b>	<b>Arsenic (ug/l)</b>
	0.7	25	25

<b>Boring</b>	<b>Sample Date</b>	<b>Mercury (ug/l)</b>	<b>Lead (ug/l)</b>	<b>Arsenic (ug/l)</b>	<b>Collection Method</b>	<b>Notes</b>
B-2	12/8/2011	370	29,000	560	Unfiltered	Water sample collected from temporary wells screened at 10-15 ft bgs.
B-4	12/7/2011	68	17,000	360		
B-12	12/8/2011	38	10,000	370		
B-14	12/7/2011	140	29,000	340		
B-2B	1/14/2012	ND	ND	ND	Filtered	Water sample collected from temporary wells screened at 5-10 ft bgs.
B-4B		ND	4.4	ND		
B-12B		ND	6.8	ND		
B-14B		ND	ND	ND		
DUP011412 (B-12B)		ND	ND	8.6		
FB011412		ND	ND	ND		

ND denotes Not Detected

**Table 9**  
**544 Union Avenue Site Characterization**  
**Soil Gas Sampling Results for Volatile Organic Compounds**

Client ID	HEI RIOPA	EPA 2001	NYSDOH 2006	SG-1	SG-2	SG-3	01162012_AA_1
Lab Sample ID	2005 95th	BASE	Soil Vapor	10180974001	10180974002	10180974003	10180974004
Date Sampled	Percentile	90th Percentile	Intrusion	1/16/2012	1/16/2012	1/16/2012	1/16/2012
	Indoor Air		Air Guideline				
$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	Value	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
			$\mu\text{g}/\text{m}^3$				
Acetone	45.8	98.9	NS	7.3	6.3	45.5	6.1
Benzene	10	9.4	NS	0.57	0.83	0.74	1.8
Benzyl chloride	NS	<6.8	NS	ND	ND	ND	ND
Bromodichloromethane	NS	NS	NS	ND	ND	ND	ND
Bromoform	NS	NS	NS	ND	ND	ND	ND
Bromomethane	NS	<1.7	NS	ND	ND	ND	ND
1,3-Butadiene	NS	<3.0	NS	ND	ND	ND	ND
2-Butanone (MEK)	NS	12	NS	ND	0.77	ND	2.4
Carbon disulfide	NS	4.2	NS	1.1	ND	6.8	ND
Carbon tetrochloride	1.1	<1.3	NS	ND	ND	ND	ND
Chlorobenzene	NS	<0.9	NS	ND	ND	ND	ND
Chloroethane	NS	<1.1	NS	ND	ND	1.6	ND
Chloroform	6.34	1.1	NS	ND	ND	ND	ND
Chloromethane	NS	3.7	NS	ND	ND	ND	0.98
Cyclohexane	NS	NS	NS	ND	ND	1.2	ND
Dibromochloromethane	NS	NS	NS	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	NS	<1.5	NS	ND	ND	ND	ND
1,2-Dichlorobenzene	NS	<1.2	NS	ND	ND	ND	ND
1,3-Dichlorobenzene	NS	<2.4	NS	ND	ND	ND	ND
1,4-Dichlorobenzene	3.66	5.5	NS	124	129	33.6	4.1
Dichlorodifluoromethane	NS	NS	NS	ND	ND	ND	3.1
1,1-Dichloroethane	NS	<0.7	NS	21.3	ND	123	ND
1,2-Dichloroethane	NS	<0.9	NS	ND	ND	ND	ND
1,1-Dichloroethene	NS	<1.4	NS	ND	ND	ND	ND
cis-1,2-Dichloroethene	NS	<1.9	NS	ND	ND	7.4	ND
trans-1,2-Dichloroethene	NS	NS	NS	ND	ND	ND	ND
1,2-Dichloropropane	NS	<1.6	NS	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	<2.3	NS	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	<1.3	NS	ND	ND	ND	ND
Dichlorotetrafluoroethane				ND	ND	ND	ND
Ethanol	NS	210	NS	37.5	46.9	21.9	17.8
Ethyl acetate	NS	5.4	NS	ND	1.3	ND	ND
Ethylbenzene	7.62	5.7	NS	ND	1.2	ND	ND
4-Ethyltoluene	NS	3.6	NS	ND	ND	ND	ND
n-Heptane				ND	2.6	ND	ND
Hexachloro-1,3-butadiene	NS	<6.8	NS	ND	ND	ND	ND
n-Hexane	NS	10.2	NS	9.2	3.3	29.0	3.6
2-Hexanone	NS	NS	NS	ND	ND	ND	ND
Methylene Chloride	7.5	10	60	12.2	0.95	95.1	2.5
4-Methyl-2-pentanone (MIBK)	NS	6	NS	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	36	11.5	NS	ND	ND	ND	ND
Naphthalene				14.6	11.0	ND	ND
2-Propanol				ND	4.8	4.5	ND
Propylene	NS	NS	NS	ND	ND	ND	ND
Styrene	5.13	1.9	NS	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NS	NS	NS	ND	ND	ND	ND
Tetrachloroethene	6.01	15.9	100	3.0	ND	ND	ND
Tetrahydrofuran	NS	NS	NS	ND	ND	ND	ND
Toluene	39.8	43	NS	11.7	21.3	6.4	4.5
1,2,4-Trichlorobenzene	NS	<6.8	NS	ND	ND	ND	ND
1,1,1-Trichloroethane	NS	20.6	NS	82.8	12.7	116	ND
1,1,2-Trichloroethane	NS	<1.5	NS	ND	ND	ND	ND
Trichloroethene	1.36	4.2	5	11.0	72.9	7.4	ND
Trichlorofluoromethane	NS	18.1	NS	ND	ND	ND	2.0
1,1,2-Trichlorotrifluoroethane				ND	ND	ND	ND
1,2,4-Trimethylbenzene	NS	9.5	NS	ND	1.4	ND	1.5
1,3,5-Trimethylbenzene	NS	NS	NS	ND	ND	ND	ND
Vinyl acetate	NS	NS	NS	ND	ND	ND	ND
Vinyl chloride	NS	<1.9	NS	ND	ND	ND	ND
m&p-Xylene	22.2	22.2	NS	ND	3.2	ND	ND
o-Xylene	7.24	7.9	NS	ND	ND	ND	ND

Numbers in red indicate an exceedance of one or more guidance values.

# Appendix A



**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**

**544 Union Avenue  
Brooklyn, New York**

**May 2007**

**Prepared for:**

**544 UNION OWNER, LLC  
190 North 10th Street, Suite 306  
Brooklyn, NY 11211**

**Prepared by:**

**CA RICH CONSULTANTS, INC.  
17 Dupont Street  
Plainview, New York 11803  
(516) 576-8844**



May 4, 2007

**544 UNION OWNER, LLC**  
190 North 10th Street, Suite 306  
Brooklyn, NY 11211

Attn: Brian Glicksman, Vice President

**Re: Phase I Environmental Site Assessment**  
544 Union Avenue  
Brooklyn, New York

Dear Mr. Glicksman:

The following report summarizes a Phase I Environmental Site Assessment (ESA) of the above-referenced location (hereinafter referred to as the Property or the Site), performed by CA Rich Consultants, Inc. (CA RICH). This Phase I ESA was completed in substantive conformance with the scope and limitations of ASTM Practice E 1527-2005, which sets forth nationally, accepted Phase I guidance criteria.

If you have any questions pertaining to this report, please feel free to contact the undersigned. We thank you for the opportunity to provide you with our professional environmental services.

Sincerely,

**CA RICH CONSULTANTS, INC.**

A handwritten signature in cursive script, appearing to read 'D. Shapiro', is written over a horizontal line.

Deborah Shapiro  
Project Environmental Scientist

Reviewed by:

A handwritten signature in cursive script, appearing to read 'Steve Sobstyl', is written over a horizontal line.

Steve Sobstyl  
Senior Project Manager

Enclosure

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## EXECUTIVE SUMMARY

CA RICH CONSULTANTS, INC. ("CA RICH") of Plainview, New York has completed this Phase I Environmental Site Assessment (ESA) of a property located at 544 Union Avenue in Brooklyn, New York (hereinafter referred to as the "Property" or "Site"). CA RICH performed this Phase I ESA in substantive conformance with the suggested informational requirements, scope and limitations of the American Society for Testing & Materials (ASTM) prevailing Standard Practice E 1527-05 for environmental site assessments. Any exceptions to, or deletions from, these practices are described in Section 1.4 of this Report.

The information and findings presented herein are based upon the data acquired during the Property visit, and through pertinent information obtained from regulatory agencies, responsible persons knowledgeable about the Property, and other historical information sources.

The subject Property is improved with a vacant one-story industrial building that contains an additional ½-story level on the northwestern corner of the building, which is accessed via interior stairs. Multiple entrances service the building on Frost Street, Union Avenue, and Withers Street. A back door located on the southeast portion of the building leads to an exterior courtyard. Roof drainage is directed to a series of drains running down the sides of the building that eventually discharge into the municipal sewer. The topography of the Property is generally level.

The building is heated via overhead natural gas blowers. Natural gas is supplied by Keyspan and electricity is supplied by the Consolidated Edison Company. The City of New York provides municipal sewer and potable water to the building.

Based upon the information reviewed for this Phase I ESA, the following "Recognized Environmental Conditions" (RECs) have been identified in connection with the subject Property.

**REC-1** Historical industrial usage of this Property since its development as an Iron Foundry in 1887 with continuous various industrial usages by others up through 2006 is considered a *Recognized Environmental Condition*. Since approximately 1947 up to 2006, Beach Ross Company, a federally listed small quantity generator of regulated hazardous waste operated at the Property. Although the building was unoccupied and vacant at the time of our April 2007 inspection, the following *Recognized Environmental Conditions* were observed: chemical and/or petroleum staining on floors in former manufacturing areas, floor sumps and pits throughout the building that contained unknown liquid, oil stained soil and absorbent material, and an unknown residue/powder on the floor in a former manufacturing or storage area of the building.

Based upon the historical industrial usage of the Property and the findings of our recent inspection, we recommend further Phase II-type investigation of certain areas and residual materials observed on the Property.

**Other Issue:** According to the NYCDOB building information search database, the subject Property is 'E' designated HAZMAT (Hazardous Materials). While the 'E' designation itself is not considered a *Recognized Environmental Condition*, since redevelopment of the Property from an industrial use to a residential multi-story building is currently planned, it is understood that a Phase II investigation be conducted in accordance with CEQR to satisfy the NYCDEP's 'E' designation requirements.

## 1.0 INTRODUCTION

### 1.1 Purpose

The purpose of this Phase I ESA is to identify ASTM-defined Recognized Environmental Conditions associated with the subject Property. This assessment was conducted in substantive conformance with ASTMs relatively newly-issued "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*" E 1527-05.

This Standard is designed to constitute "*all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice*" as defined in CERCLA 42 USC 9601 (35) (B). Consequently, this assessment investigates the historical land use and present-day condition of the Property in accordance with accepted standards prevailing within the lending industry and the environmental assessment profession. The term *recognized environmental conditions* does not include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate regulatory agencies.

### 1.2 Detailed Scope of Services

The following general activities were performed by CA RICH as part of this Phase I ESA:

- Visual and physical inspection of representative reasonably accessible interior and exterior areas of the Property by an experienced CA RICH Environmental Professional (EP), whom also satisfies the educational and experience qualification requirements stipulated under the Federal EPA's companion "AAI" Rule, effective November 1, 2006. The review included a search of environmental liens for the property, activity and use limitations, if any, and any applicable engineering and institutional controls, information data gaps, as well as building practices at adjacent properties;
- Investigation of historical land use practices including review of NY City-Directory publications and historical Sanborn® Maps, discussions with knowledgeable parties associated with the Property and other readily available records or reports;
- Review and inquiry of relevant Federal, State, and NY City database records pertaining to the subject Property and properties located within approximate minimum search distances for the purposes of identifying potential sources of any migrating hazardous substances or petroleum products; and,
- Review of the Property's proximity to ecologically sensitive areas or media (i.e. parks, rivers, underlying ground water, etc.) using records and maps published by the NYCDEP and the Federal United States Geological Survey (USGS) along with neighborhood reconnaissance.

### **1.3 Significant Assumptions**

For the purpose of performing this Phase I ESA, CA RICH assumes that information provided to us by the Client, database search companies, historical records, interviews, etc. is accurate. Our findings and conclusions regarding the potential environmental impact of nearby, off-site buildings or adjoining property facilities upon the subject Property are based upon readily available information from review of the environmental databases and observable conditions at the time of inspection by the EP. Any further, more detailed review or interpretation of a specific file or record is beyond the standard Phase I scope of work approved at this time.

Further, the Environmental Professional investigator(s) cannot be held responsible for either innocent or intentional misrepresentations, inaccurate statements, claims made, or information furnished to CA RICH regarding the environmental integrity of this Property.

### **1.4 Limitations and Exceptions**

CA RICH performed this Phase I ESA of the subject Property in accordance with good commercial and customary practice and generally accepted protocols within the consulting industry as set forth in ASTM E1527-05. CA RICH has included review of some non-ASTM issues for this assessment including asbestos, radon gas and lead-based paint; otherwise there have been no intentional deviations or deletions from this practice in the performance of this assessment. The assessment included a visual (observable) inspection of representative areas of the Property, the examination of readily ascertainable and practically reviewable public records concerning the current and prior use of the Property, recorded environmental conditions, and further discussions with responsible and knowledgeable parties associated with the Property.

The findings, conclusions and professional opinion set forth in this environmental report are based upon the limited information available to CA RICH during this assessment period. If new information becomes available concerning the Property or the future property and its environs relative to existing or future intended land use after the date of this report, the findings and conclusions contained herein may be subject to modification. While this assessment was performed in accordance with good commercial and customary practice and generally accepted protocols within the environmental consulting industry, CA RICH cannot guarantee that the Property is completely free of hazardous substances or other materials or conditions that could subject the Owner(s) to potential liabilities. The presence or absence of any such condition may only be revealed or confirmed through the sample collection and analysis of any stored or suspect residual liquids, gels, or solid waste materials, chemicals, miscellaneous hazards, residues, biologicals, odors, soot, refuse, building materials, underlying fill, fluids, or soils, soil vapors, ground water, and/or surface water etc.

Subsurface conditions were not field-investigated and were outside the scope of this Phase I ESA and therefore, may differ from the conditions implied by records review and/or surficial observations. Building contamination, waste emplacement, lead-based paint, asbestos, fill, and soil or groundwater contamination would be disclosed to CA RICH only by surficial indications, interviews, or available regulatory records. In the absence of such information, these possible conditions may only be revealed through further specific media testing or sampling and testing methodologies all of which are beyond the scope of this 'Phase I' assessment, with exceptions as reported herein.

Because there are limitations to the amount of time and resources expended at this level of an initial Phase I Assessment, CA RICH cannot guarantee that all existing and pertinent Property information was reviewed. There may remain data gaps and/or additional relevant information not discovered through the standard level of all appropriate inquiry employed at this time. However, we do acknowledge that to the best of our belief, the readily ascertainable information we have supplied is true, complete and correct, and that facts or figures that may have an adverse effect upon the validity of the findings and professional opinion provided herein have not purposely been omitted.

CA RICH has no interest other than professional in this Environmental Site Assessment and neither its performance, nor compensation for same, is contingent upon the findings and/or opinion or recommendation(s), if any, represented herein. Any litigation matters that may pertain to the Property are not discussed and this Report is not a legal opinion.

## **1.5 User Reliance**

This Report is intended for the sole use of the Client. It may not be used or relied upon by any other party, or third party, without the written consent of CA RICH. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, future occupants, future prospective purchasers, and/or altered land usage, or altered future land usage, and the use or re-use of this document or the findings, professional opinion, or aforementioned recommendations provided herein is at the risk of said user.

## **2.0 PROPERTY DESCRIPTION**

### **2.1 Location and Legal Description**

The subject Property located at 544 Union Avenue in Brooklyn, Kings County, New York is comprised of a one-story industrial building on three lots totaling 35,692.57 square feet. The subject Property is located along the entire eastern side of Union Avenue between Frost Street and Withers Street (see Figure 1). The Tax Map Identification for this Property is Block: 2736; Lots: 1, 9, and 48.

### **2.2 Description of Property**

The subject Property is improved with a vacant one-story industrial building that contains an additional ½-story level on the northwestern corner of the building, which is accessed via interior stairs. Multiple entrances service the building on Frost Street, Union Avenue, and Withers Street. A back door located on the southeast portion of the building leads to an exterior courtyard. Roof drainage is directed to a series of drains running down the sides of the building that eventually discharge into the municipal sewer. The topography of the Property is generally level.

The building is heated via overhead natural gas blowers. Natural gas is supplied by Keyspan and electricity is supplied by the Consolidated Edison Company. The City of New York provides municipal sewer and potable water to the building.

### **2.3 Description of Surrounding Area**

The subject Property is located in a mixed-use industrial/commercial/residential section of Williamsburg in Brooklyn, New York. The surrounding area consists mostly of warehouses and multi-story residences.

### **2.4 Current Uses of the Property**

The Property is currently a vacant one-story industrial building.

## 2.5 Current Uses of Adjoining Properties

Specific neighboring property usage is outlined below:

North: Vacant Chocolate Factory (across Frost Street)  
South: Northside Catholic Academy, Vacant Lot, Residence (across Withers Street)  
East: Warehouse (22 Frost Street), 3-Story Residence (Withers Street)  
West: Vacant Lot, T. Quick Auto Body & Collision Repairs (across Union Avenue)

## 2.6 Site Geology & Hydrogeology

According to the United States Geological Survey (USGS Open File Report 81-1186; *Reconnaissance of the Ground-Water Resources of Kings and Queens Counties, New York*; 1981), the Site is underlain by a series of unconsolidated deposits of clay, sand, and gravel of late Cretaceous and Pleistocene age, which rest unconformably on crystalline bedrock of Precambrian to Ordovician geologic age at an elevation of 18 feet above sea level. These unconsolidated earth materials contain corresponding hydrogeologic units consisting of three separate aquifers. These are identified, in descending order, as the Upper Glacial Aquifer, the Magothy Aquifer, and the Lloyd Aquifer, which are separated by two relatively impermeable clay confining units: the Gardiners Clay and the clay member of the Raritan formation (the Raritan Clay).

To the east out on Long Island, these underlying aquifers are highly regulated and relied upon as the "sole source" of potable water for almost three million people. Overpumping of groundwater resources in both the Boroughs of Brooklyn and western Queens in the early to mid-1900s (through 1947) caused saltwater intrusion and thereby the gradual deterioration of the quality of groundwater occurring in these areas. Currently, with the exception of certain parts of eastern Queens, these two metropolitan Boroughs rely upon the New York City surface water supply system (from upstate reservoirs) to meet most potable water supply needs.

No site-specific hydrogeological information is available concerning groundwater depth and flow direction. However, based upon review of USGS maps and reports, groundwater is expected to be at a depth of approximately 6-10 feet below land surface and likely flows to the west. Site-specific groundwater depth and flow direction can only be accurately determined by a focused hydrogeologic study, which is beyond the scope of this Phase I ESA.

## 3.0 USER-PROVIDED INFORMATION

ASTM E 1527-05 defines the "User" as: "*the party seeking to use practice E 1527-05 to complete an environmental site assessment of the property*". The user is responsible for providing certain information (if available) to qualify for one of the Landowner Liability Protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete. As such, a User Questionnaire was prepared in conformance with E 1527-05, X3; and was submitted to the Client to satisfy the requirements for user-provided information. In addition, it was determined that some of the questions contained in the Questionnaire could best be answered by the current property owner. As such, a copy of CA RICH's questionnaire was forwarded to the property owner as well. Information from the completed questionnaires was used to complete the following sections along with an environmental lien search provided by the Client.

### 3.1 Title Records

Title records were not provided by the User.

### **3.2 Environmental Liens**

An environmental lien search was not provided by the User, but was requested by CA RICH from EDR on April 20, 2007. No environmental liens or AULs were found for the subject Property. The lien search report is included in Appendix D.

### **3.3 Specialized Knowledge**

The User did not provide CA RICH with specialized knowledge of the Property.

### **3.4 Commonly Known or Reasonably Ascertainable Information**

The User did not provide CA RICH with any commonly known or reasonably ascertainable information about the subject Property.

### **3.5 Valuation Reduction for Environmental Issues**

A valuation reduction for environmental issues was provided by the User. According to the User, the purchase price paid for the Property reflected the fair market value of the Property.

### **3.6 Owner, Property Manager, and Occupant Information**

Based on an interview that was conducted with Mr. Brian Glicksman, Vice President of the Tryad Group, the Property is currently owned by 544 Union Owner, LLC and is currently unoccupied. In addition, Mr. Glicksman stated that the Property was occupied by Abbe Engineering Company (manufacturer of chemical machinery and equipment) and Beech Russ Company (manufacturer of vacuum pumps) until the end of 2006.

### **3.7 Reason for Performing Phase I**

The purpose of performing this Phase I ESA is to comply with the CEQR requirements for a HAZMAT 'E' designation in anticipation of the planned property redevelopment from an industrial building to a multi-story apartment building.

## **4.0 SITE RECONNAISSANCE**

### **4.1 General**

The subject Property was inspected by Deborah Shapiro, EP and Victoria Whelan of CA RICH on April 25, 2007 with the assistance of Mr. Brian Glicksman, Vice President of Tryad Group. Accessible interior and exterior areas of the Property were inspected. In addition, photographs were taken to document observations at the time of the walk-through inspection. Selected photographs illustrating salient observations are included in Appendix A.

### **4.2 Methodology and Limiting Conditions**

The inspection on April 25, 2007 began with a general walk-through of interior and exterior accessible areas of the building. Ms. Shapiro, Ms. Whelan, and Mr. Glicksman then proceeded to inspect the roof. Due to safety issues, the entire roof and the partial 1/2-story landing could not be inspected.

#### **4.3 Interview Information**

An interview was conducted with Mr. Brian Glicksman, Vice President of the Tryad Group, on April 25, 2007. The interview revealed that to best of his knowledge the Property was purchased by 544 Union Owner LLC in January 2007 and was previously occupied by Beach Russ Company and Abbe Engineering Company. In addition, Mr. Glicksman stated that in anticipation of the planned property redevelopment, 544 Union Owner LLC is in the process of retaining New York Insulations to conduct an asbestos survey and abatement.

#### **4.4 Exterior Observations**

Building improvements cover a majority of the Property except for the sidewalk frontage and a small concrete courtyard located in the back of the building. Access to the Property from the street is provided via two curb cuts on Frost Street and one on Union Avenue. Numerous doors provide access from the sidewalk on Frost Street, Union Avenue, and Withers Street.

Natural gas utility vaults were observed on the sidewalk near the building on Withers Street, Union Avenue, and Frost Street. A NYCDEP drinking water sampling station was observed on the Union Avenue sidewalk near the intersection with Frost Street. The part of the roof that was accessible was observed to be in fair to poor condition.

#### **4.5 Interior Observations**

CA RICH's interior inspection included an escorted walk-through of the first floor of the building, which consisted of former manufacturing work areas, locker room, bathrooms, and offices. Interior building materials consisted of concrete and vinyl tile (offices only) floors; brick and wood panel (offices only) walls; and, exposed wood frame and drop-tile (offices only) ceilings. Numerous fluorescent lights were also observed throughout the building.

Numerous overhead cranes, work tables, empty shelves, empty offices, overhead gas-fired blowers, and two gas-fired hot water heaters were observed. According to Mr. Glicksman, the overhead cranes, work tables, shelves, offices, and blowers belong to the former occupants, Abbe Engineering Company and Beach Russ Company.

Numerous oil stains were observed on the concrete floor in the manufacturing areas where equipment was once present. In addition, a white residue/powder was observed in the small manufacturing room. Small sumps/pits were also observed throughout the building. Standing water was observed in one of the sumps near the courtyard, while a sump on the Frost Street side of the building was observed to contain oily soil and an absorbent material.

#### **4.6 Storage Tanks**

Storage tanks, both aboveground and underground, are often used for storing fuel, waste oils, solvents, and other waste and/or potentially hazardous materials. The principal concern from storage tanks is leakage of contents due to corrosion of the tank or associated lines. The leakage may result in migration of the stored material onto the subject and/or neighboring properties via soil migration or underlying shallow groundwater flow. In general, soil and groundwater contaminated by leaks from on-site storage tanks may constitute an environmental or health hazard.

No storage tanks, fills or vent pipes were observed on the subject Property during the time of our inspection.

**4.7 Toxic / Hazardous Materials**

No identifiable toxic/hazardous materials other than two 5-gallon buckets of flashing cement being stored on the roof were observed at the time of our inspection. The continued storage of these materials is not anticipated to have had a negative impact upon the subject Property. A white residue/powder was observed on the floor in a small manufacturing room. The origin and the nature of the chemical makeup of this residue/powder is unknown.

**4.8 Proximity to Environmentally Hazardous and/or Sensitive Areas**

The Property is situated within a residential/commercial neighborhood in Brooklyn, New York. The computerized database records (Appendix C) report approximately 191 sites in the categories of government reported sites located in proximity to the Property in accordance with ASTM E 1527-05 minimum search distances. Any locatable sites have been mapped on the radius search maps included in Appendix C and are discussed in further detail in Section 6.0 of this Report.

The database map indicates that there is one public supply well (NY0007257) owned by Mayor Rosenberg of 570 Bedford Avenue, Brooklyn, New York within ¼ - mile of the Property. National Wetlands and the East River are mapped within 1-mile radius of the subject Property. There are no on-site or adjacent bodies of water, wetlands or other environmentally sensitive areas with the exception of the underlying soils and ground water. The 100 and 500-year Floodplains are mapped within a 1-mile radius of the Property. The shallow groundwater directly underlying the Property is not utilized as a water resource. Current operations on the Property are not expected to have an impact on these resources; however, historical operations indicate the storage, handling, and use of regulated chemicals and wastes, which may have impacted the Property.

**5.0 HISTORICAL LAND USE PRACTICES**

In order to further determine the past land use and the Property's developed use, historical aerial photographs, historical topographic maps, Sanborn® maps, and Local Directory records were reviewed.

**5.1 Aerial Photography**

The following tables summarize the findings of our review of historical aerial photographs.

<b>Year</b>	<b>Description and Comments</b>
1954	The subject Property appears developed. The surrounding area appears as developed.
1966	The subject Property appears developed. The surrounding area appears as developed.
1975	The subject Property appears developed. The surrounding area appears as developed.
1984	The subject Property appears developed. The surrounding area appears as developed.
1994	The subject Property appears developed. The surrounding area appears as developed.

Review of historical aerial photographs indicates that the subject Property has been developed since at least 1954. A copy of each of the aerial photographs reviewed is attached to this report as Appendix D.

## 5.2 Topography

The following table summarizes the findings of the Topographic Map.

<b>Year</b>	<b>Description and Comments</b>
1900	The subject Property and adjacent properties appear as developed.
1947	The subject Property and adjacent properties appear as developed.
1956	The subject Property appears as it did in the 1947 map except that the Brooklyn-Queens Expressway (BQE) now appears a few blocks to the east and specific property information is not shown.
1967	The subject Property appears as it did in the 1956 map.
1967-1979 (photorevision)	The subject Property appears as it did in the 1967 map.
1995	The subject Property appears as it did in the 1967-1979 (photorevised) map.

Review of historical topographic maps dating back to 1900 indicates that the subject Property was initially developed during or prior to 1900. A copy of each topographic map is attached to this report as Appendix D.

## 5.3 Sanborn Fire Insurance Mapping

The following table summarizes the findings of the Sanborn® Fire Insurance Maps review:

<b>Year</b>	<b>Description and Comments</b>
1887	The western and southern portions of the subject Property appear as undeveloped. The northeastern portion of the subject Property appears as developed with a one-story building occupied by J.G. Morrison's Iron Foundry. The building appears with a room containing an engine and a room containing sand. Surrounding properties include dwellings to the southeast and north, and Brass Finishing to the east.
1905	The subject Property is now completely developed as John Pirkel and Iron Works. The building formerly occupied by J.G. Morrison's Iron Foundry now appears to contain "Sawdust." One storage room, one iron storage room, and one iron working room appear in the eastern portion of the property. The eastern adjacent property now appears as a machine shop. The northern and southern adjacent properties appear as dwellings and stores.
1916	The subject Property now appears as the Esily Bros. Co., Iron, Bronzes and Wire Works, The Erikson Wagon Works, and the N. Lockner Iron Works. Five separate rooms appear within the Esily Bros Co. building and are labeled office, polishing, iron works, shop, and foundry. Four pipes (not labeled) now appear in the foundry. Surrounding properties appear as they did in 1905.
1942	The subject Property now appears as Abbe Engineering Co and Beach Russ Co. A machine shop appears in the northern portion of the building. One room labeled Commercial Autobody Manufacturing and a second room labeled Machinery Warehouse appears at the eastern portion of the building. A one-story shed now appears south of the Machinery Warehouse room. The southern and eastern surrounding properties appear as they did in 1916. The northern properties now appear as commercial and industrial buildings.
1951	The subject Property appears as it did in 1942. The surrounding area appears relatively unchanged. An auto repair shop now appears across Frost Street from the commercial autobody manufacturing room.

<u>Year</u>	<u>Description and Comments</u>
1965	The subject Property still appears as the Abbe Engineer Co and Beach Russ Co; however, the commercial autobody manufacturing room no longer appears and the machinery warehouse room is significantly smaller. A small storage room now appears on the southern portion of the property. The eastern adjacent property is no longer a machine shop. The southern adjacent properties now include an undertaker. The northern surrounding properties no longer include an auto repair shop, but now include wholesale groceries, cabinet manufacturing, club, and parking in addition to dwellings.
1978-1996	The subject Property and eastern and southern surrounding properties appear as they did in 1965. The wholesale groceries and cabinet manufacturing to the north now appears as one large warehouse.

Review of Sanborn® Map coverage of the Property indicated that a portion of the Property was initially developed during or prior to 1887 as J.G. Morrison's Iron Foundry, while the entire Property was initially developed during or prior to 1905 as John Pirkl and Iron Works. Previous occupants of the Property included an Iron Foundry, Iron, Bronze, and Wire Works, and a Metal Finisher. Copies of the Sanborn® Maps are attached to this report as Appendix D.

**5.4 Local Directory**

CA RICH conducted a review of available Local Directory records for the subject Property. From 1928 through 1934, the subject Property was not listed in the research source. From 1940 through 1949, 1965 through 1976, and 1985 through 2000, the subject Property was listed in the directory as Abbe Engineering Co Pulverizing Machinery, Beach Russ Co Blowers Rotary Pumps, and Provost Engineering Corp. In 1960, the subject Property was listed as Abbe Engineering Co Pulverizing Machinery, Beach Russ Co Blowers Rotary Pumps, Provost Engineering Corp., and Angelina Lombardi. In 1980, the subject Property was listed in the directory as Abbe Engineering Co Pulverizing Machinery. A copy of the Local Directory records is attached to this report as Appendix E.

**6.0 ENVIRONMENTAL RECORDS REVIEW**

This Section discusses database records maintained by Federal, State and local environmental agencies for the Property and for sites located within an approximate minimum search distance. Available information was compiled from computerized database sources of regulatory agency records. The purpose of this database records review is to help assess the likelihood of problems from migrating hazardous substances or petroleum products. The minimum search distances are specified within ASTM Practice E 1527-05.

The database searches were conducted by EDR at the request of CA RICH on April 20, 2007 (Inquiry Number: 1908261). The existence of an actual toxic hazard at a specific site can be concluded only when government authorities make that determination or when that conclusion is fully documented by the findings of an appropriate site investigation undertaken by licensed professionals.

The resulting database information is briefly summarized below. Complete copies of the database report and radius maps are included in Appendix C. Additional site-specific information was requested elsewhere by CA RICH under the provisions of the Freedom of Information Law (FOIL).

**6.1 Federal**

The number of ASTM federally listed database sites identified in proximity to the Property is tabulated below. The search categories and database review findings are discussed in greater detail below the summary table.

Federal ASTM Database Search Category	Approx. Minimum Search Distance	Subject Property	Total Sites Plotted
EPA National Priority List Sites (NPL)	1 mile	Not identified	0
EPA DELISTED NPL	1 mile	Not identified	0
EPA CERCLIS Sites	1/2 mile	Not identified	0
EPA CERCLIS-NFRAP	1/2 mile	Not identified	2
CORRACTS	1 mile	Not identified	1
RCRIS-TSD	1/2 mile	Not identified	0
RCRIS Lg. Quan. Gen.	1/4 mile	Not identified	1
RCRIS Sm. Quan. Gen.	1/4 mile	Identified	13
ERNS	TP	Not identified	0
FINDS	TP	Identified	0
CONSENT	1 mile	Not identified	0
ROD	1 mile	Not identified	0
US ENG CONTROLS	1/2 mile	Not identified	0
US INST ENG CONTROL	1/2 mile	Not identified	0

◆ **EPA Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS), National Priorities List (NPL)**

The CERCLIS list is a compilation by the USEPA of sites that the USEPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), commonly known as the Superfund Act.

Once sites are designated on the CERCLIS list, the USEPA uses its Hazard Ranking System to determine potential risks to human health and the environment. Those CERCLIS sites that present the greatest risk are placed on the National Priority List (NPL), which qualifies the sites to receive remedial funding.

The subject Property was not identified as a CERCLIS or NPL site and there are no NPL sites within a 1-mile radius of the Property.

◆ **Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), No Further Remedial Action Planned (NFRAP)**

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was quickly removed without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat these investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens promote economic redevelopment of unproductive urban sites.

The subject Property is not identified as a CERCLIS-NFRAP site. There are two CERCLIS-NFRAP sites located within the approximate search radius from the Property, Service Plating Co. Ltd. and City Barrel and Drum Co. Inc. Service Plating Co. Ltd. was listed on the database for an odor complaint made to the New York City Department of Environmental Protection. A preliminary assessment completed in 1998 concluded that the site was removal eligible. Service Plating Co. Ltd. was archived on April 11, 2005. City Barrel and Drum Co. Inc. was listed on the database in 1980 and was archived on September 2, 1987. Based on the information reviewed and the location of the NFRAP sites, there is no reasonable basis to conclude that these sites have had a direct negative impact on the subject Property.

◆ **Delisted National Priority List (Delisted NPL)**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425. (e), sites may be deleted from the NPL where no further response is appropriate.

The subject Property does not appear as a Delisted NPL site, and there are no Delisted NPL sites located within the approximate search radius from the Property.

◆ **Corrective Action Activity (CORRACTS)**

CORRACTS is a list of handlers with RCRA Corrective Action Activity. It reports which nationally defined corrective action core events have occurred for every handler that has had a corrective action activity.

The subject Property is not identified as a CORRACTS site. There is one CORRACTS site located within the approximate search radius from the Property. Specifically, Radiac Research Corp. appears on the CORRACTS database.

Radiac Research Corp. – 33 S. First Street, Brooklyn, NY

Located approximately ½ to 1 mile west, northwest of the subject Property. It is hydrologically downgradient of the subject Property and therefore is unlikely to have had a negative impact on the Property.

◆ **Resource Conservation and Recovery Act (RCRA) (RCRIS-TSD)  
Large and Small Quantity Generators (LQG/SQG)**

RCRA was enacted to regulate facilities that generate, store, transport, or dispose of hazardous waste. These facilities must file notification forms with the EPA, which maintain the records in the RCRA Information System (RCRIS) Notifiers database. Inclusion on the RCRIS list does not signify contamination or mishandling of hazardous materials by hazardous waste Notifiers. RCRIS-listed sites are not indicative of an environmental concern unless an actual hazard is known to exist.

The subject Property is identified on the RCRIS list as an SQG (NYR000014472). The listing as a SQG is for the former occupant, Beach Russ Co. Beach Russ Co. was a manufacturer of vacuum pumps. The database listed one violation from August 24, 1999 that was associated with Beach Russ Co. The violation was an oversight violation that was removed the same day.

There are 13 RCRIS-SQGs and one RCRIS-LQG of hazardous waste listed within the search radius of the Property. According to the database reviewed, the RCRIS-LQG/SQG sites do not have outstanding violations and are in compliance with Federal regulations.

◆ **Emergency Response Notification System (ERNS)**

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. Pursuant to the ASTM Practice E 1527-05, the ERNS database is searched only for the subject Property.

The subject Property is not identified in the U.S. EPA ERNS database.

◆ **Facility Index System/Facility Identification Initiative Program Summary Report (FINDS)**

The Facility Index System (FINDS) contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

The subject Property appears in the U.S. EPA FINDS database for the listing of the former occupant Beach Russ Co. on the RCRIS-SQG database.

◆ **Records of Decision (ROD)**

ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid cleanup.

There have been no RODs documented for the subject Property. There are no RODs documented for sites within the approximate search radius from the Property.

◆ **EPA CERCLIS Consent Order**

A signed Order on Consent signifies major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites.

There have been no Federal Consent Orders signed with respect to the subject Property. There are no documented Federal Consent Orders reported within the approximate search radius from the Property.

◆ **US Engineering (ENG) Controls**

The US Engineering Controls Site List is a listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

No Engineering Controls are listed for the subject Property. There are no documented Engineering Controls reported within the approximate search radius from the Property.

◆ **US Institutional (INST) Controls**

The US Institutional Controls List is a listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

No Institutional Controls are listed for the subject Property. There are no documented Institutional Controls reported within the approximate search radius from the Property.

**6.2 State**

The numbers of state-listed database sites identified in proximity to the Property are tabulated below. The search categories and database review findings are discussed in greater detail below the summary table.

State ASTM Database Search Category	Approx. Minimum Search Distance	Subject Property	Total Sites Plotted
NYS Inactive Hazardous Waste Sites (SHWS)	1 mile	Not identified	1
NYS Landfills	1/2 mile	Not identified	1
NYS Leaking Underground Storage Tanks (LTANKS)	1/2 mile	Not identified	31
NYS Registered Storage Tank (UST)	1/4 mile	Not identified	17
NYS Chemical Bulk Storage Facilities (CBS UST)	1/4 mile	Not identified	0
NYS Major Oil Storage Facilities (MOSF UST)	1/2 mile	Not identified	0
NYS Hazardous Substance Waste Disposal Sites (HSWDS)	1/2 mile	Not identified	1
NYS Registered Storage Tank (AST)	1/4 mile	Not identified	7
NYS Chemical Bulk Storage Facilities (CBS AST)	1/4 mile	Not identified	1
NYS Major Oil Storage Facilities (MOSF AST)	1/2 mile	Not identified	0
NY Spills (NYSPILLS)	1/8 mile	Not identified	11
Manifest	1/4 mile	Identified	13
ENG Controls	TP	Not identified	0
INST Control	TP	Not identified	0

◆ **New York State Inactive Hazardous Waste Sites (SHWS)**

NYSDEC publishes an annual directory of Inactive Hazardous Waste Disposal Sites currently being investigated or requiring investigation. Sites are assigned a Classification number from 1 to 5. Class 1 sites are believed to be an imminent danger to the public health or environment and Class 5 sites have been properly closed and require no further action.

The subject Property does not appear as a NYS-Inactive Hazardous Waste Site. There is one SHWS site, BQE/Ansbacher Color & Dye Factory located within the approximate search radius from the Property. Soil and groundwater contamination exists underneath the elevated BQE south of Union Avenue related to the former Ansbacher Color & Dye Factory. This site is hydrologically downgradient of the subject Property and therefore is unlikely to have had a negative impact on the Property.

◆ **New York State Landfills**

State landfill records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

The subject Property is not identified as a solid waste disposal facility or landfill. There is one State operated transfer station located within the search radius of the Property. This site is under continued environmental management by New York State. Based upon the information reviewed, it appears unlikely that this solid waste facility has had a negative environmental impact upon the Property.

◆ **New York State LUST Sites (LTANKS) and Spills (SPILLS)**

The Leaking Storage Tank Incident Reports contain an inventory of reported leaking storage tank reported from 4/1/86 through the most recent update. Causes of the incidents include tank test failures, tank failures and tank overfills or releases determined during the removal of USTs that have leaked.

The subject Property is not identified on the Spills or LTANKS databases. There are 11 NY Spills and 31 LTANKS sites located within the search distance from the Property. Most of the LTANKS and NY Spills sites have been closed by NYSDEC. Based on the location of the remaining LTANKS and NY Spills sites, there is no reasonable basis to conclude that these sites have had a direct negative impact on the subject Property.

◆ **New York State Registered Storage Tank List (UST/AST)**

New York State requires the registration of all bulk petroleum storage tank facilities with a combined storage capacity that is greater than 1,100 gallons and less than 400,000 gallons.

The subject Property was not identified on the UST/AST database. A review of the UST/AST list revealed that 7 AST and 17 UST sites are located within approximately 0.25 miles of the subject Property. The presence of registered storage tank facilities does not indicate an area of environmental concern unless the tanks have leaked product into the subsurface. Based upon the information reviewed, there is no reasonable basis to conclude that these sites have had a direct negative impact on the subject Property.

◆ **New York State Chemical Bulk Storage Facilities (CBS UST/AST)**

New York State requires the registration of all facilities storing hazardous substances listed in 6 NYCRR Part 597, in aboveground tanks with capacities of 185-gallons or greater, and/or in underground tanks of any size. The presence of Chemical Bulk Storage facilities does not indicate an area of environmental concern unless the tanks have leaked product into the subsurface.

The subject Property is not identified as a CBS UST/AST site. There is one CBS AST site, Robinson Brothers Industries Corp., located within the approximate search radius from the Property. Based upon the information reviewed, there is no reasonable basis to conclude that this site has had a direct negative impact on the subject Property.

◆ **New York State Major Oil Storage Facilities (MOSF UST/AST)**

These are facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

The subject Property is not identified on the MOSF UST/AST list and there are no MOSF UST/AST sites located within approximately 0.5 miles of the subject Property.

◆ **New York State Hazardous Substance Waste Disposal Sites (HSWDS)**

The Hazardous Substance Waste Disposal Site Inventory includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-registry sites which the U.S. EPA Preliminary Assessment reports or Site Investigation reports were prepared.

The subject Property is not identified as a HSWDS site. There is one HSWDS site, City Barrel, located within the approximate search radius from the Property. Based upon the information reviewed, there is no reasonable basis to conclude that this site has had a direct negative impact on the subject Property.

◆ **NY Manifest**

The NY Manifest database contains facility and manifest data. A manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

The subject Property is identified on the NY Manifest database for waste disposed of by Beach Russ Company, the former occupant of the Property. According to the database, 550 gallons, 350 gallons and 300 gallons of halogenated solvents and still bottoms from the recovery of solvents were disposed of by Beach Russ Company (Generator ID# NYR000014472) in October 1995, July 1996, and July 1997, respectively. Based on the information reviewed, the proper disposal of waste does not appear to have had a negative impact on the subject Property.

◆ **Engineering (ENG) Controls**

The Engineering Controls Site List is a listing of sites with engineering controls in place.

No Engineering Controls are listed for the subject Property. There are no documented Engineering Controls reported within the approximate search radius from the Property.

◆ **Institutional (INST) Controls**

The Institutional Controls List is a listing of sites with institutional controls in place.

No Institutional Controls are listed for the subject Property. There are no documented Institutional Controls reported within the approximate search radius from the Property.

◆ **Orphan Sites**

The Federal and State database records search also revealed the presence of 35 sites that were not mapped. These sites are listed on page 686 of Appendix C. Based on the limited information reviewed for this report, there is no indication that these Orphan Sites represent a significant environmental liability to the subject Property.

### **6.3 Local**

#### **New York State Department of Health (NYSDOH)**

CA RICH requested a site-specific search via the Freedom of Information Law (FOIL) of the New York State Department of Health (NYSDOH) records for information regarding bulk storage tanks, violations, spills, leaks, inspections, and solid waste. As of the date of this report, we have not received a response from NYSDOH. This is considered a data gap. Upon receipt of approval to review records, we will forward any pertinent information as an addendum to this Report. Copies of FOIL Requests are included as Appendix B.

#### **New York City Department of Environmental Protection (NYCDEP)**

CA RICH requested a site-specific search via the Freedom of Information Law (FOIL) of the New York City Department of Environmental Protection (NYCDEP) records for information regarding bulk storage tanks, violations, spills, leaks, inspections, and solid waste. As of the date of this report, we have not received a response from NYCDEP. This is considered a data gap. Upon receipt of approval to review records, we will forward any pertinent information as an addendum to this Report. Copies of FOIL Requests are included as Appendix B.

#### **New York City Fire Department (NYCFD)**

CA RICH requested a site-specific search via the Freedom of Information Law (FOIL) of the New York City Fire Department (NYCFD) records for information regarding bulk storage tanks. As of the date of this report, we have not received a response from NYCFD. This is considered a data gap. Upon receipt of approval to review records, we will forward any pertinent information as an addendum to this Report. Copies of FOIL Requests are included as Appendix B.

#### **New York State Department of Environmental Conservation (NYSDEC)**

CA RICH requested a site-specific search via the Freedom of Information Law (FOIL) of the New York City Department of Environmental Conservation (NYCDEC) records for information regarding bulk storage tanks, violations, spills, leaks, inspections, and solid waste. CA RICH received a response from NYSDEC on April 23, 2007 stating that no records could be located for the subject property. Copies of FOIL Correspondence are included as Appendix B.

#### **New York City Department of Buildings (NYCDOB)**

CA RICH conducted a search of the New York City Department of Buildings (NYCDOB) building information search database for Block: 2736, Lots: 1, 9, and 48, which correspondences to 544-566 Union Avenue, 17-21 Withers Street, and 2-10 Frost Street in Brooklyn, New York. The database search revealed that the Property consists of an industrial building/factory (F9) located in the MX-8 Mixed Use Greenpoint-Williamsburg Special Purpose District. In addition, all three lots are little 'e' designated HAZMAT. A Certificate of Occupancy dated May 13, 1926 for 23/27 Withers Street was listed under Block: 2736; Lot: 48. According to the Certificate of Occupancy, the lot consisted of a poultry slaughter house and private garage. A Certificate of Occupancy dated September 29, 1964 for 25/29 Withers Street was listed under Block: 2736; Lot 1. According to the Certificate of Occupancy, the lot consisted of a one-story building that manufactured and stored machine tools, including metal letters, metal presses, metal stamping machines, woodworking machines and/or similar products and accessory uses. In addition, no DOB or ECB violations were listed. Copies of records are included in Appendix B.

## **New York City Department of Finance (NYCDOF)**

CA RICH conducted a search of the New York City Department of Finance (NYCDOF) ACRIS database for the subject Property. According to the database for Block: 2736; Lot: 1, title was transferred from Charles A Beach to Mildren B Miller and from Charles A Beach to Arthur T. Beach on February 1, 1976; from Mildred B. Miller and Arthur T. Beach to Beach-Russ Company on December 31, 1986; from Karin Krebs and Kevin Krebs to Beach-Russ Company on July 29, 2987; from Barbara B. McEvoy and Arthur T. Beach, Jr. as trustees for the benefit of Barbara B. McEvoy to Beach-Russ Company; and, from Beach-Russ Company to 544 Union Owner LLC on December 14, 2006. According to the database for Block: 2736; Lot: 9, title was transferred from Beach-Russ Company to 544 Union Owner LLC on December 14, 2006. According to the database for Block: 2736; Lot: 48 title was transferred from Beach-Russ Company to 544 Union Owner LLC on December 14, 2006. Copies of records are included in Appendix B.

## **7.0 ADDITIONAL SERVICES**

### **7.1 Asbestos**

Until the late 1970s, asbestos was used in, but not limited to, insulating materials, fire proofing, roofing, flooring, and decorative building materials. The U.S. EPA defines asbestos material as any material containing greater than 1-% asbestos by weight. Asbestos-containing materials (ACM), in a form which can crumble or be reduced to powder under hand pressure (friable), can release asbestos fibers which are proven to be carcinogenic and cause respiratory illness. The presence of asbestos in a building does not mean that the health of building occupants is necessarily endangered. As long as ACM remains in good condition and is not disturbed, exposure to asbestos fibers is unlikely.

Suspect ACM observed includes; drop ceiling tiles, vinyl floor tiles, and roofing material. No sampling and analysis was performed on any of the suspect materials as such testing was beyond the scope of our Assessment. The presence of asbestos can only be ascertained through a survey and analytical testing. All suspect ACM should be analytically tested prior to any construction or demolition activity that may disturb the material. Also, all suspect ACM should be treated as ACM until proper analytical testing proves that asbestos is not present. It is noted that Mr. Glicksman stated that in anticipation of the planned property redevelopment, 544 Union Owner LLC is in the process of retaining New York Insulations to conduct an asbestos survey and abatement.

## **7.2 Lead-Based Paint**

Research has shown that, when ingested, lead can cause permanent neurological problems and brain damage. Federal regulations were promulgated in 1978 that ban the sale of paint containing more than 0.06 percent lead by weight. Consequently, any paint known to contain lead in excess of 0.06 percent is considered to be lead-based.

Based upon the age of the structure, lead may be present in covered layers of paint throughout the building. Therefore, proper precautionary measures should be taken prior to any construction or demolition activities that involve areas where paint is present.

## **7.3 Radon Gas**

Radon is a naturally occurring, invisible, odorless, carcinogenic gas that is generated by the decay of radioactive elements found in certain crystalline rock types or derivatives thereof. Inhalation of radon gas represents the principal exposure pathway. In outdoor air, radon is diluted to such low concentrations that it does not pose a health hazard. However, once inside an enclosed space such as basements, pipe chases, drains and foundation crawl spaces, radon gas may accumulate to dangerous concentrations. Confirmation of the presence or absence of radon gas is possible through testing.

Based upon our review of geologic maps prepared by the United States Geological Survey and the findings of an EPA Residential Radon Survey (Appendix C, page A-52), naturally occurring radon gas contamination at levels that would be a concern at the Property is unlikely.

## **8.0 FINDINGS AND PROFESSIONAL OPINION**

- *Fluorescent lights were observed throughout the building. The older fluorescent light ballasts may contain small quantities (1-2 oz.) of PCB-containing dielectric fluid.*

There does not appear to be a significant health or environmental hazard related to any potential presence or historical presence of PCBs at this time and therefore, this finding is not considered a Recognized Environmental Condition. Future renovations which require removal of these kinds of existing light fixtures should examine the light fixture ballasts to determine if they are PCB-containing prior to their handling or disposal.

- *Based on the age of the structure, asbestos is likely present in some of the building materials especially in the lower layers of the tar roofing materials, drop-in ceiling and vinyl-floor tiles. Upon inspection, it appeared that the roof, drop-ceiling and the vinyl tile floors observed were in fair to poor condition. In addition, Mr. Glicksman stated that in anticipation of the planned property redevelopment, 544 Union Owner LLC is in the process of retaining New York Insulations to conduct an asbestos survey and abatement.*

Since the building is currently unoccupied, there does not appear to be a significant health or environmental hazard related to any potential presence of ACM at this time and therefore, this finding is not considered a *Recognized Environmental Condition*. However, as redevelopment of the Property is currently planned, it is recommended that 544 Union Owner LLC retain a NYC licensed asbestos contractor as planned to conduct an asbestos survey and abatement prior to any demolition/construction activities.

- *Based upon the age of the structure, lead may be present in covered layers of paint throughout the building.*

Since the building is currently unoccupied, there does not appear to be a significant health or environmental hazard related to any potential presence of lead paint at this time and therefore, this finding is not considered a *Recognized Environmental Condition*. However, it is recommended that proper precautionary measures be taken prior to any construction or demolition activities that involve areas where paint is present.

- *According to the NYCDOB building information search database, the subject Property is little 'e' designated HAZMAT (Hazardous Materials).*

An 'E' designation means that no development, change of use, or extension requiring a building permit can occur without the approval of the New York City Department of Environmental Protection (NYCDEP) through the CEQR process. The type of 'E' designation determines the requirements needed to satisfy NYCDEP. While the 'E' designation itself is not considered a *Recognized Environmental Condition*, since redevelopment of the Property is currently planned, it is recommended that a subsurface investigation and other testing activities be conducted in accordance with CEQR to satisfy NYCDEP's 'E' designation requirements.

- *The subject Property is identified on the NY Manifest, RCRA-SQG, and FINDS databases as Beach Russ Company, the former occupant of the subject Property.*

The listing on the FINDS database relates to Beach Russ Company's listing on the RCRIS-SQG database. The NY Manifest database listing is related to the disposal of regulated waste by Beach Russ Company. The listing as a SQG is also for the former occupant, Beach Russ Company. As the proper disposal of waste is not a *Recognized Environmental Condition*, this finding is not considered a *Recognized Environmental Condition*.

- *Numerous oil stains were observed on the concrete floor in the building in areas where heavy equipment was once present. In addition, a white residue/powder was observed in small manufacturing room. Small sumps/pits were also observed throughout the building. One of the sumps near the courtyard contained water, while a sump on the Frost Street side of the building was observed to contain oily soil and an absorbent material.*

The presence of oil stains, an unknown residue/powder, and oily soil is considered a *Recognized Environmental Condition*. Therefore, it is recommended that a Phase II investigation be completed to determine if the residue is hazardous and if the surface and subsurface soils have been impacted by the former industrial usage of the Property.

## 9.0 CONCLUSIONS AND RECOMMENDATIONS

We have performed this Phase I Environmental Site Assessment in substantive conformance with the scope and limitations of ASTM Practice E 1527-05 for the Property located at 544 Union Avenue in Brooklyn, New York (hereinafter referred to as the "Property" or "Site"). Based upon the information reviewed for this Phase I ESA, the following "Recognized Environmental Condition" (REC) has been identified in connection with the subject Property.

**REC-1** Historical industrial usage of this Property since its development as an Iron Foundry in 1887 with continuous various industrial usages by others up through 2006 is considered a *Recognized Environmental Condition*. Since approximately 1947 up to 2006, Beach Ross Company, a federally listed small quantity generator of regulated hazardous waste operated at the Property. Although the building was unoccupied and vacant at the time of our April 2007 inspection, the following *Recognized Environmental Conditions* were observed: chemical and/or petroleum staining on floors in former manufacturing areas, floor sumps and pits throughout the building that contained unknown liquid, oil stained soil and absorbent material, and an unknown residue/powder on the floor in a former manufacturing or storage area of the building.

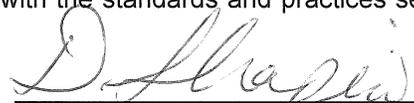
Based upon the historical industrial usage of the Property and the findings of our recent inspection, we recommend further Phase II-type investigation of certain areas and residual materials observed on the Property.

**Other Issue:** According to the NYCDOB building information search database, the subject Property is 'E' designated HAZMAT (Hazardous Materials). While the 'E' designation itself is not considered a *Recognized Environmental Condition*, since redevelopment of the Property from an industrial use to a residential multi-story building is currently planned, it is understood that a Phase II investigation be conducted in accordance with CEQR to satisfy the NYCDEP's 'E' designation requirements.

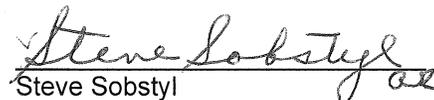
## 10.0 DECLARATIONS OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Deborah Shapiro  
Environmental Professional  
Project Environmental Scientist



Steve Sobstyl  
Environmental Professional  
Senior Project Manager

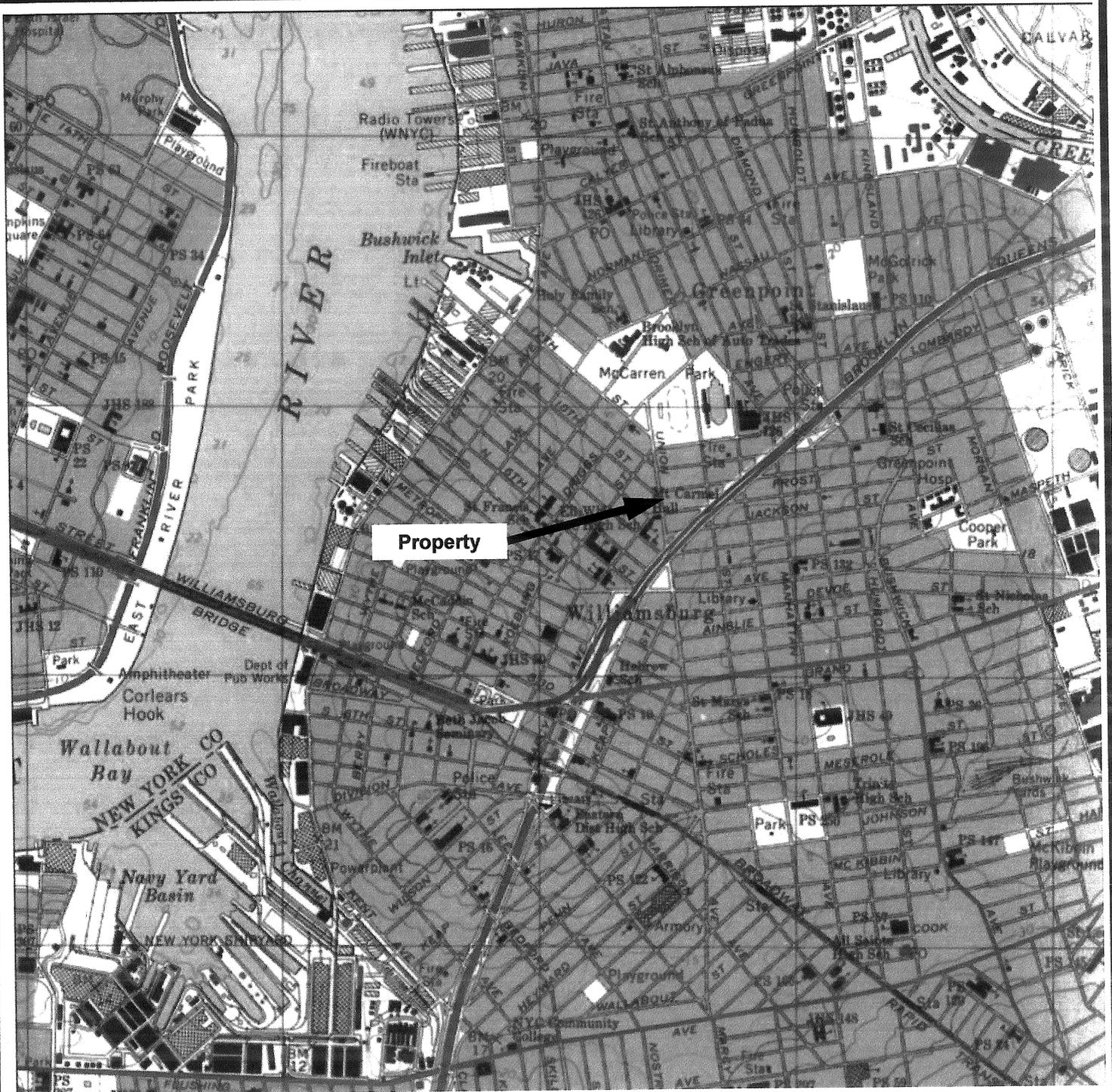
## REFERENCES

1. Interview with Brian Glicksman. April 25, 2007.

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**FIGURE**

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**Property**



APPROX. SCALE (ft.)



0

24,000

48,000

N

Adapted from USGS 1995 Brooklyn Quadrangle Map.

**CA RICH CONSULTANTS, INC.**

Certified Ground Water and Environmental Specialists  
17 Dupont Street, Plainview, NY 11803

TITLE:

**PROPERTY LOCATION MAP**

DATE:

**5/1/07**

SCALE:

**AS SHOWN**

FIGURE:

**1**

**433 Union Avenue  
Brooklyn, New York**

DRAWN BY:

**D.S.**

APPR. BY:

**SS**

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# **APPENDIX A**

## **Selected Site Photography**

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Office



Oily/Water on Concrete Floor



Oil Stain on Floor Underneath Work Table

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# **APPENDIX B**

## **Foil Correspondence**

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**NYC Department of Buildings  
Property Profile Overview**

**544 UNION AVENUE**

UNION AVENUE 544 - 566  
WITHERS STREET 17 - 21  
FROST STREET 2 - 10

**BROOKLYN 11211**

Health Area : 700  
Census Tract : 515  
Community : 301  
Board  
Buildings on Lot : 1

**BIN# 3068129**

Tax Block : 2736  
Tax Lot : 1  
Condo : NO  
Vacant : NO

[View All Addresses...](#)

[Browse Block](#)

[View Certificates of Occupancy](#)

**DOB Special Place Name:**

**DOB Building Remarks:**

**Landmark Status:**

**Local Law:** NO

**SRO Restricted:** NO

**UB Restricted:** NO

**Little 'E' Restricted:** HAZMAT

**Legal Adult Use:** NO

**Historic Block:** 2736

**Additional BINs for Building:** NONE

**Special Status:** N/A

**Loft Law:** NO

**TA Restricted:** NO

**DOB District:** N/A

**Grandfathered Sign:** NO

**City Owned:** NO

**Historic Lots:** 1

**Special District:** MX-8 - MIXED USE-8 (GREENPOINT-WILLIAMSBURG, BK)

**Department of Finance Occupancy Code:** F9-FACTORY/INDUSTRIAL

**Please Note:** The Department of Finance's building classification information shows a building's tax status, which may not be the same as the legal use of the structure. To determine the legal use of a structure, research the records of the Department of Buildings.

	<b>Total</b>	<b>Open</b>
<a href="#">Complaints</a>	2	0
<a href="#">Violations-DOB</a>	0	0
<a href="#">Violations-ECB</a>	0	0
<a href="#">Jobs/Filings</a>	2	
<a href="#">PRA / ARA Jobs</a>	0	
<a href="#">Total Jobs</a>	2	
<a href="#">Actions</a>	23	

**Elevator Records**

[Electrical Applications](#)

[Permits In-Process / Issued](#)

[Illuminated Signs Annual Permits](#)

[Plumbing Inspections](#)

[Open Plumbing Jobs / Work Types](#)

[Facades](#)

[Marquee Annual Permits](#)

[Boiler Records](#)

[DEP Boiler Information](#)

OR Enter Action Type:

OR Select from List:

Select...

AND

If you have any questions please review these [Frequently Asked Questions](#), the [Glossary](#), or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.

BIS Menu | Bldg Info Search | Property Profile | Applications | Application Data | Back

FAQs | Glossary Apr 20, 2007



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NYC Department of Buildings  
Application Data

Premises: 544 UNION AVENUE BROOKLYN  
Job No: 302315368 Document: 01 OF 1

Filed At: 544 UNION AVENUE  
Job Type: NB - NEW BUILDING  
BIN: 3068129 Block: 2736 Lot: 1

[Items Required](#) | [Plumbing Insp](#) | [Forms / Plans Received](#) | [Schedule A](#) | [Schedule B](#) | [All Permits](#) | [Document Overview](#)  
[Plan Exam Overview](#) | [Fee / Accounting Overview](#) | [C/O Application Summary](#) | [C/O Preview](#)

Location: Block: 2736 Lot(s): 1 9 48 BIN: 3068129 C.B.No: 301  
Apt No: Use: OTHER  
SPECIFIC FLOORS: OSP MEZ RANGE OF FLOORS: 001 THRU 006

Work Types Submitted: EQ-OT  
OT DESCRIPTION: ARCHITECTURAL  
Construction Equipment: FENCE  
CONST MATERIAL: WOOD

Current Applicant of Record: Gene Kaufman Phone: 212-625-8700  
Gene Kaufman, Architect, PC  
371 Broadway - 5th Fl., New York, NY 10013  
Professional Title: RA License Number: 17030  
D-14 Applicant of Record: NOT APPLICABLE Phone:  
Filing Representative: Restrepo/Guachiculca Digna/Fabian Phone: 212-233-6344  
Metropolis Group Inc.  
22 Cortlandt Street, 10th Floor, New York, NY 10007

Last Action: PLAN EXAM - DISAPPROVED 04/17/2007 (J)

Pre-Filed: 03/23/2007 Date Filed: 04/11/2007  
Fees: STANDARD Estimated Total Cost: \$0.00 PC Filed: Y

Additional Considerations:

Directive 14: N Old Code: N Quality Housing: Y Site Safety: N  
Infill Zoning: Y Loft Review: N Single Room Occupancy: N  
Declaration: Page: Reel:  
Adult Establishment: N

**Little 'E'**  
**Restrictions:** HAZMAT

**Landmark:** N

**Job Description:**

**Plans Submitted:** AR  
**Occupancy Classification:** **Existing:** MULT DWELL: HAEA  
**Proposed:** J-2 - RESIDENTIAL APT HOUSE  
**Construction Classification:** PROP NON-COMB: 1-C

**Zoning District:** M1-2 - LIGHT MANUFACTURING DISTRICT (HIGH PERFORMANCE)  
R6A - GENERAL RESIDENCE DISTRICT  
R6B - GENERAL RESIDENCE DISTRICT  
**Special District:** NONE  
**Street Status:** PUBLIC - LEGAL WIDTH 80  
**Map No.:** 013a

<b>Building Dimension:</b>	<b>No. Stories:</b> 6	<b>Street Frontage:</b>
	<b>Height:</b> 70	<b>Dwelling Units:</b> 6
<b>Total Gross Area of Building:</b>	119,598 Sq. Ft.	<b>Fill:</b>
<b>Site Area Characteristics:</b>	FIRE DIST.	
<b>Open Spaces:</b>	<b>Plaza:</b>	<b>Arcade:</b>
	<b>Parking:</b>	<b>Loading Berths:</b>
	<b>Parking Spaces:</b>	<b>Loading Berths:</b>
<b>Fire Protection Equipment:</b>	<b>SD:</b>	
	<b>SP:</b>	
	<b>FA:</b>	

**Metes and Bounds:**

**Beginning at a point on the EAST side of UNION AVENUE**  
**Distant Ft. EAST of the corner formed by the intersection of UNION AVENUE and WITHERS STREET**  
**RUNNING THENCE N 200 FT. THENCE E 205 FT.**  
**RUNNING THENCE S 112 . 04 FT. THENCE SW 86 . 68 FT.**  
**RUNNING THENCE S 44 . 50 FT. THENCE W 125 FT.**  
**ULT. NO. OF STORIES 6**

**Owner:** CORPORATION **Non-Profit Flag:** N  
WESTREICH LESLIE PRINCIPAL  
544 UNION OWNER LLC 190 NORTH 10TH STREET SUITE 307 718 302 - 0008  
BROOKLYN NY 11211  
**OCCUPANCY CERTIFICATION:** N  
**OCCUPANCY NOTIFICATION:** N

**CORPORATION:**

JACOBS TERRY PRINCIPAL  
190 NORTH 10TH STREET BROOKLYN NY 11211 718 302 - 0008



[CLICK HERE TO SIGN UP FOR BUILDINGS NEWS](#)

NYC Department of Buildings  
Property Profile Overview

18 FROST STREET  
FROST STREET

18 - 18

BROOKLYN 11211

Health Area : 700  
Census Tract : 515  
Community : 301  
Board  
Buildings on Lot : 1

BIN# 3068130

Tax Block : 2736  
Tax Lot : 9  
Condo : NO  
Vacant : NO

[View All Addresses...](#)

[Browse Block](#)

[View Certificates of Occupancy](#)

DOB Special Place Name:

DOB Building Remarks:

Landmark Status:

Local Law: NO

SRO Restricted: NO

UB Restricted: NO

Little 'E' Restricted: HAZMAT

Legal Adult Use: NO

Historic Block: 2736

Additional BINs for Building: [3815392](#)

Special Status: N/A

Loft Law: NO

TA Restricted: NO

DOB District: N/A

Grandfathered Sign: NO

City Owned: NO

Historic Lots: 9

Special District: MX-8 - MIXED USE-8 (GREENPOINT-WILLIAMSBURG, BK)

Department of Finance Occupancy Code: F9-FACTORY/INDUSTRIAL

Please Note: The Department of Finance's building classification information shows a building's tax status, which may not be the same as the legal use of the structure. To determine the legal use of a structure, research the records of the Department of Buildings.

	Total	Open	<u><a href="#">Elevator Records</a></u>
Complaints	0	0	<u><a href="#">Electrical Applications</a></u>
Violations-DOB	0	0	<u><a href="#">Permits In-Process / Issued</a></u>
Violations-ECB	0	0	<u><a href="#">Illuminated Signs Annual Permits</a></u>
Jobs/Filings	0		<u><a href="#">Plumbing Inspections</a></u>
PRA / ARA Jobs	0		<u><a href="#">Open Plumbing Jobs / Work Types</a></u>
Total Jobs	0		<u><a href="#">Facades</a></u>
Total Actions	0		<u><a href="#">Marquee Annual Permits</a></u>
			<u><a href="#">Boiler Records</a></u>
			<u><a href="#">DEP Boiler Information</a></u>

If you have any questions please review these [Frequently Asked Questions](#), the [Glossary](#), or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.



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**NYC Department of Buildings  
Property Profile Overview**

**23 WITHERS STREET**

WITHERS STREET 23 - 29

**BROOKLYN 11211**

Health Area : 700  
Census Tract : 515  
Community : 301  
Board  
Buildings on Lot : 1

**BIN# 3068148**

Tax Block : 2736  
Tax Lot : 48  
Condo : NO  
Vacant : NO

[View All Addresses...](#)

[Browse Block](#)

[View Certificates of Occupancy](#)

**DOB Special Place Name:**

**DOB Building Remarks:**

**Landmark Status:**

**Local Law:** NO

**SRO Restricted:** NO

**UB Restricted:** NO

**Little 'E' Restricted:** HAZMAT

**Legal Adult Use:** NO

**Historic Block:** 2736

**Additional BINs for Building:** NONE

**Special Status:** N/A

**Loft Law:** NO

**TA Restricted:** NO

**DOB District:** N/A

**Grandfathered Sign:** NO

**City Owned:** NO

**Historic Lots:** 48

**Special District:** MX-8 - MIXED USE-8 (GREENPOINT-WILLIAMSBURG, BK)

**Department of Finance Occupancy Code:** F9-FACTORY/INDUSTRIAL

**Please Note:** The Department of Finance's building classification information shows a building's tax status, which may not be the same as the legal use of the structure. To determine the legal use of a structure, research the records of the Department of Buildings.

	Total	Open
Complaints	0	0
Violations-DOB	0	0
Violations-ECB	0	0
Jobs/Filings	0	
PRA / ARA Jobs	0	
Total Jobs	0	
<b>Actions</b>	<b>16</b>	

**Elevator Records**

[Electrical Applications](#)

[Permits In-Process / Issued](#)

[Illuminated Signs Annual Permits](#)

[Plumbing Inspections](#)

[Open Plumbing Jobs / Work Types](#)

[Facades](#)

[Marquee Annual Permits](#)

[Boiler Records](#)

[DEP Boiler Information](#)

OR Enter Action Type:

OR Select from List:

Select...

AND

If you have any questions please review these [Frequently Asked Questions](#), the [Glossary](#), or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.

DUPLICATE

No. 38827

OFFICE OF THE PRESIDENT OF THE BOROUGH OF BROOKLYN  
BUREAU OF BUILDINGS

CERTIFICATE OF OCCUPANCY

(ISSUED PURSUANT TO ARTICLE 1, SECTION 5 BUILDING CODE)

BROOKLYN, N. Y. May 19 1926

This is to certify that the NEW BUILDING  
Located at 227 27<sup>th</sup> Street, N. E. 41-6<sup>th</sup> Edison Ave  
has been COMPLETED substantially according to the approved plans and specifications and  
the requirements of the BUILDING CODE, and PERMISSION is hereby granted for the  
OCCUPANCY of said building for the following purposes:

*Shed for Storage of private garage*

Permit No. 289/24  
5/17/26  
Albert ~~Reimer~~ *Reimer*  
Secretary of Buildings  
Per *Compton*



[CLICK HERE TO SIGN UP FOR BUILDINGS NEWS](#)

NYC Department of Buildings

Actions

Page: 1

Premises: 23 WITHERS STREET BROOKLYN

BIN: 3068148 Block: 2736 Lot: 48

NUMBER	TYPE	FILE DATE
ALT 4538/24	ALTERATION	03/06/1924
ALT 1755/62/25-29	ALTERATION	07/13/1925
ALT 6147/26	ALTERATION	09/18/1926
ALT 21034/37	ALTERATION	12/18/1937
ALT 2802/50	ALTERATION	07/19/1950
BN 1335/50	BUILDING NOTICE	02/10/1950
CERT 38827/26	(PDF) CERTIFICATE OF OCCUPANCY	05/13/1926
CERT 189972ALT1755-62-111364	(PDF) CERTIFICATE OF OCCUPANCY	00/00/1962
DEM 216/23	DEMOLITION	12/06/1923
DEM 606/39	DEMOLITION	06/26/1939

Next

Enter Action Type:  Or Select from List:  Refresh

If you have any questions please review these [Frequently Asked Questions](#), the [Glossary](#), or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.



CLICK HERE TO SIGN UP FOR BUILDINGS NEWS

NYC Department of Buildings

Actions

Page: 2

Premises: 23 WITHERS STREET BROOKLYN BIN: 3068148 Block: 2736 Lot: 48

NUMBER	TYPE	FILE DATE
ES 5469/26	ELECTRIC SIGN	05/13/1926
ES 7759/26	ELECTRIC SIGN	04/20/1926
NB 65CANCBYLIMIT-010943	NEW BUILDING	00/00/1901
NB 2265/23	NEW BUILDING	12/01/1923
NB 269/24	NEW BUILDING	01/07/1924
P &D163CANCBYLIMIT-010943	PLUMBING	00/00/1901

Previous

Enter Action Type:  Or Select from List:  Select...

Refresh

If you have any questions please review these [Frequently Asked Questions](#), the [Glossary](#), or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.







April 20, 2007

**New York City Department of Environmental Protection**  
59-17 Junction Blvd.  
Corona, New York 11368

Attention: Rena Bryant, Records Access Officer

**Re: FOIL request for:  
544 Union Avenue  
Brooklyn, New York**

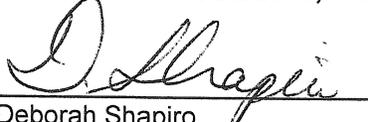
Dear Ms. Bryant:

CA Rich Consultants, Inc. requests a search of the files throughout the Department for any and all environmental violations, actions, or documentation on the above-referenced properties.

Your immediate attention to this matter would be greatly appreciated. If you have any questions or require further information, please contact the undersigned.

Sincerely,

**CA RICH CONSULTANTS, INC.**

  
Deborah Shapiro  
Project Environmental Scientist



April 20, 2007

**New York City Department of Health**  
125 Worth Street  
Room 604  
New York, New York 10013

Attn: Ms. Pat Caruso

**Re: FOIL request for:  
for 544 Union Avenue  
Brooklyn, New York  
Block: 2736; Lots: 1, 9, and 48**

Dear Ms. Caruso:

CA Rich Consultants, Inc. requests a search of the files maintained by the Department for any and all environmental violations, actions, investigations, or documentation relating to the above-referenced property. If any records are discovered by the Department, we respectfully request the opportunity to review them.

CA Rich makes this request to satisfy, in part, an environmental due diligence being performed on behalf of our client who has an interest in the environmental history of the property.

If you require additional information to carry out the search, please contact the undersigned.

Thank you for your attention to this matter.

Respectfully submitted,

**CA RICH CONSULTANTS, INC.**

A handwritten signature in black ink, appearing to read 'D. Shapiro', written over a horizontal line.

Deborah Shapiro  
Project Environmental Scientist



April 20, 2007

**NYSDEC**  
47-40 21<sup>st</sup> Street  
Long Island City, New York 11101

ATTN: FOIL

**Re: Freedom of Information Law (FOIL)  
Request  
for 544 Union Avenue  
Brooklyn, New York**

To Whom it May Concern:

CA Rich Consultants, Inc. requests a search of the files throughout the Department for any and all environmental violations, actions, spills, or documentation for the above-referenced property as part of due diligence. Per your request, CA RICH searched the two databases on NYSDEC's website and no records were found for the above-referenced property. Therefore, we are requesting that NYSDEC search its files to see if NYSDEC has any information, files, violations, etc. for the above-referenced property.

Your immediate attention to this matter would be greatly appreciated. If you have any questions or require further information, please contact the undersigned.

Sincerely,

**CA RICH CONSULTANTS, INC.**

A handwritten signature in black ink, appearing to read 'D. Shapiro', is written over a horizontal line.

Deborah Shapiro  
Project Environmental Scientist



April 20, 2007

**NYSDEC**  
47-40 21<sup>st</sup> Street  
Long Island City, New York 11101

ATTN: FOIL

**Re: Freedom of Information Law (FOIL)  
Request  
for 544 Union Avenue  
Brooklyn, New York**

To Whom it May Concern:

CA Rich Consultants, Inc. requests a search of the files throughout the Department for any and all environmental violations, actions, spills, or documentation for the above-referenced property as part of due diligence. Per your request, CA RICH searched the two databases on NYSDEC's website and no records were found for the above-referenced property. Therefore, we are requesting that NYSDEC search its files to see if NYSDEC has any information, files, violations, etc. for the above-referenced property.

Your immediate attention to this matter would be greatly appreciated. If you have any questions or require further information, please contact the undersigned.

Sincerely,

**CA RICH CONSULTANTS, INC.**

A handwritten signature in black ink that reads 'D. Shapiro'. The signature is written in a cursive style and is positioned above a horizontal line.

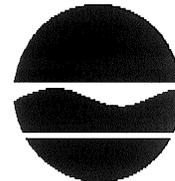
Deborah Shapiro  
Project Environmental Scientist

**New York State Department of Environmental Conservation**

Regional Enforcement Coordinator, Region 2, Regional Direction

47-40 21<sup>ST</sup> Street, Long Island City, NY 11101-5407

Phone: (718) 482-4507 • FAX: (718) 482-6729

Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)Alexander B. Grannis  
Commissioner

Date: April 23, 2007

FOIL # R2-07-749

Deborah Shapiro/CA Rich Consultants, Inc

516-576-8844

Fax 516-576-0093

RE: 544 Union Ave, Brooklyn, NY

Dear Ms. Shapiro:

NYSDEC/Region 2 has reviewed your request for the above referenced records under New York State's Freedom of Information Law (FOIL). Please note that most of our records are filed by number under the names of individuals or corporations. We have no way of locating or retrieving records if they are filed under names or addresses other than those you have provided.

If no records have been located, this does not necessarily mean, and should not be interpreted to mean that there have never been any violations, complaints, claims, investigations or inquiries involving those names or addresses. We cannot make any representations as to whether there are or have been any such violations, complaints, claims, investigations or inquiries.

After a diligent search, no records could be located for the names and/or addresses you provided.

Thank you for your request. If additional information is needed, please call Gloria Silva/FOIL Secretary at (718) 482-4507, or fax your response to me.

Sincerely yours,

Fawzy I Abdelsadek, Ph.D., P.E.  
Regional Enforcement Coordinator



FIRE DEPARTMENT - CITY OF NEW YORK  
**Public Records Unit / Tanks Section**

9 MetroTech Center  
Brooklyn, New York 11201-3857  
(718) 999-2441 or 2442



# Tank Request Form

OFFICE USE ONLY  
Cashier / Search No. \_\_\_\_\_

### SECTION A

### CUSTOMER INFORMATION

Please print your address and contact telephone number.

CA Rich Corso Hants, Inc.  
Name  
17 Duport Street  
Address  
Plainville, NY 11803  
State Zip Code

516-576-8844  
Telephone Number

Processing may take time, please choose one option below:  
I will wait for it  I will pick-up  Mail it to my address

**Note:** Please make sure you complete this form and attach all required documents. Enclose a check or money order (made payable to the NYC Fire Department) and a self-addressed envelope (with postal stamp). Mail checks or money orders directly to the address and unit listed above. **DO NOT MAIL CASH.** Cash payments can only be made in person and accepted by our Cashiers Office (9am -3pm).

### SECTION B

### PLEASE PRINT THE ADDRESS TO BE SEARCHED.

544 Union Avenue Street Name Brooklyn Borough  
House Number

### CUSTOMER - PLEASE READ THE INFORMATION BELOW.

**A CERTIFIED REPORT WILL BE MAILED TO THE ADDRESS YOU HAVE PROVIDED WITHIN TEN (10) BUSINESS DAYS AFTER DATE SUBMITTED. COMPUTER PRINTOUTS WILL BE PROVIDED ONLY UPON REQUEST.**

After you have received the certified report, you may request a certified computer printouts and/or a copy of any related record for an additional fee of \$0.25 (cents) / per page. The fee for individual copies can only be determined after this search has been completed and you have received the related report. All payments are non-refundable.

**Note:** All listed tank information come from records, which exist in the FDNY District Office Folders and computer files. Also, please be advised that this search will not include records manually kept by Fire or Engine Companies, unless a summons for "Failure to Comply" was issued.

### SECTION C

### FUEL (HEATING) OIL TANKS - FEE \$10.00 / PER REPORT

If you would like to obtain a certified report, please complete this section by checking one or more boxes from the selection below.

- ITEM 1 - THE TOTAL AMOUNT AND SIZE OF EXISTING FUEL OIL / HEATING TANKS (includes installation date)
- ITEM 2 - THE TOTAL AMOUNT AND SIZE OF REMOVED OR SEALED FUEL OIL / HEATING TANKS
- ITEM 3 - OTHER: \_\_\_\_\_

**For Office Use Only - Do not write in this section.**

Searched By: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

**(PLEASE SEE OTHER SIDE OF FORM)**

**SECTION D**

**BURIED MOTOR VEHICLE TANKS - FEE \$10.00 / PER REPORT**

If you would like to obtain a certified report, please complete this section by checking one or more boxes from the selection below.

- ITEM 1 - THE TOTAL AMOUNT AND SIZE OF EXISTING BURIED MOTOR VEHICLE TANKS
- ITEM 2 - THE TOTAL AMOUNT AND SIZE OF REMOVED OR SEALED BURIED MOTOR VEHICLE TANKS
- ITEM 3 - MOST RECENT TANK / PIPING TEST RESULTS (includes type of test performed)
- ITEM 4 - HISTORY OF BURIED MOTOR VEHICLE TANKS LEAKS
- ITEM 5 - OTHER: \_\_\_\_\_

**For Office Use Only - Do not write in this section.**

Searched By: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

**SECTION E PLEASE READ STATEMENT AND SIGN BELOW.**

I have read all of the instructions and clearly understand all of the information listed in each completed section.

Customer / Signature: *D. Shapiro* Date: 9 / 20 / 07

**For Office Use Only - Do not write in this section.**

**Total Amount**

Accepted by / Initials: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

Certification Stamp

Electronic Stamp Below - Date / Time Received

New York City Department of Finance  
Office of the City Register

**HELP**

[Click help for additional instructions]  
Selecting a help option will open new window

**Current Search Criteria:**

**Borough:** BROOKLYN / KINGS  
**Block:** 2736  
**Lot:** 1  
**Date Range:** To Current Date  
**Document Class:** All Document Classes

# Search Results By Parcel Identifier

Records 1 - 8 << previous next >> Max Rows 10 [Search Options] [New BBL Search] [Edit Current Search] [Print Index]

View	Reel/Pg/File	CRFN	Lot	Partial	Recorded / Filed	Document Type	Pages	Party1	Party2	Party 3/Other	More Party 1/2 Names	Corrected/Remarks	Doc Amount
<a href="#">DET</a> <a href="#">IMG</a>		2007000004547	1	ENTIRE LOT	1/3/2007 6:00:45 PM	COURT ORDER	38	THE COBY GROUP, LLC	COBY GROUP (UNION AVENUE) LLC		✓		0
<a href="#">DET</a> <a href="#">IMG</a>		2006000702320	1	ENTIRE LOT	12/26/2006 2:50:49 PM	DEED	8	BEACH-RUSS COMPANY	544 UNION OWNER LLC		✓	13,120,000	0
<a href="#">DET</a> <a href="#">IMG</a>	2134/335		1	ENTIRE LOT	12/4/1987	DEED	2	BEACH, ARTHUR T JR/TR	BEACH-RUSS COMPANY		✓		0
<a href="#">DET</a> <a href="#">IMG</a>	2134/333		1	ENTIRE LOT	12/4/1987	DEED	2	BEACH, ARTHUR T JR/TR	BEACH-RUSS COMPANY		✓		0
<a href="#">DET</a> <a href="#">IMG</a>	2134/331		1	ENTIRE LOT	12/4/1987	DEED	2	KERBS, KARIN	BEACH-RUSS COMPANY		✓		0
<a href="#">DET</a> <a href="#">IMG</a>	2134/329		1	ENTIRE LOT	12/4/1987	DEED	2	BEACH, ARTHUR T	BEACH-RUSS COMPANY		✓		0
<a href="#">DET</a> <a href="#">IMG</a>	904/1238		1	ENTIRE LOT	2/25/1977	DEED	2	BEACH CHARLES A	BEACH ARTHUR T				0
<a href="#">DET</a> <a href="#">IMG</a>	904/1236		1	ENTIRE LOT	2/25/1977	DEED	2	BEACH CHARLES A	MILLER MILDREN B				0

[Search Options](#) [New Parcel Identifier Search](#) [Edit Current Search](#)

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CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT - THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY

2736  
1  
-0-

THIS INDENTURE, made the 1st day of February, nineteen hundred and Seventy-six BETWEEN CHARLES A. BEACH, residing at 63 Huntington Bay Road, Huntington, New York

party of the first part, and MILDRED B. MILLER, residing at 31 Kennett Road, Nanhauset, New York

party of the second part,

WITNESSETH, that the party of the first part, in consideration of ten dollars paid by the party of the second part, does hereby remise, release and quitclaim unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BE G I N N I N G at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street; running thence southerly along the easterly side of Union Avenue, two hundred (200) feet to the northerly side of Withers Street; thence easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman; thence northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof; thence northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and thence westerly along the southerly side of Frost Street, one hundred (100) feet to the point or place of beginning. Be the said several distances and dimensions more or less.

TO G E T H E R WITH all the right, title and interest of the party of the first part, of, in and to Union Avenue, Frost & Withers Streets lying in front of and adjoining said premises to the center lines of the streets, respectively.

TOGETHER with all right, title and interest, if any, of the party of the first part, in and to any streets and roads abutting the above-described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part, in compliance with Section 13 of the Lien Law, hereby covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires. IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

*Charles A. Beach*

*Charles A. Beach* L.S.  
Charles A. Beach

STATE OF NEW YORK, COUNTY OF SUFFOLK

SS:

On the 1ST day of February 1976, before me personally came CHARLES A. BEACH

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that he executed the same.

*Charles A. Beach*

CHARLES W. ROOT  
NOTARY PUBLIC, State of New York  
No. 52 RA36700  
Qualified in Suffolk County  
Commission Expires March 30, 1976

STATE OF NEW YORK, COUNTY OF

SS:

On the day of 19 before me personally came to me known, who, being by me duly sworn, did depose and say that he resides at No.

that he is the of

, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal, that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

STATE OF NEW YORK, COUNTY OF

SS:

On the day of 19 before me personally came

REC 904 PAGE 1237

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that he executed the same;

On the day of 19 before me personally came

the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he resides at No.

that he knows

to be the individual described in and who executed the foregoing instrument, that he, said subscribing witness, was present and saw execute the same; and that he, said witness, at the same time subscribed his name as witness thereto.

### Quitclaim Deed

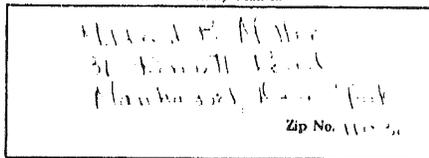
TITLE NO.

6150

CHARLES A. BEACH  
TO  
FREDERICK B. MILLER

SECTION - 10  
BLOCK - 2736  
LOT - 1  
COUNTY OR TOWN - Kings

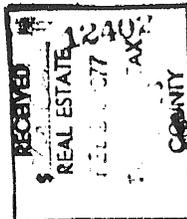
Recorded at Request of  
CHICAGO TITLE INSURANCE COMPANY  
Home Title Division  
Return by Mail to



RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

1077 FEB 25 PM 11:26

REC. FTR



CHICAGO TITLE INSURANCE COMPANY  
and other parties  
Bridges to hand  
FILE COPIES  
OFFICE OF CITY RECORDS

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

2736  
1

**THIS INDENTURE**, made the 1st day of February, nineteen hundred and Seventy-six  
**BETWEEN** CHARLES A. BEACH, residing at 63 Huntington Bay Road,  
Huntington, New York

party of the first part, and ARTHUR T. BEACH, residing at 73 Huntington Bay Road,  
Huntington, New York

party of the second part,

**WITNESSETH**, that the party of the first part, in consideration of ten dollars paid by the party of the second part, does hereby remise, release and quitclaim unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

**ALL** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

**B E G I N N I N G** at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street; running thence southerly along the easterly side of Union Avenue, two hundred (200) feet to the northerly side of Withers Street; thence easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman; thence northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof; thence northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and thence westerly along the southerly side of Frost Street, one hundred (100) feet to the point or place of beginning. Be the said several distances and dimensions more or less.

**T O G E T H E R** with all the right, title and interest of the party of the first part, of, in and to Union Avenue Frost and Withers Streets lying in front of and adjoining said premises to the center lines of the streets, respectively.

**TOGETHER** with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; **TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises; **TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

**AND** the party of the first part, in compliance with Section 13 of the Lien Law, hereby covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

**IN WITNESS WHEREOF**, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

*Charles A. Beach*

*Charles A. Beach*, S.  
Charles A. Beach

STATE OF NEW YORK, COUNTY OF SUFFOLK

On the 1st day of February 1976, before me personally came CHARLES A. BEACH

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that he executed the same.

*Charles A. Beach*

CHARLES W. ROOT  
NOTARY PUBLIC, State of New York  
No. 52-8636700  
Qualified in Suffolk County  
Commission Expires March 30, 1976

STATE OF NEW YORK, COUNTY OF

On the day of 19, before me personally came

to me known, who, being by me duly sworn, did depose and say that he resides at No.

that he is the of

, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

STATE OF NEW YORK, COUNTY OF

On the day of 19, before me personally came

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that executed the same.

FEEL 904 Page 1233

STATE OF NEW YORK, COUNTY OF

On the day of 19, before me personally came

the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he resides at No.

that he knows

to be the individual described in and who executed the foregoing instrument; that he, said subscribing witness, was present and saw execute the same; and that he, said witness, at the same time subscribed his name as witness thereto.

Quitclaim Deed

THIS No

CHARLES A. BEACH

TO  
ARTHUR T. BEACH

618

SECTION 10  
BLOCK 2736  
TOWNSHIP 1  
COUNTY OR TOWN Kings

Recorded At Request of The Title Guarantee Company  
RETURN BY MAIL TO.

Hillard B. Miller  
31 Kanawha Road  
Manhasset Neck, N.Y.  
11030 Zip No



RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

Recording office stamps and signatures. Includes a 'RECEIVED' stamp from the City of Kings County, dated FEB 22 1976, and a 'RECORDED' stamp. There are also handwritten signatures and dates like 'FEB 22 1976' and '2170'.

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

*Topaz 7438*

THIS INDENTURE, made the 31<sup>st</sup> day of December, nineteen hundred and eighty-six  
BETWEEN MILDRED B. MILLER, residing at 31 Kensett Road, Manhasset,  
New York 11030, and ARTHUR T. BEACH, residing at 73 Huntington Bay  
Road, Huntington, New York 11743,

party of the first part, and

BEACH-RUSS COMPANY, a domestic corporation with offices at 544  
Union Avenue, Brooklyn, New York 11211

party of the second part,

WITNESSETH, that the party of the first part, in consideration of ten dollars paid by the party of the second  
part, does hereby remise, release and quitclaim unto the party of the second part, the heirs or successors and  
assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate,  
lying and being in the Borough of Brooklyn, County of Kings, City and State  
of New York, more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of  
the easterly side of Union Avenue, with the southerly side of  
Frost Street; running thence southerly along the easterly side  
of Union Avenue, two hundred (200) feet to the northerly side of  
Withers Street; thence easterly along the northerly side of Withers  
Street, forty-one (41) feet, six (6) inches to land now or late  
of John Skillman; thence northeasterly along said land of John  
Skillman to a point where the same would be intersected by a  
line drawn parallel with Union Avenue, and distant one hundred  
(100) feet easterly from the easterly side thereof; thence northerly  
along said line and parallel with Union Avenue, one hundred and  
sixty-nine (169) feet to the southerly side of Frost Street; and  
thence westerly along the southerly side of Frost Street, one  
hundred (100) feet to the point or place of BEGINNING.

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and  
roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances  
and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO  
HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of  
the party of the second part forever.

AND the party of the first part, in compliance with Section 13 of the Lien Law, hereby covenants that the party  
of the first part will receive the consideration for this conveyance and will hold the right to receive such consid-  
eration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply  
the same first to the payment of the cost of the improvement before using any part of the total of the same for  
any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above  
written.

IN PRESENCE OF:

*Mildred B. Miller*  
MILDRED B. MILLER

*Arthur T. Beach*  
ARTHUR T. BEACH



TOPAZ 7438

REEL 2134 PAGE 331

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT-THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY. CONFIRMATION DEED

THIS INDENTURE, made the 29<sup>th</sup> day of July, nineteen hundred and eighty-seven

BETWEEN KARIN KREBS and KEVIN KREBS  
Miller Place, Thornwood, New York 10594  
individually

NO ORIGINAL

party of the first part, and BEACH-RUSS COMPANY, a domestic corporation  
544 Union Avenue, Brooklyn, New York 11211

party of the second part,

WITNESSETH, that the party of the first part, ~~XXXXXX~~  
~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~  
and testament, and ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~  
by virtue of the power and authority given in and by said last will and testament, and ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~, and in consideration of

paid by the party of the second part, does hereby grant and release unto the party of the second part, the distributees or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

Beginning at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street; running thence southerly along the easterly side of Union Avenue, two hundred (200) feet to the northerly side of Withers Street; thence easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman; thence northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof; thence northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and thence westerly along the southerly side of Frost Street, one hundred (100) feet to the point or place of beginning.

This deed is made for the sole purpose of confirming the acts heretofore performed by Margaret Miller, acting as attorney-in-fact for Karin Krebs, in the execution of a certain deed dated December 31, 1986. WHICH DEED HAS NOT BEEN RECORDED.

TO BEACH-RUSS COMPANY

NO ORIGINAL

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances, and also all the estate which the said decedent had at the time of decedent's death in said premises, and also the estate therein, which the party of the first part has or has power to convey or dispose of, whether individually, or by virtue of said will or otherwise; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the distributees or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been incumbered in any way whatever, except as aforesaid. Subject to the trust fund provisions of section thirteen of the Lien Law. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

*[Signature]*

X *[Signature]*  
KARIN KREBS

X *[Signature]*  
KEVIN KREBS

STATE OF NEW YORK, COUNTY OF  
On the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, before me  
personally came

STATE OF NEW YORK, COUNTY OF WESTCHESTER  
On the 29<sup>th</sup> day of JULY 1987, before me  
personally came  
KARIN KROBS AND KEVIN KROBS

to me known to be the individual described in and who  
executed the foregoing instrument, and acknowledged that  
executed the same.

to me known to be the individualS described in and who  
executed the foregoing instrument, and acknowledged that  
they executed the same.

*John R. Tucciarone*

JOHN R. TUCCARONE  
NOTARY PUBLIC, State of New York  
No. 6366876  
Qualified in Westchester County  
Commission Expires 11/30/88

STATE OF NEW YORK, COUNTY OF  
On the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, before me  
personally came  
to me known, who, being by me duly sworn, did depose and  
say that he resides at No. \_\_\_\_\_

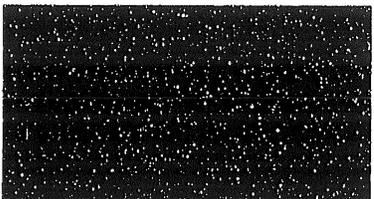
STATE OF NEW YORK, COUNTY OF  
On the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, before me  
personally came  
the subscribing witness to the foregoing instrument, with  
whom I am personally acquainted, who, being by me duly  
sworn, did depose and say that he resides at No. \_\_\_\_\_

that he is the \_\_\_\_\_  
of \_\_\_\_\_, the corporation described  
in and which executed the foregoing instrument; that he  
knows the seal of said corporation; that the seal affixed  
to said instrument is such corporate seal; that it was so  
affixed by order of the board of directors of said corpora-  
tion, and that he signed h \_\_\_\_\_ name thereto by like order.

that he knows \_\_\_\_\_  
to be the individual  
described in and who executed the foregoing instrument;  
that he, said subscribing witness, was present and saw  
execute the same; and that he, said witness,  
at the same time subscribed h \_\_\_\_\_ name as witness thereto.

Executor's Deed  
TITLE No. TOPAZ 7438

SECTION  
BLOCK 2736  
LOT 1  
COUNTY OR TOWN KINGS  
STREET ADDRESS



071418

RETURN BY MAIL TO:

Edward McLoyd, Esq  
1100 Franklin Ave  
Garden City NY 11530  
Zip No. 11530

RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

RECORDED IN KINGS COUNTY

OFFICE OF THE CITY REGISTER

1987 DEC -4 P 12:42 7594

12-04-87 B-01 PAID \$20.00

12-04-87 B-01 PAID \$12.00

12-04-87 B-01 PAID \$14.00

REG. FEE \$20.00

REG. FEE \$12.00

REG. FEE \$14.00

TRANSFER KING COU.

11/10

11/10

11/10

11/10

REF 2134 PAGE 335

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

TOM 2 7438

THIS INDENTURE, made the 31<sup>st</sup> day of December, nineteen hundred and eighty-six BETWEEN BARBARA B. McEVoy and ARTHUR T. BEACH, JR., trustees for the benefit of BARBARA B. McEVoy, under the will of ARTHUR T. BEACH, deceased of 544 Union Ave. Bklyn.

NO. IN ORIGINAL

party of the first part, and BEACH-RUSS COMPANY, a domestic corporation with offices at 544 Union Avenue, Brooklyn, New York 11211

party of the second part,

WITNESSETH, that the party of the first part, in consideration of Ten Dollars and other valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

Beginning at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street; running thence southerly along the easterly side of Union Avenue, two hundred (200) feet to the northerly side of Withers Street; thence easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman; thence northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof; thence northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and thence westerly along the southerly side of Frost Street, one hundred (100) feet to the point or place of beginning.

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid. AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires. IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

John P. [Signature]

Barbara B. McEvoy  
Barbara B. McEvoy, Trustee

Arthur T. Beach, Jr.  
Arthur T. Beach, Jr., Trustee

STATE OF NEW YORK, COUNTY OF Westchester
On the 31<sup>st</sup> day of December 19 86, before me personally came

STATE OF NEW YORK, COUNTY OF
On the day of 19, before me personally came

BARBARA B. McEVOY & ARTHUR T. BEACH, JR.
to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that they executed the same.

to me known to be the individual described in and who executed the foregoing instrument, and acknowledged that executed the same.

Handwritten signature: John P. Vecchiaro
JOHN P. VECCHIARO
# 9388871
Cent. West. County
Exp. 11/30/87
Notary Public State of New York

STATE OF NEW YORK, COUNTY OF
On the day of 19, before me personally came
to me known, who, being by me duly sworn, did depose and say that he resides at No.

STATE OF NEW YORK, COUNTY OF
On the day of 19, before me personally came
the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he resides at No.

that he is the of
the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

that he knows
to be the individual described in and who executed the foregoing instrument; that he, said subscribing witness, was present and saw execute the same; and that he, said witness, at the same time subscribed his name as witness thereto.

Mortgage and Sale Deed
WITH COVENANT AGAINST GRANOR'S ACIS
TITLE No. TORAZ 7438

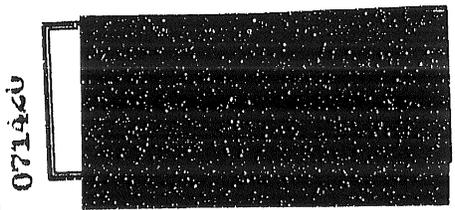
SECTION
BLOCK 2776
LOT
COUNTY OR TOWN Kings

BARBARA B. McEVOY & ARTHUR T. BEACH, JR.
Trustees

Recorded At Request of
First American Title Insurance Company of New York
RETURN BY MAIL TO:

TO
BEACH-RUSS COMPANY

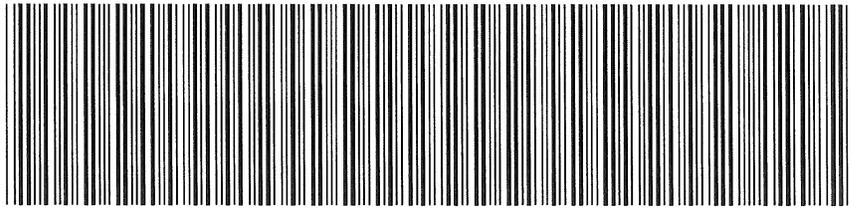
Edward Mcloyd Esq
1100 Franklin Ave
Garden City NY Zip No. 11530



RECORDING OFFICE
RECORDED IN KINGS COUNTY
12-04-87
12-01-87
12-06-87
P-01 SST \$26629
PAID SST \$256.00
PAID ENRFF \$2.00
12-04-87
12-01-87
12-06-87
RECORDED IN KINGS COUNTY
DEC - 4 1987
RECORDED IN KINGS COUNTY
RECEIVED
RECORDED
RECORDED

**NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2006122100447001001EA3D5

**RECORDING AND ENDORSEMENT COVER PAGE**

**PAGE 1 OF 8**

**Document ID: 2006122100447001** Document Date: 12-14-2006 Preparation Date: 12-21-2006  
Document Type: DEED  
Document Page Count: 6

<p><b>PRESENTER:</b> ROYAL ABSTRACT OF NEW YORK LLC AS AGENT FOR TITLE INSURANCE 500 5TH AVENUE- SUITE 1540 NEW YORK, NY 10110 212-376-0900 827371</p>	<p><b>RETURN TO:</b> STARK AMRON LINER LLP SEVEN PENN PLAZA SUITE 600 NEW YORK, NY 10001</p>
--	--

**PROPERTY DATA**

<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	1	Entire Lot	544 UNION AVENUE
<b>Property Type: COMMERCIAL REAL ESTATE</b>				
<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	9	Entire Lot	18 FROST STREET
<b>Property Type: COMMERCIAL REAL ESTATE</b>				

Additional Properties on Continuation Page

**CROSS REFERENCE DATA**

CRFN \_\_\_\_\_ or Document ID \_\_\_\_\_ or \_\_\_\_\_ Year \_\_\_\_\_ Reel \_\_\_\_\_ Page \_\_\_\_\_ or File Number \_\_\_\_\_

**PARTIES**

<p><b>GRANTOR/SELLER:</b> BEACH-RUSS COMPANY 544 UNION AVENUE BROOKLYN, NY 11211</p>	<p><b>GRANTEE/BUYER:</b> 544 UNION OWNER LLC 70 WEST 93RD STREET, SUITE 100 NEW YORK, NY 10025</p>
--	--

Additional Parties Listed on Continuation Page

**FEEES AND TAXES**

<b>Mortgage</b>		<b>Filing Fee:</b>	
Mortgage Amount:	\$ 0.00		\$ 165.00
Taxable Mortgage Amount:	\$ 0.00	NYC Real Property Transfer Tax:	
Exemption:			\$ 344,400.00
<b>TAXES: County (Basic):</b>	\$ 0.00	NYS Real Estate Transfer Tax:	
City (Additional):	\$ 0.00		\$ 52,480.00
Spec (Additional):	\$ 0.00		
TASF:	\$ 0.00		
MTA:	\$ 0.00		
NYCTA:	\$ 0.00		
Additional MRT:	\$ 0.00		
<b>TOTAL:</b>	\$ 0.00		
Recording Fee:	\$ 75.00		
Affidavit Fee:	\$ 0.00		

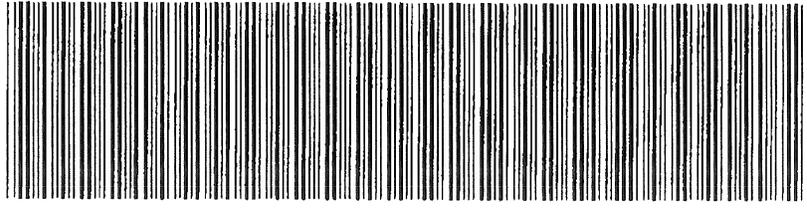
**RECORDED OR FILED IN THE OFFICE  
OF THE CITY REGISTER OF THE  
CITY OF NEW YORK**

Recorded/Filed 12-26-2006 14:50  
City Register File No.(CRFN):  
**2006000702320**



*Annette McHill*  
**City Register Official Signature**

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122100447001001CA155

**RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION) PAGE 2 OF 8**

Document ID: 2006122100447001

Document Date: 12-14-2006

Preparation Date: 12-21-2006

Document Type: DEED

**PROPERTY DATA**

<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	48	Entire Lot	29 WITHERS STREET
<b>Property Type: COMMERCIAL REAL ESTATE</b>				
<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2741	8	Entire Lot	N/A UNION AVENUE
<b>Property Type: COMMERCIAL REAL ESTATE</b>				

**PARTIES**

**GRANTOR/SELLER:**

ABBE ENGINEERING COMPANY  
544 UNION AVENUE  
BROOKLYN, NY 11211

THIS INDENTURE, made the 14th day of December , 2006

BETWEEN

BEACH-RUSS COMPANY, a New York Corporation, as owner of Block 2736, Lot 1 and Block 2741, Lot 8, and ABBE ENGINEERING COMPANY, a New York Corporation, as owner of Block 2736, Lots 9 and 48, with offices at 544 Union Avenue, Brooklyn, New York 11211

party of the first part, and

544 UNION OWNER LLC, a New York limited liability company with offices at 70 West 93<sup>rd</sup> Street, Suite 100, New York, New York 10025

party of the second part,

WITNESSETH, that the party of the first part, in consideration of \$10.00 dollars paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the

Block:  
2736

Lots:  
1, 9 & 48

SEE ATTACHED

Block:  
2741

This transfer is being made in the regular course of business.

Lot:  
8

This conveyance has been made with the consent of the holders of at least two-thirds of the outstanding shares of the party of the first part entitled to vote thereon at a meeting duly called.

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

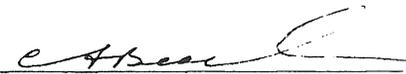
AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

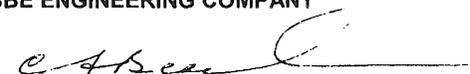
IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

BEACH-RUSS COMPANY

By:   
C. A. BEACH

ABBE ENGINEERING COMPANY

By:   
C. A. BEACH

SCHEDULE A

Parcel A as to Block 2741 Lot 8

ALL THAT CERTAIN, plot, piece or parcel of land, with the building and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at a point formed by the intersection of the Southerly side of Withers Street with the easterly side of Union Avenue, and;

RUNNING THENCE southerly, along Union Avenue, twenty-five (25) feet;

THENCE easterly, parallel with Withers Street, One Hundred (100) feet;

THENCE northerly, parallel with Union Avenue, Twenty-Five (25) feet to the Withers Street and;

THENCE westerly, along Withers Street, One Hundred (100) feet to the point or place of BEGINNING.

For information only: Said premises are known as 544 Union Avenue a/k/a 16-24 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2741 Lot 8 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 2)

Parcel B as to Block 2736 Lot 1

ALL THAT CERTAIN plot, piece or parcel of land with the building and improvements thereon erected situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street;

RUNNING THENCE southerly along the easterly side of Union Avenue to the corner formed by the intersection of the easterly side of Union Avenue two hundred (200) feet and the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman;

THENCE northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof;

THENCE northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and

THENCE westerly along the southerly side of Frost Street, one hundred (100) feet to the corner formed by the intersection of the southerly side of Frost Street and the easterly side of Union Avenue to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 3)

Parcel B as to Block 2736 Lot 9

ALL THAT CERTAIN lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the southerly side of Frost Street, distant one hundred feet easterly from the corner formed by the intersection of the southerly side of Frost Street with the easterly side of Union Avenue;

RUNNING THENCE easterly along the southerly side of Frost Street one hundred five feet;

THENCE southerly parallel with Union Avenue, One hundred twelve feet, more or less to land now or formerly of John Skillman;

THENCE southwesterly along land now or formerly of John Skillman to a point, distant one hundred feet easterly from the easterly side of Union Avenue measured on a line parallel with Frost Street;

THENCE northerly parallel with Union Avenue One hundred sixty-nine feet more or less to the southerly side of Frost Street at the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 4)

Parcel B as to Block 2736 Lot 48

ALL THAT CERTAIN lot, piece or parcel of land together with the buildings and improvement therein erected, situate, lying and being in the Borough of Brooklyn County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the northerly side of Withers Street, distant 425 feet westerly from the northwesterly corner of Lorimer Street and Withers Street and;

RUNNING THENCE northerly parallel with Lorimer Street 41 feet 6 inches to land now or formerly of David Meserole;

THENCE southwesterly along said land of David Meserole 94 feet 8 inches to a point on the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street 83 feet 6 inches to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE IN NEW YORK STATE**

State of New York, County of Nassau ss:

State of New York, County of ss:

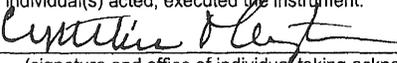
On the 14<sup>th</sup> day of **December** in the year **2006**  
before me, the undersigned, personally appeared

On the        day of        in the year         
before me, the undersigned, personally appeared

**C. A. BEACH**

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



(signature and office of individual taking acknowledgment)

(signature and office of individual taking acknowledgment)

**NOTARY PUBLIC SIGNATURE**

CYNTHIA MARGARETEN  
Notary Public, State of New York  
No. 01MA4884255  
Qualified in Nassau County 07  
Commission Expires January 26, 20  

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE OUTSIDE NEW YORK STATE**

State (or District of Columbia, Territory, or Foreign Country) of        ss:

On the        day of        in the year        before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before the undersigned in the

in  
(insert the City or other political subdivision)

(and insert the State or Country or other place the acknowledgment was taken)

(signature and office of individual taking acknowledgment)

**BARGAIN AND SALE DEED  
WITH COVENANT AGAINST GRANTOR'S ACTS**

Title No.

**Beach-Russ Company &  
Abbe Engineering Company  
TO  
544 Union Owner LLC**

SECTION  
BLOCK                    **2736 & 2741**  
LOT                        **1 & 9 48 & 8**  
COUNTY OR TOWN    **KINGS**  
STREET ADDRESS      **544 UNION AVENUE**

STANDARD FORM OF NEW YORK BOARD OF TITLE UNDERWRITERS

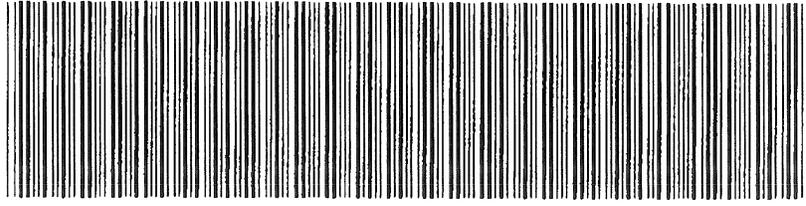
Royal Abstract of New York, LLC  
500 5th Avenue, Suite 1540  
New York, NY 10110

RETURN BY MAIL TO:

Stark, Amron, Liner LLP  
Seven Penn Plaza, Suite 600  
New York, New York 10001

RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

**NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER**



2006122100447001001S6D54

**SUPPORTING DOCUMENT COVER PAGE**

**PAGE 1 OF 1**

**Document ID: 2006122100447001**

**Document Date: 12-14-2006**

**Preparation Date: 12-21-2006**

**Document Type: DEED**

**ASSOCIATED TAX FORM ID: 2006122100159**

**SUPPORTING DOCUMENTS SUBMITTED:**

**Page Count**

RP - 5217 REAL PROPERTY TRANSFER REPORT

3

FOR CITY USE ONLY

C1. County Code  C2. Date Deed Recorded  /  /   
 Month Day Year

C3. Book OR  C4. Page

C5. CRFN



**REAL PROPERTY TRANSFER REPORT**  
 STATE OF NEW YORK  
 STATE BOARD OF REAL PROPERTY SERVICES  
**RP - 5217NYC**  
 (Rev 11/2002)

**PROPERTY INFORMATION**

1. Property Location  544 UNION AVENUE BROOKLYN 11211  
 STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name  544 UNION OWNER LLC  
 LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address  Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
 LAST NAME / COMPANY FIRST NAME

4. Indicate the number of Assessment Roll parcels transferred on the deed  4 # of Parcels OR  Part of a Parcel  
 4A. Planning Board Approval - N/A for NYC  
 4B. Agricultural District Notice - N/A for NYC  
 Check the boxes below as they apply:  
 6. Ownership Type is Condominium   
 7. New Construction on Vacant Land

5. Deed Property Size  FRONT FEET X  DEPTH OR  ACRES

8. Seller Name  BEACH-RUSS COMPANY  
 LAST NAME / COMPANY FIRST NAME  
 ABBE ENGINEERING COMPANY  
 LAST NAME / COMPANY FIRST NAME

9. Check the box below which most accurately describes the use of the property at the time of sale:  
 A  One Family Residential C  Residential Vacant Land E  Commercial G  Entertainment / Amusement I  Industrial  
 B  2 or 3 Family Residential D  Non-Residential Vacant Land F  Apartment H  Community Service J  Public Service

**SALE INFORMATION**

10. Sale Contract Date  2 / 9 / 2005  
 Month Day Year

11. Date of Sale / Transfer  12 / 14 / 2006  
 Month Day Year

12. Full Sale Price \$  1,312,000.00  
 ( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations ) Please round to the nearest whole dollar amount.

13. Indicate the value of personal property included in the sale

14. Check one or more of these conditions as applicable to transfer:  
 A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale ( Specify Below )  
 F  Sale of Fractional or Less than Fee Interest ( Specify Below )  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price ( Specify Below )  
 J  None

**ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill**

15. Building Class  F 9 16. Total Assessed Value (of all parcels in transfer)

17. Borough, Block and Lot / Roll Identifier(s) ( If more than three, attach sheet with additional identifier(s) )  
 BROOKLYN 2736 1  BROOKLYN 2736 9  BROOKLYN 2736 48

**CERTIFICATION**

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

**BUYER**

BUYER SIGNATURE  DATE

STREET NUMBER  STREET NAME (AFTER SALE)

CITY OR TOWN  STATE  ZIP CODE

**BUYER'S ATTORNEY**

LAST NAME  FIRST NAME

AREA CODE  TELEPHONE NUMBER

**SELLER**

SELLER SIGNATURE  DATE

FOR CITY USE ONLY

C1. County Code          C2. Date Deed Recorded          /          /           
Month Day Year

C3. Book          OR C4. Page           
 C5. CRFN         



**REAL PROPERTY TRANSFER REPORT**  
 STATE OF NEW YORK  
 STATE BOARD OF REAL PROPERTY SERVICES  
**RP - 5217NYC**

(Rev 11/2002)

**PROPERTY INFORMATION**

1. Property Location 544 UNION AVENUE BROOKLYN 11211  
STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name 544 UNION OWNER LLC  
LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address                                                        
Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
LAST NAME / COMPANY FIRST NAME STREET NUMBER AND STREET NAME CITY OR TOWN STATE ZIP CODE

4. Indicate the number of Assessment Roll parcels transferred on the deed 4 # of Parcels OR  Part of a Parcel

5. Deed Property Size          X          OR          ACRES  
FRONT FEET DEPTH

6. Seller Name BEACH-RUSS COMPANY           
LAST NAME / COMPANY FIRST NAME

ABBE ENGINEERING COMPANY           
LAST NAME / COMPANY FIRST NAME

- 4A. Planning Board Approval - N/A for NYC  
 4B. Agricultural District Notice - N/A for NYC
- Check the boxes below as they apply:
6. Ownership Type is Condominium   
 7. New Construction on Vacant Land

9. Check the box below which most accurately describes the use of the property at the time of sale:

- A  One Family Residential    C  Residential Vacant Land    E  Commercial    G  Entertainment / Amusement    I  Industrial  
 B  2 or 3 Family Residential    D  Non-Residential Vacant Land    F  Apartment    H  Community Service    J  Public Service

**SALE INFORMATION**

10. Sale Contract Date 2 / 9 / 2005  
Month Day Year

11. Date of Sale / Transfer 12 / 14 / 2006  
Month Day Year

12. Full Sale Price \$ 1 3 1 2 0 0 0 0  
( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) Please round to the nearest whole dollar amount.

13. Indicate the value of personal property included in the sale         

14. Check one or more of these conditions as applicable to transfer:

- A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale (Specify Below)  
 F  Sale of Fractional or Less than Fee Interest ( Specify Below )  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price ( Specify Below )  
 J  None

**ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill**

15. Building Class F 9    16. Total Assessed Value (of all parcels in transfer) 5 6 0 8 8 0

17. Borough, Block and Lot / Roll Identifier(s) ( If more than three, attach sheet with additional Identifier(s) )  
BROOKLYN 2736 1    BROOKLYN 2736 9    BROOKLYN 2736 48

**CERTIFICATION**

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

**BUYER**

         12/14/2006  
BUYER SIGNATURE DATE

70 WEST 93<sup>rd</sup> STREET  
STREET NUMBER STREET NAME (AFTER SALE)

NEW YORK NY 10025  
CITY OR TOWN STATE ZIP CODE

**BUYER'S ATTORNEY**

LINER ROBERT  
LAST NAME FIRST NAME

212 354-0600  
AREA CODE TELEPHONE NUMBER -

**SELLER**

         12/14/06  
SELLER SIGNATURE DATE



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **1**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **544 UNION AVENUE** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:
- (9) Name of Owner:
- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **9**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
 (9) Name of Owner:

- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
Department of Environmental Protection  
Bureau of Customer Services  
59-17 Junction Boulevard  
Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
(please provide information on owner ONLY; do NOT give information on property manager or tenant):  
Owner's Name **Business: 544 UNION OWNER LLC**  
or Individual:  
(Last Name) (First Name) (MI)  
Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
(9) Name of Owner:

- (10) Signature: \_\_\_\_\_  
Name and Title of Person Signing for Owner, if applicable:  
Date(mm/dd/yyyy): / /



The City of New York  
Department of Environmental Protection  
Bureau of Customer Services  
59-17 Junction Boulevard  
Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
Block: **2741** Lot: **8**
- (2) Account Number (if applicable):  
Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
(please provide information on owner ONLY; do NOT give information on property manager or tenant):  
Owner's Name Business: **544 UNION OWNER LLC**  
or Individual:  
(Last Name) (First Name) (MI)  
Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) if you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
(9) Name of Owner:

- (10) Signature: \_\_\_\_\_  
Name and Title of Person Signing for Owner, if applicable:  
Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

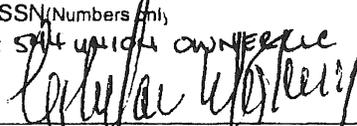
**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.

- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 Ste. 307**
- (6) Mailing Address: Street **190 North 107 St, Ste 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers only) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12/14/2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **9**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

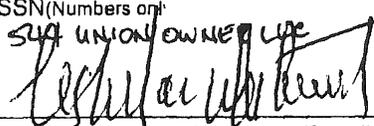
#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 St. 307**
- (6) Mailing Address: Street **190 West 10th St, St 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers only) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: 2736 Lot: 1
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **544 UNION AVENUE** City NY State NY Zip 11211
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  

	(Last Name)	(First Name)	(MI)
Street <b>70 WEST 93RD STREET SUITE 100</b>		City <b>NEW YORK</b>	State NY Zip <b>10025</b>
Home Phone(Numbers only):	Business Phone(Numbers only):		

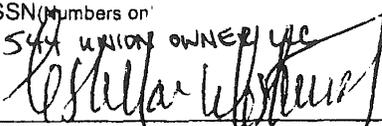
**Customer Billing Information:**

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 St. 307**
- (6) Mailing Address: Street **190 North 10<sup>th</sup> St, St. 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers on):
- (9) Name of Owner: **544 UNION OWNER LLC** E-mail:
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager of 544 UNION OWNER LLC**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**



The City of New York  
Department of Environmental Protection  
Bureau of Customer Services  
59-17 Junction Boulevard  
Flushing, NY 11373-5108

Customer Registration Form for Water and Sewer Billing

Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
Block: **2741** Lot: **8**
- (2) Account Number (if applicable):  
Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
(please provide information on owner ONLY; do NOT give information on property manager or tenant):  
Owner's Name Business: **544 UNION OWNER LLC**  
or Individual:  
Street **70 WEST 93RD STREET SUITE 100** (Last Name) City **NEW YORK** (First Name) State **NY** (MI) Zip **10025**  
Home Phone(Numbers only): Business Phone(Numbers only):

Customer Billing Information:

PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
Name of Party to Receive Duplicate Copies of Bills: **544 Ste 307**
- (6) Mailing Address: Street **190 North 10th St, Suite 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
Tenant  Other (please explain):

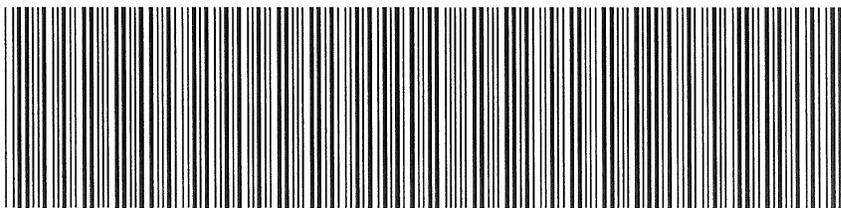
Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature: *[Handwritten Signature]*  
Name and Title of Person Signing for Owner, if applicable: **Manager**  
Date(mm/dd/yyyy): **12 / 14 / 2006**

**NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2006122001953001004E174D

**RECORDING AND ENDORSEMENT COVER PAGE**

**PAGE 1 OF 38**

**Document ID: 2006122001953001** Document Date: 12-11-2006 Preparation Date: 01-03-2007  
Document Type: COURT ORDER  
Document Page Count: 36

**PRESENTER:**  
HOME ABSTRACT CORP. HAC06-04-1443  
AS AGENT FOR FIRST AMERICAN TITLE  
INSURANCE CO.  
147 REMSEN STREET  
BROOKLYN, NY 11201  
718-875-7100

**RETURN TO:**  
SOL MERMELSTEIN, ESQ.  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PROPERTY DATA**

<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	1	Entire Lot	544 UNION AVENUE

**Property Type:** INDUSTRIAL BUILDING

<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	9	Entire Lot	18 FROST STREET

**Property Type:** INDUSTRIAL BUILDING

x Additional Properties on Continuation Page

**CROSS REFERENCE DATA**

CRFN \_\_\_\_\_ or Document ID \_\_\_\_\_ or \_\_\_\_\_ Year \_\_\_\_\_ Reel \_\_\_\_\_ Page \_\_\_\_\_ or File Number \_\_\_\_\_

**PARTIES**

**PARTY 1/GRANTOR:**  
THE COBY GROUP, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

x Additional Parties Listed on Continuation Page

**PARTY 2/GRANTEE:**  
COBY GROUP (UNION AVENUE) LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**FEES AND TAXES**

<b>Mortgage</b>		<b>Filing Fee:</b>	
Mortgage Amount:	\$ 0.00		\$ 0.00
Taxable Mortgage Amount:	\$ 0.00	NYC Real Property Transfer Tax:	\$ 0.00
Exemption:			\$ 0.00
<b>TAXES: County (Basic):</b>	\$ 0.00	NYS Real Estate Transfer Tax:	\$ 0.00
City (Additional):	\$ 0.00		\$ 0.00
Spec (Additional):	\$ 0.00		
TASF:	\$ 0.00		
MTA:	\$ 0.00		
NYCTA:	\$ 0.00		
Additional MRT:	\$ 0.00		
<b>TOTAL:</b>	\$ 0.00		
Recording Fee:	\$ 225.00		
Affidavit Fee:	\$ 0.00		

**RECORDED OR FILED IN THE OFFICE  
OF THE CITY REGISTER OF THE  
CITY OF NEW YORK**

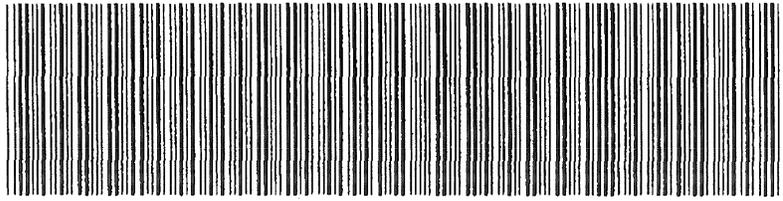


Recorded/Filed 01-03-2007 18:00  
City Register File No.(CRFN):  
**2007000004547**

*Annette McHill*

*City Register Official Signature*

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122001953001004C15CD

**RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION) PAGE 2 OF 38**

Document ID: 2006122001953001

Document Date: 12-11-2006

Preparation Date: 01-03-2007

Document Type: COURT ORDER

**PROPERTY DATA**

Borough	Block Lot	Unit	Address
BROOKLYN	2736 48	Entire Lot	29 WITHERS STREET

Property Type: INDUSTRIAL BUILDING

Borough	Block Lot	Unit	Address
BROOKLYN	2741 8	Entire Lot	N/A UNION AVENUE

Property Type: OTHER

**PARTIES**

**PARTY 1/GRANTOR:**

MCCARRON PARK CONDOMINIUMS, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**

STEVE HASENFELD  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**

COBY GROUP UNION AVENUE, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**

JOHN DOE  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**

THE COBY GROUP, LLC (NEW YORK)  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTIES**

**PARTY 2/GRANTEE:**

TZVI HASENFELD  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**

STEVE HASENFELD  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**

LESLIE WESTREICH  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**

MORTY J. YASHAR  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**

MCCARRON PARK CONDOMINIUMS, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**

THE COBY GROUP, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

HAC 06-04-1443

**SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS**

-----X  
**THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,**

**Plaintiffs,**

**Action No. 1  
Index No. 36186/05**

**-and-**

**STEVE HASENFELD, COBY GROUP  
UNION AVENUE, LLC, THE COBY  
GROUP, LLC (New York) and  
"JOHN DOE Nos. 1 through 10",  
Defendants.**

-----X  
**COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD,**

**Plaintiffs,**

**-against-**

**Action No. 2  
Index No. 36200/05**

**LESLIE WESTREICH,  
MORTY J. YASHAR,  
MCCARRON PARK CONDOMINIUMS LLC,  
(a New York entity),  
THE COBY GROUP, LLC,  
(a Delaware entity),**

**Defendants.**

-----X  
**NOTICE OF ENTRY OF COURT ORDERS REQUIRING, INTER ALIA, PLAINTIFFS'  
DESIGNEE -544 UNION OWNER LLC - TO DELIVER 30% OF THE NET PROCEEDS OF  
ANY SALE OR TRANSFER OF THE PROPERTY DEVELOPMENT, BUILDING OR  
PROJECT BEING DEVELOPED INTO AN ESCROW ACCOUNT MAINTAINED BY  
PLAINTIFFS' COUNSEL**

**S I R S:**

**PLEASE TAKE NOTICE that the within are true copies of the following Orders of the Hon. Wayne P. Saitta, Justice, made and entered in the Kings County Clerk's Office, in the Supreme Court of the State of New York, County of Kings, located at 360 Adams Street, Brooklyn, New York, in this action, on the dates as hereinafter set forth and attached hereto:**

The "So Ordered" Transcript, dated December 11, 2006, was entered on December 19, 2006, (Exhibit "A"), and, inter alia, granted Plaintiffs' motion to the extent of modifying the Order dated November 20, 2006, entered on November 30, 2006 (Exhibit "B") to permit 544 Union Owner LLC to purchase the real Properties hereinafter set forth on December 14, 2006 based upon the written stipulation (Exhibit "C") of Plaintiffs, Leslie Westreich, and 544 Union Owner LLC, and the stipulation of Plaintiff's Counsel in the Transcript (Exhibit "A") to be bound by the November 20, 2006 Order, which provided, inter alia, that if Plaintiff's designee, 544 Union Owner LLC acquires title to the Property -- and thereafter seeks to sell or transfer the property, or any building, development or project developed on the property, Plaintiff shall give Defendants' attorney's 15 days notice of the sale and the amount of the net proceeds of such sale and then 30% of the net proceeds from any such sale, development or project shall be delivered into an escrow account to be maintained by Plaintiff's attorney, the law firm of Vandenberg & Feliu, LLP, and not released except upon further Order of the Court. Notice to defendant's attorney shall be by fax. The November 20, 2006, Order amended this Court's Order, dated August 11, 2006 which was entered on August 21, 2006 (Exhibit "D")

The aforesaid Court Orders affect and concern four parcels of real properties, all situate in Kings County, known as Block No. 2736, Lot No. 1; Lot No. 9; and Lot No. 48; and Block No. 2741, Lot No. 8; (as more particularly described in the metes and bounds description annexed hereto as Exhibit "E").

Dated: December 19, 2006  
Brooklyn, New York

Yours, etc.,



SOL MERMELSTEIN  
Attorney for Defendants in Action No. 1  
STEVE HASENFELD,  
COBY GROUP UNION AVENUE, LLC,  
COBY GROUP, LLC  
and the Plaintiffs in Action No. 2  
5521 New Utrecht Avenue  
Brooklyn, New York 11219  
(718) 436-8098

Vandenberg & Feliu, LLP  
Attorney for the Plaintiffs in Action No. 1  
and the Defendants in Action No. 2  
110 East 42nd Street - Suite 1502  
New York, New York 10017

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SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS : CIVIL TERM : PART 29

-----x  
THE COBY GROUP LLC and McCARRON PARK, : Index No.  
CONDOMINIUMS, LLC : 361867/05

Plaintiffs :

-against-

STEVE HASENFELD, COBY GROUP UNION :  
AVENUE LLC, THE COBY GROUP LLC :  
(New York) and "JOHN DOE" Nos 1-12, :  
Defendants :

-----x

360 Adams Street  
Brooklyn, New York

December 11, 2006

BEFORE: HONORABLE WAYNE P. SAITTA, Justice

APPEARANCES:

For the Plaintiff:

VANDENBERG & FELIU, LLP  
110 East 42nd Street  
New York, NY  
BY: MARK R. KOOK, ESQ.

For the Defendant:

SOL MERMELSTEIN, ESQ.  
5521 New Utrecht Avenue  
Brooklyn, NY

Frances Napoli  
Senior Court Reporter

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2006 DEC 19 AM 11:34

A

1 THE COURT: Is there a proposed transfer at  
2 this point?

3 MR. KOOK: There is, your Honor, but I'd  
4 like to renew our request that the prior order be  
5 vacated.

6 The requirement for any kind of a set aside  
7 for 30 percent is an alienation on transfer of  
8 property. The contract of sale, February 9, 2005,  
9 contract specifically gives the purchaser the right  
10 to transfer either to an entity in which they're  
11 involved or, at the closing to transfer to any  
12 entity.

13 And this 30 percent set aside is a  
14 prejudgment attachment. money to satisfy a potential  
15 judgment down the road. Whatever rights the  
16 defendants have fully -- if they obtained a judgment  
17 down the road, it's a money judgment. What they're  
18 seeking is a pre-attachment. the money set aside, the  
19 funds. the payment of that judgment.

20 In the case we cited, the Court of Appeals  
21 case, which is that is not a remedy to be had in  
22 connection with a preliminary judgment application,  
23 which is how this all arose.

24 So we, again, request that we just be  
25 allowed to close and we sign, as allowed with a

1 contract.

2 And in the event Mr. Hasenfeld is successful  
3 down the road, although in the August 11 order there  
4 was no finding of a successful, of a possible --  
5 likelihood of success on merits, and it cannot be a  
6 showing of irreparable injury because he's asking for  
7 money damages, it's all money and if he wins he gets  
8 a judgment and he gets to collect money against the  
9 entities that the judgment directs.

10 We would say there will not be a judgment  
11 after the facts of discovery and a motion summary for  
12 judgment after trial.

13 As it stands, this 30 percent set aside is  
14 protax adjustment from a judgment. The defendants  
15 may know -- hide the fact that that's what they were  
16 seeking. That was the title of their reply evidence,  
17 their application and they request that the closing  
18 be held pursuant to the contract and that a purchaser  
19 can assign the contract at the closing.

20 THE COURT: But, the difference here is that  
21 At first what was contested is who was -- who  
22 controlled the purchaser. And the sale is only  
23 possible, or it is only possible for the sale to go  
24 forward because other parts of the injunction have  
25 barred Mr. Hasenfeld from interfering with the sale,

1 from asserting the rights of the corporation that  
2 signed the contract. So, it's not a mere -- it's not  
3 a typical or a mere situation of a prejudgment  
4 attachment. It's part of a whole order that allowed  
5 the sale to go forward. It's unclear as to who the  
6 party is that closed, the purchaser. And on that  
7 basis I'm denying it, but you have your remedy.

8 MR. KOOK: On appeal, yes, your Honor.

9 So, with respect to the transfer, first of  
10 all, Mr. Yashar is basically out of McCarron at this  
11 point. And what we would ask permission to do is to  
12 transfer the contract for the sum of the deposits for  
13 some \$600,000. And 30 percent of that would be set  
14 aside in escrow, held by my firm.

15 THE COURT: Counsel.

16 MR. MERMELSTEIN: Judge, that completely  
17 violates the spirit and intent of your order.

18 We weren't here fighting for 30 percent of  
19 \$600,000. My client claimed it was his complete  
20 deal, as your Honor previously stated.

21 We even said the last time we were here in  
22 court, we had people lined up, ready to take the  
23 deal. We only brought them in for financing. Now,  
24 they have to go out looking for financing. We have  
25 people lined up ready to take the deal. If they want

1 out of the deal, we're ready to give them back their  
2 600 grand and take the deal over.

3 We don't need them for the deal. We only  
4 brought them in for financing. For them to come in  
5 now and say they're ready to set aside 30 percent of  
6 \$600,000 is outrageous based upon the intent and  
7 spirit of the order.

8 MR. KOOK: Your Honor, the deal was Coby  
9 Group. Mr. Hasenfeld, as a contemporaneous e-mail  
10 shows --

11 THE COURT: We're not going to decide today  
12 whose deal it was. The whole purpose of this is, you  
13 said you wanted a different entity to buy the  
14 corporation because of a tax exchange.

15 So do you have a different entity that  
16 wants to buy it?

17 MR. KOOK: We do.

18 The entity is 544 Union Owner LLC. And I  
19 have a stipulation, post stipulation, signed by 544  
20 Union Owner LLC's control person, Mr. Westreich, who  
21 is one of the defendants in the consolidated action.

22 THE COURT: Do you have the filing papers of  
23 the LLC?

24 MR. KOOK: I don't have them, but I'll  
25 represent to the Court that it has been filed. I got

1 a confirmation e-mail from the attorneys handling  
2 that, a confirmation e-mail on Friday, that the 544  
3 owner LLC is fully filed. And if your Honor  
4 requests, I will get those papers from the attorneys  
5 and have a copy sent to you Judge and a copy to  
6 Mr. Mermelstein. I'll represent to the Court that I  
7 received an e-mail from the attorneys on Friday,  
8 saying it was done.

9 THE COURT: I'll just ask you to do one more  
10 thing, unless you can answer that right now.

11 Have you seen the papers and -- the filing  
12 papers?

13 MR. KOOF: No. I generally don't do that.  
14 The attorneys who are handling the closing, 544 Owner  
15 LLC on December 14, they did that. And I spoke with  
16 them and we go back and forth to make sure that was  
17 done, the Friday before Mr. Westreich signed the  
18 stipulation.

19 THE COURT: I guess my real question is, in  
20 the absence of the papers in front of me, can you  
21 check with the attorneys to verify the information in  
22 paragraph four that Mr. Westreich is the single  
23 member that controls the majority?

24 MR. KOOF: I will confirm that with the  
25 attorneys this afternoon and send a fax.

1 THE COURT: If we could do it this morning,  
2 I'd prefer to do it this morning, but that's the only  
3 question I have.

4 Mr. Mermelstein.

5 MR. MERMELSTEIN: Judge, first of all, it  
6 says here incorrectly, owns a majority. It's  
7 qualified that ownership is a majority of that  
8 member, that's number one. I don't know what that  
9 word means.

10 THE COURT: Controls indirectly.

11 MR. KOOK: It says it. 544 Union, the  
12 single -- is a single member entity and the entity  
13 that owns 95 percent of it, owns 75 percent by  
14 entity.

15 MR. MERMELSTEIN: Judge, the whole thing

16 is --

17 MR. KOOK: He's the president, sole officer.

18 MR. MERMELSTEIN: 544 has a single member.

19 He hasn't disclosed who that other member is  
20 of 544. There's either an LLC or some corporate  
21 entity, which he's not telling you about. He has 544  
22 has a single member and the rest controls or owns a  
23 majority of that member, which means there is another  
24 entity involved now.

25 MR. KOOK: If may, Judge, in the last order

1 of this, your Honor required that he owns or  
2 controls.

3 THE COURT: Right. So what's the member --  
4 the name of the members that's referred to in  
5 paragraph four?

6 MR. KOOK: I believe it's High Ridge Company  
7 LLP, but I have to check.

8 THE COURT: Why don't you make a call and  
9 we'll just identify that. We'll add that. We'll put  
10 that on the record.

11 MR. MERMELSTEIN: Judge, paragraph number  
12 five, he shouldn't qualify, he agrees to be bound by  
13 the order of this Court, dated November 20.

14 Why is he qualifying it?

15 MR. KOOK: Because the order requires him to  
16 be bound by the paragraph about the escrow.

17 MR. MERMELSTEIN: It says stipulation  
18 identified as -- it says stipulated to be bound by  
19 this order.

20 MR. KOOK: The paragraph reads -- what else  
21 is there in the order?

22 MR. MERMELSTEIN: To be bound by the whole  
23 order.

24 THE COURT: I would assume to cover it, it  
25 would be covered by paragraph one that they can't

1 further transfer the contract of sale between now and  
2 Thursday.

3 MR. MERMELSTEIN: In number four, Judge.

4 MR. KOOK: Four is a judgment against the  
5 defendants.

6 MR. MERMELSTEIN: Why shouldn't they be  
7 bound by the whole order?

8 THE COURT: Paragraph four enjoins your  
9 client.

10 I think they should be bound by number one,  
11 even though it's unlikely to be another transfer  
12 between now and Thursday. So, why don't you see if  
13 you can confirm with the attorneys who handle it the  
14 accuracy of what's in number four and the name of the  
15 member and then --

16 MR. KOOK: I will make the phone calls and  
17 hopefully reach the people.

18 MR. MERMELSTEIN: Will he agree that he is  
19 not going to divest himself of that membership,  
20 Mr. Westreich, while all this is going on?

21 It says here he controls --

22 THE COURT: He's bound by the LLC. Whatever  
23 happens to the ownership of the LLC thereafter,  
24 they're bound by this order.

25 MR. MERMELSTEIN: Okay, Judge.

1 MR. KOOK: Let me call my office, get the  
2 number in, hopefully, five minutes.

3 (Pause)

4 THE COURT: Okay, Mr. Kook.

5 MR. KOOK: Judge, the papers were filed and  
6 when they're filed they don't have to state, only  
7 that it's filed. The operating done is going to be  
8 done today. The High Bridge House Company LP is the  
9 sole owner of 544 Union Owner LLC. And Mr. Westreich  
10 owns 70 percent of the entity, but only High Bridge  
11 House, the company.

12 THE COURT: You cannot represent that  
13 Mr. Westreich and 544 Owner LLC consents to be bound  
14 by paragraphs one two and three of the order.

15 MR. KOOK: Paragraph one is up until the  
16 time of December 14 sale?

17 THE COURT: Right.

18 MR. KOOK: Yes, Judge.

19 MR. MERMELSTEIN: Your Honor, I just have a  
20 few things I'd like to add before we close this.

21 One, Mr. Kook is well aware as an attorney  
22 that there are no presidents of LLC. And he calls  
23 Mr. Westreich a president of the LLC.

24 Number two, it's the same thing. He calls  
25 him a member of the LLC. Is he a managing member or

1 he's a member?

2 That's what I wanted to know.

3 Paragraph number four, Judge, again it says  
4 president and sole officer. There are no officers of  
5 544 Union. There's either a member, a managing  
6 member.

7 Is he the president; is he the sole member  
8 of Union?

9 Now he just said something else. He said  
10 544, he says he owns 75 percent of High Bridge which  
11 is a member of 544 Union which contradicts paragraph  
12 number four.

13 THE COURT: Counsel, what it says is that  
14 544 Union has a single member and Westreich controls  
15 and individually owns a majority of that member. The  
16 member is High Bridge House Company?

17 MR. KOOK: Yes, Judge.

18 THE COURT: Is he an officer in that  
19 corporation aside from owning 75 percent?

20 MR. KOOK: Yes, Judge.

21 THE COURT: What's his position with High  
22 Bridge House Company?

23 MR. KOOK: I believe he's the president.  
24 I've been representing Mr. Westreich on a number of  
25 these LPs and LLCs and he's always the president.

1 MR. MERMELSTEIN: I don't know what  
2 indirectly means, through his wife, through another  
3 entity.

4 MR. KOOK: What it means is what it says,  
5 because he indirectly owns 544 Union LLC, through the  
6 ownership of the company that owns 75 percent of High  
7 Bridge House Company which owns a hundred percent of  
8 544 Union.

9 MR. MERMELSTEIN: Judge, one more thing. It  
10 says on number five, upon acquiring title to the  
11 property. According to your stipulation he's  
12 supposed to agree today that he's going to be bound.

13 MR. KOOK: He can't do the escrow until he  
14 acquires title.

15 THE COURT: As to paragraph one, that's  
16 going to apply today.

17 MR. MERMELSTEIN: Next paragraph is a  
18 stipulation normally signed by all the parties to the  
19 agreement. Our original agreement provided it's  
20 going to be Westreich and Yashar together. They've  
21 always been representing to this Court they've been  
22 in this together.

23 It's been Westreich, but no matter what,  
24 Westreich only signs here. There's no signature by  
25 Coby, no signature by McCarron Park, no signature by

1 Westreich individually and no signature by Yashar.

2 MR. KOOK: The order of November 20 requires  
3 stipulation signed by the designees to be so ordered  
4 by your Honor. And this is what this complies with,  
5 your Honor's order. And what it is is, the designee.  
6 Everybody else is a party, either plaintiff or  
7 defendant, and the subject to --

8 MR. MERMELSTEIN: If Mr. Kook is  
9 representing --

10 THE COURT: Let him finish.

11 MR. KOOK: They're all parties to the  
12 lawsuit and they're bound to the orders. because  
13 they're orders entered by your Honor.

14 The order which was approved without -- by  
15 Mr. Mermelstein on behalf of plaintiffs in the  
16 consolidated action says at that time stipulation  
17 signed by the designee to be so ordered by the Court.  
18 This is signed by the designee and your Honor is  
19 going to so order, your Honor, I hope.

20 MR. MERMELSTEIN: Judge, if Mr. Kook is  
21 ready to represent that they agree as their counsel  
22 to this stipulation, because he is representing them  
23 here, I don't have a problem with it.

24 THE COURT: That's what I understood him to  
25 do.

1 MR. MERMELSTEIN: I didn't hear him say it.

2 THE COURT: Is that correct, that you're  
3 representing your clients agree to be bound by the  
4 order --

5 MR. KOOK: Your Honor, whether my clients  
6 agree or not, they're bound by the order. The order  
7 of November 20 was upon my client --

8 THE COURT: I meant the new purchasing  
9 entity, that 544 Union Avenue LLC agrees to be bound  
10 by the terms of the order as I'm going to modify it.

11 MR. KOOK: I'm not sure we -- 544 union is  
12 agreeing to be bound by the order?

13 THE COURT: That's what I mean.

14 MR. KOOK: Yes.

15 THE COURT: Including my modification.

16 MR. KOOK: Including Mr. Westreich, who  
17 signed it. And Mr. Yashar has nothing to do with  
18 anything.

19 THE COURT: And including that paragraph  
20 one -- that they'll be bound by paragraph one as  
21 well.

22 MR. KOOK: Yes, they are bound.

23 MR. MERMELSTEIN: Now, I just need him to  
24 just agree that as the attorney representing the  
25 plaintiffs and the defendant Westreich and Yashar

1 individually, they also agree to this.

2 THE COURT: They're already bound by it.  
3 He's correct this is about binding the new party  
4 who's buying it.

5 MR. KOOK: As your Honor said, we have  
6 remedies and maybe we'll pursue them. As of now, the  
7 order is in effect.

8 THE COURT: I'm going to modify the order to  
9 the extent, and I guess you can get a copy of it, to  
10 allowing 554 Union Owner LLC to the entity that is  
11 purchasing the property on the 14th. The  
12 modification is based explicitly on their consent to  
13 be bound by the orders in paragraphs one, two and  
14 three.

15 MR. KOOK: Thank you, Judge.

16 THE COURT: If you need to get a copy of  
17 that.

18 MR. MERMELSTEIN: Judge it's a very short  
19 order that you rendered, can we say based upon  
20 stipulations rendered by counsel, could we write up a  
21 short form order?

22 THE COURT: We have the transcript.

23 MR. MERMELSTEIN: You'll sign a short form  
24 order stating, according to the transcript?

25 THE COURT: The transcript's certified.

s it.

MR. MERMELSTEIN: The transcript is deemed

order itself because it was done in court?

The Court will so order the transcript?

THE COURT: Right.

MR. KOOK: Thanks, Judge.

\* \* \*

The foregoing is certified to be a true and correct transcript of the proceedings, as taken by:

*[Handwritten signature]*

Official Court Reporter

No 546608

STATE OF NEW YORK  
COUNTY OF KING'S  
LENA V. STASHINE  
COUNTY CLERK A CLERK  
OF THE SUPREME COURT  
KING'S COUNTY, IN  
HEREIN CERTIFY ON

12/19/2006

THAT I HAVE COMPARED THIS  
COPY WITH THE ORIGINAL  
FILED IN NY 060113

12-19-06

AND THAT THE SAME IS A  
CORRECT TRANSCRIPT  
TO BE FILED AND OF THE

WITNESSED BY ME  
ON THIS DAY

IN WITNESS WHEREOF I  
HAVE HEREUNTO SET  
MY  
HAND AND AFFIXED MY  
OFFICIAL SEAL

*[Signature]*

COUNTY CLERK AND CLERK OF THE  
ENCLAVE COUNTY AND COUNTY  
PARTICLE SIGNATURE DESKED  
PERSONAL TO SKR 06  
COUNTY LAW

*So ordered*

*[Handwritten signature]*

HON. WAYNE P. SAIITA  
J.S.C.

*Enter forthwith*

*[Handwritten signature]*

12-19-06

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

----- X  
THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,  
  
Plaintiffs,  
  
-against-  
  
STEVE HASENFELD,  
COBY GROUP UNION AVENUE, LLC,  
THE COBY GROUP, LLC (New York)  
and "JOHN DOE Nos. 1 through 10",  
  
Defendants.  
----- X

Index No.: 36186/2005

**ORDER**

COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD.  
  
Plaintiffs and Counterclaim Defendants.  
  
-against-  
  
LESLIE WESTREICH, MORTY J. YASHAR,  
McCARRON PARK CONDOMINIUMS LLC,  
(a New York entity), THE COBY GROUP, LLC,  
(a Delaware entity),  
  
Defendants and Counterclaim Plaintiffs.  
----- X

Index No. 36200/2005

Upon plaintiff's Motion for Reargument, and upon all the papers submitted thereon, the Order, dated August 11, 2006, is hereby amended as follows:

1. Plaintiffs remain enjoined from selling, transferring, or assigning the Contract of Sale (the "Contract") for 544 Union Avenue, Brooklyn, New York (the "Property"),

provided that plaintiffs can seek a determination from the Court, upon an Order to Show Cause, in the event plaintiffs seek to sell, transfer or assign the Contract.

2. Either of the plaintiffs, or an entity that is <sup>owned or</sup> controlled either by plaintiffs or <sup>which is scheduled for</sup> their principals (the "Designee"), may close on the Contract and acquire title to the Property, <sup>December 14, 2006</sup>

provided, however, that the party acquiring title must agree and stipulate to be bound by this

Order, specifically Paragraph 3 which requires delivery into escrow of 30 percent of the net

proceeds of any subsequent sale or transfer of the Property, which stipulation must ~~then~~ be

presented to the Court to be So Ordered <sup>on December 11, 2006 at 9:30 a.m.</sup>

3. The preliminary injunction prohibiting plaintiffs (or the Designee as

provided in Paragraph 2 above) from selling or transferring the Property after the Property is

purchased under the Contract is vacated. In the event plaintiffs (or the Designee), after acquiring

title, thereafter sell or transfer the Property, or any building, development or project developed

~~plaintiff shall give defendant's attorney <sup>15 days</sup> notice of the sale and the amount of net proceeds of such sale, and~~ on the Property, then 30 percent of the net proceeds from any such sale, development or project <sup>submit</sup>

shall be delivered into an escrow account to be maintained by plaintiffs' attorney, the law firm of

Vandenberg & Feliu, LLP, and not released except upon further Order of the Court. <sup>Notice to</sup>

~~defendant's attorney shall be by fax.~~

4. Defendants are preliminary enjoined from interfering in the management,

control, development and sale of the Property, the entity that closes on the Contract, or in any

other manner interfering with the management, sale and development of the Property.

Dated: November 20, 2006

So Ordered  
ENTER 

J.S.C.

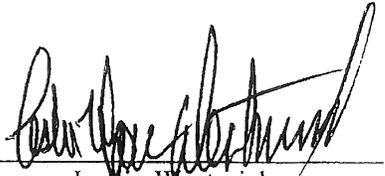
HON. WAYNE P. SAITTA  
J.S.C.

B



4. Westreich is the president and sole officer of 544 Union. 544 Union has a single member and Westreich controls and indirectly owns a majority of that member and is the sole party who is authorized to act on behalf of that member.

5. 544 Union hereby agrees, upon acquiring title to the Property, to be bound by the escrow provisions in Paragraphs 2 and 3 of the Order of this Court, dated November 20, 2006, until such further court order.

  
\_\_\_\_\_  
Leslie Westreich  
President, 544 Union LLC

At an IAS Term Part 29 of the Supreme Court of the State of New York, County of Kings at the Courthouse located at 360 Adams Street Brooklyn New York, on the 11<sup>th</sup> day of August 2006

PRESENT:

Hon. Wayne P. Saitta, Justice

-----X

THE COBY GROUP LLC and  
MCCARRON PARK CONDOMINIUMS LLC.

Action #1  
Index No. 36186/05

Plaintiffs.

DECISION AND ORDER

-against-

STEVE HASENFELD, COBY GROUP  
UNION AVENUE LLC., THE COBY  
GROUP LLC, (NEW YORK) and  
"JOHN DOE Nos. 1 through 10"

Defendants.

-----X

COBY GROUP (UNION AVENUE) LLC,  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD.

Action #2

Index No. 36200-05

Plaintiffs.

-against-

LESLIE WESTREICH, MORTY YASHAR,  
MCCARRON PARK CONOMINIUMS LLC,  
(a New York entity), THE COBY GROUP LLC,  
(a Delaware entity).

Defendants.

-----X

" P "

Plaintiffs in action #1 move for preliminary relief enjoining defendant Steve Hasenfeld from interfering with their purchase of a building located at 544 Union Avenue, in Brooklyn, from using the names "Coby" or "Coby Group", and from using the domain name "cobygroup.com", and directing Defendant to dissolve two LLCs he filed with the State of New York using the "Coby" name, and directing Hasenfeld to return the "cobygroup.com" domain name, as well as various records, files, and e-mails.

Hasenfeld cross-moves to dismiss the underlying action on the ground that Plaintiffs had not complied with the requirements of establishing a limited liability company, at the time the action was commenced, and alternatively for a preliminary injunction enjoining Plaintiffs and Leslie Westreich and Morty Yashar, from using the names "Coby Group (Union Avenue) LLC" and "Coby Group LLC (New York)", from using the "cobygroup.com" domain name, and from transferring the contract of sale for 544 Union Avenue or transferring the property 544 Union Avenue without leave of the court.

Plaintiffs originally moved by Order to Show Cause, returnable January 6, 2006, and then moved for much of the same relief by a second Order to Show Cause, returnable April 11, 2006. On April 11<sup>th</sup> Plaintiffs stipulated to withdraw the earlier Order to Show Cause except as to that relief which was also requested in the second Order to Show Cause. On that date, the parties also agreed to consolidate the two above captioned actions.

Now upon reading the Order to Show Cause returnable January 6, 2006, the Verified Amended Complaint, dated December 16, 2005, the Affirmation of Corey Kupter, Esq., dated December 16, 2005, the Affirmation Mark R. Kook, Esq., dated December 16, 2005, and the exhibits annexed thereto; the Notice of Cross-Motion, dated February 7, 2006, the Affidavit of Steve

Hasenfeld, dated January 16, 2006, and the exhibits annexed thereto; the Reply Affidavit of Josh Yashar, dated January 19, 2006, and the exhibits annexed thereto; the Affirmation in Opposition of Mark R. Kook Esq, dated February 10, 2006, and the exhibits annexed thereto; the Reply Affidavit of Steve Hasenfeld, dated February 12, 2006, and the exhibits annexed thereto; the Supplemental Affirmation of Mark R. Kook, dated April 10, 2006, and the exhibits annexed thereto; the Order to Show Cause returnable April 11, 2006, the Affirmation of Mark R. Kook, Esq., dated April 3, 2006, and the exhibits annexed thereto; the Notice of Cross-Motion, dated June 5, 2006, the Affirmation of Sol Mermelstein, Esq., dated May 29, 2006, the Affidavit of Steve Hasenfeld, dated May 29, 2006, and the exhibits annexed thereto; the Affidavit of Leslie Westreich, dated June 22, 2006, and the exhibits annexed thereto; Plaintiff's Memorandum, dated June 26, 2006; the Reply Affirmation of Steve Hasenfeld, dated July 26, 2006, and the exhibits annexed thereto; and upon all proceedings heretofore had herein, and after hearing oral argument by counsel and after due deliberation thereon, the motions and cross motions are partially granted to the extent indicated below.

The underlying consolidated actions involve a contested business relationship between Steve Hasenfeld, on the one hand, and Leslie Westreich and Morty Yashar, who are members of Coby Group LLC, a Delaware limited liability company, on the other. Westreich and Yashar allege that Hasenfeld was merely an unpaid intern who has converted their trade name, their web site, and a contract to purchase 544 Union Avenue, for his own benefit. Hasenfeld contends that he entered into a joint venture with Westreich and Yashar to purchase and develop real property, that he entered into a contract to purchase 544 Union Avenue on behalf of the joint venture, and that Westreich and Yashar are trying to deprive him of his interests in the companies he created and in the contract to purchase 544 Union Avenue.

The nature of the relationship between the parties is contested and unfortunately there are no written agreements or other documents specifying the nature of the relationship or the various rights and interests of the parties.

Hasenfeld began his relationship with Westreich and Yashar sometime in December of 2004. Both sides agree Hasenfeld set up a computer system and web site under the name Coby Group. The relationship between Hasenfeld, and Westreich and Yashar ended in June of 2005.

***Contract to Purchase 544 Union Avenue***

A contract, dated February 9, 2005, to purchase 544 Union Avenue, was entered into by Beach-Russ Co., the owner of the site, and Coby Group (Union Avenue) LLC. The contract originally listed "Coby Group LLC a New York limited liability company" as purchaser. No such LLC existed at the time the contract was executed. The contract was later amended to change the purchaser to "Coby Group (Union Avenue) LLC", which also was not then in existence, but which the buyers intended to form to purchase the building.

Leslie Westreich signed the contract on behalf of Coby Group (Union Avenue) LLC. A check for \$400,000 as a down payment, signed by Yashar, was sent to the seller. An additional \$200,000 was wired to the seller by Westreich and Yashar.

Hasenfeld claims he located the property and negotiated the sales price. He further claims that his agreement with Westreich and Yashar was that they would provide the financing for the purchase and receive 80% interest in the entity that bought the building and Hasenfeld would receive 20%. Westreich and Yashar claim that Hasenfeld had no role in locating the property or negotiating the contract, but simply performed administrative tasks, at their direction, in connection with the contract.

Hasenfeld filed Articles of Organization for Coby Group (Union Avenue) LLC on August 17, 2005, which were accepted by the Secretary of State of the State of New York. Westreich and Yashar attempted to do so on the same date but were denied, as the name had been assigned to Hasenfeld first. Westreich and Yashar then amended their application to change the name of their LLC to McCarron Park Condominiums LLC.

Westreich and Yashar seek to enjoin Hasenfeld from interfering with the sale of the building to "McCarron Park Condominiums LLC" in lieu of "Coby Group (Union Avenue) LLC". Hasenfeld states that he has no objection to the sale going forward as long as his interest in the contract, which he claims to be 20%, is protected.

Unfortunately, there is nothing in writing between the parties indicating what their interests in the contract are. At this point, all that is clear is that the contract was made in the name of an LLC subsequently organized by Hasenfeld, but was signed by Westreich, and the down payment check was signed by Yashar.

Further complicating matters is the fact that it is unclear whether the contract will ever be closed. The seller has declared McCarron Park Condominiums LLC to be in default, and has cancelled the contract. Plaintiffs have brought an action against the seller for specific performance which is currently pending. If the cancellation of the contract is upheld then the dispute over the contract, between the parties herein, will be moot.

Under these circumstances, preliminary relief is warranted so as not to prevent the sale from going forward, and to allow dispute between the parties herein to be resolved after the sale. The Court will enter a preliminary injunction barring Hasenfeld from interfering with the sale of 544 Union Avenue to McCarron Park Condominiums LLC, and also barring the named plaintiffs in

action #1, and Westreich and Yashar, from selling or transferring either the contract of sale for 544 Union Avenue, or in the event they close on 544 Union Avenue, either in the name of Coby Group (Union Avenue) LLC, or McCarron Park Condominiums LLC, from selling or transferring the building, without permission of the court.

This injunction is the least restrictive remedy which will preserve the status quo, and prevent the res of the dispute from disappearing during the pendency of this action. The injunction protects Hasenfeld's claim while allowing Westreich and Yashar to consummate the sale and proceed with their plans to develop condominiums. Further, in the event that the sale does close, the injunction can be modified to conform to what is necessary and equitable at the time Westreich and Yashar seek to sell the property.

#### *The Coby Names and Website*

Westreich and Yashar also seek to enjoin Hasenfeld from using the names "Coby Group", "Coby Group LLC (New York)", and "Coby Group (Union Avenue) LLC" and from using the cobygroup.com domain name as a website or e-mail address. Hasenfeld in turn seeks to enjoin Westreich and Yashar from representing themselves as "Coby Group (Union Avenue) LLC" or "Coby Group LLC (New York)" and from using the cobygroup.com domain name as a website or e-mail address.

Westreich and Yashar annex to their papers, an e-mail from Hasenfeld dated June 17, 2005 in which he states that he is no longer affiliated with "the Coby Group". Hasenfeld the authenticity of the e-mail. Hasenfeld also concedes that the only purposes for which he uses the names "Coby Group (Union Avenue) LLC" and "Coby Group LLC (New York)", is in connection with the contract to purchase 544 Union Avenue. Since Hasenfeld has agreed to allow Westreich and Yashar

to go forward with the sale, using McCarron Park Condominiums LLC as an assignee, and his interest in the contract is protected by the injunction against transfer without leave of the court, he will suffer no hardship from being enjoined from doing business under the two Coby companies he formed. Therefore the Court will grant a preliminary injunction barring Hasenfeld from using the Coby Group name or doing business as either "Coby", "Coby Group", "Coby Group LLC (New York)", or "Coby Group (Union Avenue) LLC" during the pendency of these actions.

Since at this point the sale of 544 Union Avenue may close under the name of "McCarron Park Condominiums LLC", "Coby Group LLC (New York)", or "Coby Group (Union Avenue) LLC", the court will not enjoin Westreich or Yashar from doing business under those names. The Court makes no determination at this time as to which of the parties have rights to those entities, but simply declines to enjoin Westreich and Yashar from conducting business under those names at this time.

It is not contested that Hasenfeld purchased the domain name "cobygroup.com" in January, 2005, shortly after beginning his relationship with Coby. What is contested is whether he did so in furtherance of a joint venture with Westreich and Yashar, or on their behalf, as their intern or agent. This is a question of fact that will ultimately have to be settled at trial. In light of the facts and circumstances set forth above, the Court will issue a preliminary injunction prohibiting all parties from using the "cobygroup.com" domain name for a web site or for e-mail during the pendency of these actions. The injunction shall not however, prohibit Westreich or Yashar from registering or using a different domain name which includes the name Coby or Coby Group. The Court also grants a preliminary injunction prohibiting Hasenfeld from deleting or destroying any e-mails or responses sent to or from the cobycgroup.com e-mail address, currently in his possession.

Lastly movants seek an order mandating Hasenfeld to dissolve Coby Group LLC (New York), and Coby Group (Union Avenue) LLC. Westreich and Yashar have failed to demonstrate that they will suffer irreparable harm without such injunctive relief, or that it is otherwise necessary at this time.

### ***CROSS MOTION TO DISMISS***

Hasenfeld has cross moved to dismiss action #1 on the grounds that at the time it was commenced the Coby Group, a Delaware LLC, and McCarron Park Condominiums LLC did not have legal capacity to maintain the action, and also that Westreich and Yashar are necessary parties.

Hasenfeld contends that Coby Group, a Delaware LLC, is prohibited from maintaining this action because it did not file for authority to do business in New York. He also contends that McCarron Park Condominiums LLC, a New York LLC, is prohibited from maintaining this action because it did not publish its application for authority to do business, or file applications of publication. While the publications were not complete at the time action #1 was commenced, the required filings and publication were completed by March of 2006. Like corporations, limited liability companies may maintain an action once they have complied with the filing and publication requirements, even if they were not in compliance at the time that action was commenced. *Mentor Credit Corp. v Eisenberg*, 204 AD2d 284, 614 NYS2d 156 (2<sup>nd</sup> Dept. 1994); *Acquisition America V LLC v Lamadore*, 5 Misc3d 461, 784 NYS2d 329 (NY Civ Ct., 2004).

Therefore, Hasenfeld's cross-motion to dismiss for failure to comply with the publication requirements of the Limited Liability Company Law is denied. As action #2 in which Westreich and Yashar are defendants, has been consolidated with action #1, the cross motion to dismiss action #1 for failure to name Westreich and Yashar as parties is denied as moot.

WHEREFORE, the Court enjoins Steve Hasenfeld, during the pendency of these actions, from interfering with the sale of 544 Union Avenue; from using the Coby Group name or doing business as, Coby, Coby Group, Coby Group LLC (New York), or Coby Group (Union Avenue) LLC; from using the "cobysgroup.com" domain name, for a web site or for e-mail; and from deleting or destroying any e-mails or responses sent to or from the cobysgroup e-mail address currently in his possession. The Court further enjoins the Coby Group (the Delaware LLC), McCarron Park Condominiums LLC, Leslie Westreich and Morty Yashar, during the pendency of these actions, from selling or transferring either the contract of sale for 544 Union Avenue, or in the event they close on 544 Union Avenue, from selling or transferring the building, without prior permission of the court; and from using the "cobysgroup.com" domain name, for a web site or for e-mail. This constitutes the decision and order of the Court.

ENTER

JSC

**HON. WAYNE P. SAITTA**  
J.S.C.

No 546769

STATE OF NEW YORK  
COUNTY OF KINGS  
NANCY J. SUNSHINE  
COUNTY CLERK & CLERK  
OF THE SUPREME COURT  
KINGS COUNTY, NY  
HEREBY CERTIFY ON

12/20/2006

HAVE COMPARED THIS  
COPY WITH THE ORIGINAL  
PLEADINGS ON FILE

12/20/06  
STATE OF NEW YORK  
COUNTY OF KINGS  
DOUGLAS M. GARDNER  
CLERK

WITNESS MY HAND  
AND SEAL  
THIS 20TH DAY OF  
DECEMBER 2006  
AT KINGS COUNTY, NY

2006-12-20 10:11 AM  
FILED  
STATE OF NEW YORK  
COUNTY OF KINGS  
DOUGLAS M. GARDNER  
CLERK

**SCHEDULE A**

**As to Block: 2736, Lot 1:**

ALL that certain plot, piece or parcel of land, with situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Union Avenue, two hundred (200) feet to the northerly side of Withers Street; thence easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman; thence northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof; thence northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and thence westerly along the southerly side of Frost Street, one hundred (100) feet to the point or place of BEGINNING.

**As to Block 2736, Lot 9:**

ALL that certain lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

Beginning at a point on the southerly side of Frost Street, distant one hundred feet easterly from the corner formed by the intersection of the southerly side of Frost Street with the easterly side of Union Avenue; running thence easterly along the southerly side of Frost Street one hundred five feet; thence southerly parallel with Union Avenue, One hundred twelve feet, more or less, to land now or formerly of John Skillman; thence southwesterly along land now or formerly of John Skillman to a point, distant one hundred feet easterly from the easterly side of Union Avenue measured on a line parallel with Frost Street; thence Northerly parallel with Union Avenue One hundred sixty-nine feet more or less to the southerly side of Frost Street at the pint or place f beginning.

*For conveyance only,  
if intended to be conveyed.*

Together with all right, title and interest of, in and to any streets and roads abutting the above described premises, to the center line thereof.

Issued by:

**CB Title Agency of N.Y., LLC**  
140 Mountain Avenue Suite 101, Springfield, NJ 07081  
Telephone: (973) 921-0990 Fax: (973) 921-0902



**As to Block: 2736, Lot: 48:**

ALL that certain lot, piece or parcel of land, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

PARCEL A:

BEGINNING at a point on the northerly side of Withers Street, distant westerly 425 feet from the northwesterly corner of Lorimer and Withers Streets and running thence northerly parallel with Lorimer Street 41 feet 6 inches to land now or formerly of David Meserole; thence southwesterly along side land of David Meserole 28 feet 2 inches; thence southerly and parallel with Lorimer Street 28 feet 3 inches to Withers Street; thence easterly along the northerly side of Withers Street 25 feet to the point or place of beginning.

PARCEL B:

BEGINNING at a point on the northerly side of Withers Street, distant 450 feet westerly from the corner formed by the intersection of the northerly side of Withers Street, with the westerly side of Lorimer Street, running thence northerly parallel with Lorimer Street, 31 feet, to the southeasterly side of land now or formerly of David Meserole, running thence southwesterly along said southeasterly side of land now or formerly of David Meserole, 66 feet 6 inches to the northerly side of Withers Street, aforesaid, running thence easterly along the said northerly side of Withers Street, 58 feet 6 inches to the point or place of BEGINNING.

**As to Block: 2741, Lot: 8:**

ALL that certain plot, piece or parcel of land situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, known and designated on the Tax Map of the City of New York for the Borough of Brooklyn, as Lot 8 in Block 2741 of Section 9, as said map was on May 22, 1962.

*For conveyance only,  
if intended to be conveyed.*

Together with all right, title and interest of, in and to any streets and roads abutting the above described premises, to the center line thereof.

Issued by:

**CB Title Agency of N.Y., LLC**  
140 Mountain Avenue Suite 101, Springfield, NJ 07081  
Telephone: (973) 921-0990 Fax: (973) 921-0902

11 E

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

-----X

THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,

Action No. 1

Plaintiffs,

Index No. 36186/05

-and-

AFFIRMATION OF SERVICE  
BY REGULAR MAIL

STEVE HASENFELD, COBY GROUP  
UNION AVENUE, LLC, THE COBY  
GROUP, LLC (New York) and  
"JOHN DOE Nos. 1 through 10",

Defendants.

-----X

COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD,

Action No. 2

Index No. 36200/05

Plaintiffs,

-against-

LESLIE WESTREICH,  
MORTY J. YASHAR,  
MCCARRON PARK CONDOMINIUMS LLC,  
(a New York entity),  
THE COBY GROUP, LLC,  
(a Delaware entity),

Defendants.

-----X

SOL MERMELSTEIN, an attorney duly admitted to practice law in the Courts  
of the State of New York, hereby affirms the following pursuant to CPLR 2106:

I am the attorney for the Defendants in Action No. 1 and the Plaintiffs in Action  
No. 2.

On December 19, 2006, I served a true copy of the within:

NOTICE OF ENTRY OF COURT ORDERS REQUIRING, INTER ALIA, PLAINTIFFS'  
DESIGNEE -544 UNION OWNER LLC - TO DELIVER 30% OF THE NET PROCEEDS OF  
ANY SALE OR TRANSFER OF THE PROPERTY DEVELOPMENT, BUILDING OR  
PROJECT BEING DEVELOPED INTO AN ESCROW ACCOUNT MAINTAINED BY  
PLAINTIFFS' COUNSEL

upon:

Vandenberg & Feliu, LLP  
110 East 42nd Street - Suite 1502  
New York, New York 10017

Attorney for the Plaintiffs in Action No. 1  
and the Defendants in Action No. 2

in an envelope, by regular mail, by depositing a true copy of each thereof in a post-paid properly addressed wrapper, in a post-office official depository under the exclusive care and custody of the United States Postal Service within the State of New York.

Dated: December 19, 2006  
Brooklyn, New York

  
\_\_\_\_\_  
SOL MERMELSTEIN

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

-----X  
THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,

Plaintiffs,

-and-

STEVE HASENFELD, COBY GROUP  
UNION AVENUE, LLC, THE COBY  
GROUP, LLC (New York) and  
"JOHN DOE Nos. 1 through 10",  
Defendants.

-----X  
COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD,

Plaintiffs,

-against-

LESLIE WESTREICH,  
MORTY J. YASHAR,  
MCARRON PARK CONDOMINIUMS LLC,  
(a New York entity),  
THE COBY GROUP, LLC,  
(a Delaware entity),  
Defendants.

-----X

Action No. 1  
Index No. 36186/05

Action No. 2  
Index No. 36200/05

---

NOTICE OF ENTRY OF COURT ORDERS REQUIRING, INTER ALIA, PLAINTIFFS' DESIGNEE -  
544 UNION OWNER LLC - TO DELIVER 30% OF THE NET PROCEEDS OF ANY SALE OR  
TRANSFER OF THE PROPERTY DEVELOPMENT, BUILDING OR PROJECT BEING  
DEVELOPED INTO AN ESCROW ACCOUNT MAINTAINED BY PLAINTIFFS' COUNSEL

---

  
\_\_\_\_\_  
SOL MERMELSTEIN  
Attorney for Defendants in Action No. 1  
STEVE HASENFELD,  
COBY GROUP UNION AVENUE, LLC,  
COBY GROUP, LLC  
and the Plaintiffs in Action No. 2  
5521 New Utrecht Avenue  
Brooklyn, New York 11219  
(718) 436-8098

**New York City Department of Finance  
Office of the City Register**

**HELP**

[Click help for additional instructions]  
Selecting a help option will open new window

**Current Search Criteria:**

**Borough:** BROOKLYN / KINGS  
**Block:** 2736  
**Lot:** 9  
**Date Range:** To Current Date  
**Document Class:** All Document Classes

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Records 1 - 2 << previous next >> Max Rows 10 [Search Options] [New BBL Search] [Edit Current Search] [Print Index]

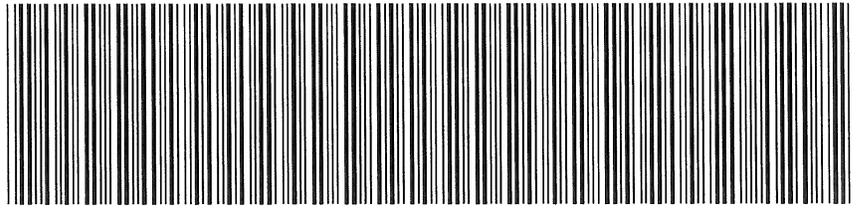
View	Reel/Pg/File	CRFN	Lot	Partial	Recorded / Filed	Document Type	Pages	Party1	Party2	Party 3/ Other	More Party 1/2 Names	Corrected/ Remarks	Doc Amount
<a href="#">DET</a> <a href="#">IMG</a>		2007000004547	9	ENTIRE LOT	1/3/2007 6:00:45 PM	COURT ORDER	38	THE COBY GROUP, LLC	COBY GROUP (UNION AVENUE) LLC		✓		0
<a href="#">DET</a> <a href="#">IMG</a>		2006000702320	9	ENTIRE LOT	12/26/2006 2:50:49 PM	DEED	8	BEACH-RUSS COMPANY	544 UNION OWNER LLC		✓		13,120,000

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**NYC DEPARTMENT OF FINANCE  
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This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2006122100447001001EA3D5

**RECORDING AND ENDORSEMENT COVER PAGE**

**PAGE 1 OF 8**

**Document ID: 2006122100447001** Document Date: 12-14-2006 Preparation Date: 12-21-2006  
Document Type: DEED  
Document Page Count: 6

<p><b>PRESENTER:</b> ROYAL ABSTRACT OF NEW YORK LLC AS AGENT FOR TITLE INSURANCE 500 5TH AVENUE- SUITE 1540 NEW YORK, NY 10110 212-376-0900 827371</p>	<p><b>RETURN TO:</b> STARK AMRON LINER LLP SEVEN PENN PLAZA SUITE 600 NEW YORK, NY 10001</p>
--	--

**PROPERTY DATA**

Borough	Block	Lot	Unit	Address
BROOKLYN	2736	1	Entire Lot	544 UNION AVENUE
<b>Property Type: COMMERCIAL REAL ESTATE</b>				
Borough	Block	Lot	Unit	Address
BROOKLYN	2736	9	Entire Lot	18 FROST STREET
<b>Property Type: COMMERCIAL REAL ESTATE</b>				

Additional Properties on Continuation Page

**CROSS REFERENCE DATA**

CRFN \_\_\_\_\_ or Document ID \_\_\_\_\_ or \_\_\_\_\_ Year \_\_\_\_\_ Reel \_\_\_\_\_ Page \_\_\_\_\_ or File Number \_\_\_\_\_

**PARTIES**

<p><b>GRANTOR/SELLER:</b> BEACH-RUSS COMPANY 544 UNION AVENUE BROOKLYN, NY 11211</p>	<p><b>GRANTEE/BUYER:</b> 544 UNION OWNER LLC 70 WEST 93RD STREET, SUITE 100 NEW YORK, NY 10025</p>
--	--

Additional Parties Listed on Continuation Page

**FEEES AND TAXES**

Mortgage			Filing Fee:	
Mortgage Amount:	\$	0.00	\$	165.00
Taxable Mortgage Amount:	\$	0.00	NYC Real Property Transfer Tax:	
Exemption:			\$	344,400.00
TAXES: County (Basic):	\$	0.00	NYS Real Estate Transfer Tax:	
City (Additional):	\$	0.00	\$	52,480.00
Spec (Additional):	\$	0.00		
TASF:	\$	0.00		
MTA:	\$	0.00		
NYCTA:	\$	0.00		
Additional MRT:	\$	0.00		
<b>TOTAL:</b>	<b>\$</b>	<b>0.00</b>		
Recording Fee:	\$	75.00		
Affidavit Fee:	\$	0.00		

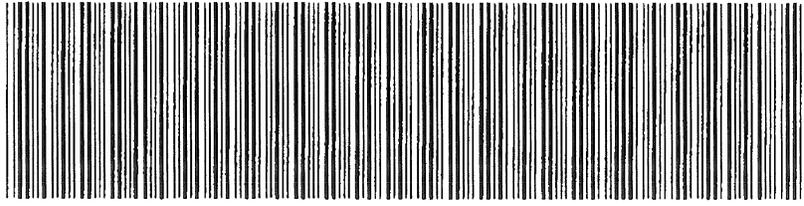


**RECORDED OR FILED IN THE OFFICE  
OF THE CITY REGISTER OF THE  
CITY OF NEW YORK**

Recorded/Filed 12-26-2006 14:50  
City Register File No.(CRFN):  
**2006000702320**

*Annette McHill*  
**City Register Official Signature**

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122100447001001CA155

**RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION) PAGE 2 OF 8**

Document ID: 2006122100447001  
Document Type: DEED

Document Date: 12-14-2006

Preparation Date: 12-21-2006

**PROPERTY DATA**

<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	48	Entire Lot	29 WITHERS STREET
<b>Property Type: COMMERCIAL REAL ESTATE</b>				
<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2741	8	Entire Lot	N/A UNION AVENUE
<b>Property Type: COMMERCIAL REAL ESTATE</b>				

**PARTIES**

**GRANTOR/SELLER:**  
ABBE ENGINEERING COMPANY  
544 UNION AVENUE  
BROOKLYN, NY 11211

THIS INDENTURE, made the 14th day of December , 2006

**BETWEEN**

**BEACH-RUSS COMPANY**, a New York Corporation, as owner of Block 2736, Lot 1 and Block 2741, Lot 8, and **ABBE ENGINEERING COMPANY**, a New York Corporation, as owner of Block 2736, Lots 9 and 48, with offices at 544 Union Avenue, Brooklyn, New York 11211

party of the first part, and

**544 UNION OWNER LLC**, a New York limited liability company with offices at 70 West 93<sup>rd</sup> Street, Suite 100, New York, New York 10025

party of the second part,

**WITNESSETH**, that the party of the first part, in consideration of \$10.00 dollars paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

**ALL** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the

Block:  
2736

Lots:  
1, 9 & 48

**SEE ATTACHED**

Block:  
2741

Lot:  
8

This transfer is being made in the regular course of business.

This conveyance has been made with the consent of the holders of at least two-thirds of the outstanding shares of the party of the first part entitled to vote thereon at a meeting duly called.

**TOGETHER** with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; **TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises; **TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

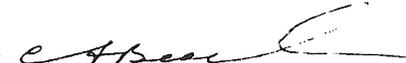
**AND** the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

**AND** the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

**IN WITNESS WHEREOF**, the party of the first part has duly executed this deed the day and year first above written

IN PRESENCE OF:

**BEACH-RUSS COMPANY**

By:   
**C. A. BEACH**

**ABBE ENGINEERING COMPANY**

By:   
**C. A. BEACH**

SCHEDULE A

Parcel A as to Block 2741 Lot 8

ALL THAT CERTAIN, plot, piece or parcel of land, with the building and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at a point formed by the intersection of the Southerly side of Withers Street with the easterly side of Union Avenue, and;

RUNNING THENCE southerly, along Union Avenue, twenty-five (25) feet;

THENCE easterly, parallel with Withers Street, One Hundred (100) feet;

THENCE northerly, parallel with Union Avenue, Twenty-Five (25) feet to the Withers Street and;

THENCE westerly, along Withers Street, One Hundred (100) feet to the point or place of BEGINNING.

For information only: Said premises are known as 544 Union Avenue a/k/a 16-24 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2741 Lot 8 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 2)

Parcel B as to Block 2736 Lot 1

ALL THAT CERTAIN plot, piece or parcel of land with the building and improvements thereon erected situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street;

RUNNING THENCE southerly along the easterly side of Union Avenue to the corner formed by the intersection of the easterly side of Union Avenue two hundred (200) feet and the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman;

THENCE northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof;

THENCE northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and

THENCE westerly along the southerly side of Frost Street, one hundred (100) feet to the corner formed by the intersection of the southerly side of Frost Street and the easterly side of Union Avenue to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 22-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 3)

Parcel B as to Block 2736 Lot 9

ALL THAT CERTAIN lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the southerly side of Frost Street, distant one hundred feet easterly from the corner formed by the intersection of the southerly side of Frost Street with the easterly side of Union Avenue;

RUNNING THENCE easterly along the southerly side of Frost Street one hundred five feet;

THENCE southerly parallel with Union Avenue, One hundred twelve feet, more or less to land now or formerly of John Skillman;

THENCE southwesterly along land now or formerly of John Skillman to a point, distant one hundred feet easterly from the easterly side of Union Avenue measured on a line parallel with Frost Street;

THENCE northerly parallel with Union Avenue One hundred sixty-nine feet more or less to the southerly side of Frost Street at the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 4)

Parcel B as to Block 2736 Lot 48

ALL THAT CERTAIN lot, piece or parcel of land together with the buildings and improvement therein erected, situate, lying and being in the Borough of Brooklyn County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the northerly side of Withers Street, distant 425 feet westerly from the northwesterly corner of Lorimer Street and Withers Street and;

RUNNING THENCE northerly parallel with Lorimer Street 41 feet 6 inches to land now or formerly of David Meserole;

THENCE southwesterly along said land of David Meserole 94 feet 8 inches to a point on the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street 83 feet 6 inches to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE IN NEW YORK STATE**

State of New York, County of Nassau ss:

State of New York, County of ss:

On the 14<sup>th</sup> day of **December** in the year **2006**  
before me, the undersigned, personally appeared

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_  
before me, the undersigned, personally appeared

**C. A. BEACH**

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

\_\_\_\_\_  
(signature and office of individual taking acknowledgment)

(signature and office of individual taking acknowledgment)

**NOTARY PUBLIC SIGNATURE**

CYNTHIA MARGARETEN  
Notary Public, State of New York  
No. 01MA4884255  
Qualified in Nassau County  
Commission Expires January 26, 2007

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE OUTSIDE NEW YORK STATE**

State (or District of Columbia, Territory, or Foreign Country) of \_\_\_\_\_ ss:

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_ before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before the undersigned in the

in \_\_\_\_\_  
(insert the City or other political subdivision)

(and insert the State or Country or other place the acknowledgment was taken)

\_\_\_\_\_  
(signature and office of individual taking acknowledgment)

**BARGAIN AND SALE DEED  
WITH COVENANT AGAINST GRANTOR'S ACTS**

SECTION  
BLOCK **2736 & 2741**  
LOT **1 & 9 48 & 8**  
COUNTY OR TOWN **KINGS**  
STREET ADDRESS **544 UNION AVENUE**

Title No.

**Beach-Russ Company &  
Abbe Engineering Company  
TO  
544 Union Owner LLC**

STANDARD FORM OF NEW YORK BOARD OF TITLE UNDERWRITERS

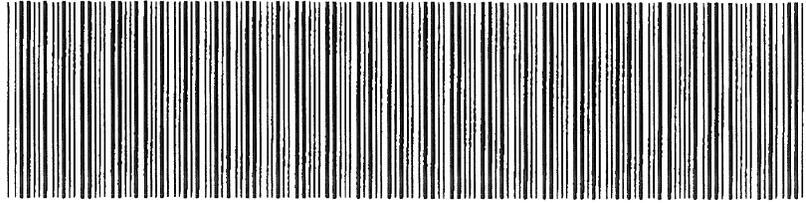
Royal Abstract of New York, LLC  
500 5th Avenue, Suite 1540  
New York, NY 10110

RETURN BY MAIL TO:

Stark, Amron, Liner LLP  
Seven Penn Plaza, Suite 600  
New York, New York 10001

RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122100447001001S6D54

**SUPPORTING DOCUMENT COVER PAGE**

**PAGE 1 OF 1**

Document ID: 2006122100447001

Document Date: 12-14-2006

Preparation Date: 12-21-2006

Document Type: DEED

**ASSOCIATED TAX FORM ID: 2006122100159**

**SUPPORTING DOCUMENTS SUBMITTED:**

Page Count

RP - 5217 REAL PROPERTY TRANSFER REPORT

3

FOR CITY USE ONLY

C1. County Code  C2. Date Deed Recorded  /  /   
 Month Day Year

C3. Book OR  C4. Page

C5. CRFN



**REAL PROPERTY TRANSFER REPORT**  
 STATE OF NEW YORK  
 STATE BOARD OF REAL PROPERTY SERVICES  
**RP - 5217NYC**  
 (Rev 11/2002)

**PROPERTY INFORMATION**

1. Property Location  544 UNION AVENUE BROOKLYN 11211  
 STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name  544 UNION OWNER LLC  
 LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address  Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
 LAST NAME / COMPANY FIRST NAME

4. Indicate the number of Assessment Roll parcels transferred on the deed  4 # of Parcels OR  Part of a Parcel

5. Deed Property Size  FRONT FEET X  DEPTH OR  ACRES

8. Seller Name  BEACH-RUSS COMPANY  
 LAST NAME / COMPANY FIRST NAME

ABBE ENGINEERING COMPANY  
 LAST NAME / COMPANY FIRST NAME

9. Check the box below which most accurately describes the use of the property at the time of sale:

A  One Family Residential C  Residential Vacant Land E  Commercial G  Entertainment / Amusement I  Industrial  
 B  2 or 3 Family Residential D  Non-Residential Vacant Land F  Apartment H  Community Service J  Public Service

**SALE INFORMATION**

10. Sale Contract Date  2 / 9 / 2005  
 Month Day Year

11. Date of Sale / Transfer  12 / 14 / 2006  
 Month Day Year

12. Full Sale Price \$  1,312,000.00  
 ( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations ) Please round to the nearest whole dollar amount.

13. Indicate the value of personal property included in the sale

14. Check one or more of these conditions as applicable to transfer:

A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale ( Specify Below )  
 F  Sale of Fractional or Less than Fee Interest ( Specify Below )  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price ( Specify Below )  
 J  None

**ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill**

15. Building Class  F 9 16. Total Assessed Value (of all parcels in transfer)

17. Borough, Block and Lot / Roll Identifier(s) ( If more than three, attach sheet with additional identifier(s) )

BROOKLYN 2736 1  BROOKLYN 2736 9  BROOKLYN 2736 48

**CERTIFICATION**

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

**BUYER**

BUYER SIGNATURE  DATE

STREET NUMBER  STREET NAME (AFTER SALE)

CITY OR TOWN  STATE  ZIP CODE

**BUYER'S ATTORNEY**

LAST NAME  FIRST NAME

AREA CODE  TELEPHONE NUMBER

**SELLER**

SELLER SIGNATURE  DATE

FOR CITY USE ONLY

C1. County Code  C2. Date Deed Recorded  /  /   
 C3. Book OR C4. Page    
 C5. CRFN



**REAL PROPERTY TRANSFER REPORT**  
 STATE OF NEW YORK  
 STATE BOARD OF REAL PROPERTY SERVICES  
**RP - 5217NYC**

(Rev 11/2002)

**PROPERTY INFORMATION**

1. Property Location: 544 UNION AVENUE BROOKLYN 11211  
STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name: 544 UNION OWNER LLC  
LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address: Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
LAST NAME / COMPANY FIRST NAME

4. Indicate the number of Assessment Roll parcels transferred on the deed: 4 # of Parcels OR  Part of a Parcel

5. Deed Property Size:  X  OR  ACRES  
FRONT FEET DEPTH

6. Seller Name: BEACH-RUSS COMPANY  
LAST NAME / COMPANY FIRST NAME

7. Seller Name: ABBE ENGINEERING COMPANY  
LAST NAME / COMPANY FIRST NAME

4A. Planning Board Approval - N/A for NYC  
 4B. Agricultural District Notice - N/A for NYC

Check the boxes below as they apply:  
 6. Ownership Type is Condominium   
 7. New Construction on Vacant Land

9. Check the box below which most accurately describes the use of the property at the time of sale:

A  One Family Residential C  Residential Vacant Land E  Commercial G  Entertainment / Amusement I  Industrial  
 B  2 or 3 Family Residential D  Non-Residential Vacant Land F  Apartment H  Community Service J  Public Service

**SALE INFORMATION**

10. Sale Contract Date: 2 / 9 / 2005  
Month Day Year

11. Date of Sale / Transfer: 12 / 14 / 2006  
Month Day Year

12. Full Sale Price \$: 1,312,000.00  
( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) Please round to the nearest whole dollar amount.

13. Indicate the value of personal property included in the sale:

14. Check one or more of these conditions as applicable to transfer:

A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale (Specify Below)  
 F  Sale of Fractional or Less than Fee Interest (Specify Below)  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price (Specify Below)  
 J  None

**ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill**

15. Building Class: F 9 16. Total Assessed Value (of all parcels in transfer): 5,608,800  
Month Day Year

17. Borough, Block and Lot / Roll Identifier(s) (If more than three, attach sheet with additional identifier(s))  
 BROOKLYN 2736 1 BROOKLYN 2736 9 BROOKLYN 2736 48

**CERTIFICATION**

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER  
 BUYER SIGNATURE: *[Signature]* DATE: 12/14/2006  
 70 WEST 93rd STREET  
STREET NUMBER STREET NAME (AFTER SALE)  
 NEW YORK N.Y. 10025  
CITY OR TOWN STATE ZIP CODE

BUYER'S ATTORNEY  
 BUYER'S ATTORNEY SIGNATURE: LINER FIRST NAME: ROBERT  
 LAST NAME: FIRST NAME  
 212 354-0600  
AREA CODE TELEPHONE NUMBER -  
 SELLER  
 SELLER SIGNATURE: *[Signature]* DATE: 12/14/06  
SELLER SIGNATURE DATE



The City of New York  
Department of Environmental Protection  
Bureau of Customer Services  
59-17 Junction Boulevard  
Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
Block: **2736** Lot: **1**
- (2) Account Number (if applicable):  
Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
Street **544 UNION AVENUE** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
(please provide information on owner ONLY; do NOT give information on property manager or tenant):  
Owner's Name **Business: 544 UNION OWNER LLC**  
or Individual:  
(Last Name) (First Name) (MI)  
Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:
- (9) Name of Owner:
- (10) Signature: \_\_\_\_\_  
Name and Title of Person Signing for Owner, if applicable:  
Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **9**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:
- (9) Name of Owner:
- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
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 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
 (9) Name of Owner:

- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2741** Lot: **8**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
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Name of Party to Receive Duplicate Copies of Bills:

- (6) Mailing Address: Street City State Zip

- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
 (9) Name of Owner:

- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

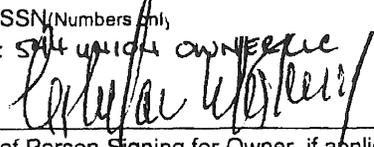
**PLEASE NOTE:**

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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **824 Ste. 307**
- (6) Mailing Address: Street **190 North 10th St, Ste 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN (Numbers only): E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12/14/2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **9**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

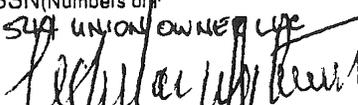
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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 St. 307**
- (6) Mailing Address: Street **190 West 10th St, Ste 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers only) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **1**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **544 UNION AVENUE** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  

	(Last Name)	(First Name)	(MI)
Street <b>70 WEST 93RD STREET SUITE 100</b>		City <b>NEW YORK</b>	State <b>NY</b> Zip <b>10025</b>
Home Phone(Numbers only):	Business Phone(Numbers only):		

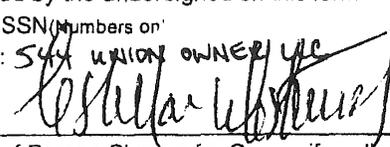
**Customer Billing Information:**

**PLEASE NOTE:**

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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 St. 307**
- (6) Mailing Address: Street **190 N 10th St, St. 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN (numbers only):
- (9) Name of Owner: **544 UNION OWNER LLC** E-mail:
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager of 544 UNION OWNER LLC**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2741** Lot: **8**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  

	(Last Name)	(First Name)	(MI)
Street <b>70 WEST 93RD STREET SUITE 100</b>		City <b>NEW YORK</b>	State <b>NY</b> Zip <b>10025</b>

 Home Phone(Numbers only): Business Phone(Numbers only):

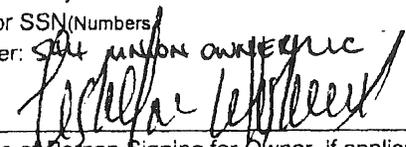
**Customer Billing Information:**

**PLEASE NOTE:**

- A.** Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B.** Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C.** Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 Ste 307**
- (6) Mailing Address: Street **190 North 10<sup>th</sup> St., Suite 307 Brooklyn** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

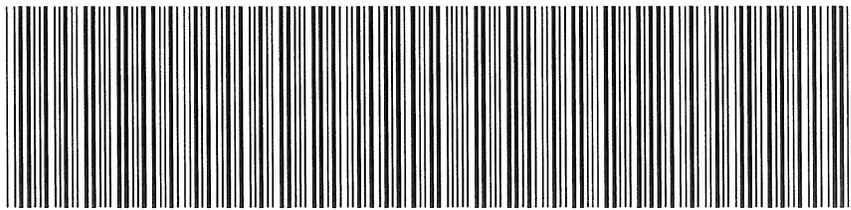
**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**

**NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2006122001953001004E174D

**RECORDING AND ENDORSEMENT COVER PAGE**

**PAGE 1 OF 38**

**Document ID: 2006122001953001** Document Date: 12-11-2006 Preparation Date: 01-03-2007  
Document Type: COURT ORDER  
Document Page Count: 36

<p><b>PRESENTER:</b> HOME ABSTRACT CORP. HAC06-04-1443 AS AGENT FOR FIRST AMERICAN TITLE INSURANCE CO. 147 REMSEN STREET BROOKLYN, NY 11201 718-875-7100</p>	<p><b>RETURN TO:</b> SOL MERMELSTEIN, ESQ. 5521 NEW UTRECHT AVENUE BROOKLYN, NY 11219</p>
--	---

**PROPERTY DATA**

<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	1	Entire Lot	544 UNION AVENUE
<b>Property Type: INDUSTRIAL BUILDING</b>				
<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	9	Entire Lot	18 FROST STREET
<b>Property Type: INDUSTRIAL BUILDING</b>				

x Additional Properties on Continuation Page

**CROSS REFERENCE DATA**

CRFN \_\_\_\_\_ or Document ID \_\_\_\_\_ or \_\_\_\_\_ Year \_\_\_\_\_ Reel \_\_\_\_\_ Page \_\_\_\_\_ or File Number \_\_\_\_\_

**PARTIES**

<p><b>PARTY 1/GRANTOR:</b> THE COBY GROUP, LLC 5521 NEW UTRECHT AVENUE BROOKLYN, NY 11219</p>	<p><b>PARTY 2/GRANTEE:</b> COBY GROUP (UNION AVENUE) LLC 5521 NEW UTRECHT AVENUE BROOKLYN, NY 11219</p>
---	---

x Additional Parties Listed on Continuation Page

**FEES AND TAXES**

<b>Mortgage</b>		<b>Filing Fee:</b>	
Mortgage Amount:	\$ 0.00		\$ 0.00
Taxable Mortgage Amount:	\$ 0.00	NYC Real Property Transfer Tax:	
Exemption:			\$ 0.00
<b>TAXES: County (Basic):</b>	\$ 0.00	NYS Real Estate Transfer Tax:	
City (Additional):	\$ 0.00		\$ 0.00
Spec (Additional):	\$ 0.00		
TASF:	\$ 0.00		
MTA:	\$ 0.00		
NYCTA:	\$ 0.00		
Additional MRT:	\$ 0.00		
<b>TOTAL:</b>	\$ 0.00		
Recording Fee:	\$ 225.00		
Affidavit Fee:	\$ 0.00		

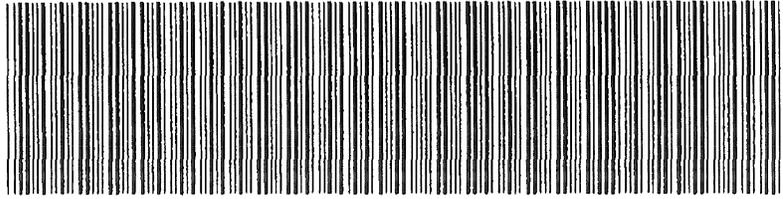
**RECORDED OR FILED IN THE OFFICE  
OF THE CITY REGISTER OF THE  
CITY OF NEW YORK**

Recorded/Filed 01-03-2007 18:00  
City Register File No.(CRFN):  
**2007000004547**



*Annette McHill*  
**City Register Official Signature**

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122001953001004C15CD

**RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION) PAGE 2 OF 38**

Document ID: 2006122001953001

Document Date: 12-11-2006

Preparation Date: 01-03-2007

Document Type: COURT ORDER

**PROPERTY DATA**

Borough	Block	Lot	Unit	Address
BROOKLYN	2736	48	Entire Lot	29 WITHERS STREET

Property Type: INDUSTRIAL BUILDING

Borough	Block	Lot	Unit	Address
BROOKLYN	2741	8	Entire Lot	N/A UNION AVENUE

Property Type: OTHER

**PARTIES**

**PARTY 1/GRANTOR:**  
MCCARRON PARK CONDOMINIUMS, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**  
STEVE HASENFELD  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**  
COBY GROUP UNION AVENUE, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**  
JOHN DOE  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 1/GRANTOR:**  
THE COBY GROUP, LLC (NEW YORK)  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTIES**

**PARTY 2/GRANTEE:**  
TZVI HASENFELD  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**  
STEVE HASENFELD  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**  
LESLIE WESTREICH  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**  
MORTY J. YASHAR  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**  
MCCARRON PARK CONDOMINIUMS, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

**PARTY 2/GRANTEE:**  
THE COBY GROUP, LLC  
5521 NEW UTRECHT AVENUE  
BROOKLYN, NY 11219

HAC 06-04-1443

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

-----X  
THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,

Plaintiffs,

Action No. 1  
Index No. 36186/05

-and-

STEVE HASENFELD, COBY GROUP  
UNION AVENUE, LLC, THE COBY  
GROUP, LLC (New York) and  
"JOHN DOE Nos. 1 through 10",  
Defendants.

-----X  
COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD,

Plaintiffs,

-against-

Action No. 2  
Index No. 36200/05

LESLIE WESTREICH,  
MORTY J. YASHAR,  
MCCARRON PARK CONDOMINIUMS LLC,  
(a New York entity),  
THE COBY GROUP, LLC,  
(a Delaware entity),

Defendants.

-----X  
NOTICE OF ENTRY OF COURT ORDERS REQUIRING, INTER ALIA, PLAINTIFFS'  
DESIGNEE -544 UNION OWNER LLC - TO DELIVER 30% OF THE NET PROCEEDS OF  
ANY SALE OR TRANSFER OF THE PROPERTY DEVELOPMENT, BUILDING OR  
PROJECT BEING DEVELOPED INTO AN ESCROW ACCOUNT MAINTAINED BY  
PLAINTIFFS' COUNSEL

S I R S:

PLEASE TAKE NOTICE that the within are true copies of the following Orders of the Hon. Wayne P. Saitta, Justice, made and entered in the Kings County Clerk's Office, in the Supreme Court of the State of New York, County of Kings, located at 360 Adams Street, Brooklyn, New York, in this action, on the dates as hereinafter set forth and attached hereto:

The "So Ordered" Transcript, dated December 11, 2006, was entered on December 19, 2006, (Exhibit "A"), and, inter alia, granted Plaintiffs' motion to the extent of modifying the Order dated November 20, 2006, entered on November 30, 2006 (Exhibit "B") to permit 544 Union Owner LLC to purchase the real Properties hereinafter set forth on December 14, 2006 based upon the written stipulation (Exhibit "C") of Plaintiffs, Leslie Westreich, and 544 Union Owner LLC, and the stipulation of Plaintiff's Counsel in the Transcript (Exhibit "A") to be bound by the November 20, 2006 Order, which provided, inter alia, that if Plaintiff's designee, 544 Union Owner LLC acquires title to the Property -- and thereafter seeks to sell or transfer the property, or any building, development or project developed on the property, Plaintiff shall give Defendants' attorney's 15 days notice of the sale and the amount of the net proceeds of such sale and then 30% of the net proceeds from any such sale, development or project shall be delivered into an escrow account to be maintained by Plaintiff's attorney, the law firm of Vandenberg & Feliu, LLP, and not released except upon further Order of the Court. Notice to defendant's attorney shall be by fax. The November 20, 2006, Order amended this Court's Order, dated August 11, 2006 which was entered on August 21, 2006 (Exhibit "D")

The aforesaid Court Orders affect and concern four parcels of real properties, all situate in Kings County, known as Block No. 2736, Lot No. 1; Lot No. 9; and Lot No. 48; and Block No. 2741, Lot No. 8; (as more particularly described in the metes and bounds description annexed hereto as Exhibit "E").

Dated: December 19, 2006  
Brooklyn, New York

Yours, etc.,



SOL MERMELSTEIN  
Attorney for Defendants in Action No. 1  
STEVE HASENFELD,  
COBY GROUP UNION AVENUE, LLC,  
COBY GROUP, LLC  
and the Plaintiffs in Action No. 2  
5521 New Utrecht Avenue  
Brooklyn, New York 11219  
(718) 436-8098

Vandenberg & Feliu, LLP  
Attorney for the Plaintiffs in Action No. 1  
and the Defendants in Action No. 2  
110 East 42nd Street - Suite 1502  
New York, New York 10017

1 SUPREME COURT OF THE STATE OF NEW YORK

2 COUNTY OF KINGS : CIVIL TERM : PART 29

3 -----x

4 THE COBY GROUP LLC and McCARRON PARK, : Index No.  
5 CONDOMINIUMS, LLC : 36186/05

6 Plaintiffs :

7 -against-

8 STEVE HASENFELD, COBY GROUP UNION :  
9 AVENUE LLC, THE COBY GROUP LLC :

10 (New York) and "JOHN DOE" Nos 1-12, :  
11 Defendants :

12 -----x

13 360 Adams Street  
14 Brooklyn, New York

15 December 11, 2006

16 BEFORE: HONORABLE WAYNE P. SAITTA, Justice

17 APPEARANCES:

18 For the Plaintiff:

19 VANDENBERG & FELIU, LLP  
20 110 East 42nd Street  
21 New York, NY  
22 BY: MARK R. KOOK, ESQ.

23 For the Defendant:

24 SOL MERMELSTEIN, ESQ.  
25 5521 New Utrecht Avenue  
Brooklyn, NY

Frances Napoli  
Senior Court Reporter

RECEIVED  
CLERK  
2006 DEC 19 AM 11:34

1 THE COURT: Is there a proposed transfer at  
2 this point?

3 MR. KOOK: There is, your Honor, but I'd  
4 like to renew our request that the prior order be  
5 vacated.

6 The requirement for any kind of a set aside  
7 for 30 percent is an alienation on transfer of  
8 property. The contract of sale, February 9, 2005,  
9 contract specifically gives the purchaser the right  
10 to transfer either to an entity in which they're  
11 involved or, at the closing to transfer to any  
12 entity.

13 And this 30 percent set aside is a  
14 prejudgment attachment. money to satisfy a potential  
15 judgment down the road. Whatever rights the  
16 defendants have fully -- if they obtained a judgment  
17 down the road, it's a money judgment. What they're  
18 seeking is a pre-attachment. the money set aside, the  
19 funds. the payment of that judgment.

20 In the case we cited. the Court of Appeals  
21 case, which is that is not a remedy to be had in  
22 connection with a preliminary judgment application.  
23 which is how this all arose.

24 So we, again, request that we just be  
25 allowed to close and we sign, as allowed with a

1 contract.

2 And in the event Mr. Hasenfeld is successful  
3 down the road, although in the August 11 order there  
4 was no finding of a successful, of a possible --  
5 likelihood of success on merits, and it cannot be a  
6 showing of irreparable injury because he's asking for  
7 money damages, it's all money and if he wins he gets  
8 a judgment and he gets to collect money against the  
9 entities that the judgment directs.

10 We would say there will not be a judgment  
11 after the facts of discovery and a motion summary for  
12 judgment after trial.

13 As it stands, this 30 percent set aside is  
14 pretax adjustment from a judgment. The defendants  
15 may know -- hide the fact that that's what they were  
16 seeking. That was the title of their reply evidence,  
17 their application and they request that the closing  
18 be held pursuant to the contract and that a purchaser  
19 can assign the contract at the closing.

20 THE COURT: But, the difference here is that  
21 at first what was contested is who was -- who  
22 controlled the purchaser. And the sale is only  
23 possible, or it is only possible for the sale to go  
24 forward because other parts of the injunction have  
25 barred Mr. Hasenfeld from interfering with the sale,

1 from asserting the rights of the corporation that  
2 signed the contract. So, it's not a mere -- it's not  
3 a typical or a mere situation of a prejudgment  
4 attachment. It's part of a whole order that allowed  
5 the sale to go forward. It's unclear as to who the  
6 party is that closed, the purchaser. And on that  
7 basis I'm denying it, but you have your remedy.

8 MR. KOOK: On appeal, yes, your Honor.

9 So, with respect to the transfer, first of  
10 all, Mr. Yashar is basically out of McCarron at this  
11 point. And what we would ask permission to do is to  
12 transfer the contract for the sum of the deposits for  
13 some \$600,000. And 30 percent of that would be set  
14 aside in escrow, held by my firm.

15 THE COURT: Counsel.

16 MR. MERMELSTEIN: Judge, that completely  
17 violates the spirit and intent of your order.

18 We weren't here fighting for 30 percent of  
19 \$600,000. My client claimed it was his complete  
20 deal, as your Honor previously stated.

21 We even said the last time we were here in  
22 court, we had people lined up, ready to take the  
23 deal. We only brought them in for financing. Now,  
24 they have to go out looking for financing. We have  
25 people lined up ready to take the deal. If they want

1 out of the deal, we're ready to give them back their  
2 600 grand and take the deal over.

3 We don't need them for the deal. We only  
4 brought them in for financing. For them to come in  
5 now and say they're ready to set aside 30 percent of  
6 \$600,000 is outrageous based upon the intent and  
7 spirit of the order.

8 MR. KOOK: Your Honor, the deal was Coby  
9 Group. Mr. Hasenfeld, as a contemporaneous e-mail  
10 shows --

11 THE COURT: We're not going to decide today  
12 whose deal it was. The whole purpose of this is, you  
13 said you wanted a different entity to buy the  
14 corporation because of a tax exchange.

15 So, do you have a different entity that  
16 wants to buy it?

17 MR. KOOK: We do.

18 The entity is 544 Union Owner LLC. And I  
19 have a stipulation, post stipulation, signed by 544  
20 Union Owner LLC's control person, Mr. Westreich, who  
21 is one of the defendants in the consolidated action.

22 THE COURT: Do you have the filing papers of  
23 the LLC?

24 MR. KOOK: I don't have them, but I'll  
25 represent to the Court that it has been filed. I got

1 a confirmation e-mail from the attorneys handling  
2 that, a confirmation e-mail on Friday, that the 544  
3 owner LLC is fully filed. And if your Honor  
4 requests, I will get those papers from the attorneys  
5 and have a copy sent to you Judge and a copy to  
6 Mr. Mermelstein. I'll represent to the Court that I  
7 received an e-mail from the attorneys on Friday,  
8 saying it was done.

9 THE COURT: I'll just ask you to do one more  
10 thing, unless you can answer that right now.

11 Have you seen the papers and -- the filing  
12 papers?

13 MR. KOOF: No. I generally don't do that.  
14 The attorneys who are handling the closing, 544 Owner  
15 LLC on December 14, they did that. And I spoke with  
16 them and we go back and forth to make sure that was  
17 done, the Friday before Mr. Westreich signed the  
18 stipulation.

19 THE COURT: I guess my real question is, in  
20 the absence of the papers in front of me, can you  
21 check with the attorneys to verify the information in  
22 paragraph four that Mr. Westreich is the single  
23 member that controls the majority?

24 MR. KOOF: I will confirm that with the  
25 attorneys this afternoon and send a fax.

1 THE COURT: If we could do it this morning,  
2 I'd prefer to do it this morning, but that's the only  
3 question I have.

4 Mr. Mermelstein.

5 MR. MERMELSTEIN: Judge, first of all, it  
6 says here incorrectly, owns a majority. It's  
7 qualified that ownership is a majority of that  
8 member, that's number one. I don't know what that  
9 word means.

10 THE COURT: Controls indirectly.

11 MR. KOOK: It says it. 544 Union, the  
12 single -- is a single member entity and the entity  
13 that owns 95 percent of it, owns 75 percent by  
14 entity.

15 MR. MERMELSTEIN: Judge, the whole thing  
16 is --

17 MR. KOOK: He's the president, sole officer.

18 MR. MERMELSTEIN: 544 has a single member.  
19 He hasn't disclosed who that other member is  
20 of 544. There's either an LLC or some corporate  
21 entity, which he's not telling you about. He has 544  
22 has a single member and the rest controls or owns a  
23 majority of that member, which means there is another  
24 entity involved now.

25 MR. KOOK: If may, Judge, in the last order

1 of this, your Honor required that he owns or  
2 controls.

3 THE COURT: Right. So what's the member --  
4 the name of the members that's referred to in  
5 paragraph four?

6 MR. KOOK: I believe it's High Ridge Company  
7 LLP, but I have to check.

8 THE COURT: Why don't you make a call and  
9 we'll just identify that. We'll add that. We'll put  
10 that on the record.

11 MR. MERMELSTEIN: Judge, paragraph number  
12 five, he shouldn't qualify, he agrees to be bound by  
13 the order of this Court, dated November 20.

14 Why is he qualifying it?

15 MR. KOOK: Because the order requires him to  
16 be bound by the paragraph about the escrow.

17 MR. MERMELSTEIN: It says stipulation  
18 identified as -- it says stipulated to be bound by  
19 this order.

20 MR. KOOK: The paragraph reads -- what else  
21 is there in the order?

22 MR. MERMELSTEIN: To be bound by the whole  
23 order.

24 THE COURT: I would assume to cover it, it  
25 would be covered by paragraph one that they can't

1 further transfer the contract of sale between now and  
2 Thursday.

3 MR. MERMELSTEIN: In number four, Judge.

4 MR. KOOK: Four is a judgment against the  
5 defendants.

6 MR. MERMELSTEIN: Why shouldn't they be  
7 bound by the whole order?

8 THE COURT: Paragraph four enjoins your  
9 client.

10 I think they should be bound by number one,  
11 even though it's unlikely to be another transfer  
12 between now and Thursday. So, why don't you see if  
13 you can confirm with the attorneys who handle it the  
14 accuracy of what's in number four and the name of the  
15 member and then --

16 MR. KOOK: I will make the phone calls and  
17 hopefully reach the people.

18 MR. MERMELSTEIN: Will he agree that he is  
19 not going to divest himself of that membership,  
20 Mr. Westreich, while all this is going on?

21 It says here he controls --

22 THE COURT: He's bound by the LLC. Whatever  
23 happens to the ownership of the LLC thereafter,  
24 they're bound by this order.

25 MR. MERMELSTEIN: Okay, Judge.

1 MR. KOOK: Let me call my office, get the  
2 number in, hopefully, five minutes.

3 (Pause)

4 THE COURT: Okay, Mr. Kook.

5 MR. KOOK: Judge, the papers were filed and  
6 when they're filed they don't have to state, only  
7 that it's filed. The operating done is going to be  
8 done today. The High Bridge House Company LP is the  
9 sole owner of 544 Union Owner LLC. And Mr. Westreich  
10 owns 70 percent of the entity, but only High Bridge  
11 House, the company.

12 THE COURT: You cannot represent that  
13 Mr. Westreich and 544 Owner LLC consents to be bound  
14 by paragraphs one two and three of the order.

15 MR. KOOK: Paragraph one is up until the  
16 time of December 14 sale?

17 THE COURT: Right.

18 MR. KOOK: Yes, Judge.

19 MR. MERMELSTEIN: Your Honor, I just have a  
20 few things I'd like to add before we close this.

21 One, Mr. Kook is well aware as an attorney  
22 that there are no presidents of LLC. And he calls  
23 Mr. Westreich a president of the LLC.

24 Number two, it's the same thing. He calls  
25 him a member of the LLC. Is he a managing member or

1 he's a member?

2 That's what I wanted to know.

3 Paragraph number four, Judge, again it says  
4 president and sole officer. There are no officers of  
5 544 Union. There's either a member, a managing  
6 member.

7 Is he the president; is he the sole member  
8 of Union?

9 Now he just said something else. He said  
10 544, he says he owns 75 percent of High Bridge which  
11 is a member of 544 Union which contradicts paragraph  
12 number four.

13 THE COURT: Counsel, what it says is that  
14 544 Union has a single member and Westreich controls  
15 and individually owns a majority of that member. The  
16 member is High Bridge House Company?

17 MR. KOOK: Yes, Judge.

18 THE COURT: Is he an officer in that  
19 corporation aside from owning 75 percent?

20 MR. KOOK: Yes, Judge.

21 THE COURT: What's his position with High  
22 Bridge House Company?

23 MR. KOOK: I believe he's the president.  
24 I've been representing Mr. Westreich on a number of  
25 these LPs and LLCs and he's always the president.

1 MR. MERMELSTEIN: I don't know what  
2 indirectly means, through his wife, through another  
3 entity.

4 MR. KOOK: What it means is what it says,  
5 because he indirectly owns 544 Union LLC, through the  
6 ownership of the company that owns 75 percent of High  
7 Bridge House Company which owns a hundred percent of  
8 544 Union.

9 MR. MERMELSTEIN: Judge, one more thing. It  
10 says on number five, upon acquiring title to the  
11 property. According to your stipulation he's  
12 supposed to agree today that he's going to be bound.

13 MR. KOOK: He can't do the escrow until he  
14 acquires title.

15 THE COURT: As to paragraph one, that's  
16 going to apply today.

17 MR. MERMELSTEIN: Next paragraph is a  
18 stipulation normally signed by all the parties to the  
19 agreement. Our original agreement provided it's  
20 going to be Westreich and Yashar together. They've  
21 always been representing to this Court they've been  
22 in this together.

23 It's been Westreich, but no matter what,  
24 Westreich only signs here. There's no signature by  
25 Coby, no signature by McCarron Park, no signature by

1 Westreich individually and no signature by Yashar.

2 MR. KOOK: The order of November 20 requires  
3 stipulation signed by the designees to be so ordered  
4 by your Honor. And this is what this complies with,  
5 your Honor's order. And what it is is, the designee.  
6 Everybody else is a party, either plaintiff or  
7 defendant, and the subject to --

8 MR. MERMELSTEIN: If Mr. Kook is  
9 representing --

10 THE COURT: Let him finish.

11 MR. KOOK: They're all parties to the  
12 lawsuit and they're bound to the orders, because  
13 they're orders entered by your Honor.

14 The order which was approved without -- by  
15 Mr. Mermelstein on behalf of plaintiffs in the  
16 consolidated action says at that time stipulation  
17 signed by the designee to be so ordered by the Court.  
18 This is signed by the designee and your Honor is  
19 going to so order, your Honor. I hope.

20 MR. MERMELSTEIN: Judge, if Mr. Kook is  
21 ready to represent that they agree as their counsel  
22 to this stipulation, because he is representing them  
23 here, I don't have a problem with it.

24 THE COURT: That's what I understood him to  
25 do.

1 MR. MERMELSTEIN: I didn't hear him say it.

2 THE COURT: Is that correct, that you're  
3 representing your clients agree to be bound by the  
4 order --

5 MR. KOOK: Your Honor, whether my clients  
6 agree or not, they're bound by the order. The order  
7 of November 20 was upon my client --

8 THE COURT: I meant the new purchasing  
9 entity, that 544 Union Avenue LLC agrees to be bound  
10 by the terms of the order as I'm going to modify it.

11 MR. KOOK: I'm not sure we -- 544 union is  
12 agreeing to be bound by the order?

13 THE COURT: That's what I mean.

14 MR. KOOK: Yes.

15 THE COURT: Including my modification.

16 MR. KOOK: Including Mr. Westreich, who  
17 signed it. And Mr. Yashar has nothing to do with  
18 anything.

19 THE COURT: And including that paragraph  
20 one -- that they'll be bound by paragraph one as  
21 well.

22 MR. KOOK: Yes, they are bound.

23 MR. MERMELSTEIN: Now, I just need him to  
24 just agree that as the attorney representing the  
25 plaintiffs and the defendant Westreich and Yashar

1 individually, they also agree to this.

2 THE COURT: They're already bound by it.  
3 He's correct this is about binding the new party  
4 who's buying it.

5 MR. KOOK: As your Honor said, we have  
6 remedies and maybe we'll pursue them. As of now, the  
7 order is in effect.

8 THE COURT: I'm going to modify the order to  
9 the extent, and I guess you can get a copy of it, to  
10 allowing 554 Union Owner LLC to the entity that is  
11 purchasing the property on the 14th. The  
12 modification is based explicitly on their consent to  
13 be bound by the orders in paragraphs one, two and  
14 three.

15 MR. KOOK: Thank you, Judge.

16 THE COURT: If you need to get a copy of  
17 that.

18 MR. MERMELSTEIN: Judge it's a very short  
19 order that you rendered, can we say, based upon  
20 stipulations rendered by counsel, could we write up a  
21 short form order?

22 THE COURT: We have the transcript.

23 MR. MERMELSTEIN: You'll sign a short form  
24 order stating, according to the transcript?

25 THE COURT: The transcript's certified.

s it.

MR. MERMELSTEIN: The transcript is deemed

order itself because it was done in court?

The Court will so order the transcript?

THE COURT: Right.

MR. KOOK: Thanks, Judge.

\* \* \*

The foregoing is certified to be a true and correct transcript of the proceedings, as taken by:

*[Handwritten Signature]*

Official Court Reporter

No 546608

STATE OF NEW YORK  
COUNTY OF KINGS  
JANAY L. STANSHINE  
COUNTY CLERK, A CLERK  
OF THE SUPREME COURT  
KINGS COUNTY, IN  
HEREIN CERTIFY ON

12/19/2006

THAT I HAVE COMPARED THIS  
COPY WITH THE ORIGINAL  
FILED IN NY 06-01-18

12-19-06

AND THAT THE SAID IS A  
CORRECT TRANSCRIPT  
OF THE PROCEEDINGS

WITNESSED BY ME  
ON THIS DAY

IN WITNESS WHEREOF  
I HAVE HEREUNTO SET  
MY HAND AND SEAL OF  
OFFICE

COURT CLERK  
COUNTY CLERK  
PAID THE SIGNATURE  
PURSUANT TO SECTION  
COURTY LAW

*So ordered*

*[Handwritten Signature]*

HON. WAYNE P. SAIITA  
J.S.C.

*Enter forthwith*

*[Handwritten Signature]*

12-19-06

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

----- X  
THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,  
Plaintiffs,  
  
-against-  
  
STEVE HASENFELD,  
COBY GROUP UNION AVENUE, LLC,  
THE COBY GROUP, LLC (New York)  
and "JOHN DOE Nos. 1 through 10",  
Defendants.  
----- X

Index No.: 36186/2005

**ORDER**

COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD.  
Plaintiffs and Counterclaim Defendants.  
  
-against-  
  
LESLIE WESTREICH, MORTY J. YASHAR,  
McCARRON PARK CONDOMINIUMS LLC,  
(a New York entity), THE COBY GROUP, LLC,  
(a Delaware entity),  
Defendants and Counterclaim Plaintiffs.  
----- X

Index No. 36200/2005

Upon plaintiff's Motion for Reargument, and upon all the papers submitted thereon, the Order, dated August 11, 2006, is hereby amended as follows:

1. Plaintiffs remain enjoined from selling, transferring, or assigning the Contract of Sale (the "Contract") for 544 Union Avenue, Brooklyn, New York (the "Property"),

provided that plaintiffs can seek a determination from the Court, upon an Order to Show Cause, in the event plaintiffs seek to sell, transfer or assign the Contract.

2. Either of the plaintiffs, or an entity that is <sup>owned or</sup> controlled either by plaintiffs or their principals <sup>(WS)</sup> (the "Designee"), may close on the Contract and acquire title to the Property, <sup>which is scheduled for</sup> <sup>December</sup> <sup>14, 2006</sup>

provided, however, that the party acquiring title must agree and stipulate to be bound by this

Order, specifically Paragraph 3 which requires delivery into escrow of 30 percent of the net

proceeds of any subsequent sale or transfer of the Property, which stipulation must ~~then~~ be <sup>on December 11, 2006 at 9:30 a.m.</sup> presented to the Court to be So Ordered. <sup>identity to Designee and</sup>

3. The preliminary injunction prohibiting plaintiffs (or the Designee as provided in Paragraph 2 above) from selling or transferring the Property after the Property is purchased under the Contract is vacated. In the event plaintiffs (or the Designee), after acquiring

~~title, thereafter sell or transfer the Property, or any building, development or project developed on the Property, then 30 percent of the net proceeds from any such sale, development or project~~

<sup>WS</sup> shall be delivered into an escrow account to be maintained by plaintiffs' attorney, the law firm of Vandenberg & Feliu, LLP, and not released except upon further Order of the Court. <sup>15 days</sup> Notice to ~~defendants attorney shall be by fax.~~

4. Defendants are preliminary enjoined from interfering in the management, control, development and sale of the Property, the entity that closes on the Contract, or in any other manner interfering with the management, sale and development of the Property.

Dated: November 20, 2006

So Ordered  
ENTER 

J.S.C.

HON. WAYNE P. SAIITA  
J.S.C.

13

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

OF NEW YORK

X

THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC

13, LLC

Index No. 36186/2005

Pl

-against-

**STIPULATION**

STEVE HASENFELD,  
COBY GROUP UNION AVENUE  
THE COBY GROUP, LLC (Neighborhood "JOHN DOE Nos. 1 through 13")

C,

D

13,

X

STATE OF NEW YORK )  
COUNTY OF NEW YORK )s

IT IS HEREBY STIPULATED AND AGREED by 544 Union Owner LLC:

1. "Westreich" is the president of each of the plaintiffs.

1. Leslie Westreich, the president of each of the plaintiffs, hereinafter, The Coby Group LLC and MCCARRON PARK CONDOMINIUMS, LLC, and also is a defendant in the consolidated action hereinafter.

2. Westreich is the president of 544 Union Owner LLC, ("544 Union"), a limited liability company that has been organized in New York.

2. Westreich is the president of 544 Union Owner LLC, ("544 Union"), a limited liability company that has been organized in New York.

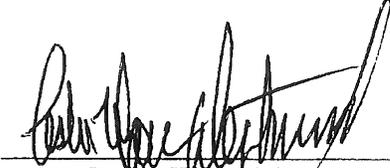
3. 544 Union Owner LLC is the Purchaser, scheduled to close on Thursday, December 14, 2006, under the Contract of Sale, dated February 9, 2005, and acquire title to the property located at 544 Union Avenue, Brooklyn, New York (the "Property").

3. 544 Union Owner LLC is the Purchaser, scheduled to close on Thursday, December 14, 2006, under the Contract of Sale, dated February 9, 2005, and acquire title to the property located at 544 Union Avenue, Brooklyn, New York (the "Property").

3. 544 Union Owner LLC is the Purchaser, scheduled to close on Thursday, December 14, 2006, under the Contract of Sale, dated February 9, 2005, and acquire title to the property located at 544 Union Avenue, Brooklyn, New York (the "Property").

4. Westreich is the president and sole officer of 544 Union. 544 Union has a single member and Westreich controls and indirectly owns a majority of that member and is the sole party who is authorized to act on behalf of that member.

5. 544 Union hereby agrees, upon acquiring title to the Property, to be bound by the escrow provisions in Paragraphs 2 and 3 of the Order of this Court, dated November 20, 2006, until such further court order.

  
\_\_\_\_\_  
Leslie Westreich  
President, 544 Union LLC

At an IAS Term Part 29 of the Supreme Court of the State of New York, County of Kings at the Courthouse located at 360 Adams Street Brooklyn New York, on the 11<sup>th</sup> day of August 2006

PRESENT:

Hon. Wayne P. Saitta, Justice

-----X

THE COBY GROUP LLC and  
MCCARRON PARK CONDOMINIUMS LLC.

Plaintiffs.

-against-

STEVE HASENFELD, COBY GROUP  
UNION AVENUE LLC., THE COBY  
GROUP LLC, (NEW YORK) and  
"JOHN DOE Nos. 1 through 10"

Defendants.

-----X

COBY GROUP (UNION AVENUE) LLC,  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD.

Plaintiffs.

-against-

LESLIE WESTREICH, MORTY YASHAR,  
MCCARRON PARK CONOMINIUMS LLC,  
(a New York entity), THE COBY GROUP LLC,  
(a Delaware entity).

Defendants.

-----X

Action #1

Index No. 36186/05

DECISION AND ORDER

Action #2

Index No. 36200/05

" P "

Plaintiffs in action #1 move for preliminary relief enjoining defendant Steve Hasenfeld from interfering with their purchase of a building located at 544 Union Avenue, in Brooklyn, from using the names "Coby" or "Coby Group", and from using the domain name "cobygroup.com", and directing Defendant to dissolve two LLCs he filed with the State of New York using the "Coby" name, and directing Hasenfeld to return the "cobygroup.com" domain name, as well as various records, files, and e-mails.

Hasenfeld cross-moves to dismiss the underlying action on the ground that Plaintiffs had not complied with the requirements of establishing a limited liability company, at the time the action was commenced, and alternatively for a preliminary injunction enjoining Plaintiffs and Leslie Westreich and Morty Yashar, from using the names "Coby Group (Union Avenue) LLC" and "Coby Group LLC (New York)", from using the "cobygroup.com" domain name, and from transferring the contract of sale for 544 Union Avenue or transferring the property 544 Union Avenue without leave of the court.

Plaintiffs originally moved by Order to Show Cause, returnable January 6, 2006, and then moved for much of the same relief by a second Order to Show Cause, returnable April 11, 2006. On April 11<sup>th</sup> Plaintiffs stipulated to withdraw the earlier Order to Show Cause except as to that relief which was also requested in the second Order to Show Cause. On that date, the parties also agreed to consolidate the two above captioned actions.

Now upon reading the Order to Show Cause returnable January 6, 2006, the Verified Amended Complaint, dated December 16, 2005, the Affirmation of Corey Kupfer, Esq., dated December 16, 2005, the Affirmation Mark R. Kook, Esq., dated December 16, 2005, and the exhibits annexed thereto; the Notice of Cross-Motion, dated February 7, 2006, the Affidavit of Steve

Hasenfeld, dated January 16, 2006, and the exhibits annexed thereto; the Reply Affidavit of Josh Yashar, dated January 19, 2006, and the exhibits annexed thereto; the Affirmation in Opposition of Mark R. Kook Esq, dated February 10, 2006, and the exhibits annexed thereto; the Reply Affidavit of Steve Hasenfeld, dated February 12, 2006, and the exhibits annexed thereto; the Supplemental Affirmation of Mark R. Kook, dated April 10, 2006, and the exhibits annexed thereto; the Order to Show Cause returnable April 11, 2006, the Affirmation of Mark R. Kook, Esq., dated April 3, 2006, and the exhibits annexed thereto; the Notice of Cross-Motion, dated June 5, 2006, the Affirmation of Sol Mermelstein, Esq., dated May 29, 2006, the Affidavit of Steve Hasenfeld, dated May 29, 2006, and the exhibits annexed thereto; the Affidavit of Leslie Westreich, dated June 22, 2006, and the exhibits annexed thereto; Plaintiff's Memorandum, dated June 26, 2006; the Reply Affirmation of Steve Hasenfeld, dated July 26, 2006, and the exhibits annexed thereto; and upon all proceedings heretofore had herein, and after hearing oral argument by counsel and after due deliberation thereon, the motions and cross motions are partially granted to the extent indicated below.

The underlying consolidated actions involve a contested business relationship between Steve Hasenfeld, on the one hand, and Leslie Westreich and Morty Yashar, who are members of Cobv Group LLC, a Delaware limited liability company, on the other. Westreich and Yashar allege that Hasenfeld was merely an unpaid intern who has converted their trade name, their web site, and a contract to purchase 544 Union Avenue, for his own benefit. Hasenfeld contends that he entered into a joint venture with Westreich and Yashar to purchase and develop real property, that he entered into a contract to purchase 544 Union Avenue on behalf of the joint venture, and that Westreich and Yashar are trying to deprive him of his interests in the companies he created and in the contract to purchase 544 Union Avenue.

The nature of the relationship between the parties is contested and unfortunately there are no written agreements or other documents specifying the nature of the relationship or the various rights and interests of the parties.

Hasenfeld began his relationship with Westreich and Yashar sometime in December of 2004. Both sides agree Hasenfeld set up a computer system and web site under the name Coby Group. The relationship between Hasenfeld, and Westreich and Yashar ended in June of 2005.

*Contract to Purchase 544 Union Avenue*

A contract, dated February 9, 2005, to purchase 544 Union Avenue, was entered into by Beach-Russ Co., the owner of the site, and Coby Group (Union Avenue) LLC. The contract originally listed "Coby Group LLC a New York limited liability company" as purchaser. No such LLC existed at the time the contract was executed. The contract was later amended to change the purchaser to "Coby Group (Union Avenue) LLC", which also was not then in existence, but which the buyers intended to form to purchase the building.

Leslie Westreich signed the contract on behalf of Coby Group (Union Avenue) LLC. A check for \$400,000 as a down payment, signed by Yashar, was sent to the seller. An additional \$200,000 was wired to the seller by Westreich and Yashar.

Hasenfeld claims he located the property and negotiated the sales price. He further claims that his agreement with Westreich and Yashar was that they would provide the financing for the purchase and receive 80% interest in the entity that bought the building and Hasenfeld would receive 20%. Westreich and Yashar claim that Hasenfeld had no role in locating the property or negotiating the contract, but simply performed administrative tasks, at their direction, in connection with the contract.

Hasenfeld filed Articles of Organization for Coby Group (Union Avenue) LLC on August 17, 2005, which were accepted by the Secretary of State of the State of New York. Westreich and Yashar attempted to do so on the same date but were denied, as the name had been assigned to Hasenfeld first. Westreich and Yashar then amended their application to change the name of their LLC to McCarron Park Condominiums LLC.

Westreich and Yashar seek to enjoin Hasenfeld from interfering with the sale of the building to "McCarron Park Condominiums LLC" in lieu of "Coby Group (Union Avenue) LLC". Hasenfeld states that he has no objection to the sale going forward as long as his interest in the contract, which he claims to be 20%, is protected.

Unfortunately, there is nothing in writing between the parties indicating what their interests in the contract are. At this point, all that is clear is that the contract was made in the name of an LLC subsequently organized by Hasenfeld, but was signed by Westreich, and the down payment check was signed by Yashar.

Further complicating matters is the fact that it is unclear whether the contract will ever be closed. The seller has declared McCarron Park Condominiums LLC to be in default, and has cancelled the contract. Plaintiffs have brought an action against the seller for specific performance which is currently pending. If the cancellation of the contract is upheld then the dispute over the contract, between the parties herein, will be moot.

Under these circumstances, preliminary relief is warranted so as not to prevent the sale from going forward, and to allow dispute between the parties herein to be resolved after the sale. The Court will enter a preliminary injunction barring Hasenfeld from interfering with the sale of 544 Union Avenue to McCarron Park Condominiums LLC, and also barring the named plaintiffs in

action #1, and Westreich and Yashar, from selling or transferring either the contract of sale for 544 Union Avenue, or in the event they close on 544 Union Avenue, either in the name of Coby Group (Union Avenue) LLC, or McCarron Park Condominiums LLC, from selling or transferring the building, without permission of the court.

This injunction is the least restrictive remedy which will preserve the status quo, and prevent the res of the dispute from disappearing during the pendency of this action. The injunction protects Hasenfeld's claim while allowing Westreich and Yashar to consummate the sale and proceed with their plans to develop condominiums. Further, in the event that the sale does close, the injunction can be modified to conform to what is necessary and equitable at the time Westreich and Yashar seek to sell the property.

#### *The Coby Names and Website*

Westreich and Yashar also seek to enjoin Hasenfeld from using the names "Coby Group", "Coby Group LLC (New York)", and "Coby Group (Union Avenue) LLC" and from using the cobygroup.com domain name as a website or e-mail address. Hasenfeld in turn seeks to enjoin Westreich and Yashar from representing themselves as "Coby Group (Union Avenue) LLC" or "Coby Group LLC (New York)" and from using the cobygroup.com domain name as a website or e-mail address.

Westreich and Yashar annex to their papers, an e-mail from Hasenfeld dated June 17, 2005 in which he states that he is no longer affiliated with "the Coby Group". Hasenfeld the authenticity of the e-mail. Hasenfeld also concedes that the only purposes for which he uses the names "Coby Group (Union Avenue) LLC" and "Coby Group LLC (New York)", is in connection with the contract to purchase 544 Union Avenue. Since Hasenfeld has agreed to allow Westreich and Yashar

to go forward with the sale, using McCarron Park Condominiums LLC as an assignee, and his interest in the contract is protected by the injunction against transfer without leave of the court, he will suffer no hardship from being enjoined from doing business under the two Coby companies he formed. Therefore the Court will grant a preliminary injunction barring Hasenfeld from using the Coby Group name or doing business as either "Coby", "Coby Group", "Coby Group LLC (New York)", or "Coby Group (Union Avenue) LLC" during the pendency of these actions.

Since at this point the sale of 544 Union Avenue may close under the name of "McCarron Park Condominiums LLC", "Coby Group LLC (New York)", or "Coby Group (Union Avenue) LLC", the court will not enjoin Westreich or Yashar from doing business under those names. The Court makes no determination at this time as to which of the parties have rights to those entities, but simply declines to enjoin Westreich and Yashar from conducting business under those names at this time.

It is not contested that Hasenfeld purchased the domain name "cobygroup.com" in January, 2005, shortly after beginning his relationship with Coby. What is contested is whether he did so in furtherance of a joint venture with Westreich and Yashar, or on their behalf, as their intern or agent. This is a question of fact that will ultimately have to be settled at trial. In light of the facts and circumstances set forth above, the Court will issue a preliminary injunction prohibiting all parties from using the "cobygroup.com" domain name for a web site or for e-mail during the pendency of these actions. The injunction shall not however, prohibit Westreich or Yashar from registering or using a different domain name which includes the name Coby or Coby Group. The Court also grants a preliminary injunction prohibiting Hasenfeld from deleting or destroying any e-mails or responses sent to or from the cobycgroup.com e-mail address, currently in his possession.

Lastly movants seek an order mandating Hasenfeld to dissolve Coby Group LLC (New York), and Coby Group (Union Avenue) LLC. Westreich and Yashar have failed to demonstrate that they will suffer irreparable harm without such injunctive relief, or that it is otherwise necessary at this time.

### ***CROSS MOTION TO DISMISS***

Hasenfeld has cross moved to dismiss action #1 on the grounds that at the time it was commenced the Coby Group, a Delaware LLC, and McCarron Park Condominiums LLC did not have legal capacity to maintain the action, and also that Westreich and Yashar are necessary parties.

Hasenfeld contends that Coby Group, a Delaware LLC, is prohibited from maintaining this action because it did not file for authority to do business in New York. He also contends that McCarron Park Condominiums LLC, a New York LLC, is prohibited from maintaining this action because it did not publish its application for authority to do business, or file applications of publication. While the publications were not complete at the time action #1 was commenced, the required filings and publication were completed by March of 2006. Like corporations, limited liability companies may maintain an action once they have complied with the filing and publication requirements, even if they were not in compliance at the time that action was commenced. *Mentor Credit Corp. v Eisenberg*, 204 AD2d 284, 614 NYS2d 156 (2<sup>nd</sup> Dept. 1994); *Acquisition America V LLC v Lamadore*, 5 Misc3d 461, 784 NYS2d 329 (NY Civ Ct., 2004).

Therefore, Hasenfeld's cross-motion to dismiss for failure to comply with the publication requirements of the Limited Liability Company Law is denied. As action #2 in which Westreich and Yashar are defendants, has been consolidated with action #1, the cross motion to dismiss action #1 for failure to name Westreich and Yashar as parties is denied as moot.

WHEREFORE, the Court enjoins Steve Hasenfeld, during the pendency of these actions, from interfering with the sale of 544 Union Avenue; from using the Coby Group name or doing business as, Coby, Coby Group, Coby Group LLC (New York), or Coby Group (Union Avenue) LLC; from using the "cobygroup.com" domain name, for a web site or for e-mail; and from deleting or destroying any e-mails or responses sent to or from the cobypgroup e-mail address currently in his possession. The Court further enjoins the Coby Group (the Delaware LLC), McCarron Park Condominiums LLC, Leslie Westreich and Morty Yashar, during the pendency of these actions, from selling or transferring either the contract of sale for 544 Union Avenue, or in the event they close on 544 Union Avenue, from selling or transferring the building, without prior permission of the court; and from using the "cobygroup.com" domain name, for a web site or for e-mail. This constitutes the decision and order of the Court.

ENTER

JSC

**HON. WAYNE P. SAITTA**  
J.S.C.

No 546769

STATE OF NEW YORK  
COUNTY OF KINGS, NY  
LAURENCE S. SHAPIRO  
COUNTY CLERK & CLERK  
OF THE SUPREME COURT  
KINGS COUNTY, NY  
HEREBY CERTIFY ON

12/20/2006

THAT I HAVE COMPARED THIS  
COPY WITH THE ORIGINAL  
PLEADINGS ON FILE

12/20/06  
AND HAVE FOUND THE  
CORRECTED COPY TO BE  
IDENTICAL TO THE ORIGINAL

WITNESSETH MY  
HAND AND SEAL

IN WITNESS WHEREOF  
I HAVE HEREBY SET  
MY HAND AND SEAL  
OF OFFICE

FILED  
12/20/06  
LAURENCE S. SHAPIRO  
COUNTY CLERK & CLERK  
OF THE SUPREME COURT  
KINGS COUNTY, NY

**SCHEDULE A**

**As to Block: 2736, Lot 1:**

ALL that certain plot, piece or parcel of land, with situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Union Avenue, two hundred (200) feet to the northerly side of Withers Street; thence easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman; thence northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof; thence northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and thence westerly along the southerly side of Frost Street, one hundred (100) feet to the point or place of BEGINNING.

**As to Block 2736, Lot 9:**

ALL that certain lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

Beginning at a point on the southerly side of Frost Street, distant one hundred feet easterly from the corner formed by the intersection of the southerly side of Frost Street with the easterly side of Union Avenue; running thence easterly along the southerly side of Frost Street one hundred five feet; thence southerly parallel with Union Avenue, One hundred twelve feet, more or less, to land now or formerly of John Skillman; thence southwesterly along land now or formerly of John Skillman to a point, distant one hundred feet easterly from the easterly side of Union Avenue measured on a line parallel with Frost Street; thence Northerly parallel with Union Avenue One hundred sixty-nine feet more or less to the southerly side of Frost Street at the pint or place f beginning.

*For conveyance only,  
if intended to be conveyed.*

Together with all right, title and interest of, in and to any streets and roads abutting the above described premises, to the center line thereof.

Issued by:

**CB Title Agency of N.Y., LLC**

140 Mountain Avenue Suite 101, Springfield, NJ 07081

Telephone: (973) 921-0990 Fax: (973) 921-0902

**As to Block: 2736, Lot: 48:**

ALL that certain lot, piece or parcel of land, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

**PARCEL A:**

BEGINNING at a point on the northerly side of Withers Street, distant westerly 425 feet from the northwesterly corner of Lorimer and Withers Streets and running thence northerly parallel with Lorimer Street 41 feet 6 inches to land now or formerly of David Meserole; thence southwesterly along side land of David Meserole 28 feet 2 inches; thence southerly and parallel with Lorimer Street 28 feet 3 inches to Withers Street; thence easterly along the northerly side of Withers Street 25 feet to the point or place of beginning.

**PARCEL B:**

BEGINNING at a point on the northerly side of Withers Street, distant 450 feet westerly from the corner formed by the intersection of the northerly side of Withers Street, with the westerly side of Lorimer Street, running thence northerly parallel with Lorimer Street, 31 feet, to the southeasterly side of land now or formerly of David Meserole, running thence southwesterly along said southeasterly side of land now or formerly of David Meserole, 66 feet 6 inches to the northerly side of Withers Street, aforesaid, running thence easterly along the said northerly side of Withers Street, 58 feet 6 inches to the point or place of BEGINNING.

**As to Block: 2741, Lot: 8:**

ALL that certain plot, piece or parcel of land situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, known and designated on the Tax Map of the City of New York for the Borough of Brooklyn, as Lot 8 in Block 2741 of Section 9, as said map was on May 22, 1962.

*For conveyance only,  
if intended to be conveyed.*

Together with all right, title and interest of, in and to any streets and roads abutting the above described premises, to the center line thereof.

Issued by:

**CB Title Agency of N.Y., LLC**  
140 Mountain Avenue Suite 101, Springfield, NJ 07081  
Telephone: (973) 921-0990 Fax: (973) 921-0902

11

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

-----X

THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,

Action No. 1

Plaintiffs,

Index No. 36186/05

-and-

AFFIRMATION OF SERVICE  
BY REGULAR MAIL

STEVE HASENFELD, COBY GROUP  
UNION AVENUE, LLC, THE COBY  
GROUP, LLC (New York) and  
"JOHN DOE Nos. 1 through 10",

Defendants.

-----X

COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD,

Action No. 2

Index No. 36200/05

Plaintiffs,

-against-

LESLIE WESTREICH,  
MORTY J. YASHAR,  
MCCARRON PARK CONDOMINIUMS LLC,  
(a New York entity),  
THE COBY GROUP, LLC,  
(a Delaware entity),

Defendants.

-----X

SOL MERMELSTEIN, an attorney duly admitted to practice law in the Courts  
of the State of New York, hereby affirms the following pursuant to CPLR 2106:

I am the attorney for the Defendants in Action No. 1 and the Plaintiffs in Action  
No. 2.

On December 19, 2006, I served a true copy of the within:

NOTICE OF ENTRY OF COURT ORDERS REQUIRING, INTER ALIA, PLAINTIFFS'  
DESIGNEE -544 UNION OWNER LLC - TO DELIVER 30% OF THE NET PROCEEDS OF  
ANY SALE OR TRANSFER OF THE PROPERTY DEVELOPMENT, BUILDING OR  
PROJECT BEING DEVELOPED INTO AN ESCROW ACCOUNT MAINTAINED BY  
PLAINTIFFS' COUNSEL

upon:

Vandenberg & Feliu, LLP  
110 East 42nd Street - Suite 1502  
New York, New York 10017

Attorney for the Plaintiffs in Action No. 1  
and the Defendants in Action No. 2

in an envelope, by regular mail, by depositing a true copy of each thereof in a post-paid properly addressed wrapper, in a post-office official depository under the exclusive care and custody of the United States Postal Service within the State of New York.

Dated: December 19, 2006  
Brooklyn, New York

  
SOL MERMELSTEIN

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF KINGS

-----X  
THE COBY GROUP, LLC and  
MCCARRON PARK CONDOMINIUMS, LLC,

Plaintiffs,

-and-

Action No. 1  
Index No. 36186/05

STEVE HASENFELD, COBY GROUP  
UNION AVENUE, LLC, THE COBY  
GROUP, LLC (New York) and  
"JOHN DOE Nos. 1 through 10",  
Defendants.

-----X  
COBY GROUP (UNION AVENUE) LLC  
and TZVI HASENFELD A/K/A STEVE  
HASENFELD,

Plaintiffs,

-against-

Action No. 2  
Index No. 36200/05

LESLIE WESTREICH,  
MORTY J. YASHAR,  
MCARRON PARK CONDOMINIUMS LLC,  
(a New York entity),  
THE COBY GROUP, LLC,  
(a Delaware entity),  
Defendants.

-----X

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NOTICE OF ENTRY OF COURT ORDERS REQUIRING, INTER ALIA, PLAINTIFFS' DESIGNEE -  
544 UNION OWNER LLC - TO DELIVER 30% OF THE NET PROCEEDS OF ANY SALE OR  
TRANSFER OF THE PROPERTY DEVELOPMENT, BUILDING OR PROJECT BEING  
DEVELOPED INTO AN ESCROW ACCOUNT MAINTAINED BY PLAINTIFFS' COUNSEL

---

  
\_\_\_\_\_  
SOL MERMELSTEIN  
Attorney for Defendants in Action No. 1  
STEVE HASENFELD,  
COBY GROUP UNION AVENUE, LLC,  
COBY GROUP, LLC  
and the Plaintiffs in Action No. 2  
5521 New Utrecht Avenue  
Brooklyn, New York 11219  
(718) 436-8098

New York City Department of Finance  
Office of the City Register

**HELP**

[Click help for additional instructions]  
Selecting a help option will open new window

**Current Search Criteria:**

Borough: BROOKLYN / KINGS  
Block: 2736  
Lot: 48  
Date Range: To Current Date  
Document Class: All Document Classes

# Search Results By Parcel Identifier

Records 1 - 2 << [previous](#) [next](#) >> Max Rows  [Search Options] [New BBL Search] [Edit Current Search] [Print Index]

View	Reel/Pg/File	CRFN	Lot	Partial	Recorded / Filed	Document Type	Pages	Party1	Party2	Party 3/ Other	More Party 1/2 Names	Corrected/ Remarks	Doc Amount
<a href="#">DET</a> <a href="#">IMG</a>		2007000004547	48	ENTIRE LOT	1/3/2007 6:00:45 PM	COURT ORDER	38	THE COBY GROUP, LLC	COBY GROUP (UNION AVENUE) LLC		✓		0
<a href="#">DET</a> <a href="#">IMG</a>		2006000702320	48	ENTIRE LOT	12/26/2006 2:50:49 PM	DEED	8	BEACH-RUSS COMPANY	544 UNION OWNER LLC		✓		13,120,000

[Search Options](#)

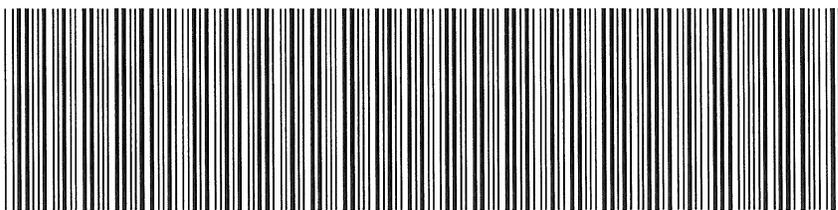
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**NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2006122100447001001EA3D5

**RECORDING AND ENDORSEMENT COVER PAGE**

**PAGE 1 OF 8**

**Document ID: 2006122100447001** Document Date: 12-14-2006 Preparation Date: 12-21-2006  
Document Type: DEED  
Document Page Count: 6

<p><b>PRESENTER:</b> ROYAL ABSTRACT OF NEW YORK LLC AS AGENT FOR TITLE INSURANCE 500 5TH AVENUE- SUITE 1540 NEW YORK, NY 10110 212-376-0900 827371</p>	<p><b>RETURN TO:</b> STARK AMRON LINER LLP SEVEN PENN PLAZA SUITE 600 NEW YORK, NY 10001</p>
--	--

**PROPERTY DATA**

<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	1	Entire Lot	544 UNION AVENUE
<b>Property Type: COMMERCIAL REAL ESTATE</b>				
<b>Borough</b>	<b>Block</b>	<b>Lot</b>	<b>Unit</b>	<b>Address</b>
BROOKLYN	2736	9	Entire Lot	18 FROST STREET
<b>Property Type: COMMERCIAL REAL ESTATE</b>				

Additional Properties on Continuation Page

**CROSS REFERENCE DATA**

CRFN \_\_\_\_\_ or Document ID \_\_\_\_\_ or \_\_\_\_\_ Year \_\_\_\_\_ Reel \_\_\_\_\_ Page \_\_\_\_\_ or File Number \_\_\_\_\_

**PARTIES**

<p><b>GRANTOR/SELLER:</b> BEACH-RUSS COMPANY 544 UNION AVENUE BROOKLYN, NY 11211</p>	<p><b>GRANTEE/BUYER:</b> 544 UNION OWNER LLC 70 WEST 93RD STREET, SUITE 100 NEW YORK, NY 10025</p>
--	--

Additional Parties Listed on Continuation Page

**FEES AND TAXES**

<b>Mortgage</b>		<b>Filing Fee:</b>	
Mortgage Amount:	\$ 0.00		\$ 165.00
Taxable Mortgage Amount:	\$ 0.00	NYC Real Property Transfer Tax:	
Exemption:			\$ 344,400.00
<b>TAXES: County (Basic):</b>	\$ 0.00	NYS Real Estate Transfer Tax:	
City (Additional):	\$ 0.00		\$ 52,480.00
Spec (Additional):	\$ 0.00		
TASF:	\$ 0.00		
MTA:	\$ 0.00		
NYCTA:	\$ 0.00		
Additional MRT:	\$ 0.00		
<b>TOTAL:</b>	\$ 0.00		
Recording Fee:	\$ 75.00		
Affidavit Fee:	\$ 0.00		

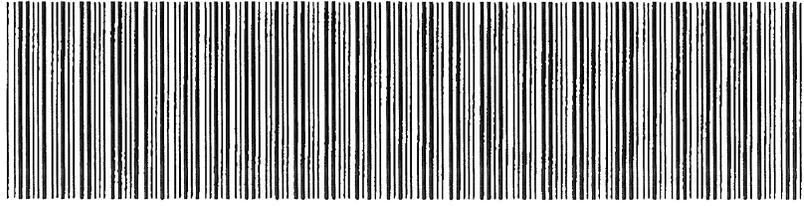
**RECORDED OR FILED IN THE OFFICE  
OF THE CITY REGISTER OF THE  
CITY OF NEW YORK**

Recorded/Filed 12-26-2006 14:50  
City Register File No.(CRFN):  
**2006000702320**



*Annette McMill*  
**City Register Official Signature**

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122100447001001CA155

**RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION) PAGE 2 OF 8**

Document ID: 2006122100447001  
Document Type: DEED

Document Date: 12-14-2006

Preparation Date: 12-21-2006

**PROPERTY DATA**

Borough	Block	Lot	Unit	Address
BROOKLYN	2736	48	Entire Lot	29 WITHERS STREET
Property Type: COMMERCIAL REAL ESTATE				
Borough	Block	Lot	Unit	Address
BROOKLYN	2741	8	Entire Lot	N/A UNION AVENUE
Property Type: COMMERCIAL REAL ESTATE				

**PARTIES**

**GRANTOR/SELLER:**  
ABBE ENGINEERING COMPANY  
544 UNION AVENUE  
BROOKLYN, NY 11211

THIS INDENTURE, made the 14th day of December , 2006

**BETWEEN**

**BEACH-RUSS COMPANY**, a New York Corporation, as owner of Block 2736, Lot 1 and Block 2741, Lot 8, and **ABBE ENGINEERING COMPANY**, a New York Corporation, as owner of Block 2736, Lots 9 and 48, with offices at 544 Union Avenue, Brooklyn, New York 11211

party of the first part, and

**544 UNION OWNER LLC**, a New York limited liability company with offices at 70 West 93<sup>rd</sup> Street, Suite 100, New York, New York 10025

party of the second part,

**WITNESSETH**, that the party of the first part, in consideration of \$10.00 dollars paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

**ALL** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the

Block:  
2736

**SEE ATTACHED**

Lots:  
1, 9 & 48

Block:  
2741

This transfer is being made in the regular course of business.

Lot:  
8

This conveyance has been made with the consent of the holders of at least two-thirds of the outstanding shares of the party of the first part entitled to vote thereon at a meeting duly called.

**TOGETHER** with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; **TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises; **TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

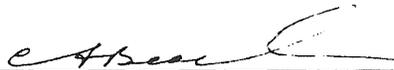
**AND** the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

**AND** the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

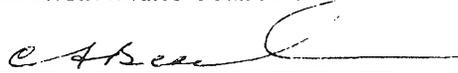
**IN WITNESS WHEREOF**, the party of the first part has duly executed this deed the day and year first above written

IN PRESENCE OF:

**BEACH-RUSS COMPANY**

By:   
**C. A. BEACH**

**ABBE ENGINEERING COMPANY**

By:   
**C. A. BEACH**

SCHEDULE A

Parcel A as to Block 2741 Lot 8

ALL THAT CERTAIN, plot, piece or parcel of land, with the building and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at a point formed by the intersection of the Southerly side of Withers Street with the easterly side of Union Avenue, and;

RUNNING THENCE southerly, along Union Avenue, twenty-five (25) feet;

THENCE easterly, parallel with Withers Street, One Hundred (100) feet;

THENCE northerly, parallel with Union Avenue, Twenty-Five (25) feet to the Withers Street and;

THENCE westerly, along Withers Street, One Hundred (100) feet to the point or place of BEGINNING.

For information only: Said premises are known as 544 Union Avenue a/k/a 16-24 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2741 Lot 8 as shown on the Tax Map of the City of New York, County of Kings.

**SCHEDULE A**  
(continued - page 2)

Parcel B as to Block 2736 Lot 1

ALL THAT CERTAIN plot, piece or parcel of land with the building and improvements thereon erected situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street;

RUNNING THENCE southerly along the easterly side of Union Avenue to the corner formed by the intersection of the easterly side of Union Avenue two hundred (200) feet and the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman;

THENCE northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof;

THENCE northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and

THENCE westerly along the southerly side of Frost Street, one hundred (100) feet to the corner formed by the intersection of the southerly side of Frost Street and the easterly side of Union Avenue to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 3)

Parcel B as to Block 2736 Lot 9

ALL THAT CERTAIN lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the southerly side of Frost Street, distant one hundred feet easterly from the corner formed by the intersection of the southerly side of Frost Street with the easterly side of Union Avenue;

RUNNING THENCE easterly along the southerly side of Frost Street one hundred five feet;

THENCE southerly parallel with Union Avenue, One hundred twelve feet, more or less to land now or formerly of John Skillman;

THENCE southwesterly along land now or formerly of John Skillman to a point, distant one hundred feet easterly from the easterly side of Union Avenue measured on a line parallel with Frost Street;

THENCE northerly parallel with Union Avenue One hundred sixty-nine feet more or less to the southerly side of Frost Street at the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 4)

Parcel B as to Block 2736 Lot 48

ALL THAT CERTAIN lot, piece or parcel of land together with the buildings and improvement therein erected, situate, lying and being in the Borough of Brooklyn County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the northerly side of Withers Street, distant 425 feet westerly from the northwesterly corner of Lorimer Street and Withers Street and;

RUNNING THENCE northerly parallel with Lorimer Street 41 feet 6 inches to land now or formerly of David Meserole;

THENCE southwesterly along said land of David Meserole 94 feet 8 inches to a point on the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street 83 feet 6 inches to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE IN NEW YORK STATE**

State of New York, County of Nassau ss:

State of New York, County of ss:

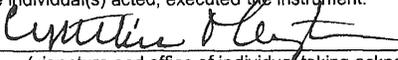
On the 14<sup>th</sup> day of **December** in the year **2006**  
before me, the undersigned, personally appeared

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_  
before me, the undersigned, personally appeared

**C. A. BEACH**

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



\_\_\_\_\_  
(signature and office of individual taking acknowledgment)

(signature and office of individual taking acknowledgment)

**NOTARY PUBLIC SIGNATURE**

CYNTHIA MARGARETEN  
Notary Public, State of New York  
No. 01MA4884255  
Qualified in Nassau County 07  
Commission Expires January 26, 2007

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE OUTSIDE NEW YORK STATE**

State (or District of Columbia, Territory, or Foreign Country) of \_\_\_\_\_ ss:

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_ before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before the undersigned in the

in \_\_\_\_\_  
(insert the City or other political subdivision)

(and insert the State or Country or other place the acknowledgment was taken)

\_\_\_\_\_  
(signature and office of individual taking acknowledgment)

**BARGAIN AND SALE DEED  
WITH COVENANT AGAINST GRANTOR'S ACTS**

Title No.

**Beach-Russ Company &  
Abbe Engineering Company  
TO  
544 Union Owner LLC**

**SECTION**

**BLOCK 2736 & 2741  
LOT 1 & 9 48 & 8  
COUNTY OR TOWN KINGS  
STREET ADDRESS 544 UNION AVENUE**

STANDARD FORM OF NEW YORK BOARD OF TITLE UNDERWRITERS

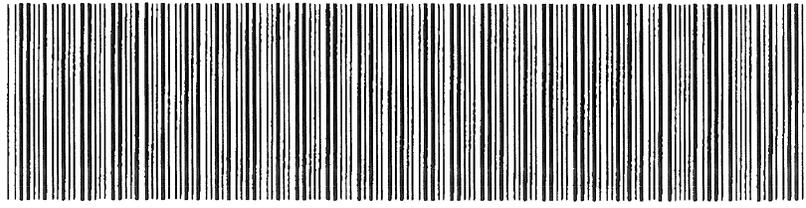
Royal Abstract of New York, LLC  
500 5th Avenue, Suite 1540  
New York, NY 10110

RETURN BY MAIL TO:

Stark, Amron, Liner LLP  
Seven Penn Plaza, Suite 600  
New York, New York 10001

RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122100447001001S6D54

SUPPORTING DOCUMENT COVER PAGE

PAGE 1 OF 1

Document ID: 2006122100447001

Document Date: 12-14-2006

Preparation Date: 12-21-2006

Document Type: DEED

ASSOCIATED TAX FORM ID: 2006122100159

SUPPORTING DOCUMENTS SUBMITTED:

Page Count

RP - 5217 REAL PROPERTY TRANSFER REPORT

3

FOR CITY USE ONLY

C1. County Code  C2. Date Deed Recorded  /  /   
 Month Day Year

C3. Book  OR C4. Page   
 C5. CRFN



**REAL PROPERTY TRANSFER REPORT**  
 STATE OF NEW YORK  
 STATE BOARD OF REAL PROPERTY SERVICES  
**RP - 5217NYC**  
 (Rev 11/2002)

**PROPERTY INFORMATION**

1. Property Location  544 UNION AVENUE BROOKLYN 11211  
 STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name  544 UNION OWNER LLC  
 LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address   
 Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
 LAST NAME / COMPANY FIRST NAME

4. Indicate the number of Assessment Roll parcels transferred on the deed  4 # of Parcels OR  Part of a Parcel

5. Deed Property Size  FRONT FEET X  DEPTH OR  ACRES

6. Ownership Type is Condominium   
 7. New Construction on Vacant Land

8. Seller Name  BEACH-RUSS COMPANY  
 LAST NAME / COMPANY FIRST NAME

ABBE ENGINEERING COMPANY  
 LAST NAME / COMPANY FIRST NAME

9. Check the box below which most accurately describes the use of the property at the time of sale:

A  One Family Residential C  Residential Vacant Land E  Commercial G  Entertainment / Amusement I  Industrial  
 B  2 or 3 Family Residential D  Non-Residential Vacant Land F  Apartment H  Community Service J  Public Service

**SALE INFORMATION**

10. Sale Contract Date  2 / 9 / 2005  
 Month Day Year

11. Date of Sale / Transfer  12 / 14 / 2006  
 Month Day Year

12. Full Sale Price \$  1,312,000.00  
 ( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations. ) Please round to the nearest whole dollar amount.

13. Indicate the value of personal property included in the sale

14. Check one or more of these conditions as applicable to transfer:

A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale ( Specify Below )  
 F  Sale of Fractional or Less than Fee Interest ( Specify Below )  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price ( Specify Below )  
 J  None

**ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill**

15. Building Class  F 9 16. Total Assessed Value (of all parcels in transfer)

17. Borough, Block and Lot / Roll Identifier(s) ( If more than three, attach sheet with additional identifier(s) )

BROOKLYN 2736 1  BROOKLYN 2736 9  BROOKLYN 2736 48

**CERTIFICATION**

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

**BUYER**

BUYER SIGNATURE  DATE

STREET NUMBER  STREET NAME (AFTER SALE)

CITY OR TOWN  STATE  ZIP CODE

**BUYER'S ATTORNEY**

LAST NAME  FIRST NAME

AREA CODE  TELEPHONE NUMBER

**SELLER**

SELLER SIGNATURE  DATE

FOR CITY USE ONLY

C1. County Code          C2. Date Deed Recorded          /          /           
Month Day Year

C3. Book          OR C4. Page         

C5. CRFN         



**REAL PROPERTY TRANSFER REPORT**  
 STATE OF NEW YORK  
 STATE BOARD OF REAL PROPERTY SERVICES  
**RP - 5217NYC**

(Rev 11/2002)

**PROPERTY INFORMATION**

1. Property Location 544 UNION AVENUE BROOKLYN 11211  
STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name 544 UNION OWNER LLC  
LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address                                      
Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
LAST NAME / COMPANY FIRST NAME  
STREET NUMBER AND STREET NAME CITY OR TOWN STATE ZIP CODE

4. Indicate the number of Assessment Roll parcels transferred on the deed 4 # of Parcels OR  Part of a Parcel

5. Deed Property Size          X          OR          ACRES  
FRONT FEET DEPTH

6. Seller Name BEACH-RUSS COMPANY           
LAST NAME / COMPANY FIRST NAME  
ABBE ENGINEERING COMPANY           
LAST NAME / COMPANY FIRST NAME

7. New Construction on Vacant Land

8. Seller Name                    
LAST NAME / COMPANY FIRST NAME

4A. Planning Board Approval - N/A for NYC  
 4B. Agricultural District Notice - N/A for NYC

Check the boxes below as they apply:  
 6. Ownership Type is Condominium   
 7. New Construction on Vacant Land

9. Check the box below which most accurately describes the use of the property at the time of sale:

A  One Family Residential    C  Residential Vacant Land    E  Commercial    G  Entertainment / Amusement    I  Industrial  
 B  2 or 3 Family Residential    D  Non-Residential Vacant Land    F  Apartment    H  Community Service    J  Public Service

**SALE INFORMATION**

10. Sale Contract Date 2 / 9 / 2005  
Month Day Year

11. Date of Sale / Transfer 12 / 14 / 2006  
Month Day Year

12. Full Sale Price \$ 1,312,000.00  
( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) Please round to the nearest whole dollar amount.

13. Indicate the value of personal property included in the sale         

14. Check one or more of these conditions as applicable to transfer:  
 A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale (Specify Below)  
 F  Sale of Fractional or Less than Fee Interest ( Specify Below )  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price ( Specify Below )  
 J  None

**ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill**

15. Building Class F 9    16. Total Assessed Value (of all parcels in transfer) 560880

17. Borough, Block and Lot / Roll Identifier(s) ( If more than three, attach sheet with additional Identifier(s) )  
BROOKLYN 2736 1    BROOKLYN 2736 9    BROOKLYN 2736 48

**CERTIFICATION**

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER  
         12/14/2006  
BUYER SIGNATURE DATE  
70 WEST 93rd STREET  
STREET NUMBER STREET NAME (AFTER SALE)  
NEW YORK NY 10025  
CITY OR TOWN STATE ZIP CODE

BUYER'S ATTORNEY  
LINER ROBERT  
LAST NAME FIRST NAME  
212 354-0600  
AREA CODE TELEPHONE NUMBER -  
 SELLER  
         12/14/06  
SELLER SIGNATURE DATE



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **1**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **544 UNION AVENUE** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:
- (9) Name of Owner:
- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **9**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
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 Tenant  Other (please explain):

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 Date(mm/dd/yyyy): . / /



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### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

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 Date(mm/dd/yyyy):     /     /



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**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2741** Lot: **8**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
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 Home Phone(Numbers only): Business Phone(Numbers only):

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### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

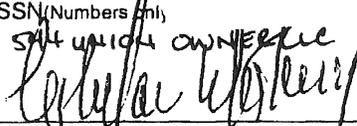
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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 Ste. 307**
- (6) Mailing Address: Street **190 North 107 St, Ste 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers only) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12/14/2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **9**
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 Meter Number (if available—include the letter):
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 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

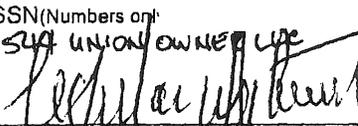
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 Tenant  Other (please explain):

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- (8) Owner's EIN or SSN(Numbers only) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**



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 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: 2736 Lot: 1
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **544 UNION AVENUE** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  

	(Last Name)	(First Name)	(MI)
Street <b>70 WEST 93RD STREET SUITE 100</b>		City <b>NEW YORK</b>	State <b>NY</b> Zip <b>10025</b>
Home Phone(Numbers only):	Business Phone(Numbers only):		

**Customer Billing Information:**

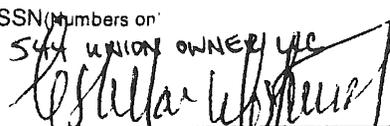
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- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

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- (8) Owner's EIN or SSN(Numbers on) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager of 544 UNION OWNER LLC**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**



The City of New York  
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**Customer Registration Form for Water and Sewer Billing**

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Meter Number (if available—include the letter):
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Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
(please provide information on owner ONLY; do NOT give information on property manager or tenant):  
Owner's Name Business: **544 UNION OWNER LLC**  
or Individual:  

	(Last Name)	(First Name)	(MI)
Street <b>70 WEST 93RD STREET SUITE 100</b>		City <b>NEW YORK</b>	State <b>NY</b> Zip <b>10025</b>

Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

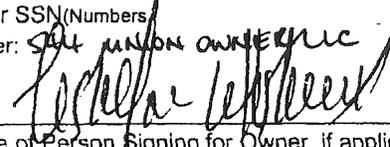
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Tenant  Other (please explain):

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- (8) Owner's EIN or SSN(Numbers) E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
Name and Title of Person Signing for Owner, if applicable: **Manager**  
Date(mm/dd/yyyy): **12 / 14 / 2006**

---

# **APPENDIX C**

## **Environmental Database**

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**EDR**® Environmental  
Data Resources Inc

## **The EDR Radius Map with GeoCheck®**

**Industrial Building  
544 Union Avenue  
Brooklyn, NY 11211**

**Inquiry Number: 1908261.2s**

**April 20, 2007**

## **The Standard in Environmental Risk Information**

440 Wheelers Farms Road  
Milford, Connecticut 06461

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

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*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

#### Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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# EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

## TARGET PROPERTY INFORMATION

### ADDRESS

544 UNION AVENUE  
BROOKLYN, NY 11211

### COORDINATES

Latitude (North): 40.717000 - 40° 43' 1.2"  
Longitude (West): 73.952000 - 73° 57' 7.2"  
Universal Transverse Mercator: Zone 18  
UTM X (Meters): 588517.4  
UTM Y (Meters): 4507659.0  
Elevation: 16 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 40073-F8 BROOKLYN, NY  
Most Recent Revision: 1995

### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 6 of the attached EDR Radius Map report:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
BEACH-RUSS CO 544 UNION AVE BROOKLYN, NY 11211	RCRA-SQG FINDS NY MANIFEST	NYR000014472

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

### FEDERAL RECORDS

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
Delisted NPL..... National Priority List Deletions

## EXECUTIVE SUMMARY

<b>NPL RECOVERY</b>	Federal Superfund Liens
<b>CERCLIS</b>	Comprehensive Environmental Response, Compensation, and Liability Information System
<b>RCRA-TSDF</b>	Resource Conservation and Recovery Act Information
<b>ERNS</b>	Emergency Response Notification System
<b>HMIRS</b>	Hazardous Materials Information Reporting System
<b>US ENG CONTROLS</b>	Engineering Controls Sites List
<b>US INST CONTROL</b>	Sites with Institutional Controls
<b>DOD</b>	Department of Defense Sites
<b>FUDS</b>	Formerly Used Defense Sites
<b>US BROWNFIELDS</b>	A Listing of Brownfields Sites
<b>CONSENT</b>	Superfund (CERCLA) Consent Decrees
<b>ROD</b>	Records Of Decision
<b>UMTRA</b>	Uranium Mill Tailings Sites
<b>ODI</b>	Open Dump Inventory
<b>TRIS</b>	Toxic Chemical Release Inventory System
<b>TSCA</b>	Toxic Substances Control Act
<b>FTTS</b>	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
<b>SSTS</b>	Section 7 Tracking Systems
<b>ICIS</b>	Integrated Compliance Information System
<b>LUCIS</b>	Land Use Control Information System
<b>DOT OPS</b>	Incident and Accident Data
<b>RADINFO</b>	Radiation Information Database
<b>HIST FTTS</b>	FIFRA/TSCA Tracking System Administrative Case Listing
<b>US CDL</b>	Clandestine Drug Labs
<b>PADS</b>	PCB Activity Database System
<b>MLTS</b>	Material Licensing Tracking System
<b>MINES</b>	Mines Master Index File
<b>RAATS</b>	RCRA Administrative Action Tracking System

### STATE AND LOCAL RECORDS

<b>SWRCY</b>	Registered Recycling Facility List
<b>SWTIRE</b>	Registered Waste Tire Storage & Facility List
<b>CBS UST</b>	Chemical Bulk Storage Database
<b>MOSF UST</b>	Major Oil Storage Facilities Database
<b>HIST AST</b>	Historical Petroleum Bulk Storage Database
<b>MOSF AST</b>	Major Oil Storage Facilities Database
<b>ENG CONTROLS</b>	Registry of Engineering Controls
<b>INST CONTROL</b>	Registry of Institutional Controls
<b>VCP</b>	Voluntary Cleanup Agreements
<b>BROWNFIELDS</b>	Brownfields Site List
<b>SPDES</b>	State Pollutant Discharge Elimination System
<b>AIRS</b>	Air Emissions Data
<b>MOSF</b>	Major Oil Storage Facility Site Listing
<b>RES DECL</b>	Restrictive Declarations Listing

### TRIBAL RECORDS

<b>INDIAN RESERV</b>	Indian Reservations
<b>INDIAN LUST</b>	Leaking Underground Storage Tanks on Indian Land
<b>INDIAN UST</b>	Underground Storage Tanks on Indian Land

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

## EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### **FEDERAL RECORDS**

**CERCLIS-NFRAP:** Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 12/20/2006 has revealed that there are 2 CERC-NFRAP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b><i>SERVICE PLATING CO LTD</i></b>	<b><i>154 N 7TH ST</i></b>	<b><i>1/4 - 1/2 WNW S79</i></b>		<b><i>351</i></b>
<b><i>CITY BARREL &amp; DRUM CO INC</i></b>	<b><i>421 MEEKER AVE</i></b>	<b><i>1/4 - 1/2 ENE T83</i></b>		<b><i>375</i></b>

**CORRACTS:** CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 01/04/2007 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b><i>RADIAC RESEARCH CORP</i></b>	<b><i>33 S FIRST ST</i></b>	<b><i>1/2 - 1 W</i></b>	<b><i>99</i></b>	<b><i>411</i></b>

**RCRAInfo:** RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/13/2006 has revealed that there is 1

## EXECUTIVE SUMMARY

RCRA-LQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>NYCT - METROPOLITAN AVE STATIO</b>	<b>METROPOLITAN &amp; UNION AV</b>	<b>1/8 - 1/4S</b>	<b>L48</b>	<b>212</b>

**RCRAInfo:** RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act ( RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/13/2006 has revealed that there are 13 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>GREENE LIGHTING FIXTURES INC</b>	<b>40 WITHERS ST</b>	<b>0 - 1/8 ESE</b>	<b>4</b>	<b>13</b>
<b>P &amp; G PHOTO ENGRAVING CO INC</b>	<b>17 FROST ST</b>	<b>0 - 1/8 NE</b>	<b>5</b>	<b>14</b>
<b>SERVICE STATION</b>	<b>64 FROST ST</b>	<b>1/8 - 1/4ENE</b>	<b>F26</b>	<b>138</b>
<b>NYS DOT BQE PROJECT</b>	<b>MEEKER &amp; LORIMER ST</b>	<b>1/8 - 1/4E</b>	<b>27</b>	<b>138</b>
<b>ATELIER VIOLETT</b>	<b>505 DRIGGS AVE</b>	<b>1/8 - 1/4 WNW</b>	<b>I43</b>	<b>202</b>
<b>TOP HAT CLEANERS</b>	<b>592 LORIMER ST</b>	<b>1/8 - 1/4SE</b>	<b>M53</b>	<b>228</b>
<b>S KLENOSKY INC</b>	<b>543 METROPOLITAN AVE</b>	<b>1/8 - 1/4SSE</b>	<b>58</b>	<b>275</b>
<b>BROTHERS CLEANERS</b>	<b>106 ROEBLING ST</b>	<b>1/8 - 1/4 WSW</b>	<b>59</b>	<b>276</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>PURITAN LIGHTING FIXTURE CO</b>	<b>255 N 7TH ST</b>	<b>1/8 - 1/4SW</b>	<b>31</b>	<b>158</b>
<b>ADELPHIA CONTAINER CORP</b>	<b>206 N 10TH ST</b>	<b>1/8 - 1/4NW</b>	<b>32</b>	<b>158</b>
<b>NYC FIRE DEPT ENGINE CO 229</b>	<b>75 RICHARDSON ST</b>	<b>1/8 - 1/4ENE</b>	<b>H40</b>	<b>192</b>
<b>NYC BD OF ED - H VAN ARSDALE H</b>	<b>257 N 6TH ST</b>	<b>1/8 - 1/4SW</b>	<b>K45</b>	<b>205</b>
<b>GRAF AIR PROPERTY</b>	<b>407 LEONARD ST</b>	<b>1/8 - 1/4ENE</b>	<b>N60</b>	<b>290</b>

### STATE AND LOCAL RECORDS

**HSWDS:** The List includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity The latest version of the study is frozen in time. The sites on the study will not automatically be made superfund sites, rather each site will be further evaluated for listing in the registry. So overtime they will be added to the registry or not.

A review of the HSWDS list, as provided by EDR, and dated 01/01/2003 has revealed that there is 1 HSWDS site within approximately 0.5 miles of the target property.

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CITY BARREL	421 MEEKER STREET	1/4 - 1/2ENE	T84	376

**SHWS:** The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Conservation's Inactive Hazardous waste Disposal Sites in New York State.

A review of the SHWS list, as provided by EDR, and dated 03/05/2007 has revealed that there is 1 SHWS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
BQE/ANSBACHER COLOR & DYE FACT	MEEKER AVENUE	1/8 - 1/4SSW	J44	203
Class Code: Does not present a significant threat to the public health or the environment - action may be deferred.				

**DEL SHWS:** A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

A review of the DEL SHWS list, as provided by EDR, and dated 08/04/2006 has revealed that there is 1 DEL SHWS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MOBIL OIL BROOKLYN TERMINAL	300 NORTH HENRY STREET	1/2 - 1 NNE	101	482

**SWF/LF:** The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the list.

A review of the SWF/LF list, as provided by EDR, and dated 01/30/2007 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
NATIONAL PAPER STOCK; INC.	136 NORTH 10TH STREET	1/4 - 1/2NW	81	370

**LTANKS:** Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills

A review of the LTANKS list, as provided by EDR, and dated 01/17/2007 has revealed that there are 31 LTANKS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>MEEKER DISCOUNT MUFFLERS</b> Date Closed: / /	<b>64 FROST ST</b>	<b>1/8 - 1/4ENE</b>	<b>F25</b>	<b>135</b>
<b>S/W COR METROPOLITAN/MARC</b> Date Closed: / /	<b>S/W COR METROPOLITAN/MA</b>	<b>1/8 - 1/4SSW</b>	<b>J54</b>	<b>244</b>
<b>COOPER PARK</b> Date Closed: 03/29/96	<b>95 JACKSON STREET</b>	<b>1/8 - 1/4E</b>	<b>69</b>	<b>334</b>

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>402 METROPOLITAN AVE.</b> Date Closed: 05/04/95	<b>402 METROPOLITAN AVE</b>	<b>1/4 - 1/2 SW</b>	<b>Q72</b>	<b>338</b>
<b>402 METROPOLITAN AV/BKLYN</b> Date Closed: 05/04/95	<b>402 METROPOLITAN AVENUE</b>	<b>1/4 - 1/2 SW</b>	<b>Q73</b>	<b>341</b>
<b>Not reported</b> Date Closed: 12/12/03	<b>179 N 6TH STREET</b>	<b>1/4 - 1/2 W</b>	<b>74</b>	<b>343</b>
ST VINCENT DEPAUL CHURCH Date Closed: 12/21/05	167 N. 6TH ST	1/4 - 1/2 W	75	346
187 BEDFORD AVE Date Closed: / /	187 BEDFORD AVENUE	1/4 - 1/2 W	76	347
<b>154-158 NORTH 7TH ST/BKLY</b> Date Closed: / /	<b>154-158 NORTH 7TH STREE</b>	<b>1/4 - 1/2 WNW S80</b>		<b>367</b>
UNITED AMBULETTE Date Closed: 05/03/05	495 GRAHAM AVE	1/4 - 1/2 NE	85	377
<b>BERKMAN BROS. INC.</b> Date Closed: 03/31/93	<b>55 ECKFORD ST.</b>	<b>1/4 - 1/2 NNE</b>	<b>86</b>	<b>379</b>
BRUMAR SHEET METAL INC Date Closed: 09/26/06	498 LEONARD STREET	1/4 - 1/2 NNE	87	383
<b>Not reported</b> Date Closed: 10/31/05	<b>93 NORTH 9TH ST</b>	<b>1/4 - 1/2 WNW U90</b>		<b>387</b>
<b>COMMERCIAL BUILDING</b> Date Closed: 06/21/05	<b>93 NORTH 9TH STREET</b>	<b>1/4 - 1/2 WNW U91</b>		<b>390</b>
<b>MOBIL S/S</b> Date Closed: / /	<b>550 HUMBOLDT STREET</b>	<b>1/4 - 1/2 NE</b>	<b>92</b>	<b>393</b>
<b>146 WYTHE AVE/BROOKLYN</b> Date Closed: 08/24/89	<b>146 WYTHE AVENUE</b>	<b>1/4 - 1/2 WNW 93</b>		<b>396</b>
APARTMENT BUILDING Date Closed: 11/17/06	278 SOUTH 2ND ST	1/4 - 1/2 SSW	V94	398
<b>274 SOUTH 2ND ST</b> Date Closed: 10/29/96	<b>274 SOUTH 2ND ST</b>	<b>1/4 - 1/2 SW</b>	<b>V95</b>	<b>400</b>
<b>273 SOUTH SECOND STREET</b> Date Closed: 04/04/05	<b>273 SOUTH SECOND STREET</b>	<b>1/4 - 1/2 SSW</b>	<b>V96</b>	<b>403</b>
APARTMENT BUILDING Date Closed: 11/17/06	265 SOUTH 2ND ST.	1/4 - 1/2 SW	V97	405
<b>NATIONS RENT</b> Date Closed: 12/09/03	<b>91 N. 12TH ST</b>	<b>1/4 - 1/2 NW</b>	<b>98</b>	<b>407</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>UNKNOWN GAS STATION</b> Date Closed: 10/25/05	<b>2 ROBLING ST</b>	<b>1/8 - 1/4 N</b>	<b>22</b>	<b>86</b>
<b>68 RICHARDSON STREET</b> Date Closed: 06/11/01	<b>68 RICHARDSON STREET</b>	<b>1/8 - 1/4 NE</b>	<b>H36</b>	<b>183</b>
<b>ENGINE COMPANY 229</b> Date Closed: / /	<b>75 RICHARDSON ST</b>	<b>1/8 - 1/4 ENE</b>	<b>H41</b>	<b>193</b>
<b>522 METROPOLITAN AVE</b> Date Closed: 02/24/03	<b>522 METROPOLITAN AVE</b>	<b>1/8 - 1/4 S</b>	<b>L49</b>	<b>224</b>

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
GAS STATION Date Closed: 12/16/03	392 LEONARD STREET	1/8 - 1/4 ENE	N56	251
<b>UNICO GAS STATION</b> Date Closed: 10/07/05	<b>445 METROPOLITIAN AVE</b>	<b>1/8 - 1/4 SSW</b>	<b>O65</b>	<b>328</b>
STREET Date Closed: 01/06/05	HOPE STREET / RODNEY ST	1/4 - 1/2 SSW	R77	348
STREET SPILL Date Closed: 01/06/05	HOPE STREET / RODNEY ST	1/4 - 1/2 SSW	R78	350
<b>PS 610</b> Date Closed: 03/21/05 Date Closed: / /	<b>50 BEDFORD AVE</b>	<b>1/4 - 1/2 N</b>	<b>82</b>	<b>371</b>
<b>NASH METALWARE CO.</b> Date Closed: / /	<b>1 NASSAU AVE.</b>	<b>1/4 - 1/2 NNW</b>	<b>88</b>	<b>384</b>

**HIST LTANKS:** A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database.

A review of the HIST LTANKS list, as provided by EDR, and dated 01/01/2002 has revealed that there are 21 HIST LTANKS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>MEEKER DISCOUNT MUFFLERS</b>	<b>64 FROST ST</b>	<b>1/8 - 1/4 ENE</b>	<b>F25</b>	<b>135</b>
<b>S/W COR METROPOLITAN/MARC</b>	<b>S/W COR METROPOLITAN/MA</b>	<b>1/8 - 1/4 SSW</b>	<b>J54</b>	<b>244</b>
<b>COOPER PARK</b>	<b>95 JACKSON STREET</b>	<b>1/8 - 1/4 E</b>	<b>69</b>	<b>334</b>
<b>402 METROPOLITAN AVE.</b>	<b>402 METROPOLITAN AVE</b>	<b>1/4 - 1/2 SW</b>	<b>Q72</b>	<b>338</b>
<b>402 METROPOLITAN AV/BKLYN</b>	<b>402 METROPOLITAN AVENUE</b>	<b>1/4 - 1/2 SW</b>	<b>Q73</b>	<b>341</b>
<b>Not reported</b>	<b>179 N 6TH STREET</b>	<b>1/4 - 1/2 W</b>	<b>74</b>	<b>343</b>
<b>154-158 NORTH 7TH ST/BKLY</b>	<b>154-158 NORTH 7TH STREE</b>	<b>1/4 - 1/2 WNW</b>	<b>S80</b>	<b>367</b>
<b>BERKMAN BROS. INC.</b>	<b>55 ECKFORD ST.</b>	<b>1/4 - 1/2 NNE</b>	<b>86</b>	<b>379</b>
<b>Not reported</b>	<b>93 NORTH 9TH ST</b>	<b>1/4 - 1/2 WNW</b>	<b>U90</b>	<b>387</b>
<b>COMMERCIAL BUILDING</b>	<b>93 NORTH 9TH STREET</b>	<b>1/4 - 1/2 WNW</b>	<b>U91</b>	<b>390</b>
<b>MOBIL S/S</b>	<b>550 HUMBOLDT STREET</b>	<b>1/4 - 1/2 NE</b>	<b>92</b>	<b>393</b>
<b>146 WYTHE AVE/BROOKLYN</b>	<b>146 WYTHE AVENUE</b>	<b>1/4 - 1/2 WNW</b>	<b>93</b>	<b>396</b>
<b>274 SOUTH 2ND ST</b>	<b>274 SOUTH 2ND ST</b>	<b>1/4 - 1/2 SW</b>	<b>V95</b>	<b>400</b>
<b>273 SOUTH SECOND STREET</b>	<b>273 SOUTH SECOND STREET</b>	<b>1/4 - 1/2 SSW</b>	<b>V96</b>	<b>403</b>
<b>NATIONS RENT</b>	<b>91 N. 12TH ST</b>	<b>1/4 - 1/2 NW</b>	<b>98</b>	<b>407</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>UNKNOWN GAS STATION</b>	<b>2 ROBLING ST</b>	<b>1/8 - 1/4 N</b>	<b>22</b>	<b>86</b>
<b>68 RICHARDSON STREET</b>	<b>68 RICHARDSON STREET</b>	<b>1/8 - 1/4 NE</b>	<b>H36</b>	<b>183</b>
<b>ENGINE COMPANY 229</b>	<b>75 RICHARDSON ST</b>	<b>1/8 - 1/4 ENE</b>	<b>H41</b>	<b>193</b>
<b>522 METROPOLITAN AVE</b>	<b>522 METROPOLITAN AVE</b>	<b>1/8 - 1/4 S</b>	<b>L49</b>	<b>224</b>
<b>UNICO GAS STATION</b>	<b>445 METROPOLITIAN AVE</b>	<b>1/8 - 1/4 SSW</b>	<b>O65</b>	<b>328</b>
<b>PS 610</b>	<b>50 BEDFORD AVE</b>	<b>1/4 - 1/2 N</b>	<b>82</b>	<b>371</b>

## EXECUTIVE SUMMARY

**UST:** The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the UST list, as provided by EDR, and dated 03/06/2007 has revealed that there are 17 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
568-580 UNION AVENUE <b>MEECO CORP</b> <b>64 FROST ST.</b>	568-580 UNION AVENUE <b>243 MEEKER AVENUE</b> <b>64 FROST STREET</b>	0 - 1/8 N <b>0 - 1/8 SE</b> <b>1/8 - 1/4 ENE</b>	6 <b>C12</b> <b>F24</b>	17 <b>31</b> <b>113</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>OUR LADY OF MOUNT CARMEL R.C.</b>	<b>11-23 HAVEMEYER STREET</b>	<b>0 - 1/8 SW</b>	<b>13</b>	<b>66</b>
WING HON HOLDING, INC.	237-243 NORTH 9TH STREET	0 - 1/8 WNW	E15	71
<b>238 NORTH 9TH STREET REALTY CO</b>	<b>238 NORTH 9TH STREET</b>	<b>0 - 1/8 WNW</b>	<b>E17</b>	<b>76</b>
<b>25 SKILLMAN AVE LLC</b>	<b>25 SKILLMAN AVENUE</b>	<b>1/8 - 1/4 SE</b>	<b>23</b>	<b>89</b>
<b>BAYARD PROPERTIES</b>	<b>735 LORIMER STREET</b>	<b>1/8 - 1/4 NE</b>	<b>35</b>	<b>181</b>
<b>68-70 RICHARDSON STREET CO.</b>	<b>68-70 RICHARDSON STREET</b>	<b>1/8 - 1/4 NE</b>	<b>H37</b>	<b>186</b>
WING HON HOLDING	212-218 NORTH 9TH STREET	1/8 - 1/4 WNW	I38	188
FDNY ENGINE 229 / LADDER 146	75 RICHARDSON STREET	1/8 - 1/4 ENE	H39	191
<b>432 DRIGGS AVE CORP.</b>	<b>432 DRIGGS AVENUE</b>	<b>1/8 - 1/4 NNW</b>	<b>55</b>	<b>249</b>
<b>278 FUEL STOP, INC.</b>	<b>392 LEONARD STREET</b>	<b>1/8 - 1/4 ENE</b>	<b>N57</b>	<b>253</b>
<b>D L BRENNER &amp; SONS INC</b>	<b>407 LEONARD ST</b>	<b>1/8 - 1/4 ENE</b>	<b>N61</b>	<b>292</b>
<b>FREMRO SERVICES INC.</b>	<b>447 UNION AVENUE</b>	<b>1/8 - 1/4 S</b>	<b>L62</b>	<b>304</b>
JOE'S AUTO REPAIR CORNER INC.	445 METROPOLITAN AVENUE	1/8 - 1/4 SSW	O63	306
ISRAEL M DOLGIN ASSOC	101 RICHARDSON STREET	1/8 - 1/4 ENE	N68	332

**HIST UST:** The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the HIST UST list, as provided by EDR, and dated 01/01/2002 has revealed that there are 15 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>MEECO CORP</b> <b>64 FROST ST.</b>	<b>243 MEEKER AVENUE</b> <b>64 FROST STREET</b>	<b>0 - 1/8 SE</b> <b>1/8 - 1/4 ENE</b>	<b>C12</b> <b>F24</b>	<b>31</b> <b>113</b>
MOBILE SYSTEMS UNIT	75 FROST ST	1/8 - 1/4 ENE	F30	155
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>OUR LADY OF MOUNT CARMEL R.C.</b>	<b>11-23 HAVEMEYER STREET</b>	<b>0 - 1/8 SW</b>	<b>13</b>	<b>66</b>
<b>238 NORTH 9TH STREET REALTY CO</b>	<b>238 NORTH 9TH STREET</b>	<b>0 - 1/8 WNW</b>	<b>E17</b>	<b>76</b>
<b>25 SKILLMAN AVE LLC</b>	<b>25 SKILLMAN AVENUE</b>	<b>1/8 - 1/4 SE</b>	<b>23</b>	<b>89</b>
<b>BAYARD PROPERTIES</b>	<b>735 LORIMER STREET</b>	<b>1/8 - 1/4 NE</b>	<b>35</b>	<b>181</b>
<b>68-70 RICHARDSON STREET CO.</b>	<b>68-70 RICHARDSON STREET</b>	<b>1/8 - 1/4 NE</b>	<b>H37</b>	<b>186</b>
FDNY ENGINE 229 / LADDER 146	75 RICHARDSON STREET	1/8 - 1/4 ENE	H42	196
H. VAN ARSDALE H. S. - K650	257 NORTH 6TH STREET	1/8 - 1/4 SW	K46	208
<b>432 DRIGGS AVE CORP.</b>	<b>432 DRIGGS AVENUE</b>	<b>1/8 - 1/4 NNW</b>	<b>55</b>	<b>249</b>
<b>278 FUEL STOP, INC.</b>	<b>392 LEONARD STREET</b>	<b>1/8 - 1/4 ENE</b>	<b>N57</b>	<b>253</b>
<b>D L BRENNER &amp; SONS INC</b>	<b>407 LEONARD ST</b>	<b>1/8 - 1/4 ENE</b>	<b>N61</b>	<b>292</b>
<b>FREMRO SERVICES INC.</b>	<b>447 UNION AVENUE</b>	<b>1/8 - 1/4 S</b>	<b>L62</b>	<b>304</b>
JOE'S AUTO REPAIR CORNER INC.	445 METROPOLITAN AVENUE	1/8 - 1/4 SSW	O64	317

## EXECUTIVE SUMMARY

**AST:** The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database.

A review of the AST list, as provided by EDR, and dated 03/06/2007 has revealed that there are 7 AST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>MEECO CORP</b> ALL BORO	<b>243 MEEKER AVENUE</b> 391 LEONARD STREET	<b>0 - 1/8 SE</b> 1/8 - 1/4 ENE	<b>C12</b> 47	<b>31</b> 211
<b>Lower Elevation</b>	<b>Address</b>	<b>Dist / Dir</b>	<b>Map ID</b>	<b>Page</b>
<b>J. TUOMEY TRUCK REPAIR</b>	<b>5 ROEBLING STREET</b>	<b>0 - 1/8 NNW</b>	<b>D16</b>	<b>73</b>
<b>STAR SOAP CANDLE CO</b>	<b>304 NORTH 7TH ST</b>	<b>1/8 - 1/4 SW</b>	<b>28</b>	<b>150</b>
<b>FDNY ENGINE 229 / LADDER 146</b>	<b>75 RICHARDSON STREET</b>	<b>1/8 - 1/4 ENE</b>	<b>H42</b>	<b>196</b>
524 METROPOLITAN AVE	524 METROPOLITAN AVENUE	1/8 - 1/4 S	L50	226
JOE'S AUTO REPAIR CORNER INC.	445 METROPOLITAN AVENUE	1/8 - 1/4 SSW	O66	331

**CBS AST:** Chemical Bulk Storage Database. Registration data collected as required by 6 NYCRR Part 596. It includes facilities storing hazardous substances listed in 6 NYCRR Part 597, in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size. Includes facilities registered (and closed) since effective date of CBS regulations (July 15, 1988) through the date request is processed.

A review of the CBS AST list, as provided by EDR, and dated 01/01/2002 has revealed that there is 1 CBS AST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>ROBINSON BROS. INDUSTRIES, COR</b>	<b>215 NORTH 10TH ST.</b>	<b>0 - 1/8 NW</b>	<b>19</b>	<b>80</b>

**MANIFEST:** Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, and dated 10/26/2006 has revealed that there are 13 NY MANIFEST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>P &amp; G PHOTO ENGRAVING CO INC</b>	<b>17 FROST ST</b>	<b>0 - 1/8 NE</b>	<b>5</b>	<b>14</b>
<b>NYSDOT BQE PROJECT</b>	<b>MEEKER &amp; LORIMER ST</b>	<b>1/8 - 1/4 E</b>	<b>27</b>	<b>138</b>
NYCDEP	75 FROST ST	1/8 - 1/4 ENE	F29	153
NYNEX	DRIGGS AVE / N 8TH ST	1/8 - 1/4 WNW	52	228
<b>TOP HAT CLEANERS</b>	<b>592 LORIMER ST</b>	<b>1/8 - 1/4 SE</b>	<b>M53</b>	<b>228</b>
<b>S KLENOSKY INC</b>	<b>543 METROPOLITAN AVE</b>	<b>1/8 - 1/4 SSE</b>	<b>58</b>	<b>275</b>
<b>BROTHERS CLEANERS</b>	<b>106 ROEBLING ST</b>	<b>1/8 - 1/4 WSW</b>	<b>59</b>	<b>276</b>
NYNEX	LORIMER ST / METROPOL	1/8 - 1/4 SE	P71	337
<b>Lower Elevation</b>	<b>Address</b>	<b>Dist / Dir</b>	<b>Map ID</b>	<b>Page</b>
<b>ADELPHIA CONTAINER CORP</b>	<b>206 N 10TH ST</b>	<b>1/8 - 1/4 NW</b>	<b>32</b>	<b>158</b>
MCCAREN MEWS LLC	204 NORTH 11TH STREET	1/8 - 1/4 NNW	G34	166
<b>NYC BD OF ED - H VAN ARSDALE H</b>	<b>257 N 6TH ST</b>	<b>1/8 - 1/4 SW</b>	<b>K45</b>	<b>205</b>
<b>NYCT - METROPOLITAN AVE STATIO</b>	<b>METROPOLITAN &amp; UNION AV</b>	<b>1/8 - 1/4 S</b>	<b>L48</b>	<b>212</b>
<b>GRAF AIR PROPERTY</b>	<b>407 LEONARD ST</b>	<b>1/8 - 1/4 ENE</b>	<b>N60</b>	<b>290</b>

## EXECUTIVE SUMMARY

**SPILLS:** Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, and dated 01/17/2007 has revealed that there are 11 NY Spills sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>AMACO</b> Date Closed: / / Date Closed: 10/17/97	<b>243 MEEKER AVENUE</b>	<b>0 - 1/8 SE</b>	<b>C11</b>	<b>26</b>
<b>704 LORIMAIR ST</b> Date Closed: 09/25/03	<b>704 LORIMAIR ST</b>	<b>0 - 1/8 ENE</b>	<b>21</b>	<b>84</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>MANHOLE 4925</b> Date Closed: 03/29/02	<b>WITHERS ST/UNION AV</b>	<b>0 - 1/8 S</b>	<b>A2</b>	<b>8</b>
<b>MANHOLE 53375</b> Date Closed: 12/08/99	<b>WITHERS ST/ UNION AVE</b>	<b>0 - 1/8 S</b>	<b>A3</b>	<b>11</b>
<b>Not reported</b> Date Closed: 12/22/98	<b>526 UNION AV</b>	<b>0 - 1/8 S</b>	<b>B7</b>	<b>18</b>
<b>MANHOLE 4930</b> Date Closed: 03/27/02	<b>UNION AVE/JACKSON ST</b>	<b>0 - 1/8 S</b>	<b>B8</b>	<b>20</b>
WAREHOUSE Date Closed: 01/10/07	261 NORTH 9TH STREET	0 - 1/8 W	9	23
<b>MANHOLE #4900</b> Date Closed: 03/27/02	<b>NORTH 11TH ST/UNION AVE</b>	<b>0 - 1/8 N</b>	<b>10</b>	<b>24</b>
<b>GAS STATION</b> Date Closed: 02/27/03	<b>2 ROBELING ST</b>	<b>0 - 1/8 NW</b>	<b>D14</b>	<b>68</b>
TM 1142 Date Closed: 07/16/04	11TH/ROEBLING STREET	0 - 1/8 NNW	D18	78
PROPERTY Date Closed: 12/08/05	55 ROEBLING ST	0 - 1/8 W	20	83

**HIST SPILLS:** This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database.

A review of the NY Hist Spills list, as provided by EDR, and dated 01/01/2002 has revealed that there are 8 NY Hist Spills sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>AMACO</b>	<b>243 MEEKER AVENUE</b>	<b>0 - 1/8 SE</b>	<b>C11</b>	<b>26</b>
<b>704 LORIMAIR ST</b>	<b>704 LORIMAIR ST</b>	<b>0 - 1/8 ENE</b>	<b>21</b>	<b>84</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>MANHOLE 4925</b>	<b>WITHERS ST/UNION AV</b>	<b>0 - 1/8 S</b>	<b>A2</b>	<b>8</b>

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>MANHOLE 53375</b>	<b>WITHERS ST/ UNION AVE</b>	<b>0 - 1/8 S</b>	<b>A3</b>	<b>11</b>
<b>Not reported</b>	<b>526 UNION AV</b>	<b>0 - 1/8 S</b>	<b>B7</b>	<b>18</b>
<b>MANHOLE 4930</b>	<b>UNION AVE/JACKSON ST</b>	<b>0 - 1/8 S</b>	<b>B8</b>	<b>20</b>
<b>MANHOLE #4900</b>	<b>NORTH 11TH ST/UNION AVE</b>	<b>0 - 1/8 N</b>	<b>10</b>	<b>24</b>
<b>GAS STATION</b>	<b>2 ROBELING ST</b>	<b>0 - 1/8 NW</b>	<b>D14</b>	<b>68</b>

**DRYCLEANERS:** A listing of all registered drycleaning facilities.

A review of the DRYCLEANERS list, as provided by EDR, and dated 06/15/2004 has revealed that there are 2 DRYCLEANERS sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
TOP HAT CLEANERS	592 LORIMER STREET	1/8 - 1/4SE	M51	227
METROPOLITAN CLEANERS	568 METROPOLITAN AVE.	1/8 - 1/4SSE	67	332

**CBS:** These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

A review of the CBS list, as provided by EDR, and dated 03/06/2007 has revealed that there is 1 CBS site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>ROBINSON BROS. INDUSTRIES, COR</b>	<b>215 NORTH 10TH ST.</b>	<b>0 - 1/8 NW</b>	<b>19</b>	<b>80</b>

### EDR PROPRIETARY RECORDS

**EDR Manufactured Gas Plants:** The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the Manufactured Gas Plants list, as provided by EDR, has revealed that there are 2 Manufactured Gas Plants sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
WYTHE AVE. (BERRY ST.) STATION	WYTHE AVE., BERRY ST.,	1/4 - 1/2NW	89	387

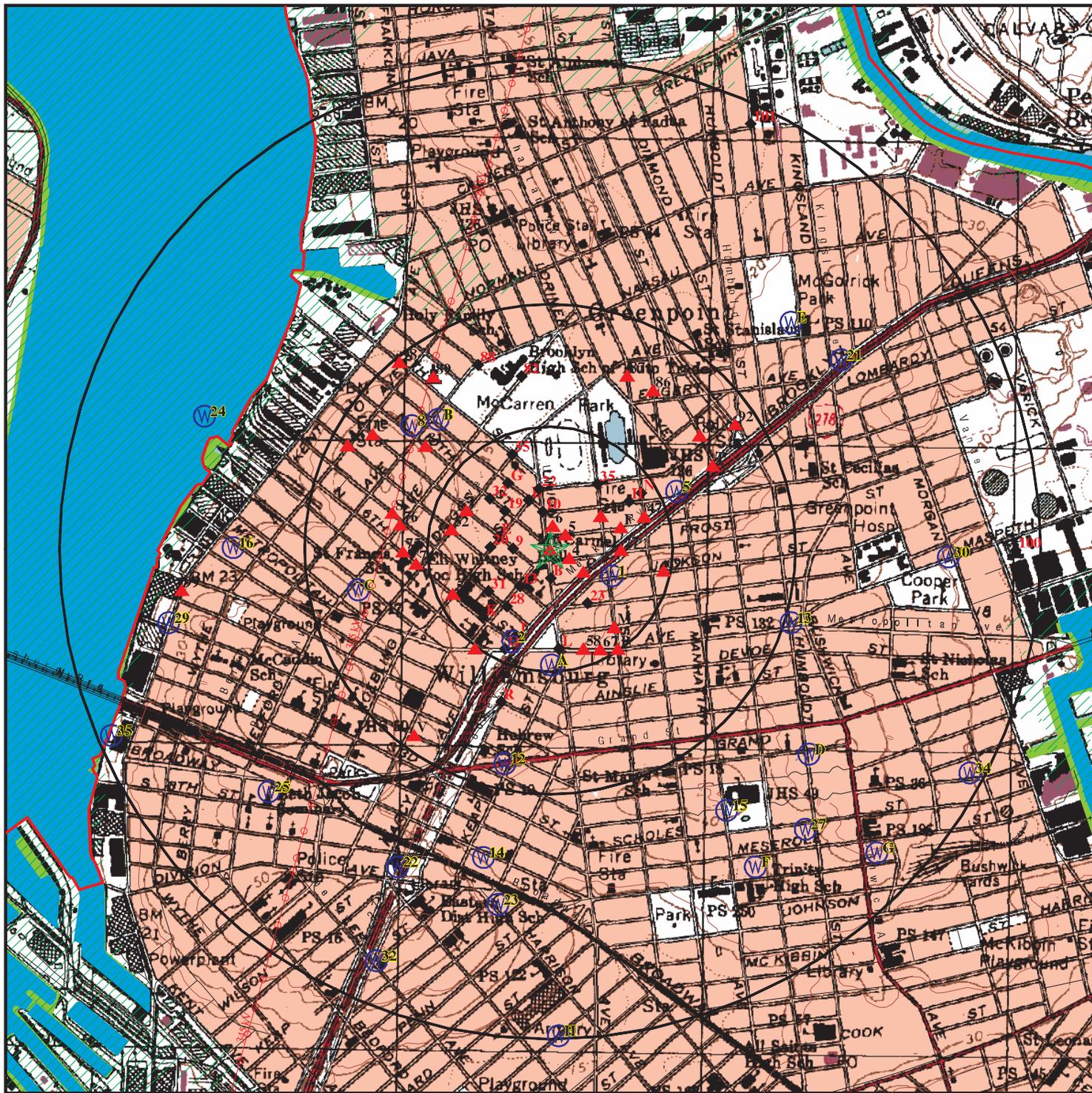
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
EQUITY WORKS	MASPETH AND VANDERVORT	1/2 - 1 E	100	482

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
CONSOLIDATED EDISON	NY MANIFEST
BJR REALTY CORP.	SWF/LF, SWRCY
MAGNUM BODY SHOP INC	SWF/LF
N. Y. PAVING CO.	SWF/LF
ORSANO CARTING CO.	SWF/LF
F N W MECHANICAL	LTANKS
BELL ATLANTIC-NY	RCRA-SQG
169-175 NORTH 10TH STREET	NY Spills
10TH AVE./11TH STREET	NY Spills
COMMERCIAL PROPERTY	NY Spills
11TH ST YARD	NY Spills
ASH ST & MCGINNIS AV	NY Spills, NY Hist Spills
COSTELLA HOME	NY Spills
CONSTRUCTION SITE	NY Spills
11TH ST CONDUIT	NY Spills, NY Hist Spills
14TH ST / 10TH AVE	NY Spills, NY Hist Spills
MANHOLE 54640	NY Spills
EXIT 34	NY Spills
ZS7451	NY Spills, NY Hist Spills
VAULT VS1532	NY Spills
ROADWAY	NY Spills
BOX 38486	NY Spills, NY Hist Spills
MANHOLE #1399	NY Spills, NY Hist Spills
NYS DOT - BQE	NY Spills, NY Hist Spills
MEEKER AVE/MCGUINNESS BLVD	NY Spills, NY Hist Spills
UNKNOWN	NY Spills, NY Hist Spills
COMMERICAL BUILDING	NY Spills, NY Hist Spills
NEW YORK AQUARIUM	NY Spills
MULTIPLE FAMILY	NY Spills
MANHOLE #43243	NY Spills
UNION AVENUE	NY Spills
BERRY STREET HOUSING PROJECT	HSWDS

# OVERVIEW MAP - 1908261.2s



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- ☒ National Priority List Sites
- ☒ Dept. Defense Sites

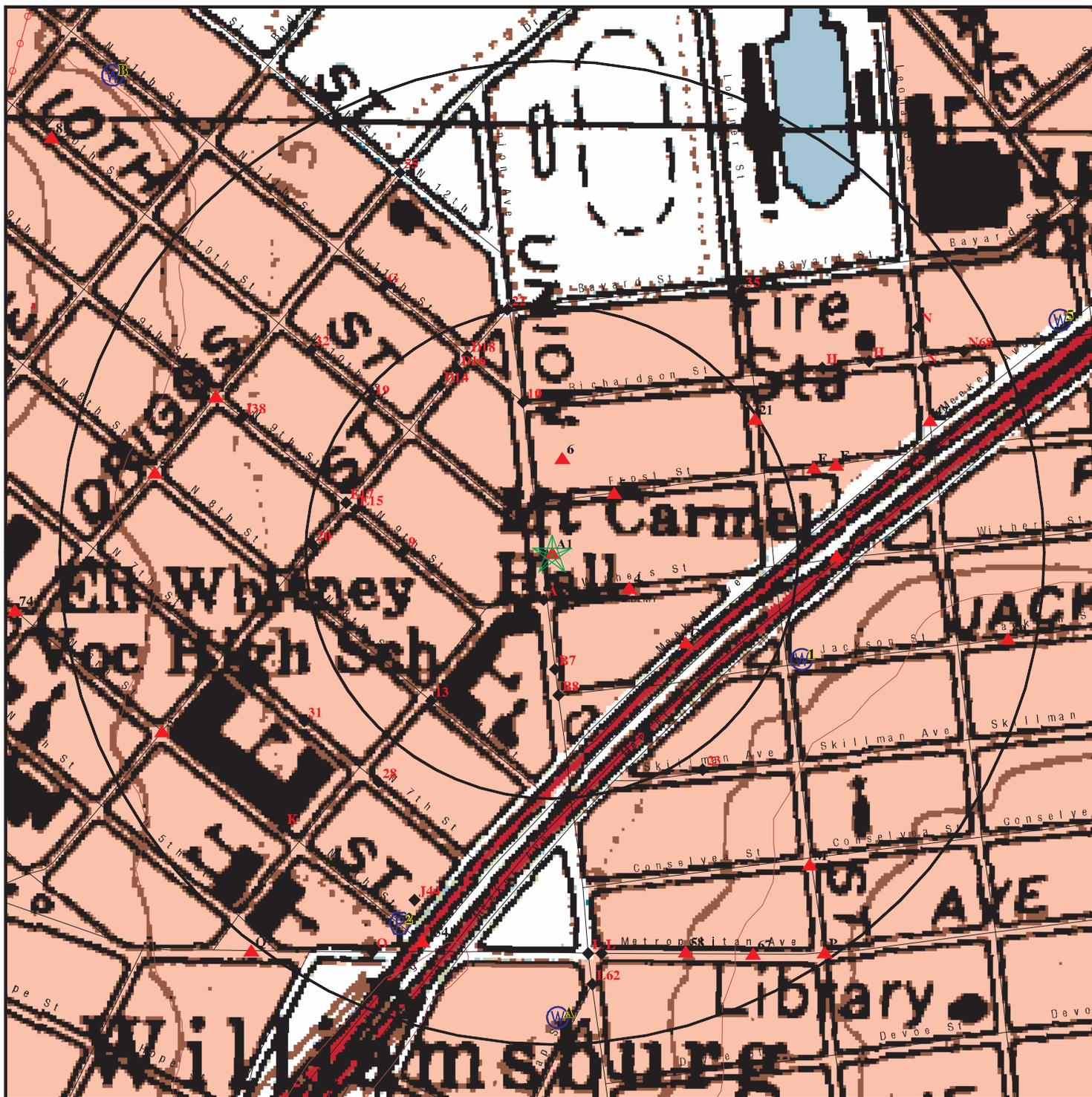
- ☒ Indian Reservations BIA
- ~ County Boundary
- ~ Power transmission lines
- ~ Oil & Gas pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- ▨ National Wetland Inventory
- ▨ State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Industrial Building  
 ADDRESS: 544 Union Avenue  
 Brooklyn NY 11211  
 LAT/LONG: 40.7170 / 73.9520

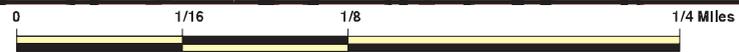
CLIENT: CA Rich Consultants, Inc.  
 CONTACT: Deborah Shapiro  
 INQUIRY #: 1908261.2s  
 DATE: April 20, 2007 6:29 pm

DETAIL MAP - 1908261.2s



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

- Indian Reservations BIA
- ⚡ Power transmission lines
- ⚡ Oil & Gas pipelines



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p><b>SITE NAME:</b> Industrial Building  <b>ADDRESS:</b> 544 Union Avenue                  Brooklyn NY 11211  <b>LAT/LONG:</b> 40.7170 / 73.9520</p>	<p><b>CLIENT:</b> CA Rich Consultants, Inc.  <b>CONTACT:</b> Deborah Shapiro  <b>INQUIRY #:</b> 1908261.2s  <b>DATE:</b> April 20, 2007 6:29 pm</p>
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## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL RECORDS</u></b>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL RECOVERY		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	2	NR	NR	2
CORRACTS		1.000	0	0	0	1	NR	1
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	1	NR	NR	NR	1
RCRA Sm. Quan. Gen.	X	0.250	2	11	NR	NR	NR	13
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
<b><u>STATE AND LOCAL RECORDS</u></b>								
HSWDS		0.500	0	0	1	NR	NR	1
State Haz. Waste		1.000	0	1	0	0	NR	1
DEL SHWS		1.000	0	0	0	1	NR	1
State Landfill		0.500	0	0	1	NR	NR	1
SWRCY		0.500	0	0	0	NR	NR	0
SWTIRE		0.500	0	0	0	NR	NR	0
LTANKS		0.500	0	9	22	NR	NR	31
HIST LTANKS		0.500	0	8	13	NR	NR	21
UST		0.250	5	12	NR	NR	NR	17

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CBS UST		0.250	0	0	NR	NR	NR	0
MOSF UST		0.500	0	0	0	NR	NR	0
HIST UST		0.250	3	12	NR	NR	NR	15
AST		0.250	2	5	NR	NR	NR	7
CBS AST		0.250	1	0	NR	NR	NR	1
HIST AST		TP	NR	NR	NR	NR	NR	0
MOSF AST		0.500	0	0	0	NR	NR	0
MANIFEST	X	0.250	1	12	NR	NR	NR	13
NY Spills		0.125	11	NR	NR	NR	NR	11
NY Hist Spills		0.125	8	NR	NR	NR	NR	8
ENG CONTROLS		0.500	0	0	0	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.250	0	2	NR	NR	NR	2
BROWNFIELDS		0.500	0	0	0	NR	NR	0
SPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
MOSF		0.500	0	0	0	NR	NR	0
CBS		0.250	1	0	NR	NR	NR	1
RES DECL		0.180	0	0	NR	NR	NR	0
<b><u>TRIBAL RECORDS</u></b>								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
<b><u>EDR PROPRIETARY RECORDS</u></b>								
Manufactured Gas Plants		1.000	0	0	1	1	NR	2

**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database



Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BEACH-RUSS CO (Continued)**

**1001079740**

Specific Gravity: 100  
Year: 97  
Facility Type: Generator  
EPA ID: NYR000014472  
Facility Name: BEACH RUSS COMPANY  
Facility Address: 544 UNION AVENUE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BEACH RUSS COMPANY  
Mailing Contact: Not reported  
Mailing Address: 544 UNION AVENUE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-4090

Document ID: NJA2020162  
Manifest Status: Completed copy  
Trans1 State ID: 2809  
Trans2 State ID: Not reported  
Generator Ship Date: 951031  
Trans1 Recv Date: 951031  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 951031  
Part A Recv Date: Not reported  
Part B Recv Date: 951113  
Generator EPA ID: NYR000014472  
Trans1 EPA ID: NJD002454544  
Trans2 EPA ID: Not reported  
TSDF ID: NJD002454544  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00550  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 011  
Container Type: DM - Metal drums, barrels  
Handling Method: R Material recovery of more than 75 percent of the total material.  
Specific Gravity: 100  
Year: 95  
Facility Type: Generator  
EPA ID: NYR000014472  
Facility Name: BEACH RUSS COMPANY  
Facility Address: 544 UNION AVENUE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BEACH RUSS COMPANY  
Mailing Contact: Not reported  
Mailing Address: 544 UNION AVENUE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BEACH-RUSS CO (Continued)**

**1001079740**

Mailing Country: Not reported  
 Mailing Phone: 718-388-4090

Document ID: NJA2606526  
 Manifest Status: Completed copy  
 Trans1 State ID: 2809  
 Trans2 State ID: Not reported  
 Generator Ship Date: 960723  
 Trans1 Recv Date: 960723  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 960723  
 Part A Recv Date: Not reported  
 Part B Recv Date: 960807  
 Generator EPA ID: NYR000014472  
 Trans1 EPA ID: NJD002454544  
 Trans2 EPA ID: Not reported  
 TSDF ID: NJD002454544  
 Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
 Quantity: 00350  
 Units: G - Gallons (liquids only)\* (8.3 pounds)  
 Number of Containers: 007  
 Container Type: DM - Metal drums, barrels  
 Handling Method: R Material recovery of more than 75 percent of the total material.  
 Specific Gravity: 100  
 Year: 96  
 Facility Type: Generator  
 EPA ID: NYR000014472  
 Facility Name: BEACH RUSS COMPANY  
 Facility Address: 544 UNION AVENUE  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: BEACH RUSS COMPANY  
 Mailing Contact: Not reported  
 Mailing Address: 544 UNION AVENUE  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip: 11211  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 718-388-4090

**A2** **MANHOLE 4925**  
**South** **WITHERS ST/UNION AV**  
**< 1/8** **BROOKLYN, NY**  
**128 ft.**

**NY Spills** **S104284169**  
**NY Hist Spills** **N/A**

**Relative:**  
**Lower**

**Site 2 of 3 in cluster A**

**Actual:**  
**15 ft.**

NY Spills:  
 Site ID: 304520  
 Facility Addr2: Not reported  
 Facility ID: 9910080  
 Spill Number: 9910080  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: CAENGELH

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MANHOLE 4925 (Continued)**

**S104284169**

Referred To: Not reported  
Spill Date: 11/19/99  
Reported to Dept: 11/19/99  
CID: 312  
Spill Cause: Unknown  
Water Affected: Not reported  
Spill Source: Commercial/Industrial  
Spill Notifier: Responsible Party  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Trust: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 03/29/02  
Remediation Phase: 0  
Date Entered In Computer: 11/19/99  
Spill Record Last Update: 03/29/02  
Spiller Name: CALLER  
Spiller Company: CON EDISON  
Spiller Address: 4 IRVING PLACE  
Spiller City,St,Zip: NEW YORK, NY 10003  
Spiller Company: 001  
Spiller Phone: Not reported  
Contact Name: Not reported  
Contact Phone: Not reported  
DEC Region: 2  
Program Number: 9910080  
DER Facility ID: 245974  
Site ID: 304520  
Operable Unit ID: 1088779  
Operable Unit: 01  
Material ID: 299141  
Material Code: 0066A  
Material Name: UNKNOWN PETROLEUM  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 1.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
DEC Remarks: Start DECRemark - 9910080 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "ENGELHARDT" END DECRemark - 9910080  
Remarks: Start CallerRemark - 9910080 1 PINT UNK OIL ON 50GAL OF WATER - CONTAINED -  
CASE #129045 END CallerRemark - 9910080

NY Hist Spills:  
Region of Spill: 2  
Spill Number: 9910080  
Investigator: ENGELHARDT  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MANHOLE 4925 (Continued)**

**S104284169**

Notifier Phone: Not reported  
Spill Date/Time: 11/19/1999 10:45  
Reported to Dept Date/Time: 11/19/99 11:28  
SWIS: 61  
Spiller Name: CON EDISON  
Spiller Contact: CALLER  
Spiller Phone: ( ) -  
Spiller Address: 4 IRVING PLACE  
Spiller City,St,Zip: MANHATTAN, NY 10003-  
Spill Cause: Unknown  
Reported to Dept: On Land  
Water Affected: Not reported  
Spill Source: 01  
Spill Notifier: Responsible Party  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Dt: / /  
Enforcement Date: / /  
Invstgn Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Corrective Action Plan Submitted: / /  
Date Region Sent Summary to Central Office: / /  
Date Spill Entered In Computer Data File: 11/19/99  
Date Spill Entered In Computer Data File: Not reported  
Update Date: 02/15/00  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 1  
Unkonwn Quantity Spilled: False  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: UNKNOWN PETROLEUM  
Class Type: UNKNOWN PETROLEUM  
Times Material Entry In File: 16414  
CAS Number: Not reported  
Last Date: 19940929  
DEC Remarks: Not reported  
Remark: 1 PINT UNK OIL ON 50GAL OF WATER - CONTAINED - CASE 129045

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**A3**  
**South**  
**< 1/8**  
**128 ft.**

**MANHOLE 53375**  
**WITHERS ST/ UNION AVE**  
**BROOKLYN, NY**

**NY Spills** **S104283455**  
**NY Hist Spills** **N/A**

**Site 3 of 3 in cluster A**

**Relative:**  
**Lower**

NY Spills:

**Actual:**  
**15 ft.**

Site ID: 194032  
 Facility Addr2: Not reported  
 Facility ID: 9909108  
 Spill Number: 9909108  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: JHOCONNE  
 Referred To: Not reported  
 Spill Date: 10/27/99  
 Reported to Dept: 10/27/99  
 CID: 382  
 Spill Cause: Unknown  
 Water Affected: Not reported  
 Spill Source: Unknown  
 Spill Notifier: Other  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Trust: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 12/08/99  
 Remediation Phase: 0  
 Date Entered In Computer: 10/27/99  
 Spill Record Last Update: 05/23/00  
 Spiller Name: Not reported  
 Spiller Company: UNKNOWN  
 Spiller Address: Not reported  
 Spiller City,St,Zip: NY  
 Spiller Company: 999  
 Spiller Phone: Not reported  
 Contact Name: BILL MURPHY  
 Contact Phone: (212) 580-6763  
 DEC Region: 2  
 Program Number: 9909108  
 DER Facility ID: 161725  
 Site ID: 194032  
 Operable Unit ID: 1083707  
 Operable Unit: 01  
 Material ID: 298201  
 Material Code: 0066A  
 Material Name: UNKNOWN PETROLEUM  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 2.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 DEC Remarks: Start DECRemark - 9909108 Prior to Sept, 2004 data translation this spill Lead

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**MANHOLE 53375 (Continued)**

**S104283455**

Remarks: DEC Field was "O'CONNELL" Con Ed E2MIS notes: FDR 6B54 found approx. 2 gallons unknown oil on approx. 150 gallons of water in MH 53375. No other oil filled equipment, took a liquid sample. Lab seq# 99-11330<1.0PPM. Car over hole, follow up in the AM, reports <1.0PPM cleanup completed using bio-gen 760 and tag#11762 removed, incident is closed. END DECRemark - 9909108  
Start CallerRemark - 9909108 2 GALS OF OIL ON 150 GALS OF WATER. CONTAINED. CLEAN UP PENDING TEST RESULTS. CON ED 128-668 END CallerRemark - 9909108

NY Hist Spills:

Region of Spill: 2  
Spill Number: 9909108  
Investigator: O'CONNELL  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Spill Date/Time: 10/27/1999 10:15  
Reported to Dept Date/Time: 10/27/99 11:02  
SWIS: 61  
Spiller Name: UNKNOWN  
Spiller Contact: Not reported  
Spiller Phone: ( ) -  
Spiller Contact: BILL MURPHY  
Spiller Phone: (212) 580-6763  
Spiller Address: Not reported  
Spiller City, St, Zip: Not reported  
Spill Cause: Unknown  
Reported to Dept: On Land  
Water Affected: Not reported  
Spill Source: 12  
Spill Notifier: Other  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Dt: / /  
Enforcement Date: / /  
Invstgn Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 12/08/99  
Corrective Action Plan Submitted: / /  
Date Region Sent Summary to Central Office: / /  
Date Spill Entered In Computer Data File: 10/27/99  
Date Spill Entered In Computer Data File: Not reported  
Update Date: 05/23/00  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**MANHOLE 53375 (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**S104283455**

Material Class Type: Petroleum  
 Quantity Spilled: 2  
 Unkonwn Quantity Spilled: False  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: UNKNOWN PETROLEUM  
 Class Type: UNKNOWN PETROLEUM  
 Times Material Entry In File: 16414  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: Con Ed E2MIS notes: FDR 6B54 found approx. 2 gallons unknown oil on approx. 150 gallons of water in MH 53375. No other oil filled equipment, took a liquid sample. Lab seq 99-11330<1.0PPM. Car over hole, follow up in the AM, reports <1.0PPM cleanup completed using bio-gen 760 and tag 11762 removed, incident is closed.  
 Remark: 2 GALS OF OIL ON 150 GALS OF WATER. CONTAINED. CLEAN UP PENDING TEST RESULTS. CON ED 128-668

**4  
 ESE  
 < 1/8  
 227 ft.**

**GREENE LIGHTING FIXTURES INC  
 40 WITHERS ST  
 BROOKLYN, NY 11211**

**RCRA-SQG 1000872878  
 FINDS NYD987040979**

**Relative:  
 Higher**

RCRAInfo:  
 Owner: HAROLD GREENE  
 (212) 388-6800  
 EPA ID: NYD987040979  
 Contact: Not reported  
 Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**Actual:  
 17 ft.**

**FINDS:**  
 Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**5**  
**NE**  
**< 1/8**  
**232 ft.**

**P & G PHOTO ENGRAVING CO INC**  
**17 FROST ST**  
**BROOKLYN, NY 11211**

**RCRA-SQG**  
**FINDS**  
**NY MANIFEST**  
**1000114892**  
**NYD044359347**

**Relative:**  
**Equal**

RCRAInfo:  
 Owner: JOHN AMENTA & SAL PITTI  
 (212) 555-1212

**Actual:**  
**16 ft.**

EPA ID: NYD044359347  
 Contact: Not reported  
 Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**FINDS:**  
 Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**NY MANIFEST:**

Document ID: NYA6369741  
 Manifest Status: Completed copy  
 Trans1 State ID: NJXJ-70JG  
 Trans2 State ID: Not reported  
 Generator Ship Date: 870415  
 Trans1 Recv Date: 870415  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 870415  
 Part A Recv Date: 870424  
 Part B Recv Date: 870424  
 Generator EPA ID: NYD044359347  
 Trans1 EPA ID: NYD049178296  
 Trans2 EPA ID: Not reported  
 TSDF ID: NYD049178296  
 Waste Code: F001 - UNKNOWN  
 Quantity: 00200  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DM - Metal drums, barrels  
 Handling Method: B Incineration, heat recovery, burning.  
 Specific Gravity: 100  
 Year: 87  
 Facility Type: Generator  
 EPA ID: NYD044359347  
 Facility Name: P & G PHOTO ENGRAVING  
 Facility Address: 17 FROST ST  
 Facility City: BROOKLYN  
 Facility Zip 4: 1202  
 Country: Not reported  
 County: KINGS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**P & G PHOTO ENGRAVING CO INC (Continued)**

**1000114892**

Mailing Name: P & G PHOTO ENGRAVING  
Mailing Contact: Not reported  
Mailing Address: 17 FROST ST  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 1202  
Mailing Country: USA  
Mailing Phone: 718-387-3005

Document ID: NYB4224681  
Manifest Status: Completed copy  
Trans1 State ID: PD1010  
Trans2 State ID: Not reported  
Generator Ship Date: 940217  
Trans1 Recv Date: 940217  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 940217  
Part A Recv Date: Not reported  
Part B Recv Date: 940302  
Generator EPA ID: NYD044359347  
Trans1 EPA ID: NYD077444263  
Trans2 EPA ID: Not reported  
TSDF ID: NYD077444263  
Waste Code: F001 - UNKNOWN  
Quantity: 00055  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 94  
Facility Type: Generator  
EPA ID: NYD044359347  
Facility Name: P & G PHOTO ENGRAVING  
Facility Address: 17 FROST ST  
Facility City: BROOKLYN  
Facility Zip 4: 1202  
Country: Not reported  
County: KINGS  
Mailing Name: P & G PHOTO ENGRAVING  
Mailing Contact: Not reported  
Mailing Address: 17 FROST ST  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 1202  
Mailing Country: USA  
Mailing Phone: 718-387-3005

Document ID: NYB5115708  
Manifest Status: Completed copy  
Trans1 State ID: NYPP5193  
Trans2 State ID: Not reported  
Generator Ship Date: 940824  
Trans1 Recv Date: 940824  
Trans2 Recv Date: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**P & G PHOTO ENGRAVING CO INC (Continued)**

**1000114892**

TSD Site Recv Date: 940824  
Part A Recv Date: Not reported  
Part B Recv Date: 940908  
Generator EPA ID: NYD044359347  
Trans1 EPA ID: NYD077444263  
Trans2 EPA ID: Not reported  
TSD ID: NYD077444263  
Waste Code: D004 - ARSENIC 5.0 MG/L TCLP  
Quantity: 00055  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 100  
Year: 94  
Facility Type: Generator  
EPA ID: NYD044359347  
Facility Name: P & G PHOTO ENGRAVING  
Facility Address: 17 FROST ST  
Facility City: BROOKLYN  
Facility Zip 4: 1202  
Country: Not reported  
County: KINGS  
Mailing Name: P & G PHOTO ENGRAVING  
Mailing Contact: Not reported  
Mailing Address: 17 FROST ST  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 1202  
Mailing Country: USA  
Mailing Phone: 718-387-3005

Document ID: NYG3493881  
Manifest Status: Not reported  
Trans1 State ID: NYD077444263  
Trans2 State ID: Not reported  
Generator Ship Date: 09/11/2002  
Trans1 Recv Date: 09/11/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 09/13/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD044359347  
Trans1 EPA ID: NYD077444263  
Trans2 EPA ID: Not reported  
TSD ID: PD1010NY  
Waste Code: F001 - UNKNOWN  
Quantity: 00055  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Generator  
EPA ID: NYD044359347

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**P & G PHOTO ENGRAVING CO INC (Continued)**

**1000114892**

Facility Name: P & G PHOTO ENGRAVING  
 Facility Address: 17 FROST ST  
 Facility City: BROOKLYN  
 Facility Zip 4: 1202  
 Country: Not reported  
 County: KINGS  
 Mailing Name: P & G PHOTO ENGRAVING  
 Mailing Contact: Not reported  
 Mailing Address: 17 FROST ST  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip: 11211  
 Mailing Zip4: 1202  
 Mailing Country: USA  
 Mailing Phone: 718-387-3005

**6  
 North  
 < 1/8  
 257 ft.**

**568-580 UNION AVENUE  
 568-580 UNION AVENUE  
 BROOKLYN, NY 11211**

**UST U004045663  
 N/A**

**Relative:  
 Equal**

UST:

**Actual:  
 16 ft.**

Facility ID: 2-610135  
 Program Type: PBS  
 Tank Number: 1  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: 01/29/06  
 Capacity Gallons: 4000  
 Material Name: #6 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Underground/On-ground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: None  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: None  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: Vent Whistle  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: None  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: 01/29/06

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**568-580 UNION AVENUE (Continued)**

**U004045663**

UST\_PBS\_FAC:  
 Facility Id: 2-610135  
 Expiration Date: 03/30/10  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: WAREHOUSE  
 Mailing Company: MC CARREN PARK ESTATES, LLC  
 Mailing Title: Not reported  
 Mailing Contact: MR. SOLOMON LANDOU  
 Mailing Address: 4620 16TH AVENUE  
 Mailing Address 2: Not reported  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip Code: 11204  
 Mailing Phone No: (718) 686-9040  
 Mailing Email: Not reported  
 Owner Title: AGENT  
 Owner Name: ROMEO SANTOS  
 Owner Address: 4620 16TH AVENUE  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11204  
 Owner Phone: (718) 686-9040  
 Owner Company: MC CARREN PARK ESTATES, LLC.  
 Emergency Contact: SOLOMON LANDOU  
 Emergency Phone: (917) 714-2727  
 Operator: SOLOMON LANDOU  
 Operator Phone: (718) 686-9040  
 Owner City: BROOKLYN  
 Owner Sub Type: Corporate or Commercial

**B7  
 South  
 < 1/8  
 312 ft.**

**526 UNION AV  
 BROOKLYN, NY**

**NY Spills S104648359  
 NY Hist Spills N/A**

**Site 1 of 2 in cluster B**

**Relative:  
 Lower**

NY Spills:  
 Site ID: 133574  
 Facility Addr2: Not reported  
 Facility ID: 9811933  
 Spill Number: 9811933  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: TOMASELLO  
 Referred To: Not reported  
 Spill Date: 12/18/98  
 Reported to Dept: 12/22/98  
 CID: 14  
 Spill Cause: Abandoned Drums  
 Water Affected: Not reported  
 Spill Source: Unknown  
 Spill Notifier: Local Agency  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /

**Actual:  
 15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

(Continued)

S104648359

Recommended Penalty: Penalty Not Recommended  
UST Trust: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 12/22/98  
Remediation Phase: 0  
Date Entered In Computer: 12/22/98  
Spill Record Last Update: 02/09/99  
Spiller Name: Not reported  
Spiller Company: UNKNOWN  
Spiller Address: Not reported  
Spiller City,St,Zip: NY  
Spiller Company: 999  
Spiller Phone: Not reported  
Contact Name: OLURMI FATIMILEHIN  
Contact Phone: (718) 595-4799  
DEC Region: 2  
Program Number: 9811933  
DER Facility ID: 114784  
Site ID: 133574  
Operable Unit ID: 1069201  
Operable Unit: 01  
Material ID: 312212  
Material Code: 0022  
Material Name: Waste Oil/Used Oil  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 100.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 9811933 2 ABANDONED DRUMS IN FRONT OF ABOVE ADDRESS - DO NOT APPEAR TO BE LEAKING END CallerRemark - 9811933

NY Hist Spills:

Region of Spill: 2  
Spill Number: 9811933  
Investigator: TOMASELLO  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Spill Date/Time: 12/18/1998 09:00  
Reported to Dept Date/Time: 12/22/98 15:34  
SWIS: 61  
Spiller Name: UNKNOWN  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Contact: OLURMI FATIMILEHIN  
Spiller Phone: (718) 595-4799  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Spill Cause: Abandoned Drums

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

(Continued)

S104648359

Reported to Dept: On Land  
 Water Affected: Not reported  
 Spill Source: 12  
 Spill Notifier: Local Agency  
 PBS Number: Not reported  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 Spiller Cleanup Dt: / /  
 Enforcement Date: / /  
 Invstgn Complete: / /  
 UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 12/22/98  
 Corrective Action Plan Submitted: / /  
 Date Region Sent Summary to Central Office: / /  
 Date Spill Entered In Computer Data File: 12/22/98  
 Date Spill Entered In Computer Data File: Not reported  
 Update Date: 02/09/99  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 100  
 Unkonwn Quantity Spilled: False  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: WASTE OIL  
 Class Type: WASTE OIL  
 Times Material Entry In File: 9509  
 CAS Number: Not reported  
 Last Date: 19940927  
 DEC Remarks: Not reported  
 Remark: 2 ABANDONED DRUMS IN FRONT OF ABOVE ADDRESS - DO NOT APPEAR TO BE LEAKING

B8  
 South  
 < 1/8  
 383 ft.

MANHOLE 4930  
 UNION AVE/JACKSON ST  
 BROOKLYN, NY

NY Spills S104284512  
 NY Hist Spills N/A

Site 2 of 2 in cluster B

Relative:  
 Lower

NY Spills:  
 Site ID: 303942  
 Facility Addr2: Not reported  
 Facility ID: 9910564  
 Spill Number: 9910564  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: COMENALE  
 Referred To: Not reported

Actual:  
 14 ft.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

MANHOLE 4930 (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

Spill Date: 12/05/99  
Reported to Dept: 12/05/99  
CID: 382  
Spill Cause: Unknown  
Water Affected: Not reported  
Spill Source: Unknown  
Spill Notifier: Other  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Trust: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 03/27/02  
Remediation Phase: 0  
Date Entered In Computer: 12/05/99  
Spill Record Last Update: 03/27/02  
Spiller Name: Not reported  
Spiller Company: UNKNOWN  
Spiller Address: Not reported  
Spiller City,St,Zip: NY  
Spiller Company: 999  
Spiller Phone: Not reported  
Contact Name: STEVE ROMERO  
Contact Phone: (212) 580-6763  
DEC Region: 2  
Program Number: 9910564  
DER Facility ID: 245573  
Site ID: 303942  
Operable Unit ID: 1085318  
Operable Unit: 01  
Material ID: 296045  
Material Code: 0066A  
Material Name: UNKNOWN PETROLEUM  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 9910564 1 qt oil on 70 gals of water. clean up pending.  
con ed 129-194 END CallerRemark - 9910564

NY Hist Spills:

Region of Spill: 2  
Spill Number: 9910564  
Investigator: COMENALE  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Spill Date/Time: 12/05/1999 16:35

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MANHOLE 4930 (Continued)**

**S104284512**

Reported to Dept Date/Time: 12/05/99 17:20  
 SWIS: 61  
 Spiller Name: UNKNOWN  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Contact: STEVE ROMERO  
 Spiller Phone: (212) 580-6763  
 Spiller Address: Not reported  
 Spiller City,St,Zip: Not reported  
 Spill Cause: Unknown  
 Reported to Dept: On Land  
 Water Affected: Not reported  
 Spill Source: 12  
 Spill Notifier: Other  
 PBS Number: Not reported  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 Spiller Cleanup Dt: / /  
 Enforcement Date: / /  
 Invstgn Complete: / /  
 UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Corrective Action Plan Submitted: / /  
 Date Region Sent Summary to Central Office: / /  
 Date Spill Entered In Computer Data File: 12/05/99  
 Date Spill Entered In Computer Data File: Not reported  
 Update Date: 02/17/00  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: UNKNOWN PETROLEUM  
 Class Type: UNKNOWN PETROLEUM  
 Times Material Entry In File: 16414  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: Not reported  
 Remark: 1 qt oil on 70 gals of water. clean up pending. con ed 129-194

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**9**  
**West**  
**< 1/8**  
**397 ft.**

**WAREHOUSE**  
**261 NORTH 9TH STREET**  
**BROOKLYN, NY**

**NY Spills**    **S107788770**  
**N/A**

**Relative:**  
**Lower**

**Actual:**  
**15 ft.**

NY Spills:  
 Site ID: 364980  
 Facility Addr2: Not reported  
 Facility ID: 0602498  
 Spill Number: 0602498  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: SFRAHMAN  
 Referred To: Not reported  
 Spill Date: 06/05/06  
 Reported to Dept: 06/05/06  
 CID: 14  
 Spill Cause: Other  
 Water Affected: Not reported  
 Spill Source: Institutional, Educational, Gov., Other  
 Spill Notifier: Other  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Trust: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 01/10/07  
 Remediation Phase: 0  
 Date Entered In Computer: 06/05/06  
 Spill Record Last Update: 01/10/07  
 Spiller Name: DENNY SING  
 Spiller Company: WAREHOUSE  
 Spiller Address: 261 NORTH 9TH STREET  
 Spiller City,St,Zip: BROOKLYN, NY  
 Spiller Company: 001  
 Spiller Phone: (718) 857-3100  
 Contact Name: DENNY SING  
 Contact Phone: (718) 857-3100  
 DEC Region: 2  
 Program Number: 0602498  
 DER Facility ID: 315146  
 Site ID: 364980  
 Operable Unit ID: 1122994  
 Operable Unit: 01  
 Material ID: 2112477  
 Material Code: 0009  
 Material Name: Gasoline  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 DEC Remarks: Start DECRemark - 0602498 Placed call into Denny Sing of Don Carlo Env. requesting callback and info. Need to send CSL. Owner as per Property Shark

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**WAREHOUSE (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**S107788770**

Vazquez, Alvaro 86 Havemeyer St Brooklyn NY 11211-3348 07/17/06 Rahman- As per Lisa from Don Carlo(718.857.3100), the property owner is 263 N Group LLC C/O Mr. Sam Pearl 80 Clay Street, Brooklyn, NY 11222. Ms. Lisa will get back to DEC with accurate info. 01/10/07 Rahman- Phase II report prepared by Don Carlo Env. Services Inc.Petroleumrelated VOC/SVOCs were not found in Phase II soil/ground water samples.Presence of only certain SVOCs(Benzo group)indicate that those are related with historic fill material.Heavy metals were found in ground water samples.In DCES's opinion, those matals came from the historic use of the site as a metal smelting and storage facility.The proposed development for the subject property is a five story residential building.Contaminated soil will be removed during the excavation for new foundation.Awater proofing barrier will be incorporated in the foundation slab.The site is a NYC DEP "E" designated site.Spill closed due to absence of petroleum constituents in soil/ground water.Presence of heavy metals will be addressed as part of NYC DEP'srequirement. END DECRemark - 0602498  
 Remarks: Start CallerRemark - 0602498 FOUND CONTAMINATED SOIL AT LOCATION END CallerRemark - 0602498

**10  
 North  
 < 1/8  
 412 ft.**

**MANHOLE #4900  
 NORTH 11TH ST/UNION AVE  
 BROOKLYN, NY**

**NY Spills S104284441  
 NY Hist Spills N/A**

**Relative:  
 Lower**

NY Spills:

**Actual:  
 15 ft.**

Site ID: 68873  
 Facility Addr2: Not reported  
 Facility ID: 9910471  
 Spill Number: 9910471  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: COMENALE  
 Referred To: Not reported  
 Spill Date: 12/02/99  
 Reported to Dept: 12/02/99  
 CID: 252  
 Spill Cause: Unknown  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Other  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Trust: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 03/27/02  
 Remediation Phase: 0  
 Date Entered In Computer: 12/02/99  
 Spill Record Last Update: 03/27/02  
 Spiller Name: UNK  
 Spiller Company: UNK  
 Spiller Address: UNK  
 Spiller City,St,Zip: UNK, ZZ  
 Spiller Company: 001  
 Spiller Phone: (000) 000-0000  
 Contact Name: STEPHEN CRIBBINS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MANHOLE #4900 (Continued)**

**S104284441**

Contact Phone: (212) 580-8576  
DEC Region: 2  
Program Number: 9910471  
DER Facility ID: 65535  
Site ID: 68873  
Operable Unit ID: 1085238  
Operable Unit: 01  
Material ID: 295954  
Material Code: 0066A  
Material Name: UNKNOWN PETROLEUM  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 9910471 SPILL IS CONTAINED-CLEANUP PENDING SAMPLE RESULTS-CON ED #129165 END CallerRemark - 9910471

NY Hist Spills:

Region of Spill: 2  
Spill Number: 9910471  
Investigator: COMENALE  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Spill Date/Time: 12/02/1999 09:20  
Reported to Dept Date/Time: 12/02/99 10:07  
SWIS: 61  
Spiller Name: UNK  
Spiller Contact: UNK  
Spiller Phone: (000) 000-0000  
Spiller Contact: STEPHEN CRIBBINS  
Spiller Phone: (212) 580-8576  
Spiller Address: UNK  
Spiller City,St,Zip: NY  
Spill Cause: Unknown  
Reported to Dept: On Land  
Water Affected: Not reported  
Spill Source: 01  
Spill Notifier: Other  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Dt: / /  
Enforcement Date: / /  
Invstgn Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MANHOLE #4900 (Continued)**

**S104284441**

Spill Closed Dt: / /  
 Corrective Action Plan Submitted: / /  
 Date Region Sent Summary to Central Office: / /  
 Date Spill Entered In Computer Data File: 12/02/99  
 Date Spill Entered In Computer Data File: Not reported  
 Update Date: 12/03/99  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: True  
 Material: UNKNOWN PETROLEUM  
 Class Type: UNKNOWN PETROLEUM  
 Times Material Entry In File: 16414  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: Not reported  
 Remark: SPILL IS CONTAINED-CLEANUP PENDING SAMPLE RESULTS-CON ED 129165

**C11  
 SE  
 < 1/8  
 432 ft.**

**AMACO  
 243 MEEKER AVENUE  
 BROOKLYN, NY**

**NY Spills S102149558  
 NY Hist Spills N/A**

**Site 1 of 2 in cluster C**

**Relative:  
 Higher**

NY Spills:  
 Site ID: 320278  
 Facility Addr2: Not reported  
 Facility ID: 9707004  
 Spill Number: 9707004  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: MCTIBBE  
 Referred To: Not reported  
 Spill Date: 09/12/97  
 Reported to Dept: 09/12/97  
 CID: 14  
 Spill Cause: Equipment Failure  
 Water Affected: Not reported  
 Spill Source: Gasoline Station  
 Spill Notifier: Other  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Trust: True  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 10/17/97

**Actual:  
 17 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

AMACO (Continued)

S102149558

Remediation Phase: 0  
Date Entered In Computer: 09/12/97  
Spill Record Last Update: 12/09/97  
Spiller Name: JOE DIMAGGIO  
Spiller Company: AMOCO STATION  
Spiller Address: 243 MEEKER AVE  
Spiller City,St,Zip: BROOKLYN, NY  
Spiller Company: 001  
Spiller Phone: (516) 249-3150  
Contact Name: JOE DIMAGGIO  
Contact Phone: (516) 249-3150  
DEC Region: 2  
Program Number: 9707004  
DER Facility ID: 258045  
Site ID: 320278  
Operable Unit ID: 1050373  
Operable Unit: 01  
Material ID: 332584  
Material Code: 0009  
Material Name: Gasoline  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
DEC Remarks: Start DECRemark - 9707004 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "TIBBE" TANK EVACUATED AND SECURED. WILL DO VISUAL THEN RELINE.  
TANK REPAIRED. NO SPILL. SEE ATTACHMENTS TO REPORT. END DECRemark -  
9707004  
Remarks: Start CallerRemark - 9707004 DOUBLE WALL TANK-INNER WALL IS LEAKING -SPILL  
CONTAINED IN OUTER WALL END CallerRemark - 9707004  
  
Site ID: 104320  
Facility Addr2: Not reported  
Facility ID: 9414922  
Spill Number: 9414922  
Facility Type: ER  
SWIS: 2401  
Region of Spill: 2  
Investigator: KSTANG  
Referred To: Not reported  
Spill Date: 02/13/95  
Reported to Dept: 02/13/95  
CID: 14  
Spill Cause: Unknown  
Water Affected: Not reported  
Spill Source: Gasoline Station  
Spill Notifier: Local Agency  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Trust: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

AMACO (Continued)

EDR ID Number  
EPA ID Number

Database(s)

S102149558

Spill Closed Dt: / /  
Remediation Phase: 1  
Date Entered In Computer: 02/13/95  
Spill Record Last Update: 10/20/06  
Spiller Name: Not reported  
Spiller Company: SPARTAN PETROLEUM  
Spiller Address: 3333 NEW HYDE PARK RD  
Spiller City,St,Zip: NEW HYDE PARK, NY 11042-001  
Spiller Phone: (516) 365-8700  
Contact Name: Not reported  
Contact Phone: Not reported  
DEC Region: 2  
Program Number: 9414922  
DER Facility ID: 92190  
Site ID: 104320  
Operable Unit ID: 1012349  
Operable Unit: 01  
Material ID: 373642  
Material Code: 0066A  
Material Name: UNKNOWN PETROLEUM  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: -1.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
DEC Remarks: Start DECRemark - 9414922 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "K FOLEY" 3/14/03 REASSIGNED FROM TIBBE TO VOUGHT. 12/1/03  
Transferred from Vought to Foley. 10/16/06 reassigned from Foley to Tang.  
(Sun) END DECRemark - 9414922  
Remarks: Start CallerRemark - 9414922 GEO PROBE SURVEY ON SITE, FOUND CONTAMINATION. END  
CallerRemark - 9414922

Click this hyperlink while viewing on your computer to access additional NY\_SPILL: detail in the EDR Site Report.

NY Hist Spills:  
Region of Spill: 2  
Spill Number: 9707004  
Investigator: TIBBE  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Spill Date/Time: 09/12/1997 08:45  
Reported to Dept Date/Time: 09/12/97 09:39  
SWIS: 61  
Spiller Name: AMOCO STATION  
Spiller Contact: JOE DIMAGGIO  
Spiller Phone: (516) 249-3150  
Spiller Contact: JOE DIMAGGIO  
Spiller Phone: (516) 249-3150  
Spiller Address: 243 MEEKER AVE

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

AMACO (Continued)

S102149558

Spiller City,St,Zip: BROOKLYN, NY  
Spill Cause: Equipment Failure  
Reported to Dept: On Land  
Water Affected: Not reported  
Spill Source: 05  
Spill Notifier: Other  
PBS Number: 2-247405  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Dt: / /  
Enforcement Date: / /  
Invstgn Complete: / /  
UST Involvement: True  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 10/17/97  
Corrective Action Plan Submitted: / /  
Date Region Sent Summary to Central Office: / /  
Date Spill Entered In Computer Data File: 09/12/97  
Date Spill Entered In Computer Data File: Not reported  
Update Date: 12/09/97  
Is Updated: False  
PBS Number: Not reported  
Tank Number: 1  
Tank Size: 4000  
Test Method: USTest 2000  
Leak Rate Failed Tank: 0.00  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: True  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: GASOLINE  
Class Type: GASOLINE  
Times Material Entry In File: 21329  
CAS Number: Not reported  
Last Date: 19940929  
DEC Remarks: TANK EVACUATED AND SECURED. WILL DO VISUAL THEN RELINE. TANK REPAIRED. NO  
SPILL. SEE ATTACHMENTS TO REPORT.  
Remark: DOUBLE WALL TANK-INNER WALL IS LEAKING -SPILL CONTAINED IN OUTER WALL  
Region of Spill: 2  
Spill Number: 9414922  
Investigator: MARK TIBBE  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Spill Date/Time: 02/13/1995 13:45  
Reported to Dept Date/Time: 02/13/95 14:49  
SWIS: 61

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

AMACO (Continued)

S102149558

Spiller Name: 6401 4TH AVE. CORP.  
Spiller Contact: Not reported  
Spiller Phone: (516) 295-3400  
Spiller Address: 1158 BROADWAY  
Spiller City,St,Zip: HEWLETT, NY 11557  
Spill Cause: Unknown  
Reported to Dept: On Land  
Water Affected: Not reported  
Spill Source: 05  
Spill Notifier: Local Agency  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Dt: / /  
Enforcement Date: / /  
Invstgn Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Corrective Action Plan Submitted: / /  
Date Region Sent Summary to Central Office: / /  
Date Spill Entered In Computer Data File: 02/13/95  
Date Spill Entered In Computer Data File: Not reported  
Update Date: / /  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: -1  
Unkonwn Quantity Spilled: False  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: UNKNOWN PETROLEUM  
Class Type: UNKNOWN PETROLEUM  
Times Material Entry In File: 16414  
CAS Number: Not reported  
Last Date: 19940929  
DEC Remarks: Not reported  
Remark: GEO PROBE SURVEY ON SITE, FOUND CONTAMINATION.

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**C12**  
**SE**  
 < 1/8  
 432 ft.

**MEECO CORP**  
**243 MEEKER AVENUE**  
**BROOKLYN, NY 11211**

**UST** **U000406810**  
**AST** **N/A**  
**HIST UST**

**Site 2 of 2 in cluster C**

**Relative:**  
**Higher**

**UST:**

**Actual:**  
 17 ft.

Facility ID: 2-247405  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed Prior to Micro Conversion, 03/91  
 Active Status: Inactive  
 Install Date: 09/01/39  
 Capacity Gallons: 550  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: / /

**UST\_PBS\_FAC:**

Facility Id: 2-247405  
 Expiration Date: 06/30/05  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: Not reported  
 Mailing Company: SPARTAN PETROLEUM CORP.  
 Mailing Title: Not reported  
 Mailing Contact: JAY SEMELMACHER  
 Mailing Address: 3333 NEW HYDE PARK ROAD  
 Mailing Address 2: SUITE 201  
 Mailing City: NEW HYDE PARK  
 Mailing State: NY  
 Mailing Zip Code: 11042  
 Mailing Phone No: (516) 365-8700  
 Mailing Email: Not reported  
 Owner Title: PROPERTY MANAGER

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Owner Name: JAY SEMELMACHER  
 Owner Address: 333 NEW HYDE PARK ROAD  
 Owner Address 2: SUITE 201  
 Owner State: NY  
 Owner Zip Code: 11042  
 Owner Phone: (516) 365-8700  
 Owner Company: SPARTAN PETROLEUM CORP.  
 Emergency Contact: JAY SEMELMACHER  
 Emergency Phone: (516) 993-4750  
 Operator: JEHANZEB BANGASH  
 Operator Phone: (718) 387-6685  
 Owner City: NEW HYDE PARK  
 Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
 Program Type: PBS  
 Tank Number: 002  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed Prior to Micro Conversion, 03/91  
 Active Status: Inactive  
 Install Date: 09/01/39  
 Capacity Gallons: 550  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: / /

UST\_PBS\_FAC:  
 Facility Id: 2-247405  
 Expiration Date: 06/30/05  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: Not reported  
 Mailing Company: SPARTAN PETROLEUM CORP.  
 Mailing Title: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201  
Mailing City: NEW HYDE PARK  
Mailing State: NY  
Mailing Zip Code: 11042  
Mailing Phone No: (516) 365-8700  
Mailing Email: Not reported  
Owner Title: PROPERTY MANAGER  
Owner Name: JAY SEMELMACHER  
Owner Address: 333 NEW HYDE PARK ROAD  
Owner Address 2: SUITE 201  
Owner State: NY  
Owner Zip Code: 11042  
Owner Phone: (516) 365-8700  
Owner Company: SPARTAN PETROLEUM CORP.  
Emergency Contact: JAY SEMELMACHER  
Emergency Phone: (516) 993-4750  
Operator: JEHANZEB BANGASH  
Operator Phone: (718) 387-6685  
Owner City: NEW HYDE PARK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
Program Type: PBS  
Tank Number: 004  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed Prior to Micro Conversion, 03/91  
Active Status: Inactive  
Install Date: 09/01/39  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Date Tank Closed:                    / /

UST\_PBS\_FAC:

Facility Id:                            2-247405

Expiration Date:                    06/30/05

Renewal Date:                        / /

Total Capacity:                      0

Facility Type:                        Not reported

Mailing Company:                    SPARTAN PETROLEUM CORP.

Mailing Title:                        Not reported

Mailing Contact:                    JAY SEMELMACHER

Mailing Address:                    3333 NEW HYDE PARK ROAD

Mailing Address 2:                   SUITE 201

Mailing City:                         NEW HYDE PARK

Mailing State:                        NY

Mailing Zip Code:                    11042

Mailing Phone No:                    (516) 365-8700

Mailing Email:                        Not reported

Owner Title:                         PROPERTY MANAGER

Owner Name:                         JAY SEMELMACHER

Owner Address:                      333 NEW HYDE PARK ROAD

Owner Address 2:                    SUITE 201

Owner State:                         NY

Owner Zip Code:                      11042

Owner Phone:                         (516) 365-8700

Owner Company:                    SPARTAN PETROLEUM CORP.

Emergency Contact:                JAY SEMELMACHER

Emergency Phone:                    (516) 993-4750

Operator:                            JEHANZEB BANGASH

Operator Phone:                      (718) 387-6685

Owner City:                         NEW HYDE PARK

Owner Sub Type:                      Corporate or Commercial

Facility ID:                            2-247405

Program Type:                        PBS

Tank Number:                         005

Tank Model:                          Not reported

Pipe Model:                          Not reported

Tank Location Name:                 Underground

Tank Status:                         Closed Prior to Micro Conversion, 03/91

Active Status:                        Inactive

Install Date:                         08/01/66

Capacity Gallons:                    550

Material Name:                        Gasoline

Percentage:                          100

Tank Type Name:                      Steel/Carbon Steel/Iron

Tank Internal Protection:            None

Tank Internal Protection 1:           None

Tank Internal Protection 2:           Not reported

Pipe Location Name:                 No Piping

Pipe Type Name:                      Steel/Carbon Steel/Iron

Pipe External Protection 1:         None

Pipe External Protection 2:         Not reported

Tank Secondary Containment 1:     None

Tank Secondary Containment 2:     Not reported

Pipe Secondary Containment:        Not reported

Tank Leak Detection 1:              None

Tank Leak Detection 2:              Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Pipe Leak Detection 1:	Not reported
Pipe Leak Detection 2:	Not reported
Type Of Overfill Prevention 1:	None
Type Of Overfill Prevention 2:	Not reported
Dispenser Method:	Suction
Spill Prevention:	Not reported
Tightness Test Method:	Testing Not Required
Date Tested:	/ /
Next Test Date:	/ /
Date Tank Closed:	/ /
<b>UST_PBS_FAC:</b>	
Facility Id:	2-247405
Expiration Date:	06/30/05
Renewal Date:	/ /
Total Capacity:	0
Facility Type:	Not reported
Mailing Company:	SPARTAN PETROLEUM CORP.
Mailing Title:	Not reported
Mailing Contact:	JAY SEMELMACHER
Mailing Address:	3333 NEW HYDE PARK ROAD
Mailing Address 2:	SUITE 201
Mailing City:	NEW HYDE PARK
Mailing State:	NY
Mailing Zip Code:	11042
Mailing Phone No:	(516) 365-8700
Mailing Email:	Not reported
Owner Title:	PROPERTY MANAGER
Owner Name:	JAY SEMELMACHER
Owner Address:	333 NEW HYDE PARK ROAD
Owner Address 2:	SUITE 201
Owner State:	NY
Owner Zip Code:	11042
Owner Phone:	(516) 365-8700
Owner Company:	SPARTAN PETROLEUM CORP.
Emergency Contact:	JAY SEMELMACHER
Emergency Phone:	(516) 993-4750
Operator:	JEHANZEB BANGASH
Operator Phone:	(718) 387-6685
Owner City:	NEW HYDE PARK
Owner Sub Type:	Corporate or Commercial
Facility ID:	2-247405
Program Type:	PBS
Tank Number:	007
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Underground
Tank Status:	Closed Prior to Micro Conversion, 03/91
Active Status:	Inactive
Install Date:	08/01/66
Capacity Gallons:	550
Material Name:	Gasoline
Percentage:	100
Tank Type Name:	Steel/Carbon Steel/Iron
Tank Internal Protection:	None
Tank Internal Protection 1:	None
Tank Internal Protection 2:	Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Pipe Location Name:            No Piping  
Pipe Type Name:                Steel/Carbon Steel/Iron  
Pipe External Protection 1:    None  
Pipe External Protection 2:    Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment:   Not reported  
Tank Leak Detection 1:        None  
Tank Leak Detection 2:        Not reported  
Pipe Leak Detection 1:        Not reported  
Pipe Leak Detection 2:        Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method:             Suction  
Spill Prevention:               Not reported  
Tightness Test Method:        Testing Not Required  
Date Tested:                    / /  
Next Test Date:                / /  
Date Tank Closed:              / /

**UST\_PBS\_FAC:**

Facility Id:                    2-247405  
Expiration Date:                06/30/05  
Renewal Date:                  / /  
Total Capacity:                 0  
Facility Type:                  Not reported  
Mailing Company:                SPARTAN PETROLEUM CORP.  
Mailing Title:                   Not reported  
Mailing Contact:                JAY SEMELMACHER  
Mailing Address:                3333 NEW HYDE PARK ROAD  
Mailing Address 2:               SUITE 201  
Mailing City:                    NEW HYDE PARK  
Mailing State:                   NY  
Mailing Zip Code:                11042  
Mailing Phone No:                (516) 365-8700  
Mailing Email:                   Not reported  
Owner Title:                    PROPERTY MANAGER  
Owner Name:                     JAY SEMELMACHER  
Owner Address:                  333 NEW HYDE PARK ROAD  
Owner Address 2:                SUITE 201  
Owner State:                     NY  
Owner Zip Code:                 11042  
Owner Phone:                    (516) 365-8700  
Owner Company:                 SPARTAN PETROLEUM CORP.  
Emergency Contact:              JAY SEMELMACHER  
Emergency Phone:                (516) 993-4750  
Operator:                        JEHANZEB BANGASH  
Operator Phone:                 (718) 387-6685  
Owner City:                      NEW HYDE PARK  
Owner Sub Type:                 Corporate or Commercial

Facility ID:                    2-247405  
Program Type:                  PBS  
Tank Number:                    112  
Tank Model:                     Not reported  
Pipe Model:                     Not reported  
Tank Location Name:              Underground  
Tank Status:                    Closed - Removed

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Active Status: Inactive  
Install Date: 10/01/89  
Capacity Gallons: 4000  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Original Impressed Current  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: None  
Tank Leak Detection 1: In-Tank System (ATG)  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Interstitial - Manual Monitoring  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: High Level Alarm  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Submersible  
Spill Prevention: Catch Basin  
Tightness Test Method: Petro-Tite/Petro Comp  
Date Tested: 06/01/99  
Next Test Date: / /  
Date Tank Closed: 09/10/04

UST\_PBS\_FAC:  
Facility Id: 2-247405  
Expiration Date: 06/30/05  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: SPARTAN PETROLEUM CORP.  
Mailing Title: Not reported  
Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201  
Mailing City: NEW HYDE PARK  
Mailing State: NY  
Mailing Zip Code: 11042  
Mailing Phone No: (516) 365-8700  
Mailing Email: Not reported  
Owner Title: PROPERTY MANAGER  
Owner Name: JAY SEMELMACHER  
Owner Address: 333 NEW HYDE PARK ROAD  
Owner Address 2: SUITE 201  
Owner State: NY  
Owner Zip Code: 11042  
Owner Phone: (516) 365-8700  
Owner Company: SPARTAN PETROLEUM CORP.  
Emergency Contact: JAY SEMELMACHER  
Emergency Phone: (516) 993-4750  
Operator: JEHANZEB BANGASH  
Operator Phone: (718) 387-6685  
Owner City: NEW HYDE PARK

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
Program Type: PBS  
Tank Number: 009  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed Prior to Micro Conversion, 03/91  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Other  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: No Piping  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-247405  
Expiration Date: 06/30/05  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: SPARTAN PETROLEUM CORP.  
Mailing Title: Not reported  
Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201  
Mailing City: NEW HYDE PARK  
Mailing State: NY  
Mailing Zip Code: 11042  
Mailing Phone No: (516) 365-8700  
Mailing Email: Not reported  
Owner Title: PROPERTY MANAGER  
Owner Name: JAY SEMELMACHER  
Owner Address: 333 NEW HYDE PARK ROAD  
Owner Address 2: SUITE 201

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Owner State: NY  
Owner Zip Code: 11042  
Owner Phone: (516) 365-8700  
Owner Company: SPARTAN PETROLEUM CORP.  
Emergency Contact: JAY SEMELMACHER  
Emergency Phone: (516) 993-4750  
Operator: JEHANZEB BANGASH  
Operator Phone: (718) 387-6685  
Owner City: NEW HYDE PARK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
Program Type: PBS  
Tank Number: 111  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: 10/01/89  
Capacity Gallons: 4000  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Original Impressed Current  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: None  
Tank Leak Detection 1: In-Tank System (ATG)  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Interstitial - Manual Monitoring  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: High Level Alarm  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Submersible  
Spill Prevention: Catch Basin  
Tightness Test Method: Petro-Tite/Petro Comp  
Date Tested: 06/01/99  
Next Test Date: / /  
Date Tank Closed: 09/10/04

**UST\_PBS\_FAC:**

Facility Id: 2-247405  
Expiration Date: 06/30/05  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: SPARTAN PETROLEUM CORP.  
Mailing Title: Not reported  
Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Mailing City: NEW HYDE PARK  
 Mailing State: NY  
 Mailing Zip Code: 11042  
 Mailing Phone No: (516) 365-8700  
 Mailing Email: Not reported  
 Owner Title: PROPERTY MANAGER  
 Owner Name: JAY SEMELMACHER  
 Owner Address: 333 NEW HYDE PARK ROAD  
 Owner Address 2: SUITE 201  
 Owner State: NY  
 Owner Zip Code: 11042  
 Owner Phone: (516) 365-8700  
 Owner Company: SPARTAN PETROLEUM CORP.  
 Emergency Contact: JAY SEMELMACHER  
 Emergency Phone: (516) 993-4750  
 Operator: JEHANZEB BANGASH  
 Operator Phone: (718) 387-6685  
 Owner City: NEW HYDE PARK  
 Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
 Program Type: PBS  
 Tank Number: 113  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: 10/01/89  
 Capacity Gallons: 4000  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: Original Impressed Current  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Underground/On-ground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: None  
 Tank Leak Detection 1: In-Tank System (ATG)  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Interstitial - Manual Monitoring  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: High Level Alarm  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Submersible  
 Spill Prevention: Catch Basin  
 Tightness Test Method: Petro-Tite/Petro Comp  
 Date Tested: 06/01/99  
 Next Test Date: / /  
 Date Tank Closed: 09/10/04

UST\_PBS\_FAC:  
 Facility Id: 2-247405

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Expiration Date: 06/30/05  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: SPARTAN PETROLEUM CORP.  
Mailing Title: Not reported  
Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201  
Mailing City: NEW HYDE PARK  
Mailing State: NY  
Mailing Zip Code: 11042  
Mailing Phone No: (516) 365-8700  
Mailing Email: Not reported  
Owner Title: PROPERTY MANAGER  
Owner Name: JAY SEMELMACHER  
Owner Address: 333 NEW HYDE PARK ROAD  
Owner Address 2: SUITE 201  
Owner State: NY  
Owner Zip Code: 11042  
Owner Phone: (516) 365-8700  
Owner Company: SPARTAN PETROLEUM CORP.  
Emergency Contact: JAY SEMELMACHER  
Emergency Phone: (516) 993-4750  
Operator: JEHANZEB BANGASH  
Operator Phone: (718) 387-6685  
Owner City: NEW HYDE PARK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
Program Type: PBS  
Tank Number: 006  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed Prior to Micro Conversion, 03/91  
Active Status: Inactive  
Install Date: 08/01/66  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-247405  
Expiration Date: 06/30/05  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: SPARTAN PETROLEUM CORP.  
Mailing Title: Not reported  
Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201  
Mailing City: NEW HYDE PARK  
Mailing State: NY  
Mailing Zip Code: 11042  
Mailing Phone No: (516) 365-8700  
Mailing Email: Not reported  
Owner Title: PROPERTY MANAGER  
Owner Name: JAY SEMELMACHER  
Owner Address: 333 NEW HYDE PARK ROAD  
Owner Address 2: SUITE 201  
Owner State: NY  
Owner Zip Code: 11042  
Owner Phone: (516) 365-8700  
Owner Company: SPARTAN PETROLEUM CORP.  
Emergency Contact: JAY SEMELMACHER  
Emergency Phone: (516) 993-4750  
Operator: JEHANZEB BANGASH  
Operator Phone: (718) 387-6685  
Owner City: NEW HYDE PARK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
Program Type: PBS  
Tank Number: 008  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed Prior to Micro Conversion, 03/91  
Active Status: Inactive  
Install Date: 08/01/66  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Pipe External Protection 2:    Not reported  
Tank Secondary Containment 1:    None  
Tank Secondary Containment 2:    Not reported  
Pipe Secondary Containment:    Not reported  
Tank Leak Detection 1:    None  
Tank Leak Detection 2:    Not reported  
Pipe Leak Detection 1:    Not reported  
Pipe Leak Detection 2:    Not reported  
Type Of Overfill Prevention 1:    None  
Type Of Overfill Prevention 2:    Not reported  
Dispenser Method:    Suction  
Spill Prevention:    Not reported  
Tightness Test Method:    Testing Not Required  
Date Tested:    / /  
Next Test Date:    / /  
Date Tank Closed:    / /

UST\_PBS\_FAC:

Facility Id:    2-247405  
Expiration Date:    06/30/05  
Renewal Date:    / /  
Total Capacity:    0  
Facility Type:    Not reported  
Mailing Company:    SPARTAN PETROLEUM CORP.  
Mailing Title:    Not reported  
Mailing Contact:    JAY SEMELMACHER  
Mailing Address:    3333 NEW HYDE PARK ROAD  
Mailing Address 2:    SUITE 201  
Mailing City:    NEW HYDE PARK  
Mailing State:    NY  
Mailing Zip Code:    11042  
Mailing Phone No:    (516) 365-8700  
Mailing Email:    Not reported  
Owner Title:    PROPERTY MANAGER  
Owner Name:    JAY SEMELMACHER  
Owner Address:    333 NEW HYDE PARK ROAD  
Owner Address 2:    SUITE 201  
Owner State:    NY  
Owner Zip Code:    11042  
Owner Phone:    (516) 365-8700  
Owner Company:    SPARTAN PETROLEUM CORP.  
Emergency Contact:    JAY SEMELMACHER  
Emergency Phone:    (516) 993-4750  
Operator:    JEHANZEB BANGASH  
Operator Phone:    (718) 387-6685  
Owner City:    NEW HYDE PARK  
Owner Sub Type:    Corporate or Commercial

Facility ID:    2-247405  
Program Type:    PBS  
Tank Number:    110  
Tank Model:    Not reported  
Pipe Model:    Not reported  
Tank Location Name:    Underground  
Tank Status:    Closed - Removed  
Active Status:    Inactive  
Install Date:    10/01/89  
Capacity Gallons:    4000

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: Original Impressed Current  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Underground/On-ground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: None  
 Tank Leak Detection 1: In-Tank System (ATG)  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Interstitial - Manual Monitoring  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: High Level Alarm  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Submersible  
 Spill Prevention: Catch Basin  
 Tightness Test Method: Petro-Tite/Petro Comp  
 Date Tested: 06/01/99  
 Next Test Date: / /  
 Date Tank Closed: 09/10/04

**UST\_PBS\_FAC:**

Facility Id: 2-247405  
 Expiration Date: 06/30/05  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: Not reported  
 Mailing Company: SPARTAN PETROLEUM CORP.  
 Mailing Title: Not reported  
 Mailing Contact: JAY SEMELMACHER  
 Mailing Address: 3333 NEW HYDE PARK ROAD  
 Mailing Address 2: SUITE 201  
 Mailing City: NEW HYDE PARK  
 Mailing State: NY  
 Mailing Zip Code: 11042  
 Mailing Phone No: (516) 365-8700  
 Mailing Email: Not reported  
 Owner Title: PROPERTY MANAGER  
 Owner Name: JAY SEMELMACHER  
 Owner Address: 333 NEW HYDE PARK ROAD  
 Owner Address 2: SUITE 201  
 Owner State: NY  
 Owner Zip Code: 11042  
 Owner Phone: (516) 365-8700  
 Owner Company: SPARTAN PETROLEUM CORP.  
 Emergency Contact: JAY SEMELMACHER  
 Emergency Phone: (516) 993-4750  
 Operator: JEHANZEB BANGASH  
 Operator Phone: (718) 387-6685  
 Owner City: NEW HYDE PARK  
 Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MEECO CORP (Continued)

U000406810

Program Type: PBS  
Tank Number: 003  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed Prior to Micro Conversion, 03/91  
Active Status: Inactive  
Install Date: 09/01/39  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-247405  
Expiration Date: 06/30/05  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: SPARTAN PETROLEUM CORP.  
Mailing Title: Not reported  
Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201  
Mailing City: NEW HYDE PARK  
Mailing State: NY  
Mailing Zip Code: 11042  
Mailing Phone No: (516) 365-8700  
Mailing Email: Not reported  
Owner Title: PROPERTY MANAGER  
Owner Name: JAY SEMELMACHER  
Owner Address: 333 NEW HYDE PARK ROAD  
Owner Address 2: SUITE 201  
Owner State: NY  
Owner Zip Code: 11042  
Owner Phone: (516) 365-8700

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**MEECO CORP (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**U000406810**

Owner Company: SPARTAN PETROLEUM CORP.  
Emergency Contact: JAY SEMELMACHER  
Emergency Phone: (516) 993-4750  
Operator: JEHANZEB BANGASH  
Operator Phone: (718) 387-6685  
Owner City: NEW HYDE PARK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-247405  
Program Type: PBS  
Tank Number: 109  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed Prior to Micro Conversion, 03/91  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Other  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Submersible  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: / /

**UST\_PBS\_FAC:**

Facility Id: 2-247405  
Expiration Date: 06/30/05  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: SPARTAN PETROLEUM CORP.  
Mailing Title: Not reported  
Mailing Contact: JAY SEMELMACHER  
Mailing Address: 3333 NEW HYDE PARK ROAD  
Mailing Address 2: SUITE 201  
Mailing City: NEW HYDE PARK  
Mailing State: NY  
Mailing Zip Code: 11042

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Mailing Phone No: (516) 365-8700  
Mailing Email: Not reported  
Owner Title: PROPERTY MANAGER  
Owner Name: JAY SEMELMACHER  
Owner Address: 333 NEW HYDE PARK ROAD  
Owner Address 2: SUITE 201  
Owner State: NY  
Owner Zip Code: 11042  
Owner Phone: (516) 365-8700  
Owner Company: SPARTAN PETROLEUM CORP.  
Emergency Contact: JAY SEMELMACHER  
Emergency Phone: (516) 993-4750  
Operator: JEHANZEB BANGASH  
Operator Phone: (718) 387-6685  
Owner City: NEW HYDE PARK  
Owner Sub Type: Corporate or Commercial

**AST:**

Facility ID: 2-247405  
Program Type: PBS  
Tank Number: 114  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Aboveground - in contact with impervious barrier  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: 01/01/90  
Capacity Gallons: 240  
Material Name: Waste Oil/Used Oil  
Percentage: 100  
Tank Type Name: Equivalent Technology  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: None  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Submersible  
Spill Prevention: None  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 09/14/04

**AST\_PBS\_FAC:**

Facility Id: 2-247405  
Expiration Date: 06/30/05

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Renewal Date:                    / /  
Total Capacity:                 0  
Facility Type:                   Not reported  
Mailing Company:               SPARTAN PETROLEUM CORP.  
Mailing Title:                   Not reported  
Mailing Contact:                JAY SEMELMACHER  
Mailing Address:                3333 NEW HYDE PARK ROAD  
Mailing Address 2:              SUITE 201  
Mailing City:                    NEW HYDE PARK  
Mailing State:                   NY  
Mailing Zip Code:               11042  
Mailing Phone No:               (516) 365-8700  
Mailing Email:                   Not reported  
Owner Title:                    PROPERTY MANAGER  
Owner Name:                     JAY SEMELMACHER  
Owner Address:                 333 NEW HYDE PARK ROAD  
Owner Address 2:                SUITE 201  
Owner State:                     NY  
Owner Zip Code:                 11042  
Owner Phone:                    (516) 365-8700  
Owner Company:                SPARTAN PETROLEUM CORP.  
Emergency Contact:             JAY SEMELMACHER  
Emergency Phone:               (516) 993-4750  
Operator:                        JEHANZEB BANGASH  
Operator Phone:                 (718) 387-6685  
Owner City:                      NEW HYDE PARK  
Owner Sub Type:                 Corporate or Commercial

**HIST UST:**

PBS Number:                    2-247405  
SPDES Number:                 Not reported  
Emergency Contact:             JOSEPH ASEF  
Emergency Telephone:         (917) 246-1025  
Operator:                        JOSEPH ASEF  
Operator Telephone:            (718) 387-6685  
Owner Name:                     SPARTAN PETROLEUM CORP  
Owner Address:                 1158 BROADWAY  
Owner City,St,Zip:             HEWLETT, NY 11557  
Owner Telephone:               (516) 295-3400  
Owner Type:                     Corporate/Commercial  
Owner Subtype:                 Not reported  
Mailing Name:                   SPARTAN PETROLEUM CORP  
Mailing Address:                1158 BROADWAY  
Mailing Address 2:              Not reported  
Mailing City,St,Zip:            HEWLETT, NY 11557  
Mailing Contact:                JAY SEMELMACHER  
Mailing Telephone:              (516) 295-3400  
Owner Mark:                     Second Owner  
Facility Status:                1 - Active PBS facility, i.e. total capacity of the PBS tanks is  
greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist  
or not at the facility.  
Facility Addr2:                 243 MEEKER AVE  
Tank Id:                          001  
Tank Location:                  UNDERGROUND  
Install Date:                    19390901  
Capacity (gals):                550  
Product Stored:                 UNLEADED GASOLINE

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Tank Type: Steel/carbon steel  
 Tank Internal: Not reported  
 Tank External: Not reported  
 Pipe Location: Not reported  
 Pipe Type: STEEL/IRON  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: Not reported  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: False  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 07/07/2000  
 Expiration Date: 06/30/2005  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 16240  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

PBS Number: 2-247405  
 SPDES Number: Not reported  
 Emergency Contact: JOSEPH ASEF  
 Emergency Telephone: (917) 246-1025  
 Operator: JOSEPH ASEF  
 Operator Telephone: (718) 387-6685  
 Owner Name: SPARTAN PETROLEUM CORP  
 Owner Address: 1158 BROADWAY  
 Owner City,St,Zip: HEWLETT, NY 11557  
 Owner Telephone: (516) 295-3400  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: SPARTAN PETROLEUM CORP

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Mailing Address: 1158 BROADWAY  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: HEWLETT, NY 11557  
 Mailing Contact: JAY SEMELMACHER  
 Mailing Telephone: (516) 295-3400  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
 Facility Addr2: 243 MEEKER AVE  
 Tank Id: 002  
 Tank Location: UNDERGROUND  
 Install Date: 19390901  
 Capacity (gals): 550  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: Not reported  
 Tank External: Not reported  
 Pipe Location: Not reported  
 Pipe Type: STEEL/IRON  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: Not reported  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: False  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 07/07/2000  
 Expiration Date: 06/30/2005  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 16240  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Region: 2

PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025  
Operator: JOSEPH ASEF  
Operator Telephone: (718) 387-6685  
Owner Name: SPARTAN PETROLEUM CORP  
Owner Address: 1158 BROADWAY  
Owner City,St,Zip: HEWLETT, NY 11557  
Owner Telephone: (516) 295-3400  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: SPARTAN PETROLEUM CORP  
Mailing Address: 1158 BROADWAY  
Mailing Address 2: Not reported  
Mailing City,St,Zip: HEWLETT, NY 11557  
Mailing Contact: JAY SEMELMACHER  
Mailing Telephone: (516) 295-3400  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 243 MEEKER AVE  
Tank Id: 003  
Tank Location: UNDERGROUND  
Install Date: 19390901  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: None  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: False  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025  
Operator: JOSEPH ASEF  
Operator Telephone: (718) 387-6685  
Owner Name: SPARTAN PETROLEUM CORP  
Owner Address: 1158 BROADWAY  
Owner City,St,Zip: HEWLETT, NY 11557  
Owner Telephone: (516) 295-3400  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: SPARTAN PETROLEUM CORP  
Mailing Address: 1158 BROADWAY  
Mailing Address 2: Not reported  
Mailing City,St,Zip: HEWLETT, NY 11557  
Mailing Contact: JAY SEMELMACHER  
Mailing Telephone: (516) 295-3400  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 243 MEEKER AVE  
Tank Id: 004  
Tank Location: UNDERGROUND  
Install Date: 19390901  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: None  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

MEECO CORP (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U000406810

Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: False  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025  
Operator: JOSEPH ASEF  
Operator Telephone: (718) 387-6685  
Owner Name: SPARTAN PETROLEUM CORP  
Owner Address: 1158 BROADWAY  
Owner City,St,Zip: HEWLETT, NY 11557  
Owner Telephone: (516) 295-3400  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: SPARTAN PETROLEUM CORP  
Mailing Address: 1158 BROADWAY  
Mailing Address 2: Not reported  
Mailing City,St,Zip: HEWLETT, NY 11557  
Mailing Contact: JAY SEMELMACHER  
Mailing Telephone: (516) 295-3400  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 243 MEEKER AVE  
Tank Id: 005  
Tank Location: UNDERGROUND

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

MEECO CORP (Continued)

EDR ID Number  
EPA ID Number

Database(s)

U000406810

Install Date: 19660801  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: None  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: False  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025  
Operator: JOSEPH ASEF  
Operator Telephone: (718) 387-6685  
Owner Name: SPARTAN PETROLEUM CORP  
Owner Address: 1158 BROADWAY  
Owner City,St,Zip: HEWLETT, NY 11557  
Owner Telephone: (516) 295-3400

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: SPARTAN PETROLEUM CORP  
 Mailing Address: 1158 BROADWAY  
 Mailing Address 2: Not reported  
 Mailing City, St, Zip: HEWLETT, NY 11557  
 Mailing Contact: JAY SEMELMACHER  
 Mailing Telephone: (516) 295-3400  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
 Facility Addr2: 243 MEEKER AVE  
 Tank Id: 006  
 Tank Location: UNDERGROUND  
 Install Date: 19660801  
 Capacity (gals): 550  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: Not reported  
 Tank External: Not reported  
 Pipe Location: Not reported  
 Pipe Type: STEEL/IRON  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: Not reported  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: False  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 07/07/2000  
 Expiration Date: 06/30/2005  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 16240  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**MEECO CORP (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U000406810**

Town or City:	NEW YORK CITY
County Code:	61
Town or City:	01
Region:	2
PBS Number:	2-247405
SPDES Number:	Not reported
Emergency Contact:	JOSEPH ASEF
Emergency Telephone:	(917) 246-1025
Operator:	JOSEPH ASEF
Operator Telephone:	(718) 387-6685
Owner Name:	SPARTAN PETROLEUM CORP
Owner Address:	1158 BROADWAY
Owner City,St,Zip:	HEWLETT, NY 11557
Owner Telephone:	(516) 295-3400
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Name:	SPARTAN PETROLEUM CORP
Mailing Address:	1158 BROADWAY
Mailing Address 2:	Not reported
Mailing City,St,Zip:	HEWLETT, NY 11557
Mailing Contact:	JAY SEMELMACHER
Mailing Telephone:	(516) 295-3400
Owner Mark:	Second Owner
Facility Status:	1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.
Facility Addr2:	243 MEEKER AVE
Tank Id:	007
Tank Location:	UNDERGROUND
Install Date:	19660801
Capacity (gals):	550
Product Stored:	UNLEADED GASOLINE
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	STEEL/IRON
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	None
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Not reported
Deleted:	False
Updated:	False
Lat/long:	Not reported
Lat/long:	Not reported
SWIS ID:	6101
Old PBS Number:	Not reported
Facility Type:	RETAIL GASOLINE SALES
Inspected Date:	Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

MEECO CORP (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U000406810

Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025  
Operator: JOSEPH ASEF  
Operator Telephone: (718) 387-6685  
Owner Name: SPARTAN PETROLEUM CORP  
Owner Address: 1158 BROADWAY  
Owner City,St,Zip: HEWLETT, NY 11557  
Owner Telephone: (516) 295-3400  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: SPARTAN PETROLEUM CORP  
Mailing Address: 1158 BROADWAY  
Mailing Address 2: Not reported  
Mailing City,St,Zip: HEWLETT, NY 11557  
Mailing Contact: JAY SEMELMACHER  
Mailing Telephone: (516) 295-3400  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 243 MEEKER AVE  
Tank Id: 008  
Tank Location: UNDERGROUND  
Install Date: 19660801  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: None  
Leak Detection: None

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Overfill Prot: Not reported  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: False  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 07/07/2000  
 Expiration Date: 06/30/2005  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 16240  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2  
  
 PBS Number: 2-247405  
 SPDES Number: Not reported  
 Emergency Contact: JOSEPH ASEF  
 Emergency Telephone: (917) 246-1025  
 Operator: JOSEPH ASEF  
 Operator Telephone: (718) 387-6685  
 Owner Name: SPARTAN PETROLEUM CORP  
 Owner Address: 1158 BROADWAY  
 Owner City,St,Zip: HEWLETT, NY 11557  
 Owner Telephone: (516) 295-3400  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: SPARTAN PETROLEUM CORP  
 Mailing Address: 1158 BROADWAY  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: HEWLETT, NY 11557  
 Mailing Contact: JAY SEMELMACHER  
 Mailing Telephone: (516) 295-3400  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Facility Addr2: 243 MEEKER AVE  
Tank Id: 009  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNKNOWN  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: Not reported  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: None  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Gravity  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: False  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025  
Operator: JOSEPH ASEF  
Operator Telephone: (718) 387-6685  
Owner Name: SPARTAN PETROLEUM CORP

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Owner Address: 1158 BROADWAY  
Owner City,St,Zip: HEWLETT, NY 11557  
Owner Telephone: (516) 295-3400  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: SPARTAN PETROLEUM CORP  
Mailing Address: 1158 BROADWAY  
Mailing Address 2: Not reported  
Mailing City,St,Zip: HEWLETT, NY 11557  
Mailing Contact: JAY SEMELMACHER  
Mailing Telephone: (516) 295-3400  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 243 MEEKER AVE  
Tank Id: 109  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNKNOWN  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: None  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Submersible  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: False  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**MEECO CORP (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U000406810**

Tank Screen:	Minor Data Missing
Dead Letter:	False
CBS Number:	Not reported
Town or City:	NEW YORK CITY
County Code:	61
Town or City:	01
Region:	2
PBS Number:	2-247405
SPDES Number:	Not reported
Emergency Contact:	JOSEPH ASEF
Emergency Telephone:	(917) 246-1025
Operator:	JOSEPH ASEF
Operator Telephone:	(718) 387-6685
Owner Name:	SPARTAN PETROLEUM CORP
Owner Address:	1158 BROADWAY
Owner City,St,Zip:	HEWLETT, NY 11557
Owner Telephone:	(516) 295-3400
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Name:	SPARTAN PETROLEUM CORP
Mailing Address:	1158 BROADWAY
Mailing Address 2:	Not reported
Mailing City,St,Zip:	HEWLETT, NY 11557
Mailing Contact:	JAY SEMELMACHER
Mailing Telephone:	(516) 295-3400
Owner Mark:	Second Owner
Facility Status:	1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.
Facility Addr2:	243 MEEKER AVE
Tank Id:	110
Tank Location:	UNDERGROUND
Install Date:	19891001
Capacity (gals):	4000
Product Stored:	UNLEADED GASOLINE
Tank Type:	Steel/carbon steel
Tank Internal:	Glass Liner
Tank External:	Sacrificial Anode
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Sacrificial Anode
Second Containment:	Vault (w/access)
Leak Detection:	14
Overfill Prot:	High Level Alarm, Catch Basin
Dispenser:	Submersible
Date Tested:	06/01/1999
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Petro-Tite
Deleted:	False
Updated:	True
Lat/long:	Not reported
Lat/long:	Not reported
SWIS ID:	6101

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 07/07/2000  
 Expiration Date: 06/30/2005  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 16240  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

PBS Number: 2-247405  
 SPDES Number: Not reported  
 Emergency Contact: JOSEPH ASEF  
 Emergency Telephone: (917) 246-1025  
 Operator: JOSEPH ASEF  
 Operator Telephone: (718) 387-6685  
 Owner Name: SPARTAN PETROLEUM CORP  
 Owner Address: 1158 BROADWAY  
 Owner City,St,Zip: HEWLETT, NY 11557  
 Owner Telephone: (516) 295-3400  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: SPARTAN PETROLEUM CORP  
 Mailing Address: 1158 BROADWAY  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: HEWLETT, NY 11557  
 Mailing Contact: JAY SEMELMACHER  
 Mailing Telephone: (516) 295-3400  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 243 MEEKER AVE  
 Tank Id: 111  
 Tank Location: UNDERGROUND  
 Install Date: 19891001  
 Capacity (gals): 4000  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: None  
 Tank External: Sacrificial Anode  
 Pipe Location: Underground  
 Pipe Type: GALVANIZED STEEL  
 Pipe Internal: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Pipe External: Sacrificial Anode  
Second Containment: Vault (w/access)  
Leak Detection: 14  
Overfill Prot: High Level Alarm, Catch Basin  
Dispenser: Submersible  
Date Tested: 06/01/1999  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Petro-Tite  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025  
Operator: JOSEPH ASEF  
Operator Telephone: (718) 387-6685  
Owner Name: SPARTAN PETROLEUM CORP  
Owner Address: 1158 BROADWAY  
Owner City,St,Zip: HEWLETT, NY 11557  
Owner Telephone: (516) 295-3400  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: SPARTAN PETROLEUM CORP  
Mailing Address: 1158 BROADWAY  
Mailing Address 2: Not reported  
Mailing City,St,Zip: HEWLETT, NY 11557  
Mailing Contact: JAY SEMELMACHER  
Mailing Telephone: (516) 295-3400  
Owner Mark: Second Owner

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**MEECO CORP (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**U000406810**

Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
Facility Addr2: 243 MEEKER AVE  
Tank Id: 112  
Tank Location: UNDERGROUND  
Install Date: 19891001  
Capacity (gals): 4000  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Sacrificial Anode  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Sacrificial Anode  
Second Containment: Vault (w/access)  
Leak Detection: 14  
Overfill Prot: High Level Alarm, Catch Basin  
Dispenser: Submersible  
Date Tested: 06/01/1999  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Petro-Tite  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 07/07/2000  
Expiration Date: 06/30/2005  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16240  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-247405  
SPDES Number: Not reported  
Emergency Contact: JOSEPH ASEF  
Emergency Telephone: (917) 246-1025

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

Operator: JOSEPH ASEF  
 Operator Telephone: (718) 387-6685  
 Owner Name: SPARTAN PETROLEUM CORP  
 Owner Address: 1158 BROADWAY  
 Owner City,St,Zip: HEWLETT, NY 11557  
 Owner Telephone: (516) 295-3400  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: SPARTAN PETROLEUM CORP  
 Mailing Address: 1158 BROADWAY  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: HEWLETT, NY 11557  
 Mailing Contact: JAY SEMELMACHER  
 Mailing Telephone: (516) 295-3400  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
 Facility Addr2: 243 MEEKER AVE  
 Tank Id: 113  
 Tank Location: UNDERGROUND  
 Install Date: 19891001  
 Capacity (gals): 4000  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: None  
 Tank External: Sacrificial Anode  
 Pipe Location: Underground  
 Pipe Type: GALVANIZED STEEL  
 Pipe Internal: Not reported  
 Pipe External: Sacrificial Anode  
 Second Containment: Vault (w/access)  
 Leak Detection: 14  
 Overfill Prot: High Level Alarm, Catch Basin  
 Dispenser: Submersible  
 Date Tested: 06/01/1999  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Petro-Tite  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 07/07/2000  
 Expiration Date: 06/30/2005  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 16240

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MEECO CORP (Continued)**

**U000406810**

FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

13  
 SW  
 < 1/8  
 513 ft.

**OUR LADY OF MOUNT CARMEL R.C. CHURCH**  
**11-23 HAVEMEYER STREET**  
**BROOKLYN, NY 11211**

UST U000413804  
 HIST UST N/A

**Relative:  
 Lower**

**UST:**

**Actual:  
 14 ft.**

Facility ID: 2-130249  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: 12/01/50  
 Capacity Gallons: 5000  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Underground/On-ground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: Vent Whistle  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Not reported  
 Spill Prevention: Not reported  
 Tightness Test Method: Horner EZ Check I or II  
 Date Tested: 05/01/98  
 Next Test Date: / /  
 Date Tank Closed: 11/01/99

**UST\_PBS\_FAC:**

Facility Id: 2-130249  
 Expiration Date: 07/10/02  
 Renewal Date: 03/06/02  
 Total Capacity: 0

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**OUR LADY OF MOUNT CARMEL R.C. CHURCH (Continued)**

**U000413804**

Facility Type: Not reported  
Mailing Company: REV. JOSEPH G. FONTI, PASTOR  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: OUR LADY OF MT. CARMEL R.C.C.  
Mailing Address 2: 275 NORTH 8TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 384-0223  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 275 NORTH 8TH STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 384-0223  
Owner Company: OUR LADY OF MOUNT CARMEL R.C. CHURCH  
Emergency Contact: REV. JOSEPH G. FONTI  
Emergency Phone: (718) 384-0223  
Operator: OUR LADY OF MOUNT CARMEL CHURCH  
Operator Phone: (718) 384-0223  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

**HIST UST:**

PBS Number: 2-130249  
SPDES Number: Not reported  
Emergency Contact: MSGR. DAVID L. CASSATO  
Emergency Telephone: (718) 384-1516  
Operator: OUR LADY OF MOUNT CARMEL CHURCH  
Operator Telephone: (718) 384-0223  
Owner Name: OUR LADY OF MOUNT CARMEL R.C. CHURCH  
Owner Address: 275 NORTH 8TH STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-0223  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: OUR LADY OF MOUNT CARMEL R.C. CHURCH  
Mailing Address: 275 NORTH 8TH STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: SUPER FACILITY MANAGER  
Mailing Telephone: (718) 384-0223  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
Facility Addr2: 275 NORTH 8TH STREET  
Tank Id: 001  
Tank Location: UNDERGROUND  
Install Date: 19501201  
Capacity (gals): 5000  
Product Stored: NOS 1,2, OR 4 FUEL OIL  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**OUR LADY OF MOUNT CARMEL R.C. CHURCH (Continued)**

**U000413804**

Tank External: Not reported  
 Pipe Location: Underground  
 Pipe Type: STEEL/IRON  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: Vent Whistle  
 Dispenser: Gravity  
 Date Tested: 05/01/1998  
 Next Test Date: 05/01/2003  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Horner EZ Check  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: OTHER  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/02/1998  
 Expiration Date: 07/10/2002  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 5000  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**D14  
 NW  
 < 1/8  
 539 ft.**

**GAS STATION  
 2 ROBELING ST  
 BROOKLIN, NY**

**NY Spills S104651686  
 NY Hist Spills N/A**

**Site 1 of 3 in cluster D**

**Relative:  
 Lower**

NY Spills:  
 Site ID: 102737  
 Facility Addr2: Not reported  
 Facility ID: 0000373  
 Spill Number: 0000373  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: TOMASELLO  
 Referred To: Not reported

**Actual:  
 15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**GAS STATION (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**S104651686**

Spill Date: 04/10/00  
Reported to Dept: 04/10/00  
CID: 14  
Spill Cause: Unknown  
Water Affected: Not reported  
Spill Source: Gasoline Station  
Spill Notifier: Affected Persons  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Trust: False  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 02/27/03  
Remediation Phase: 0  
Date Entered In Computer: 04/10/00  
Spill Record Last Update: 11/17/03  
Spiller Name: CALLER  
Spiller Company: ANTHONY FURNACOLA  
Spiller Address: 2 ROEBLING ST  
Spiller City,St,Zip: BROOKLYN, NY  
Spiller Company: 001  
Spiller Phone: (516) 457-3365  
Contact Name: CALLER  
Contact Phone: (516) 457-3365  
DEC Region: 2  
Program Number: 0000373  
DER Facility ID: 90969  
Site ID: 102737  
Operable Unit ID: 822089  
Operable Unit: 01  
Material ID: 557707  
Material Code: 0009  
Material Name: Gasoline  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 0000373 CALLER STATES THAT HE IS DOING EXCAVATION AND HAS DISCOVERED CONTAMINATED SOIL. CALLER REQ CALL BACK ON CELL PHONE. NUMBER LISTED ABOVE END CallerRemark - 0000373

NY Hist Spills:  
Region of Spill: 2  
Spill Number: 0000373  
Investigator: TOMASELLO  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GAS STATION (Continued)**

**S104651686**

Spill Date/Time: 04/10/2000 08:00  
Reported to Dept Date/Time: 04/10/00 10:04  
SWIS: 61  
Spiller Name: ANTHONY FURNACOLA  
Spiller Contact: CALLER  
Spiller Phone: (516) 457-3365  
Spiller Contact: CALLER  
Spiller Phone: (516) 457-3365  
Spiller Address: 2 ROBELING ST  
Spiller City,St,Zip: BROOKLIN, NY  
Spill Cause: Unknown  
Reported to Dept: On Land  
Water Affected: Not reported  
Spill Source: 05  
Spill Notifier: Affected Persons  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Std: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Dt: / /  
Enforcement Date: / /  
Invstgn Complete: / /  
UST Involvement: False  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Corrective Action Plan Submitted: / /  
Date Region Sent Summary to Central Office: / /  
Date Spill Entered In Computer Data File: 04/10/00  
Date Spill Entered In Computer Data File: Not reported  
Update Date: 06/13/00  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: False  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: GASOLINE  
Class Type: GASOLINE  
Times Material Entry In File: 21329  
CAS Number: Not reported  
Last Date: 19940929  
DEC Remarks: NAC CORP DID TANK REMOVAL DID NOT NOTIFY THE dec. gAS TANKS GERALD OF sHARP  
TRANSP AND DISPOSAL is the project coordinator. 631-451-7300. GOR ENDPOINTS  
THAT ARE CLEAN. OVERNIGHTED ME REPORTS. SIX 550S. i SAID DO 2 gw SAMPLes, one  
on each side of the tank field. WILL have it done tomarrow, with an AUGER.  
LONG ISLAND aNALYTICAL will take the samples. tomasello 5/9/2000.  
SAMPLES TAKEN AND REVIEWED. cASE CLOSED 6/13/2000 SEE dec ARCHIVE FILE  
Remark: CALLER STATES THAT HE IS DOING EXCAVATION AND HAS DISCOVERED CONTAMINATED

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**GAS STATION (Continued)**

**S104651686**

SOIL CALLER REQ CALL BACK ON CELL PHONE. NUMBER LISTED ABOVE

**E15  
 WNW  
 < 1/8  
 540 ft.**

**WING HON HOLDING, INC.  
 237-243 NORTH 9TH STREET  
 BROOKLYN, NY 11211**

**UST U004048784  
 N/A**

**Site 1 of 2 in cluster E**

**Relative:  
 Lower**

UST:  
 Facility ID: 2-609544  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground, vaulted, with access  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 551  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Aboveground/Underground Combination  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: 01/01/91

**Actual:  
 14 ft.**

UST\_PBS\_FAC:  
 Facility Id: 2-609544  
 Expiration Date: 05/13/09  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: COMMERCIAL / CORPORATION  
 Mailing Company: TRC RAVIV ASSOCIATES, INC.  
 Mailing Title: Not reported  
 Mailing Contact: MR. MORGAN I. EVANS  
 Mailing Address: 57 EAST WILLOW STREET  
 Mailing Address 2: Not reported  
 Mailing City: MILLBURN,  
 Mailing State: NJ

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**WING HON HOLDING, INC. (Continued)**

**U004048784**

Mailing Zip Code: 07041  
 Mailing Phone No: (973) 564-6006  
 Mailing Email: Not reported  
 Owner Title: PRESIDENT  
 Owner Name: ALBERT CHAN  
 Owner Address: 2 REWE STREET  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11211  
 Owner Phone: (718) 963-1010  
 Owner Company: WING HON HOLDING, INC.  
 Emergency Contact: RAYMOND LEUNG  
 Emergency Phone: (718) 963-1010  
 Operator: ALBERT CHAN  
 Operator Phone: (718) 963-1010  
 Owner City: BROOKLYN  
 Owner Sub Type: Corporate or Commercial

Facility ID: 2-609544  
 Program Type: PBS  
 Tank Number: 002  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground, vaulted, with access  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 551  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Aboveground/Underground Combination  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: 01/01/91

UST\_PBS\_FAC:  
 Facility Id: 2-609544  
 Expiration Date: 05/13/09  
 Renewal Date: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**WING HON HOLDING, INC. (Continued)**

**U004048784**

Total Capacity: 0  
 Facility Type: COMMERCIAL / CORPORATION  
 Mailing Company: TRC RAVIV ASSOCIATES, INC.  
 Mailing Title: Not reported  
 Mailing Contact: MR. MORGAN I. EVANS  
 Mailing Address: 57 EAST WILLOW STREET  
 Mailing Address 2: Not reported  
 Mailing City: MILLBURN,  
 Mailing State: NJ  
 Mailing Zip Code: 07041  
 Mailing Phone No: (973) 564-6006  
 Mailing Email: Not reported  
 Owner Title: PRESIDENT  
 Owner Name: ALBERT CHAN  
 Owner Address: 2 REWE STREET  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11211  
 Owner Phone: (718) 963-1010  
 Owner Company: WING HON HOLDING, INC.  
 Emergency Contact: RAYMOND LEUNG  
 Emergency Phone: (718) 963-1010  
 Operator: ALBERT CHAN  
 Operator Phone: (718) 963-1010  
 Owner City: BROOKLYN  
 Owner Sub Type: Corporate or Commercial

**D16  
 NNW  
 < 1/8  
 554 ft.**

**J. TUOMEY TRUCK REPAIR  
 5 ROEBLING STREET  
 BROOKLYN, NY 11211**

**AST S107783262  
 HIST AST N/A**

**Site 2 of 3 in cluster D**

**Relative:  
 Lower**

AST:  
 Facility ID: 2-604046  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Aboveground - in contact with soil  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 275  
 Material Name: Waste Oil/Used Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: No Piping  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None

**Actual:  
 15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**J. TUOMEY TRUCK REPAIR (Continued)**

**S107783262**

Tank Leak Detection 2:            Not reported  
Pipe Leak Detection 1:            Exempt Suction Piping  
Pipe Leak Detection 2:            Not reported  
Type Of Overfill Prevention 1:    None  
Type Of Overfill Prevention 2:    Not reported  
Dispenser Method:                Suction  
Spill Prevention:                 Not reported  
Tightness Test Method:            Testing Not Required  
Date Tested:                        / /  
Next Test Date:                    / /  
Date Tank Closed:                 07/30/99

AST\_PBS\_FAC:  
Facility Id:                         2-604046  
Expiration Date:                    04/19/04  
Renewal Date:                      / /  
Total Capacity:                     0  
Facility Type:                      Not reported  
Mailing Company:                  JOHN TUOMEY  
Mailing Title:                      Not reported  
Mailing Contact:                  Not reported  
Mailing Address:                  1041 FRANCES DRIVE  
Mailing Address 2:                 Not reported  
Mailing City:                        N. VALLEY STREAM  
Mailing State:                      NY  
Mailing Zip Code:                  11580  
Mailing Phone No:                 (516) 872-6196  
Mailing Email:                      Not reported  
Owner Title:                        OWNER  
Owner Name:                         JOHN TUOMEY  
Owner Address:                      1041 FRANCES DRIVE  
Owner Address 2:                  Not reported  
Owner State:                        NY  
Owner Zip Code:                    11580  
Owner Phone:                        (516) 872-6196  
Owner Company:                    JOHN TUOMEY  
Emergency Contact:                JOHN TUOMEY  
Emergency Phone:                 (516) 872-6196  
Operator:                            JOHN TUOMEY  
Operator Phone:                    (718) 387-1241  
Owner City:                         VALLEY STREAM  
Owner Sub Type:                    Corporate or Commercial

HIST AST:  
PBS Number:                        2-604046  
Tank Location:                      ABOVEGROUND  
Tank ID:                              001  
Tank Status:                        1  
Install Date:                        Not reported  
Capacity (Gal):                     275  
Product Stored:                     B  
Tank Type:                          Steel/carbon steel  
Tank Internal:                      Not reported  
Tank External:                      Not reported  
Pipe Location:                      Not reported  
Pipe Type:                          Not reported  
Pipe Internal:                      Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**J. TUOMEY TRUCK REPAIR (Continued)**

**S107783262**

Pipe External: Not reported  
 Tank Containment: Not reported  
 Leak Detection: Not reported  
 Overfill Protection: Not reported  
 Dispenser Method: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 SPDES Number: Not reported  
 Latitude: Not reported  
 Longitude: Not reported  
 SWIS Code: 6101  
 Operator: JOHN TUOMEY  
 Facility Phone: (718) 387-1241  
 Facility Addr2: Not reported  
 Facility Type: OTHER RETAIL SALES  
 Emergency: JOHN TUOMEY  
 Emergency Tel: (516) 872-6196  
 Old PBSNO: Not reported  
 Date Inspected: Not reported  
 Inspector: Not reported  
 Result of Inspection: Not reported  
 Owner Name: JOHN TUOMEY  
 Owner Address: 1041 FRANCES DRIVE  
 Owner City,St,Zip: N. VALLEY STREAM, NY 11580  
 Federal ID: Not reported  
 Owner Tel: (516) 872-6196  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Contact: JOHN TUOMEY  
 Mailing Name: J. TUOMEY TRUCK REPAIR  
 Mailing Address: 5 ROEBLING STREET  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: BROOKLYN, NY 11211  
 Mailing Telephone: (718) 387-1241  
 Owner Mark: First Owner  
 Facility Status: 4 - Subpart 360-14 only (active)  
 Certification Flag: False  
 Certification Date: 04/30/1999  
 Expiration: 04/19/2004  
 Renew Flag: False  
 Renew Date: Not reported  
 Total Capacity: 275  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City Code: 01  
 Region: 2

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**E17**      **238 NORTH 9TH STREET REALTY CORP.**  
**WNW**      **238 NORTH 9TH STREET**  
**< 1/8**      **BROOKLYN, NY 11211**  
**568 ft.**

**UST**      **U003241825**  
**HIST UST**      **N/A**

**Site 2 of 2 in cluster E**

**Relative:**  
**Lower**

UST:  
 Facility ID: 2-370045  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - In Place  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 3000  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: Painted/Asphalt Coating  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Underground/On-ground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: Groundwater Well  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: Product Level Gauge (A/G)  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Horner EZ Check I or II  
 Date Tested: 07/01/95  
 Next Test Date: / /  
 Date Tank Closed: 11/04/00

**Actual:**  
**14 ft.**

UST\_PBS\_FAC:  
 Facility Id: 2-370045  
 Expiration Date: 10/06/02  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: Not reported  
 Mailing Company: 238 NORTH 9TH STREET REALTY CORPORATION  
 Mailing Title: Not reported  
 Mailing Contact: KEN AUSTER  
 Mailing Address: 238 NORTH 9TH STREET  
 Mailing Address 2: Not reported  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip Code: 11211  
 Mailing Phone No: (718) 782-6400  
 Mailing Email: Not reported  
 Owner Title: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**238 NORTH 9TH STREET REALTY CORP. (Continued)**

**U003241825**

Owner Name: Not reported  
Owner Address: 43 RODNEY LANE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11590  
Owner Phone: (516) 334-2690  
Owner Company: KEN AUSTER  
Emergency Contact: MARTIN AUSTER  
Emergency Phone: (516) 334-2690  
Operator: 238 NORTH 9TH ST RLTY CORP  
Operator Phone: (718) 782-6400  
Owner City: WESTBURY  
Owner Sub Type: Corporate or Commercial

**HIST UST:**

PBS Number: 2-370045  
SPDES Number: Not reported  
Emergency Contact: MARTIN AUSTER  
Emergency Telephone: (516) 334-2690  
Operator: 238 NORTH 9TH ST RLTY CORP  
Operator Telephone: (718) 782-6400  
Owner Name: KEN AUSTER  
Owner Address: 43 RODNEY LANE  
Owner City,St,Zip: WESTBURY, NY 11590  
Owner Telephone: (516) 334-2690  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 238 NORTH 9TH STREET REALTY CORPORATION  
Mailing Address: 238 NORTH 9TH STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: KEN AUSTER  
Mailing Telephone: (718) 782-6400  
Owner Mark: First Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.  
Facility Addr2: 238 NORTH STH STREET  
Tank Id: 001  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 3000  
Product Stored: NOS 1,2, OR 4 FUEL OIL  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: STEEL/IRON  
Pipe Internal: None  
Pipe External: None  
Second Containment: None  
Leak Detection: Groundwater Well  
Overfill Prot: Product Level Gauge  
Dispenser: Suction  
Date Tested: 07/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: 11/04/2000

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**238 NORTH 9TH STREET REALTY CORP. (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U003241825**

Test Method: Horner EZ Check  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: MANUFACTURING  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 11/14/1997  
 Expiration Date: 10/06/2002  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 0  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: 0  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**D18  
 NNW  
 < 1/8  
 576 ft.**

**TM 1142  
 11TH/ROEBLING STREET  
 BROOKLYN, NY**

**NY Spills S106384524  
 N/A**

**Site 3 of 3 in cluster D**

**Relative:  
 Lower**

**NY Spills:**

**Actual:  
 15 ft.**

Site ID: 323904  
 Facility Addr2: Not reported  
 Facility ID: 0400060  
 Spill Number: 0400060  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: JHOCONNE  
 Referred To: Not reported  
 Spill Date: 04/02/04  
 Reported to Dept: 04/02/04  
 CID: 444  
 Spill Cause: Equipment Failure  
 Water Affected: Not reported  
 Spill Source: Institutional, Educational, Gov., Other  
 Spill Notifier: Responsible Party  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Trust: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TM 1142 (Continued)

S106384524

Willing Responsible Party. Corrective action taken.

Spill Closed Dt: 07/16/04  
Remediation Phase: 0  
Date Entered In Computer: 04/02/04  
Spill Record Last Update: 07/16/04  
Spiller Name: ERT DESK  
Spiller Company: IN STREET  
Spiller Address: 11TH/ROEBLING STREET  
Spiller City,St,Zip: BROOKLYN, NY  
Spiller Company: 001  
Spiller Phone: (212) 580-8383  
Contact Name: ERT DESK  
Contact Phone: (212) 580-8383  
DEC Region: 2  
Program Number: 0400060  
DER Facility ID: 260943  
Site ID: 323904  
Operable Unit ID: 882391  
Operable Unit: 01  
Material ID: 494854  
Material Code: 0020A  
Material Name: TRANSFORMER OIL  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Pounds  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False

DEC Remarks: Start DECRemark - 0400060 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "O'CONNELL" e2mis no. 152740: APPROX 1 PT OF DIELECTRIC FLUID  
ON APPROX 1500 GALS OF WATER IN THE STRUCTURE. SPILL IS CONTAINED TO STRUCTURE.  
SOME OF THE WATER IN THE VAULT EVIDENTIALLY GOT INTO THE HOLE BY THE ESNA'S ON  
TOP OF THE TRANSFORMER, MIXED WITH THE DIELECTRIC FLUID IN THE TRANSFORMER AND  
WASHED BACK OUT INTO THE STRUCTURE. HISTORICAL PCB COUNT OF THE TRANSFORMER IS  
10 PPM DTD 11/30/95.WILL TRY TO GET A SAMPLE FROM THE TRANSFORMER THROUGH THE  
HOLE ON TOP. LSN 04-02508-001 PCB <1 PPM ASTORIA TANKER REMOVED 310  
GALLONS FROM UNIT. UNIT CAPACITY PLATE INDICATES UNIT HOLDS 340 GALLONS,  
LEAVING 30 GALLONS UNACCOUNTED FOR. TANKER REMOVED ALL LIQUID FROM STRUCTURE.  
4/3/04, 02:26 HRS TANKER REMOVED 1400 GALLONS WATER FROM STRUCTURE, REMOVED  
ALL DEBRIS WITH VACTOR, DOUBLE-WASHED STRUCTURE WITH BULLDOG. TAG LEFT IN PLACE  
PENDING TRANSFORMER REMOVAL. Update - 4/7/04 1230hrsKen Downey BQE reports  
on location; Removing transformer this date. UPDATE 4-7-04 18:05 C.  
LABARBARA (ENV OPS) REPORTS, REMOVED ALL SOLIDS AND LIQUIDS, DOUBLE WASHED  
USING BIO GEN SLIX, NO SUMPS FOUND . JOB 100 COMPLETED. END DECRemark - 0400060  
Remarks: Start CallerRemark - 0400060 DUE TO A BLOWN ESNAS: WILL REPAIR BY THE 11TH DUE  
TO HAVING TO DRAIN; AND WAITING FOR LAB RESULTS; NO TO THE 5 QUESTIONS; CON ED  
# 152740 4/03/04 update - ANDREW MORRIS (CON ED) REPORTS @ 0222HRS THIS  
DATE, FURTHER INVESTIGATION REVEALS TOTAL OF 30 GAL OF TRANSFORMER OIL  
UNACCOUNTED FOR FROM TRANSFORMER. END CallerRemark - 0400060

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

19  
 NW  
 < 1/8  
 638 ft.

**ROBINSON BROS. INDUSTRIES, CORP.**  
**215 NORTH 10TH ST.**  
**BROOKLYN, NY 11211**

**CBS AST**    **S102638185**  
**CBS**        **N/A**

**Relative:**  
**Lower**

CBS AST:

**Actual:**  
**15 ft.**

CBS Number: 2-000052  
 Region: STATE  
 ICS Number: 2-700268  
 PBS Number: Not reported  
 MOSF Number: Not reported  
 Telephone: (718) 963-4260  
 Facility Town: NEW YORK CITY  
 Operator: EDWARD J. MAGUIRE  
 Emrgncy Contact: EDWARD J. MAGUIRE  
 Emrgncy Phone: (914) 961-5944  
 Expiration Date: 06/06/1993  
 Owner Name: ROBINSON BROS. INDUSTRIES  
 Owner Address: 215 NORTH 10TH ST.  
 Owner City,St,Zip: BROOKLYN, NY 11211  
 Owner Telephone: (718) 963-4260  
 Owner type: Corporate/Commercial  
 Facility Type: STORAGE TERMINAL/PETROLEUM DISTRIBUTOR  
 Mail Name: ROBINSON BROS. INDUSTRIES  
 Mail Contact Addr: 215 NORTH 10TH ST.  
 Mail Contact Addr2: Not reported  
 Mail Contact Contact: EDWARD J. MAGUIRE  
 Mail Contact City,St,Zip: BROOKLYN, NY 11211  
 Mail Phone: (718) 963-4260  
 SPDES Number: Not reported  
 Facility Status: ACTIVE FACILITY  
 Owner Sub Type: Not reported

Tank Id: 001  
 Date Entered: 06/06/1989  
 Capacity (Gal): 5000  
 Chemical: Hydrochloric acid  
 Tank Status: 0  
 Tank Type: Fiberglass reinforced plastic [FRP]  
 Install Date: 04/86  
 Certified Date: 06/19/1991  
 CAS Number: 7647010  
 Substance: Single Hazardous Substance on DEC List  
 Tank Location: ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE  
 Intrnl Protection: None  
 Extrnl Protection: None  
 Pipe Location: Aboveground  
 Pipe Type: PLASTIC  
 Pipe Internal: Epoxy Liner  
 Pipe External: 5  
 Pipe Containment: Diking  
 Tank Containment: Diking  
 Leak Detection: Concrete Pad w/channels  
 Overfill Protection: None  
 Haz Percent: 100  
 Tank Closed: 02/92  
 Total Tanks: 0  
 Tank Secret: False  
 Last Test: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

ROBINSON BROS. INDUSTRIES, CORP. (Continued)

EDR ID Number  
EPA ID Number

Database(s)

S102638185

Due Date: Not reported  
Tank Error Status: No Missing Data  
SWIS Code: 6101  
Lat/Long: Not reported  
Pipe Flag: False  
Federal ID: Not reported  
Is Updated: F  
Renew Date: 03/01/93  
Is it There: F  
Deliquent: F  
Date Expired: 06/06/93  
Owner Mark: 1  
Certificate Needs to be Printed: False  
Fiscal Amt for Registration Fee Correct: True  
Renewal Has Been Printed for Facility: True  
Pre-Printed Renewal App Last Printed: 03/01/1993  
Total Capacity of All Active Tanks(gal): 0

Tank Id: 002  
Date Entered: 06/06/1989  
Capacity (Gal): 12000  
Chemical: Ammonium hydroxide  
Tank Status: 0  
Tank Type: Other  
Install Date: 01/86  
Certified Date: 06/19/1991  
CAS Number: 1336216  
Substance: Single Hazardous Substance on DEC List  
Tank Location: ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE  
Intrnl Protection: Rubber Liner  
Extrnl Protection: Painted/Asphalt Coating  
Pipe Location: Aboveground  
Pipe Type: OTHER  
Pipe Internal: Rubber Liner  
Pipe External: 5  
Pipe Containment: Diking  
Tank Containment: Diking  
Leak Detection: Concrete Pad w/channels  
Overfill Protection: None  
Haz Percent: 100  
Tank Closed: 02/92  
Total Tanks: 0  
Tank Secret: False  
Last Test: Not reported  
Due Date: Not reported  
Tank Error Status: No Missing Data  
SWIS Code: 6101  
Lat/Long: Not reported  
Pipe Flag: False  
Federal ID: Not reported  
Is Updated: F  
Renew Date: 03/01/93  
Is it There: F  
Deliquent: F  
Date Expired: 06/06/93  
Owner Mark: 1

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**ROBINSON BROS. INDUSTRIES, CORP. (Continued)**

**S102638185**

Certificate Needs to be Printed: False  
Fiscal Amt for Registration Fee Correct: True  
Renewal Has Been Printed for Facility: True  
Pre-Printed Renewal App Last Printed: 03/01/1993  
Total Capacity of All Active Tanks(gal): 0

Tank Id: 003  
Date Entered: 06/06/1989  
Capacity (Gal): 2000  
Chemical: Nitric acid  
Tank Status: 0  
Tank Type: Stainless steel alloy  
Install Date: 01/86  
Certified Date: 06/19/1991  
CAS Number: 7697372  
Substance: Not reported  
Tank Location: ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE  
Intrnl Protection: Not reported  
Extrnl Protection: Not reported  
Pipe Location: Not reported  
Pipe Type: STAINLESS STEEL ALLOY  
Pipe Internal: Not reported  
Pipe External: Not reported  
Pipe Containment: Not reported  
Tank Containment: Diking  
Leak Detection: Not reported  
Overfill Protection: Not reported  
Haz Percent: 0  
Tank Closed: 01/91  
Total Tanks: 0  
Tank Secret: False  
Last Test: Not reported  
Due Date: Not reported  
Tank Error Status: Major Data Missing (which is on the certificate)  
SWIS Code: 6101  
Lat/Long: Not reported  
Pipe Flag: False  
Federal ID: Not reported  
Is Updated: F  
Renew Date: 03/01/93  
Is it There: F  
Deliquent: F  
Date Expired: 06/06/93  
Owner Mark: 1  
Certificate Needs to be Printed: False  
Fiscal Amt for Registration Fee Correct: True  
Renewal Has Been Printed for Facility: True  
Pre-Printed Renewal App Last Printed: 03/01/1993  
Total Capacity of All Active Tanks(gal): 0

CBS:  
CBS Number: 2-000052  
Program Type: CBS  
Swis Code: 2401  
Town: New York City  
Dec Region: 2

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**ROBINSON BROS. INDUSTRIES, CORP. (Continued)**

**S102638185**

Registered: 1  
 Expiration Date: N/A  
 Facility Type: Chemical Distributor

**20  
 West  
 < 1/8  
 642 ft.**

**PROPERTY  
 55 ROEBLING ST  
 BROOKLYN, NY**

**NY Spills S106969319  
 N/A**

**Relative:  
 Lower**

**NY Spills:**

**Actual:  
 14 ft.**

Site ID: 348607  
 Facility Addr2: Not reported  
 Facility ID: 0503901  
 Spill Number: 0503901  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: skanders  
 Referred To: Not reported  
 Spill Date: 06/30/05  
 Reported to Dept: 07/01/05  
 CID: 12  
 Spill Cause: Unknown  
 Water Affected: Not reported  
 Spill Source: Unknown  
 Spill Notifier: Local Agency  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Trust: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 12/08/05  
 Remediation Phase: 0  
 Date Entered In Computer: 07/01/05  
 Spill Record Last Update: 07/06/06  
 Spiller Name: RACHEL ATAMAN  
 Spiller Company: PROPERTY  
 Spiller Address: 55 ROEBLING ST  
 Spiller City,St,Zip: BROOKLYN, NY  
 Spiller Company: 001  
 Spiller Phone: (631) 462-5866  
 Contact Name: RACHEL ATAMAN  
 Contact Phone: (631) 462-5866  
 DEC Region: 2  
 Program Number: 0503901  
 DER Facility ID: 295039  
 Site ID: 348607  
 Operable Unit ID: 1106258  
 Operable Unit: 01  
 Material ID: 1971185  
 Material Code: 0066A  
 Material Name: UNKNOWN PETROLEUM  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**PROPERTY (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**S106969319**

Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: 348607  
 Operable Unit ID: 1106258  
 Operable Unit: 01  
 Material ID: 1971186  
 Material Code: 0009  
 Material Name: Gasoline  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 DEC Remarks: Start DECRemark - 0503901 gasoline contaminated soil need to track down the property owner and then prepare/send a contaminated soil letter. 11/21/05 - Mr. Ted Firetog, Attorney of owner which is Dekalb Aquisition Entity called. He said theynever got any letter from DEC. He aslo mentioned a report was given to Ed Rossan when Ed was out at the site for inspection on July? I requested Mr. Firetog to submit the report to me for review. - KST 12/2/05 - Mr. Firetog fax a letter requesting closure. I called him back and asked for the report again. He said he will eamil to me by Monday. - KST 12/8/05: Case transfered to Andersen. Reviewed above noted Waste Characterization Report. No Furthur action letter sent. Low level contamination due to old fill material. Acetone present probably from laboratory analysis. 12/29/05-Vought-Received message from Jack Eisenberg (917-494-9097) regarding status of spill. Vought referred call to DEFC Andersen. END DECRemark - 0503901  
 Remarks: Start CallerRemark - 0503901 DOING SAMPLES. CLEAN UP IS NOT IN PROCESS. END CallerRemark - 0503901

21  
 ENE  
 < 1/8  
 653 ft.

**704 LORIMAIR ST  
 704 LORIMAIR ST  
 BROOKLYN, NY**

**NY Spills S105142558  
 NY Hist Spills N/A**

**Relative:  
 Equal**

NY Spills:  
 Site ID: 96843  
 Facility Addr2: Not reported  
 Facility ID: 0106834  
 Spill Number: 0106834  
 Facility Type: ER  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: MXTIPPLE  
 Referred To: Not reported  
 Spill Date: 10/01/01  
 Reported to Dept: 10/02/01  
 CID: 14  
 Spill Cause: Unknown  
 Water Affected: Not reported  
 Spill Source: Unknown  
 Spill Notifier: Federal Government  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended

**Actual:  
 16 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

704 LORIMAIR ST (Continued)

S105142558

UST Trust: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 09/25/03  
Remediation Phase: 0  
Date Entered In Computer: 10/02/01  
Spill Record Last Update: 09/29/03  
Spiller Name: Not reported  
Spiller Company: UNK  
Spiller Address: UNK  
Spiller City,St,Zip: UNK, ZZ  
Spiller Company: 001  
Spiller Phone: (000) 000-0000  
Contact Name: MRS CARRANO  
Contact Phone: (718) 388-9680  
DEC Region: 2  
Program Number: 0106834  
DER Facility ID: 86363  
Site ID: 96843  
Operable Unit ID: 845043  
Operable Unit: 01  
Material ID: 531682  
Material Code: 0064A  
Material Name: UNKNOWN MATERIAL  
Case No.: Not reported  
Material FA: Other  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Air  
Oxygenate: False  
DEC Remarks: Start DECRemark - 0106834 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "TIPPLE" 10/02 REFERRED TO THE AIR UNIT END DECRemark - 0106834  
Remarks: Start CallerRemark - 0106834 Caller states air around her home smells like  
teargas. She has had exposure to this and recognized the odor END CallerRemark  
- 0106834

NY Hist Spills:

Region of Spill: 2  
Spill Number: 0106834  
Investigator: TIPPLE  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Spill Date/Time: 10/01/2001 21:15  
Reported to Dept Date/Time: 10/02/01 08:19  
SWIS: 61  
Spiller Name: UNK  
Spiller Contact: Not reported  
Spiller Phone: (000) 000-0000  
Spiller Contact: MRS CARRANO  
Spiller Phone: (718) 388-9680  
Spiller Address: UNK  
Spiller City,St,Zip: UNK

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**704 LORIMAIR ST (Continued)**

**S105142558**

Spill Cause: Unknown  
 Reported to Dept: Air  
 Water Affected: Not reported  
 Spill Source: 12  
 Spill Notifier: Federal Government  
 PBS Number: Not reported  
 Cleanup Ceased: / /  
 Cleanup Meets Std: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 Spiller Cleanup Dt: / /  
 Enforcement Date: / /  
 Invstgn Complete: / /  
 UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 10/10/01  
 Corrective Action Plan Submitted: / /  
 Date Region Sent Summary to Central Office: / /  
 Date Spill Entered In Computer Data File: 10/02/01  
 Date Spill Entered In Computer Data File: Not reported  
 Update Date: 10/10/01  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Raw Sewage  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: True  
 Material: UNKNOWN MATERIAL  
 Class Type: UNKNOWN MATERIAL  
 Times Material Entry In File: 9140  
 CAS Number: Not reported  
 Last Date: 19941109  
 DEC Remarks: 10/02 REFERRED TO THE AIR UNIT  
 Remark: Caller states air around her home smells like teargas. She has had exposure to this and recogni ed the odor

**22**  
**North**  
**1/8-1/4**  
**664 ft.**

**UNKNOWN GAS STATION**  
**2 ROBLING ST**  
**BROKLYN, NY**

**LTANKS S106702988**  
**HIST LTANKS N/A**

**Relative:**  
**Lower**

LTANKS:  
 Site ID: 102738  
 Spill Date: 10/17/00  
 Facility Addr2: Not reported  
 Facility ID: 0008335  
 Program Number: 0008335  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: JRSTRANG

**Actual:**  
**15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**UNKNOWN GAS STATION (Continued)**

**S106702988**

Referred To: Not reported  
Reported to Dept: 10/17/00  
CID: 14  
Spill Cause: Tank Failure  
Water Affected: Not reported  
Spill Source: Gasoline Station  
Spill Notifier: Other  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: True  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 10/25/05  
Remediation Phase: 0  
Date Entered In Computer: 10/17/00  
Spill Record Last Update: 10/25/05  
Spiller Namer: Not reported  
Spiller Company: UNKNOWN  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Address: Not reported  
Spiller City,St,Zip: NY  
Spiller County: 999  
Spiller Contact: UNKNOWN  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0008335  
DER Facility ID: 90969  
Site ID: 102738  
Operable Unit ID: 828934  
Operable Unit: 01  
Material ID: 545847  
Material Code: 0009  
Material Name: Gasoline  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 0008335 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "ROMMEL" 10/25/05 - New Condo built on-site. Administrative  
Closure. END DECRemark - 0008335

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

UNKNOWN GAS STATION (Continued)

S106702988

Remarks: Start CallerRemark - 0008335 callers business was contracted for excavation of tank and when contaminated soil was found the callers business was fired. another company on scene - dano construction END CallerRemark - 0008335

HIST LTANKS:

Region of Spill: 2  
Spill Number: 0008335  
Investigator: ROMMEL  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 10/17/2000  
Spill Time: 10:00  
Reported to Department Date: 10/17/00  
Reported to Department Time: 10:38  
SWIS: 61  
Spiller Contact: UNKNOWN  
Spiller Phone: ( ) -  
Spiller Extention: Not reported  
Spiller Name: UNKNOWN  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Facility Contact: Not reported  
Facility Phone: ( ) -  
Facility Extention: Not reported  
Spill Cause: Tank Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Gas Station  
Spill Notifier: Other  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: True  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 10/17/00  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 02/06/01  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**UNKNOWN GAS STATION (Continued)**

**S106702988**

Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: GASOLINE  
 Class Type: GASOLINE  
 Times Material Entry In File: 21329  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: Not reported  
 Spill Cause: callers business was contracted for excavation of tank and when contaminated soil was found the callers business was fired. another company on scene - dano construction

23  
 SE  
 1/8-1/4  
 708 ft.

**25 SKILLMAN AVE LLC**  
**25 SKILLMAN AVENUE**  
**BROOKLYN, NY 11211**

UST U001330144  
 HIST UST N/A

**Relative:**  
**Lower**

UST:

**Actual:**  
**15 ft.**

Facility ID: 2-601457  
 Program Type: PBS  
 Tank Number: 6  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground, vaulted, with access  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 550  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: Painted/Asphalt Coating  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Underground/On-ground  
 Pipe Type Name: Galvanized Steel  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Horner EZ Check I or II  
 Date Tested: 05/01/91  
 Next Test Date: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Date Tank Closed: / /

UST\_PBS\_FAC:

Facility Id: 2-601457

Expiration Date: 01/07/09

Renewal Date: / /

Total Capacity: 0

Facility Type: Not reported

Mailing Company: 25 SKILLMAN AVE LLC

Mailing Title: Not reported

Mailing Contact: STEVE BLEIEN

Mailing Address: 601 WEST 26TH STREET

Mailing Address 2: SUITE 350

Mailing City: NEW YORK

Mailing State: NY

Mailing Zip Code: 10001

Mailing Phone No: (646) 230-9360

Mailing Email: Not reported

Owner Title: Not reported

Owner Name: Not reported

Owner Address: 601 WEST 26TH ST. SUITE 350

Owner Address 2: Not reported

Owner State: NY

Owner Zip Code: 10001

Owner Phone: (646) 230-9360

Owner Company: 25 SKILLMAN AVE LLC

Emergency Contact: STEVE BLEIEN

Emergency Phone: (917) 685-6540

Operator: 25 SKILLMAN AVE LLC

Operator Phone: (646) 230-9360

Owner City: NEW YORK

Owner Sub Type: Corporate or Commercial

Facility ID: 2-601457

Program Type: PBS

Tank Number: 8

Tank Model: Not reported

Pipe Model: Not reported

Tank Location Name: Underground, vaulted, with access

Tank Status: Closed - Removed

Active Status: Inactive

Install Date: / /

Capacity Gallons: 550

Material Name: Gasoline

Percentage: 100

Tank Type Name: Steel/Carbon Steel/Iron

Tank Internal Protection: None

Tank Internal Protection 1: Painted/Asphalt Coating

Tank Internal Protection 2: Not reported

Pipe Location Name: Underground/On-ground

Pipe Type Name: Galvanized Steel

Pipe External Protection 1: None

Pipe External Protection 2: Not reported

Tank Secondary Containment 1: Vault (w/o access)

Tank Secondary Containment 2: Not reported

Pipe Secondary Containment: Not reported

Tank Leak Detection 1: None

Tank Leak Detection 2: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Pipe Leak Detection 1:	Not reported
Pipe Leak Detection 2:	Not reported
Type Of Overfill Prevention 1:	None
Type Of Overfill Prevention 2:	Not reported
Dispenser Method:	Suction
Spill Prevention:	Not reported
Tightness Test Method:	Horner EZ Check I or II
Date Tested:	05/01/91
Next Test Date:	/ /
Date Tank Closed:	/ /
<b>UST_PBS_FAC:</b>	
Facility Id:	2-601457
Expiration Date:	01/07/09
Renewal Date:	/ /
Total Capacity:	0
Facility Type:	Not reported
Mailing Company:	25 SKILLMAN AVE LLC
Mailing Title:	Not reported
Mailing Contact:	STEVE BLEIEN
Mailing Address:	601 WEST 26TH STREET
Mailing Address 2:	SUITE 350
Mailing City:	NEW YORK
Mailing State:	NY
Mailing Zip Code:	10001
Mailing Phone No:	(646) 230-9360
Mailing Email:	Not reported
Owner Title:	Not reported
Owner Name:	Not reported
Owner Address:	601 WEST 26TH ST. SUITE 350
Owner Address 2:	Not reported
Owner State:	NY
Owner Zip Code:	10001
Owner Phone:	(646) 230-9360
Owner Company:	25 SKILLMAN AVE LLC
Emergency Contact:	STEVE BLEIEN
Emergency Phone:	(917) 685-6540
Operator:	25 SKILLMAN AVE LLC
Operator Phone:	(646) 230-9360
Owner City:	NEW YORK
Owner Sub Type:	Corporate or Commercial
Facility ID:	2-601457
Program Type:	PBS
Tank Number:	9
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Underground, vaulted, with access
Tank Status:	Closed - Removed
Active Status:	Inactive
Install Date:	/ /
Capacity Gallons:	550
Material Name:	Gasoline
Percentage:	100
Tank Type Name:	Steel/Carbon Steel/Iron
Tank Internal Protection:	None
Tank Internal Protection 1:	Painted/Asphalt Coating
Tank Internal Protection 2:	Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Pipe Location Name: Underground/On-ground  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 05/01/91  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-601457  
Expiration Date: 01/07/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: 25 SKILLMAN AVE LLC  
Mailing Title: Not reported  
Mailing Contact: STEVE BLEIEN  
Mailing Address: 601 WEST 26TH STREET  
Mailing Address 2: SUITE 350  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (646) 230-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 601 WEST 26TH ST. SUITE 350  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10001  
Owner Phone: (646) 230-9360  
Owner Company: 25 SKILLMAN AVE LLC  
Emergency Contact: STEVE BLEIEN  
Emergency Phone: (917) 685-6540  
Operator: 25 SKILLMAN AVE LLC  
Operator Phone: (646) 230-9360  
Owner City: NEW YORK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-601457  
Program Type: PBS  
Tank Number: 2  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 4000  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Painted/Asphalt Coating  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/92  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-601457  
Expiration Date: 01/07/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: 25 SKILLMAN AVE LLC  
Mailing Title: Not reported  
Mailing Contact: STEVE BLEIEN  
Mailing Address: 601 WEST 26TH STREET  
Mailing Address 2: SUITE 350  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (646) 230-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 601 WEST 26TH ST. SUITE 350  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10001  
Owner Phone: (646) 230-9360  
Owner Company: 25 SKILLMAN AVE LLC  
Emergency Contact: STEVE BLEIEN  
Emergency Phone: (917) 685-6540  
Operator: 25 SKILLMAN AVE LLC  
Operator Phone: (646) 230-9360  
Owner City: NEW YORK

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Owner Sub Type: Corporate or Commercial

Facility ID: 2-601457  
Program Type: PBS  
Tank Number: 5  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground, vaulted, with access  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Painted/Asphalt Coating  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 05/01/91  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-601457  
Expiration Date: 01/07/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: 25 SKILLMAN AVE LLC  
Mailing Title: Not reported  
Mailing Contact: STEVE BLEIEN  
Mailing Address: 601 WEST 26TH STREET  
Mailing Address 2: SUITE 350  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (646) 230-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 601 WEST 26TH ST. SUITE 350  
Owner Address 2: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Owner State:	NY
Owner Zip Code:	10001
Owner Phone:	(646) 230-9360
Owner Company:	25 SKILLMAN AVE LLC
Emergency Contact:	STEVE BLEIEN
Emergency Phone:	(917) 685-6540
Operator:	25 SKILLMAN AVE LLC
Operator Phone:	(646) 230-9360
Owner City:	NEW YORK
Owner Sub Type:	Corporate or Commercial
Facility ID:	2-601457
Program Type:	PBS
Tank Number:	7
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Underground, vaulted, with access
Tank Status:	Closed - Removed
Active Status:	Inactive
Install Date:	/ /
Capacity Gallons:	550
Material Name:	Gasoline
Percentage:	100
Tank Type Name:	Steel/Carbon Steel/Iron
Tank Internal Protection:	None
Tank Internal Protection 1:	Painted/Asphalt Coating
Tank Internal Protection 2:	Not reported
Pipe Location Name:	Underground/On-ground
Pipe Type Name:	Galvanized Steel
Pipe External Protection 1:	None
Pipe External Protection 2:	Not reported
Tank Secondary Containment 1:	Vault (w/o access)
Tank Secondary Containment 2:	Not reported
Pipe Secondary Containment:	Not reported
Tank Leak Detection 1:	None
Tank Leak Detection 2:	Not reported
Pipe Leak Detection 1:	Not reported
Pipe Leak Detection 2:	Not reported
Type Of Overfill Prevention 1:	None
Type Of Overfill Prevention 2:	Not reported
Dispenser Method:	Suction
Spill Prevention:	Not reported
Tightness Test Method:	Horner EZ Check I or II
Date Tested:	05/01/91
Next Test Date:	/ /
Date Tank Closed:	/ /
UST_PBS_FAC:	
Facility Id:	2-601457
Expiration Date:	01/07/09
Renewal Date:	/ /
Total Capacity:	0
Facility Type:	Not reported
Mailing Company:	25 SKILLMAN AVE LLC
Mailing Title:	Not reported
Mailing Contact:	STEVE BLEIEN
Mailing Address:	601 WEST 26TH STREET
Mailing Address 2:	SUITE 350

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (646) 230-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 601 WEST 26TH ST. SUITE 350  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10001  
Owner Phone: (646) 230-9360  
Owner Company: 25 SKILLMAN AVE LLC  
Emergency Contact: STEVE BLEIEN  
Emergency Phone: (917) 685-6540  
Operator: 25 SKILLMAN AVE LLC  
Operator Phone: (646) 230-9360  
Owner City: NEW YORK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-601457  
Program Type: PBS  
Tank Number: 1  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 4000  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Painted/Asphalt Coating  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/92  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-601457

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Expiration Date:	01/07/09
Renewal Date:	/ /
Total Capacity:	0
Facility Type:	Not reported
Mailing Company:	25 SKILLMAN AVE LLC
Mailing Title:	Not reported
Mailing Contact:	STEVE BLEIEN
Mailing Address:	601 WEST 26TH STREET
Mailing Address 2:	SUITE 350
Mailing City:	NEW YORK
Mailing State:	NY
Mailing Zip Code:	10001
Mailing Phone No:	(646) 230-9360
Mailing Email:	Not reported
Owner Title:	Not reported
Owner Name:	Not reported
Owner Address:	601 WEST 26TH ST. SUITE 350
Owner Address 2:	Not reported
Owner State:	NY
Owner Zip Code:	10001
Owner Phone:	(646) 230-9360
Owner Company:	25 SKILLMAN AVE LLC
Emergency Contact:	STEVE BLEIEN
Emergency Phone:	(917) 685-6540
Operator:	25 SKILLMAN AVE LLC
Operator Phone:	(646) 230-9360
Owner City:	NEW YORK
Owner Sub Type:	Corporate or Commercial
Facility ID:	2-601457
Program Type:	PBS
Tank Number:	10
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Underground, vaulted, with access
Tank Status:	Closed - Removed
Active Status:	Inactive
Install Date:	/ /
Capacity Gallons:	550
Material Name:	Gasoline
Percentage:	100
Tank Type Name:	Steel/Carbon Steel/Iron
Tank Internal Protection:	None
Tank Internal Protection 1:	Painted/Asphalt Coating
Tank Internal Protection 2:	Not reported
Pipe Location Name:	Underground/On-ground
Pipe Type Name:	Galvanized Steel
Pipe External Protection 1:	None
Pipe External Protection 2:	Not reported
Tank Secondary Containment 1:	Vault (w/o access)
Tank Secondary Containment 2:	Not reported
Pipe Secondary Containment:	Not reported
Tank Leak Detection 1:	None
Tank Leak Detection 2:	Not reported
Pipe Leak Detection 1:	Not reported
Pipe Leak Detection 2:	Not reported
Type Of Overfill Prevention 1:	None

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 05/01/91  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-601457  
Expiration Date: 01/07/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: 25 SKILLMAN AVE LLC  
Mailing Title: Not reported  
Mailing Contact: STEVE BLEIEN  
Mailing Address: 601 WEST 26TH STREET  
Mailing Address 2: SUITE 350  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (646) 230-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 601 WEST 26TH ST. SUITE 350  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10001  
Owner Phone: (646) 230-9360  
Owner Company: 25 SKILLMAN AVE LLC  
Emergency Contact: STEVE BLEIEN  
Emergency Phone: (917) 685-6540  
Operator: 25 SKILLMAN AVE LLC  
Operator Phone: (646) 230-9360  
Owner City: NEW YORK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-601457  
Program Type: PBS  
Tank Number: 3  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground, vaulted, with access  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Painted/Asphalt Coating  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 05/01/91  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-601457  
Expiration Date: 01/07/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: 25 SKILLMAN AVE LLC  
Mailing Title: Not reported  
Mailing Contact: STEVE BLEIEN  
Mailing Address: 601 WEST 26TH STREET  
Mailing Address 2: SUITE 350  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (646) 230-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 601 WEST 26TH ST. SUITE 350  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10001  
Owner Phone: (646) 230-9360  
Owner Company: 25 SKILLMAN AVE LLC  
Emergency Contact: STEVE BLEIEN  
Emergency Phone: (917) 685-6540  
Operator: 25 SKILLMAN AVE LLC  
Operator Phone: (646) 230-9360  
Owner City: NEW YORK  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-601457  
Program Type: PBS  
Tank Number: 4  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground, vaulted, with access  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Painted/Asphalt Coating  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 05/01/91  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:

Facility Id: 2-601457  
Expiration Date: 01/07/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: 25 SKILLMAN AVE LLC  
Mailing Title: Not reported  
Mailing Contact: STEVE BLEIEN  
Mailing Address: 601 WEST 26TH STREET  
Mailing Address 2: SUITE 350  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (646) 230-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 601 WEST 26TH ST. SUITE 350  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10001  
Owner Phone: (646) 230-9360  
Owner Company: 25 SKILLMAN AVE LLC  
Emergency Contact: STEVE BLEIEN  
Emergency Phone: (917) 685-6540  
Operator: 25 SKILLMAN AVE LLC  
Operator Phone: (646) 230-9360  
Owner City: NEW YORK  
Owner Sub Type: Corporate or Commercial

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

HIST UST:  
PBS Number: 2-601457  
SPDES Number: Not reported  
Emergency Contact: PAT TURTURRO  
Emergency Telephone: (718) 384-3712  
Operator: PAT TURTURRO  
Operator Telephone: (718) 389-7035  
Owner Name: MAP GASOLINE CORP  
Owner Address: 150 BANKER STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-3712  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: MAP GASOLINE CORP  
Mailing Address: 9 WYTLE AVENUE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: M  
Mailing Telephone: (718) 384-3712  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 25 SKILLMAN AVENUE  
Tank Id: 1  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 4000  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: None  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: 03/01/1992  
Next Test Date: 03/01/1997  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Certification Date: 04/21/1993  
Expiration Date: 04/21/1998  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 12400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-601457  
SPDES Number: Not reported  
Emergency Contact: PAT TURTURRO  
Emergency Telephone: (718) 384-3712  
Operator: PAT TURTURRO  
Operator Telephone: (718) 389-7035  
Owner Name: MAP GASOLINE CORP  
Owner Address: 150 BANKER STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-3712  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: MAP GASOLINE CORP  
Mailing Address: 9 WYTLE AVENUE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: M  
Mailing Telephone: (718) 384-3712  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 25 SKILLMAN AVENUE  
Tank Id: 2  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 4000  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: None  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: 03/01/1992  
Next Test Date: 03/01/1997

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Horner EZ Check  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/21/1993  
 Expiration Date: 04/21/1998  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 12400  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

PBS Number: 2-601457  
 SPDES Number: Not reported  
 Emergency Contact: PAT TURTURRO  
 Emergency Telephone: (718) 384-3712  
 Operator: PAT TURTURRO  
 Operator Telephone: (718) 389-7035  
 Owner Name: MAP GASOLINE CORP  
 Owner Address: 150 BANKER STREET  
 Owner City,St,Zip: BROOKLYN, NY 11211  
 Owner Telephone: (718) 384-3712  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: MAP GASOLINE CORP  
 Mailing Address: 9 WYTLA AVENUE  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: BROOKLYN, NY 11211  
 Mailing Contact: M  
 Mailing Telephone: (718) 384-3712  
 Owner Mark: First Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 25 SKILLMAN AVENUE  
 Tank Id: 3  
 Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
 Install Date: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

25 SKILLMAN AVE LLC (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U001330144

Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: 05/01/1991  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/21/1993  
Expiration Date: 04/21/1998  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 12400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-601457  
SPDES Number: Not reported  
Emergency Contact: PAT TURTURRO  
Emergency Telephone: (718) 384-3712  
Operator: PAT TURTURRO  
Operator Telephone: (718) 389-7035  
Owner Name: MAP GASOLINE CORP  
Owner Address: 150 BANKER STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-3712  
Owner Type: Corporate/Commercial

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Owner Subtype: Not reported  
Mailing Name: MAP GASOLINE CORP  
Mailing Address: 9 WYTLE AVENUE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: M  
Mailing Telephone: (718) 384-3712  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 25 SKILLMAN AVENUE  
Tank Id: 4  
Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: 05/01/1991  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/21/1993  
Expiration Date: 04/21/1998  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 12400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-601457  
SPDES Number: Not reported  
Emergency Contact: PAT TURTURRO  
Emergency Telephone: (718) 384-3712  
Operator: PAT TURTURRO  
Operator Telephone: (718) 389-7035  
Owner Name: MAP GASOLINE CORP  
Owner Address: 150 BANKER STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-3712  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: MAP GASOLINE CORP  
Mailing Address: 9 WYTLE AVENUE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: M  
Mailing Telephone: (718) 384-3712  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 25 SKILLMAN AVENUE  
Tank Id: 5  
Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: 05/01/1991  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/21/1993  
Expiration Date: 04/21/1998  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 12400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-601457  
SPDES Number: Not reported  
Emergency Contact: PAT TURTURRO  
Emergency Telephone: (718) 384-3712  
Operator: PAT TURTURRO  
Operator Telephone: (718) 389-7035  
Owner Name: MAP GASOLINE CORP  
Owner Address: 150 BANKER STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-3712  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: MAP GASOLINE CORP  
Mailing Address: 9 WYTLE AVENUE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: M  
Mailing Telephone: (718) 384-3712  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 25 SKILLMAN AVENUE  
Tank Id: 6  
Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: None



Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

25 SKILLMAN AVE LLC (Continued)

U001330144

Tank Id: 7  
Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: 05/01/1991  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/21/1993  
Expiration Date: 04/21/1998  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 12400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-601457  
SPDES Number: Not reported  
Emergency Contact: PAT TURTURRO  
Emergency Telephone: (718) 384-3712  
Operator: PAT TURTURRO  
Operator Telephone: (718) 389-7035  
Owner Name: MAP GASOLINE CORP  
Owner Address: 150 BANKER STREET

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-3712  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: MAP GASOLINE CORP  
Mailing Address: 9 WYTLE AVENUE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: M  
Mailing Telephone: (718) 384-3712  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 25 SKILLMAN AVENUE  
Tank Id: 8  
Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: Painted/Asphalt Coating  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: 05/01/1991  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/21/1993  
Expiration Date: 04/21/1998  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 12400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**25 SKILLMAN AVE LLC (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U001330144**

<p>Dead Letter: False          CBS Number: Not reported          Town or City: NEW YORK CITY          County Code: 61          Town or City: 01          Region: 2</p> <p>PBS Number: 2-601457          SPDES Number: Not reported          Emergency Contact: PAT TURTURRO          Emergency Telephone: (718) 384-3712          Operator: PAT TURTURRO          Operator Telephone: (718) 389-7035          Owner Name: MAP GASOLINE CORP          Owner Address: 150 BANKER STREET          Owner City,St,Zip: BROOKLYN, NY 11211          Owner Telephone: (718) 384-3712          Owner Type: Corporate/Commercial          Owner Subtype: Not reported          Mailing Name: MAP GASOLINE CORP          Mailing Address: 9 WYTLE AVENUE          Mailing Address 2: Not reported          Mailing City,St,Zip: BROOKLYN, NY 11211          Mailing Contact: M          Mailing Telephone: (718) 384-3712          Owner Mark: First Owner          Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.</p> <p>Facility Addr2: 25 SKILLMAN AVENUE          Tank Id: 9          Tank Location: UNDERGROUND, VAULTED, WITH ACCESS          Install Date: Not reported          Capacity (gals): 550          Product Stored: UNLEADED GASOLINE          Tank Type: Steel/carbon steel          Tank Internal: None          Tank External: Painted/Asphalt Coating          Pipe Location: Underground          Pipe Type: GALVANIZED STEEL          Pipe Internal: None          Pipe External: None          Second Containment: Diking          Leak Detection: None          Overfill Prot: None          Dispenser: Suction          Date Tested: 05/01/1991          Next Test Date: Not reported          Missing Data for Tank: No Missing Data          Date Closed: Not reported          Test Method: Horner EZ Check          Deleted: False          Updated: True          Lat/long: Not reported          Lat/long: Not reported          SWIS ID: 6101          Old PBS Number: Not reported</p>	<p>Site</p>
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Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/21/1993  
 Expiration Date: 04/21/1998  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 12400  
 FAMS: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2  
  
 PBS Number: 2-601457  
 SPDES Number: Not reported  
 Emergency Contact: PAT TURTURRO  
 Emergency Telephone: (718) 384-3712  
 Operator: PAT TURTURRO  
 Operator Telephone: (718) 389-7035  
 Owner Name: MAP GASOLINE CORP  
 Owner Address: 150 BANKER STREET  
 Owner City,St,Zip: BROOKLYN, NY 11211  
 Owner Telephone: (718) 384-3712  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: MAP GASOLINE CORP  
 Mailing Address: 9 WYTLA AVENUE  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: BROOKLYN, NY 11211  
 Mailing Contact: M  
 Mailing Telephone: (718) 384-3712  
 Owner Mark: First Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
 Facility Addr2: 25 SKILLMAN AVENUE  
 Tank Id: 10  
 Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
 Install Date: Not reported  
 Capacity (gals): 550  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: None  
 Tank External: Painted/Asphalt Coating  
 Pipe Location: Underground  
 Pipe Type: GALVANIZED STEEL  
 Pipe Internal: None  
 Pipe External: None

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**25 SKILLMAN AVE LLC (Continued)**

**U001330144**

Second Containment: Diking  
 Leak Detection: None  
 Overfill Prot: None  
 Dispenser: Suction  
 Date Tested: 05/01/1991  
 Next Test Date: Not reported  
 Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Horner EZ Check  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/21/1993  
 Expiration Date: 04/21/1998  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 12400  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**F24 64 FROST ST.**  
**ENE 64 FROST STREET**  
**1/8-1/4 BROOKLYN, NY 11211**  
**739 ft.**

**UST U003065821**  
**HIST UST N/A**

**Relative:  
 Higher**

**Site 1 of 5 in cluster F**

UST:  
 Facility ID: 2-200956  
 Program Type: PBS  
 Tank Number: 005  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 550  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None

**Actual:  
 17 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Other  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/03

UST\_PBS\_FAC:  
Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE  
Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE  
Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-200956  
Program Type: PBS  
Tank Number: 001  
Tank Model: Not reported  
Pipe Model: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Stainless Steel Alloy  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Other  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/99

UST\_PBS\_FAC:  
Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE  
Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-200956  
Program Type: PBS  
Tank Number: 003  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Other  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/99

UST\_PBS\_FAC:  
Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE  
Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE  
Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-200956  
Program Type: PBS  
Tank Number: 002  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Stainless Steel Alloy  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Other  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/99

UST\_PBS\_FAC:  
Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE  
Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-200956  
Program Type: PBS  
Tank Number: 004  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Other  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/99

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

UST\_PBS\_FAC:  
Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE  
Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE  
Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-200956  
Program Type: PBS  
Tank Number: 006  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Other  
Percentage: 100  
Tank Type Name: Stainless Steel Alloy  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: No Piping  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Pipe Leak Detection 2:	Not reported
Type Of Overfill Prevention 1:	None
Type Of Overfill Prevention 2:	Not reported
Dispenser Method:	Not reported
Spill Prevention:	Not reported
Tightness Test Method:	Testing Not Required
Date Tested:	/ /
Next Test Date:	/ /
Date Tank Closed:	10/27/03
<b>UST_PBS_FAC:</b>	
Facility Id:	2-200956
Expiration Date:	12/05/08
Renewal Date:	04/01/02
Total Capacity:	0
Facility Type:	Not reported
Mailing Company:	PAUL'S LLC
Mailing Title:	Not reported
Mailing Contact:	PAUL JOFFE
Mailing Address:	318 GRAND STREET
Mailing Address 2:	Not reported
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip Code:	11211
Mailing Phone No:	(718) 486-6916
Mailing Email:	Not reported
Owner Title:	Not reported
Owner Name:	Not reported
Owner Address:	318 GRAND ST.
Owner Address 2:	Not reported
Owner State:	NY
Owner Zip Code:	11211
Owner Phone:	(718) 486-6916
Owner Company:	PAUL'S LLC
Emergency Contact:	PAUL JOFFE
Emergency Phone:	(017) 693-3292
Operator:	PAUL JOFFE
Operator Phone:	(718) 486-6916
Owner City:	BROOKLYN
Owner Sub Type:	Corporate or Commercial
Facility ID:	2-200956
Program Type:	PBS
Tank Number:	009
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Underground
Tank Status:	Closed - Removed
Active Status:	Inactive
Install Date:	/ /
Capacity Gallons:	3000
Material Name:	Diesel
Percentage:	100
Tank Type Name:	Stainless Steel Alloy
Tank Internal Protection:	None
Tank Internal Protection 1:	Fiberglass
Tank Internal Protection 2:	Not reported
Pipe Location Name:	No Piping

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Other  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/03

UST\_PBS\_FAC:  
Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE  
Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE  
Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-200956  
Program Type: PBS  
Tank Number: 007  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Install Date: / /  
Capacity Gallons: 550  
Material Name: Other  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: No Piping  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/03

UST\_PBS\_FAC:  
Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE  
Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE  
Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Facility ID: 2-200956  
Program Type: PBS  
Tank Number: 008  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Other  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: No Piping  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Not reported  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/27/03

UST\_PBS\_FAC:

Facility Id: 2-200956  
Expiration Date: 12/05/08  
Renewal Date: 04/01/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PAUL'S LLC  
Mailing Title: Not reported  
Mailing Contact: PAUL JOFFE  
Mailing Address: 318 GRAND STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 486-6916  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 318 GRAND ST.  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Owner Phone: (718) 486-6916  
Owner Company: PAUL'S LLC  
Emergency Contact: PAUL JOFFE  
Emergency Phone: (017) 693-3292  
Operator: PAUL JOFFE  
Operator Phone: (718) 486-6916  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

**HIST UST:**

PBS Number: 2-200956  
SPDES Number: Not reported  
Emergency Contact: GOVINDER SINGH  
Emergency Telephone: (718) 388-3329  
Operator: GOVINDER SINGH  
Operator Telephone: (718) 384-9023  
Owner Name: KULDEEP SINGH  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718)388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: Not reported  
Mailing Address: Not reported  
Mailing Address 2: Not reported  
Mailing City,St,Zip: Not reported  
Mailing Contact: Not reported  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 64 FROST ST  
Tank Id: 001  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Stainless steel alloy  
Tank Internal: None  
Tank External: None  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: Other  
Overfill Prot: None  
Dispenser: Gravity  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Lat/long:	Not reported
SWIS ID:	6101
Old PBS Number:	Not reported
Facility Type:	RETAIL GASOLINE SALES
Inspected Date:	Not reported
Inspector:	ZHAO/
Inspection Result:	Not reported
Federal ID:	Not reported
Certification Flag:	False
Certification Date:	04/25/1996
Expiration Date:	04/23/2001
Renew Flag:	False
Renewal Date:	Not reported
Total Capacity:	7400
FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	No Missing Data
Tank Screen:	No Missing Data
Dead Letter:	False
CBS Number:	Not reported
Town or City:	NEW YORK CITY
County Code:	61
Town or City:	01
Region:	2
PBS Number:	2-200956
SPDES Number:	Not reported
Emergency Contact:	GOVINDER SINGH
Emergency Telephone:	(718) 388-3329
Operator:	GOVINDER SINGH
Operator Telephone:	(718) 384-9023
Owner Name:	KULDEEP SINGH
Owner Address:	392 LEONARD STREET
Owner City,St,Zip:	BROOKLYN, NY 11211
Owner Telephone:	(718)388-3329
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Name:	Not reported
Mailing Address:	Not reported
Mailing Address 2:	Not reported
Mailing City,St,Zip:	Not reported
Mailing Contact:	Not reported
Mailing Telephone:	(718) 388-3329
Owner Mark:	Second Owner
Facility Status:	1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.
Facility Addr2:	64 FROST ST
Tank Id:	002
Tank Location:	UNDERGROUND
Install Date:	Not reported
Capacity (gals):	550
Product Stored:	UNLEADED GASOLINE
Tank Type:	Stainless steel alloy
Tank Internal:	None
Tank External:	None
Pipe Location:	Underground

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Pipe Type: GALVANIZED STEEL  
 Pipe Internal: None  
 Pipe External: None  
 Second Containment: Diking  
 Leak Detection: Other  
 Overfill Prot: None  
 Dispenser: Gravity  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: ZHAO/  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/25/1996  
 Expiration Date: 04/23/2001  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 7400  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

PBS Number: 2-200956  
 SPDES Number: Not reported  
 Emergency Contact: GOVINDER SINGH  
 Emergency Telephone: (718) 388-3329  
 Operator: GOVINDER SINGH  
 Operator Telephone: (718) 384-9023  
 Owner Name: KULDEEP SINGH  
 Owner Address: 392 LEONARD STREET  
 Owner City,St,Zip: BROOKLYN, NY 11211  
 Owner Telephone: (718)388-3329  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: Not reported  
 Mailing Address: Not reported  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: Not reported  
 Mailing Contact: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

64 FROST ST. (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U003065821

Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 64 FROST ST  
Tank Id: 003  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: None  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: Other  
Overfill Prot: None  
Dispenser: Gravity  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: ZHAO/  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/25/1996  
Expiration Date: 04/23/2001  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 7400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-200956  
SPDES Number: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Emergency Contact: GOVINDER SINGH  
Emergency Telephone: (718) 388-3329  
Operator: GOVINDER SINGH  
Operator Telephone: (718) 384-9023  
Owner Name: KULDEEP SINGH  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718)388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: Not reported  
Mailing Address: Not reported  
Mailing Address 2: Not reported  
Mailing City,St,Zip: Not reported  
Mailing Contact: Not reported  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 64 FROST ST  
Tank Id: 004  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: None  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: Other  
Overfill Prot: None  
Dispenser: Gravity  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: ZHAO/  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/25/1996  
Expiration Date: 04/23/2001  
Renew Flag: False

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Renewal Date: Not reported  
 Total Capacity: 7400  
 FAMS: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

PBS Number: 2-200956  
 SPDES Number: Not reported  
 Emergency Contact: GOVINDER SINGH  
 Emergency Telephone: (718) 388-3329  
 Operator: GOVINDER SINGH  
 Operator Telephone: (718) 384-9023  
 Owner Name: KULDEEP SINGH  
 Owner Address: 392 LEONARD STREET  
 Owner City,St,Zip: BROOKLYN, NY 11211  
 Owner Telephone: (718)388-3329  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: Not reported  
 Mailing Address: Not reported  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: Not reported  
 Mailing Contact: Not reported  
 Mailing Telephone: (718) 388-3329  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 64 FROST ST  
 Tank Id: 005  
 Tank Location: UNDERGROUND  
 Install Date: Not reported  
 Capacity (gals): 550  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: None  
 Tank External: None  
 Pipe Location: Underground  
 Pipe Type: GALVANIZED STEEL  
 Pipe Internal: None  
 Pipe External: None  
 Second Containment: Diking  
 Leak Detection: Other  
 Overfill Prot: None  
 Dispenser: Gravity  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: ZHAO/  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/25/1996  
Expiration Date: 04/23/2001  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 7400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-200956  
SPDES Number: Not reported  
Emergency Contact: GOVINDER SINGH  
Emergency Telephone: (718) 388-3329  
Operator: GOVINDER SINGH  
Operator Telephone: (718) 384-9023  
Owner Name: KULDEEP SINGH  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718)388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: Not reported  
Mailing Address: Not reported  
Mailing Address 2: Not reported  
Mailing City,St,Zip: Not reported  
Mailing Contact: Not reported  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 64 FROST ST  
Tank Id: 006  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNKNOWN  
Tank Type: Stainless steel alloy

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Tank Internal: None  
Tank External: None  
Pipe Location: Underground  
Pipe Type: NONE  
Pipe Internal: None  
Pipe External: None  
Second Containment: None  
Leak Detection: None  
Overfill Prot: None  
Dispenser: Gravity  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: ZHAO/  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 04/25/1996  
Expiration Date: 04/23/2001  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 7400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-200956  
SPDES Number: Not reported  
Emergency Contact: GOVINDER SINGH  
Emergency Telephone: (718) 388-3329  
Operator: GOVINDER SINGH  
Operator Telephone: (718) 384-9023  
Owner Name: KULDEEP SINGH  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718)388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: Not reported  
Mailing Address: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Mailing Address 2: Not reported  
 Mailing City,St,Zip: Not reported  
 Mailing Contact: Not reported  
 Mailing Telephone: (718) 388-3329  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
 Facility Addr2: 64 FROST ST  
 Tank Id: 007  
 Tank Location: UNDERGROUND  
 Install Date: Not reported  
 Capacity (gals): 550  
 Product Stored: UNKNOWN  
 Tank Type: Steel/carbon steel  
 Tank Internal: None  
 Tank External: None  
 Pipe Location: None  
 Pipe Type: NONE  
 Pipe Internal: None  
 Pipe External: None  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: None  
 Dispenser: Gravity  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: ZHAO/  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/25/1996  
 Expiration Date: 04/23/2001  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 7400  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

PBS Number: 2-200956  
 SPDES Number: Not reported  
 Emergency Contact: GOVINDER SINGH  
 Emergency Telephone: (718) 388-3329  
 Operator: GOVINDER SINGH  
 Operator Telephone: (718) 384-9023  
 Owner Name: KULDEEP SINGH  
 Owner Address: 392 LEONARD STREET  
 Owner City,St,Zip: BROOKLYN, NY 11211  
 Owner Telephone: (718)388-3329  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: Not reported  
 Mailing Address: Not reported  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: Not reported  
 Mailing Contact: Not reported  
 Mailing Telephone: (718) 388-3329  
 Owner Mark: Second Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
 Facility Addr2: 64 FROST ST  
 Tank Id: 008  
 Tank Location: UNDERGROUND  
 Install Date: Not reported  
 Capacity (gals): 550  
 Product Stored: UNKNOWN  
 Tank Type: Steel/carbon steel  
 Tank Internal: None  
 Tank External: None  
 Pipe Location: None  
 Pipe Type: NONE  
 Pipe Internal: None  
 Pipe External: None  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: None  
 Dispenser: Gravity  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: ZHAO/  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/25/1996

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

64 FROST ST. (Continued)

U003065821

Expiration Date: 04/23/2001  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 7400  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-200956  
SPDES Number: Not reported  
Emergency Contact: GOVINDER SINGH  
Emergency Telephone: (718) 388-3329  
Operator: GOVINDER SINGH  
Operator Telephone: (718) 384-9023  
Owner Name: KULDEEP SINGH  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718)388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: Not reported  
Mailing Address: Not reported  
Mailing Address 2: Not reported  
Mailing City,St,Zip: Not reported  
Mailing Contact: Not reported  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 64 FROST ST  
Tank Id: 009  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 3000  
Product Stored: DIESEL  
Tank Type: Stainless steel alloy  
Tank Internal: None  
Tank External: Fiberglass  
Pipe Location: Underground  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: None  
Pipe External: None  
Second Containment: Diking  
Leak Detection: Other  
Overfill Prot: None  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: 12/27/1987  
Missing Data for Tank: No Missing Data

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**64 FROST ST. (Continued)**

**U003065821**

Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: RETAIL GASOLINE SALES  
 Inspected Date: Not reported  
 Inspector: ZHAO/  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/25/1996  
 Expiration Date: 04/23/2001  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 7400  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**F25  
 ENE  
 1/8-1/4  
 739 ft.**

**MEEKER DISCOUNT MUFFLERS  
 64 FROST ST  
 BROOKLYN, NY**

**LTANKS S102232676  
 HIST LTANKS N/A**

**Site 2 of 5 in cluster F**

**Relative:  
 Higher**

**LTANKS:**

**Actual:  
 17 ft.**

Site ID: 261281  
 Spill Date: 04/30/96  
 Facility Addr2: Not reported  
 Facility ID: 9601530  
 Program Number: 9601530  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: JMKRIMGO  
 Referred To: Not reported  
 Reported to Dept: 04/30/96  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: True  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEEKER DISCOUNT MUFFLERS (Continued)**

**S102232676**

Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Remediation Phase: 1  
Date Entered In Computer: 04/30/96  
Spill Record Last Update: 11/06/06  
Spille Namer: Not reported  
Spiller Company: MEEKER DISCOUNT MUFFLERS  
Spiller Phone: (718) 388-3329  
Spiller Extention: Not reported  
Spiller Address: 64 FROST ST  
Spiller City,St,Zip: BROOKLYN, NY  
Spiller County: 001  
Spiller Contact: Not reported  
Spiller Phone: (718) 388-3329  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 9601530  
DER Facility ID: 6789  
Site ID: 261281  
Operable Unit ID: 1029178  
Operable Unit: 01  
Material ID: 351329  
Material Code: 0009  
Material Name: Gasoline  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: 261281  
Spill Tank Test: 19080  
Tank Number: 1-5  
Tank Size: 550  
Test Method: 03  
Leak Rate: 0.00  
Gross Fail: F  
Modified By: Spills  
Last Modified: 10/01/04  
Test Method: Horner EZ Check I or II  
DEC Remarks: Start DECRemark - 9601530 3/11/03 - SAMUEL- File available in active unassigned spill files. 4/3/06 Diaz - Next Steps - February 2000 Investigation report stated further investigation & possible remedial work recommended. Verify & conduct workor close site. END DECRemark - 9601530  
Remarks: Start CallerRemark - 9601530 caller belives its a bad line - 5 - 550 gal tanks manifolded together END CallerRemark - 9601530

HIST LTANKS:  
Region of Spill: 2  
Spill Number: 9601530  
Investigator: O'DOWD  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MEEKER DISCOUNT MUFFLERS (Continued)**

**S102232676**

Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 04/30/1996  
Spill Time: 11:00  
Reported to Department Date: 04/30/96  
Reported to Department Time: 11:39  
SWIS: 61  
Spiller Contact: Not reported  
Spiller Phone: (718) 388-3329  
Spiller Extension: Not reported  
Spiller Name: MEEKER DISCOUNT MUFFLERS  
Spiller Address: 64 FROST ST  
Spiller City,St,Zip: BROOKLYN, NY  
Facility Contact: Not reported  
Facility Phone: (718) 388-3329  
Facility Extension: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Tank Tester  
PBS Number: 2-200956  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 04/30/96  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 05/23/96  
Is Updated: False  
PBS Number: Not reported  
Tank Number: 1-5  
Tank Size: 550  
Test Method: Horner EZ Check  
Leak Rate Failed Tank: 0.00  
Gross Leak Rate: Tank Test Failures only pass or fail  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: True  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: GASOLINE  
Class Type: GASOLINE  
Times Material Entry In File: 21329  
CAS Number: Not reported  
Last Date: 19940929

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**MEEKER DISCOUNT MUFFLERS (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**S102232676**

DEC Remarks: Not reported  
Spill Cause: caller believes its a bad line - 5 - 550 gal tanks manifolded together

**F26**  
**ENE**  
**1/8-1/4**  
**739 ft.**

**SERVICE STATION**  
**64 FROST ST**  
**BROOKLYN, NY 11211**

**RCRA-SQG** **1000432490**  
**FINDS** **NYD000824219**

**Site 3 of 5 in cluster F**

**Relative:**  
**Higher**

RCRAInfo:  
Owner: SUN OIL COMPANY OF PENNSYLVANIA  
(212) 555-1212  
EPA ID: NYD000824219

**Actual:**  
**17 ft.**

Contact: Not reported  
Classification: Small Quantity Generator  
TSDF Activities: Not reported  
Violation Status: No violations found

**FINDS:**  
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**27**  
**East**  
**1/8-1/4**  
**763 ft.**

**NYSDOT BQE PROJECT**  
**MEEKER & LORIMER ST**  
**BROOKLYN, NY 11201**

**RCRA-SQG** **1000191428**  
**FINDS** **NYD982728578**  
**NY MANIFEST**

**Relative:**  
**Higher**

RCRAInfo:  
Owner: NYS DEPT TRANSPORTATION  
(212) 555-1212  
EPA ID: NYD982728578

**Actual:**  
**18 ft.**

Contact: RICHARD SCHMALZ  
(718) 482-4636  
Classification: Small Quantity Generator  
TSDF Activities: Not reported  
Violation Status: No violations found

**FINDS:**  
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**NY MANIFEST:**

Document ID:	NJA0623965
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	S7110
Trans2 State ID:	Not reported
Generator Ship Date:	890426
Trans1 Recv Date:	890426
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890427
Part A Recv Date:	890608
Part B Recv Date:	890505
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	PAD064035819
Trans2 EPA ID:	Not reported
TSDF ID:	NJD089216790
Waste Code:	D004 - ARSENIC 5.0 MG/L TCLP
Quantity:	02435
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	043
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00085
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Year:	89
Facility Type:	Generator
EPA ID:	NYD982728578
Facility Name:	NYS DOT
Facility Address:	MEEKER AVE
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	NYS DOT
Mailing Contact:	Not reported
Mailing Address:	47-40 21ST STREET
Mailing City:	LONG ISLAND CITY
Mailing State:	NY
Mailing Zip:	11101
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	718-482-4607
Document ID:	NJA2116577
Manifest Status:	Completed copy
Trans1 State ID:	S6993
Trans2 State ID:	Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYSDOT BQE PROJECT (Continued)**

**1000191428**

Generator Ship Date:	950926
Trans1 Recv Date:	950926
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950926
Part A Recv Date:	Not reported
Part B Recv Date:	951010
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	NJD980772768
Trans2 EPA ID:	Not reported
TSD ID:	NJD991291105
Waste Code:	D007 - CHROMIUM 5.0 MG/L TCLP
Quantity:	00020
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	95
Facility Type:	Generator
EPA ID:	NYD982728578
Facility Name:	NYSDOT
Facility Address:	MEEKER AVE
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	NYSDOT
Mailing Contact:	Not reported
Mailing Address:	47-40 21ST STREET
Mailing City:	LONG ISLAND CITY
Mailing State:	NY
Mailing Zip:	11101
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	718-482-4607
Document ID:	NJA2116518
Manifest Status:	Completed copy
Trans1 State ID:	S6993
Trans2 State ID:	Not reported
Generator Ship Date:	950711
Trans1 Recv Date:	950711
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950711
Part A Recv Date:	Not reported
Part B Recv Date:	950721
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	NJD980772768
Trans2 EPA ID:	Not reported
TSD ID:	NJD991291105
Waste Code:	D007 - CHROMIUM 5.0 MG/L TCLP
Quantity:	23000
Units:	P - Pounds
Number of Containers:	046
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	100

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

Year: 95  
Facility Type: Generator  
EPA ID: NYD982728578  
Facility Name: NYS DOT  
Facility Address: MEEKER AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NYS DOT  
Mailing Contact: Not reported  
Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 718-482-4607

Document ID: NJA2116522  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950712  
Trans1 Recv Date: 950712  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950712  
Part A Recv Date: Not reported  
Part B Recv Date: 950721  
Generator EPA ID: NYD982728578  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: L Landfill.  
Specific Gravity: 100  
Year: 95  
Facility Type: Generator  
EPA ID: NYD982728578  
Facility Name: NYS DOT  
Facility Address: MEEKER AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NYS DOT  
Mailing Contact: Not reported  
Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: USA

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

Mailing Phone: 718-482-4607

Document ID: NJA2116523  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950712  
Trans1 Recv Date: 950712  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950712  
Part A Recv Date: Not reported  
Part B Recv Date: 950721  
Generator EPA ID: NYD982728578  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: L Landfill.  
Specific Gravity: 100  
Year: 95  
Facility Type: Generator  
EPA ID: NYD982728578  
Facility Name: NYS DOT  
Facility Address: MEEKER AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NYS DOT  
Mailing Contact: Not reported  
Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 718-482-4607

Document ID: NJA2116521  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950712  
Trans1 Recv Date: 950712  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950712  
Part A Recv Date: Not reported  
Part B Recv Date: 950721  
Generator EPA ID: NYD982728578  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

Quantity: 00020  
 Units: Y - Cubic yards\* (.85 tons)  
 Number of Containers: 001  
 Container Type: CM - Metal boxes, cases, roll-offs  
 Handling Method: L Landfill.  
 Specific Gravity: 100  
 Year: 95  
 Facility Type: Generator  
 EPA ID: NYD982728578  
 Facility Name: NYS DOT  
 Facility Address: MEEKER AVE  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NYS DOT  
 Mailing Contact: Not reported  
 Mailing Address: 47-40 21ST STREET  
 Mailing City: LONG ISLAND CITY  
 Mailing State: NY  
 Mailing Zip: 11101  
 Mailing Zip4: Not reported  
 Mailing Country: USA  
 Mailing Phone: 718-482-4607

Document ID: NJA2261246  
 Manifest Status: Completed copy  
 Trans1 State ID: S6993  
 Trans2 State ID: Not reported  
 Generator Ship Date: 950928  
 Trans1 Recv Date: 950928  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 950928  
 Part A Recv Date: Not reported  
 Part B Recv Date: 951011  
 Generator EPA ID: NYD982728578  
 Trans1 EPA ID: NJD980772768  
 Trans2 EPA ID: Not reported  
 TSD ID: NJD991291105  
 Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
 Quantity: 08400  
 Units: P - Pounds  
 Number of Containers: 021  
 Container Type: DM - Metal drums, barrels  
 Handling Method: L Landfill.  
 Specific Gravity: 100  
 Year: 95  
 Facility Type: Generator  
 EPA ID: NYD982728578  
 Facility Name: NYS DOT  
 Facility Address: MEEKER AVE  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NYS DOT  
 Mailing Contact: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**NYS DOT BQE PROJECT (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

1000191428

Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 718-482-4607

Document ID: NJA2116545  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950714  
Trans1 Recv Date: 950714  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950714  
Part A Recv Date: Not reported  
Part B Recv Date: 950728  
Generator EPA ID: NYD982728578  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSDF ID: NJD991291105  
Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: L Landfill.  
Specific Gravity: 100  
Year: 95  
Facility Type: Generator  
EPA ID: NYD982728578  
Facility Name: NYS DOT  
Facility Address: MEEKER AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NYS DOT  
Mailing Contact: Not reported  
Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 718-482-4607

Document ID: NJA2116775  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950824  
Trans1 Recv Date: 950824  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950824  
Part A Recv Date: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

Part B Recv Date:	950911
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	NJD980772768
Trans2 EPA ID:	Not reported
TSD ID:	NJD991291105
Waste Code:	D007 - CHROMIUM 5.0 MG/L TCLP
Quantity:	00020
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	95
Facility Type:	Generator
EPA ID:	NYD982728578
Facility Name:	NYS DOT
Facility Address:	MEEKER AVE
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	NYS DOT
Mailing Contact:	Not reported
Mailing Address:	47-40 21ST STREET
Mailing City:	LONG ISLAND CITY
Mailing State:	NY
Mailing Zip:	11101
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	718-482-4607
Document ID:	NJA2116612
Manifest Status:	Completed copy
Trans1 State ID:	S6993
Trans2 State ID:	Not reported
Generator Ship Date:	950728
Trans1 Recv Date:	950728
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950728
Part A Recv Date:	Not reported
Part B Recv Date:	950810
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	NJD980772768
Trans2 EPA ID:	Not reported
TSD ID:	NJD991291105
Waste Code:	D007 - CHROMIUM 5.0 MG/L TCLP
Quantity:	00020
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	95
Facility Type:	Generator
EPA ID:	NYD982728578
Facility Name:	NYS DOT
Facility Address:	MEEKER AVE

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	NYS DOT
Mailing Contact:	Not reported
Mailing Address:	47-40 21ST STREET
Mailing City:	LONG ISLAND CITY
Mailing State:	NY
Mailing Zip:	11101
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	718-482-4607
Document ID:	NJA2116611
Manifest Status:	Completed copy
Trans1 State ID:	S6993
Trans2 State ID:	Not reported
Generator Ship Date:	950728
Trans1 Recv Date:	950728
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950728
Part A Recv Date:	Not reported
Part B Recv Date:	950809
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	NJD980772768
Trans2 EPA ID:	Not reported
TSD ID:	NJD991291105
Waste Code:	D007 - CHROMIUM 5.0 MG/L TCLP
Quantity:	00020
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	95
Facility Type:	Generator
EPA ID:	NYD982728578
Facility Name:	NYS DOT
Facility Address:	MEEKER AVE
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	NYS DOT
Mailing Contact:	Not reported
Mailing Address:	47-40 21ST STREET
Mailing City:	LONG ISLAND CITY
Mailing State:	NY
Mailing Zip:	11101
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	718-482-4607
Document ID:	NJA2182168
Manifest Status:	Completed copy
Trans1 State ID:	S6993

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

Trans2 State ID:	Not reported
Generator Ship Date:	950831
Trans1 Recv Date:	950831
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950831
Part A Recv Date:	Not reported
Part B Recv Date:	950919
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	NJD980772768
Trans2 EPA ID:	Not reported
TSDF ID:	NJD991291105
Waste Code:	D007 - CHROMIUM 5.0 MG/L TCLP
Quantity:	00020
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	95
Facility Type:	Generator
EPA ID:	NYD982728578
Facility Name:	NYS DOT
Facility Address:	MEEKER AVE
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	NYS DOT
Mailing Contact:	Not reported
Mailing Address:	47-40 21ST STREET
Mailing City:	LONG ISLAND CITY
Mailing State:	NY
Mailing Zip:	11101
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	718-482-4607
Document ID:	NJA2182194
Manifest Status:	Completed copy
Trans1 State ID:	S6993
Trans2 State ID:	Not reported
Generator Ship Date:	950824
Trans1 Recv Date:	950824
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950824
Part A Recv Date:	Not reported
Part B Recv Date:	950911
Generator EPA ID:	NYD982728578
Trans1 EPA ID:	NJD980772768
Trans2 EPA ID:	Not reported
TSDF ID:	NJD991291105
Waste Code:	D007 - CHROMIUM 5.0 MG/L TCLP
Quantity:	19500
Units:	P - Pounds
Number of Containers:	039
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NYSDOT BQE PROJECT (Continued)**

**1000191428**

Specific Gravity: 100  
Year: 95  
Facility Type: Generator  
EPA ID: NYD982728578  
Facility Name: NYSDOT  
Facility Address: MEEKER AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NYSDOT  
Mailing Contact: Not reported  
Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 718-482-4607

Document ID: NJA2116665  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950808  
Trans1 Recv Date: 950808  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950808  
Part A Recv Date: Not reported  
Part B Recv Date: 950821  
Generator EPA ID: NYD982728578  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSDF ID: NJD991291105  
Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: L Landfill.  
Specific Gravity: 100  
Year: 95  
Facility Type: Generator  
EPA ID: NYD982728578  
Facility Name: NYSDOT  
Facility Address: MEEKER AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NYSDOT  
Mailing Contact: Not reported  
Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NYSDOT BQE PROJECT (Continued)**

**1000191428**

Mailing Country: USA  
Mailing Phone: 718-482-4607

Document ID: NJA2182417  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950908  
Trans1 Recv Date: 950908  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950908  
Part A Recv Date: Not reported  
Part B Recv Date: 950921  
Generator EPA ID: NYD982728578  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: L Landfill.  
Specific Gravity: 100  
Year: 95  
Facility Type: Generator  
EPA ID: NYD982728578  
Facility Name: NYSDOT  
Facility Address: MEEKER AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NYSDOT  
Mailing Contact: Not reported  
Mailing Address: 47-40 21ST STREET  
Mailing City: LONG ISLAND CITY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 718-482-4607

Document ID: NJA2116838  
Manifest Status: Completed copy  
Trans1 State ID: S6993  
Trans2 State ID: Not reported  
Generator Ship Date: 950815  
Trans1 Recv Date: 950815  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 950815  
Part A Recv Date: Not reported  
Part B Recv Date: 950901  
Generator EPA ID: NYD982728578  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYS DOT BQE PROJECT (Continued)**

**1000191428**

Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
 Quantity: 00020  
 Units: Y - Cubic yards\* (.85 tons)  
 Number of Containers: 001  
 Container Type: CM - Metal boxes, cases, roll-offs  
 Handling Method: L Landfill.  
 Specific Gravity: 100  
 Year: 95  
 Facility Type: Generator  
 EPA ID: NYD982728578  
 Facility Name: NYS DOT  
 Facility Address: MEEKER AVE  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NYS DOT  
 Mailing Contact: Not reported  
 Mailing Address: 47-40 21ST STREET  
 Mailing City: LONG ISLAND CITY  
 Mailing State: NY  
 Mailing Zip: 11101  
 Mailing Zip4: Not reported  
 Mailing Country: USA  
 Mailing Phone: 718-482-4607

**28  
 SW  
 1/8-1/4  
 772 ft.**

**STAR SOAP CANDLE CO  
 304 NORTH 7TH ST  
 BKLYN, NY 11211**

**AST U003387855  
 HIST AST N/A**

**Relative:  
 Lower**

AST:

**Actual:  
 14 ft.**

Facility ID: 2-236594  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Aboveground - 10% or more below ground  
 Tank Status: In Service  
 Active Status: Active  
 Install Date: 12/01/48  
 Capacity Gallons: 3000  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Exempt Suction Piping

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

STAR SOAP CANDLE CO (Continued)

U003387855

Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: Product Level Gauge (A/G)  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: / /

AST\_PBS\_FAC:  
Facility Id: 2-236594  
Expiration Date: 07/10/07  
Renewal Date: 03/06/02  
Total Capacity: 3000  
Facility Type: Not reported  
Mailing Company: SELIK REALTY CO  
Mailing Title: Not reported  
Mailing Contact: ARNE GUREWITSCH  
Mailing Address: 29 ASH STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11222  
Mailing Phone No: (718) 389-7707  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 29 ASH ST  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11222  
Owner Phone: (718) 389-7707  
Owner Company: SELIK REALTY CO  
Emergency Contact: ARNE GUREWITSCH  
Emergency Phone: (718) 377-0106  
Operator: STAR CANDLE  
Operator Phone: (718) 389-7707  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

HIST AST:  
PBS Number: 2-236594  
Tank Location: ABOVEGROUND 10% OR MORE BELOW GROUND  
Tank ID: 001  
Tank Status: 1  
Install Date: 19481201  
Capacity (Gal): 3000  
Product Stored: 3  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Tank Containment: None

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**STAR SOAP CANDLE CO (Continued)**

**U003387855**

Leak Detection: 0  
 Overfill Protection: 4  
 Dispenser Method: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: False  
 SPDES Number: Not reported  
 Latitude: Not reported  
 Longitude: Not reported  
 SWIS Code: 6101  
 Operator: STAR SOAP CANDLE CO  
 Facility Phone: (718) 387-7844  
 Facility Addr2: 304 NORTH 7TH ST  
 Facility Type: MANUFACTURING  
 Emergency: ARNE GUREWITSCH  
 Emergency Tel: (718) 377-0106  
 Old PBSNO: Not reported  
 Date Inspected: Not reported  
 Inspector: Not reported  
 Result of Inspection: Not reported  
 Owner Name: SELIK REALTY CO  
 Owner Address: 304 NORTH 7TH ST  
 Owner City,St,Zip: BKLYN, NY 11211  
 Federal ID: Not reported  
 Owner Tel: (718) 387-7844  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Contact: ARNE GUREWITSCH  
 Mailing Name: SELIK REALTY CO  
 Mailing Address: 304 NORTH 7TH ST  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: BKLYN, NY 11211  
 Mailing Telephone: (718) 387-7844  
 Owner Mark: First Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
 Certification Flag: False  
 Certification Date: 07/02/1997  
 Expiration: 07/10/2002  
 Renew Flag: False  
 Renew Date: Not reported  
 Total Capacity: 3000  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City Code: 01  
 Region: 2

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**F29**  
**ENE**  
**1/8-1/4**  
**797 ft.**

**NYCDEP**  
**75 FROST ST**  
**BROOKLYN, NY**

**NY MANIFEST**

**1009235032**  
**N/A**

**Relative:**  
**Higher**

**Site 4 of 5 in cluster F**

**Actual:**  
**17 ft.**

NY MANIFEST:  
 Document ID: NYG1097685  
 Manifest Status: Not reported  
 Trans1 State ID: NYD049178296  
 Trans2 State ID: Not reported  
 Generator Ship Date: 05/19/1999  
 Trans1 Recv Date: 05/19/1999  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 05/21/1999  
 Part A Recv Date: Not reported  
 Part B Recv Date: Not reported  
 Generator EPA ID: NYP003600826  
 Trans1 EPA ID: NYD049178296  
 Trans2 EPA ID: Not reported  
 TSDF ID: NY68699AN  
 Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
 Quantity: 00050  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DF - Fiberboard or plastic drums (glass)  
 Handling Method: T Chemical, physical, or biological treatment.  
 Specific Gravity: 01.00  
 Year: 99  
 Facility Type: Generator  
 EPA ID: NYP000954487  
 Facility Name: NYCDEP  
 Facility Address: 75 FROST ST  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: USA  
 County: KINGS  
 Mailing Name: NYCDEP  
 Mailing Contact: CHRIS HAAS  
 Mailing Address: 59-17 JUNCTION BLVD  
 Mailing City: CORONA  
 Mailing State: NY  
 Mailing Zip: 11368  
 Mailing Zip4: Not reported  
 Mailing Country: USA  
 Mailing Phone: Not reported  
 Facility Type: Generator  
 EPA ID: NYP003600826  
 Facility Name: NYCDEP  
 Facility Address: 75 FROST ST  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NYCDEP  
 Mailing Contact: STANLEY BALDWIN  
 Mailing Address: 50 17 JUNCTION BLVD  
 Mailing City: FLUSHING  
 Mailing State: NY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCDEP (Continued)

1009235032

Mailing Zip: 11368  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 718-505-0406

Document ID: NYG3577032  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 03/31/2003  
Trans1 Recv Date: 03/31/2003  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 04/01/2003  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYP000954487  
Trans1 EPA ID: NYD049178296  
Trans2 EPA ID: Not reported  
TSD ID: Not reported  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 01200  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00040  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00040  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 03  
Facility Type: Generator  
EPA ID: NYP000954487  
Facility Name: NYCDEP  
Facility Address: 75 FROST ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCDEP  
Mailing Contact: CHRIS HAAS  
Mailing Address: 59-17 JUNCTION BLVD  
Mailing City: CORONA  
Mailing State: NY  
Mailing Zip: 11368  
Mailing Zip4: Not reported  
Mailing Country: USA

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYCDEP (Continued)**

**1009235032**

Mailing Phone: Not reported  
 Facility Type: Generator  
 EPA ID: NYP003600826  
 Facility Name: NYCDEP  
 Facility Address: 75 FROST ST  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NYCDEP  
 Mailing Contact: STANLEY BALDWIN  
 Mailing Address: 50 17 JUNCTION BLVD  
 Mailing City: FLUSHING  
 Mailing State: NY  
 Mailing Zip: 11368  
 Mailing Zip4: Not reported  
 Mailing Country: USA  
 Mailing Phone: 718-505-0406

**F30 MOBILE SYSTEMS UNIT**  
**ENE 75 FROST ST**  
**1/8-1/4 BROOKLYN, NY 11211**  
**797 ft.**

**HIST UST U001831432**  
**N/A**

**Relative:**  
**Higher**

**Site 5 of 5 in cluster F**

HIST UST:

**Actual:**  
**17 ft.**

PBS Number: 2-045799  
 SPDES Number: Not reported  
 Emergency Contact: FRANK ANDERSON  
 Emergency Telephone: (718) 448-0248  
 Operator: FRANK ANDERSON  
 Operator Telephone: (718) 388-4995  
 Owner Name: NYCDEP-FACILITIES MGMT & CONST  
 Owner Address: 59-17 JUNCTION BLVD  
 Owner City,St,Zip: ELMHURST, NY 11373  
 Owner Telephone: (718) 595-4377  
 Owner Type: Local Government  
 Owner Subtype: The City of New York  
 Mailing Name: NYCDEP-FACILITIES MGMT & CONST  
 Mailing Address: 59-17 JUNCTION BLVD  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: ELMHURST, NY 11373  
 Mailing Contact: MARYLIN REED  
 Mailing Telephone: (718) 595-4377  
 Owner Mark: First Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
 Facility Addr2: 75 FROST ST  
 Tank Id: 001  
 Tank Location: UNDERGROUND  
 Install Date: 19710601  
 Capacity (gals): 4000  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: Not reported  
 Tank External: Not reported  
 Pipe Location: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**MOBILE SYSTEMS UNIT (Continued)**

**U001831432**

Pipe Type: GALVANIZED STEEL  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: Diking  
 Leak Detection: Other  
 Overfill Prot: Product Level Gauge  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: OTHER  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 06/24/1992  
 Expiration Date: 12/02/1996  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 4000  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: Minor Data Missing  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

PBS Number: 2-045799  
 SPDES Number: Not reported  
 Emergency Contact: FRANK ANDERSON  
 Emergency Telephone: (718) 448-0248  
 Operator: FRANK ANDERSON  
 Operator Telephone: (718) 388-4995  
 Owner Name: NYCDEP-FACILITIES MGMT & CONST  
 Owner Address: 59-17 JUNCTION BLVD  
 Owner City,St,Zip: ELMHURST, NY 11373  
 Owner Telephone: (718) 595-4377  
 Owner Type: Local Government  
 Owner Subtype: The City of New York  
 Mailing Name: NYCDEP-FACILITIES MGMT & CONST  
 Mailing Address: 59-17 JUNCTION BLVD  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: ELMHURST, NY 11373  
 Mailing Contact: MARYLIN REED

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**MOBILE SYSTEMS UNIT (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U001831432**

Mailing Telephone: (718) 595-4377  
 Owner Mark: First Owner  
 Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
 Facility Addr2: 75 FROST ST  
 Tank Id: 002  
 Tank Location: UNDERGROUND  
 Install Date: 19710601  
 Capacity (gals): 4000  
 Product Stored: UNLEADED GASOLINE  
 Tank Type: Steel/carbon steel  
 Tank Internal: Not reported  
 Tank External: Not reported  
 Pipe Location: Not reported  
 Pipe Type: GALVANIZED STEEL  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: Diking  
 Leak Detection: Other  
 Overfill Prot: Product Level Gauge  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: 12/27/1987  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: OTHER  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 06/24/1992  
 Expiration Date: 12/02/1996  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 4000  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: Minor Data Missing  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**31**  
**SW**  
**1/8-1/4**  
**803 ft.**  
**PURITAN LIGHTING FIXTURE CO**  
**255 N 7TH ST**  
**BROOKLYN, NY 11211**

**RCRA-SQG**  
**FINDS**  
**1000264355**  
**NYD063866545**

**Relative:**  
**Lower**

RCRAInfo:  
 Owner: Not reported  
 EPA ID: NYD063866545

**Actual:**  
**14 ft.**

Contact: Not reported  
 Classification: Small Quantity Generator  
 TSD Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**32**  
**NW**  
**1/8-1/4**  
**844 ft.**  
**ADELPHIA CONTAINER CORP**  
**206 N 10TH ST**  
**BROOKLYN, NY 11211**

**RCRA-SQG**  
**FINDS**  
**NY MANIFEST**  
**1000291413**  
**NYD000818476**

**Relative:**  
**Lower**

RCRAInfo:  
 Owner: Not reported  
 EPA ID: NYD000818476

**Actual:**  
**14 ft.**

Contact: Not reported  
 Classification: Small Quantity Generator  
 TSD Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**NY MANIFEST:**

No Manifest Records Available

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**G33**      **MCCAREN MEWS LLC**  
**NNW**      **204 NORTH 11TH ST**  
**1/8-1/4**    **BROOKLYN, NY 11201**  
**845 ft.**

**NJ MANIFEST**

**S108170432**  
**N/A**

**Site 1 of 2 in cluster G**

**Relative:**  
**Lower**

NJ MANIFEST:

**Actual:**  
**14 ft.**

Manifest Code: NJA5314971  
 EPA ID: NYR000140947  
 Date Shipped: 20060805  
 TSDF EPA ID: NJD991291105  
 Transporter EPA ID: NJR000029967  
 Transporter 2 EPA ID: Not reported  
 Date Trans1 Transported Waste: 060805  
 Date Trans2 Transported Waste: 000000  
 Date TSDF Received Waste: 060815  
 Transporter 1 Decal: Not reported  
 Transporter 2 Decal: Not reported  
 Data Entry Number: 09190621  
 Reference Manifest Number: Not reported  
 Was Load Rejected (Y/N): No  
 Reason Load Was Rejected: Not reported  
 Waste Code: D008  
 Quantity: 18  
 Unit: CY  
 Hand Code: T04

Manifest Code: NJA5314896  
 EPA ID: NYR000140947  
 Date Shipped: 20060810  
 TSDF EPA ID: NJD991291105  
 Transporter EPA ID: NJR000029967  
 Transporter 2 EPA ID: Not reported  
 Date Trans1 Transported Waste: 060810  
 Date Trans2 Transported Waste: 000000  
 Date TSDF Received Waste: 060810  
 Transporter 1 Decal: Not reported  
 Transporter 2 Decal: Not reported  
 Data Entry Number: 09150622  
 Reference Manifest Number: Not reported  
 Was Load Rejected (Y/N): No  
 Reason Load Was Rejected: Not reported  
 Waste Code: D008  
 Quantity: 49340  
 Unit: P  
 Hand Code: T04

Manifest Code: NJA5314898  
 EPA ID: NYR000140947  
 Date Shipped: 20060810  
 TSDF EPA ID: NJD991291105  
 Transporter EPA ID: NJR000029967  
 Transporter 2 EPA ID: Not reported  
 Date Trans1 Transported Waste: 060810  
 Date Trans2 Transported Waste: 000000

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108170432**

Date TSDF Received Waste: 060810  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 45540  
Unit: P  
Hand Code: T04

Manifest Code: NJA5314925  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDF EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 060810  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 44300  
Unit: P  
Hand Code: T04

Manifest Code: NJA5314927  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDF EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 060810  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 47920  
Unit: P  
Hand Code: T04

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108170432

Manifest Code: NJA5314931  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 060810  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 47340  
Unit: P  
Hand Code: T04

Manifest Code: NJA5314933  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 060810  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 49600  
Unit: P  
Hand Code: T04

Manifest Code: NJA5314934  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 060810  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108170432

Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 48080  
Unit: P  
Hand Code: T04

Manifest Code: NJA5314935  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 060810  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 46280  
Unit: P  
Hand Code: T04

Manifest Code: NJA5314895  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 060810  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 09260625  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 20  
Unit: CY  
Hand Code: T04

Manifest Code: NJA5314897  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108170432**

Transporter EPA ID:            NJR000029967  
Transporter 2 EPA ID:        Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste:    060810  
Transporter 1 Decal:         Not reported  
Transporter 2 Decal:         Not reported  
Data Entry Number:          09260625  
Reference Manifest Number:   Not reported  
Was Load Rejected (Y/N):    No  
Reason Load Was Rejected:   Not reported  
Waste Code:            D008  
Quantity:                20  
Unit:                    CY  
Hand Code:               T04

Manifest Code:                NJA5314926  
EPA ID:                    NYR000140947  
Date Shipped:                20060810  
TSDf EPA ID:                NJD991291105  
Transporter EPA ID:         NJR000029967  
Transporter 2 EPA ID:        Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste:    060810  
Transporter 1 Decal:         Not reported  
Transporter 2 Decal:         Not reported  
Data Entry Number:          10060621  
Reference Manifest Number:   Not reported  
Was Load Rejected (Y/N):    No  
Reason Load Was Rejected:   Not reported  
Waste Code:            D008  
Quantity:                20  
Unit:                    CY  
Hand Code:               T04

Manifest Code:                NJA5314928  
EPA ID:                    NYR000140947  
Date Shipped:                20060810  
TSDf EPA ID:                NJD991291105  
Transporter EPA ID:         NJR000029967  
Transporter 2 EPA ID:        Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste:    060810  
Transporter 1 Decal:         Not reported  
Transporter 2 Decal:         Not reported  
Data Entry Number:          10060621  
Reference Manifest Number:   Not reported  
Was Load Rejected (Y/N):    No  
Reason Load Was Rejected:   Not reported  
Waste Code:            D008  
Quantity:                20

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108170432

Unit: CY  
Hand Code: T04

Manifest Code: NJA5314929  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 060820  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 10060621  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 18  
Unit: CY  
Hand Code: T04

Manifest Code: NJA5314930  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 060810  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 10060621  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 18  
Unit: CY  
Hand Code: T04

Manifest Code: NJA5314932  
EPA ID: NYR000140947  
Date Shipped: 20060810  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060810  
Date Trans2 Transported Waste: 000000

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108170432**

Date TSDF Received Waste: 060810  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 10060621  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 20  
Unit: CY  
Hand Code: T04

Manifest Code: NJA5314938  
EPA ID: NYR000140947  
Date Shipped: 20060811  
TSDF EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060811  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 060811  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 51940  
Unit: P  
Hand Code: T04

Manifest Code: NJA5314939  
EPA ID: NYR000140947  
Date Shipped: 20060811  
TSDF EPA ID: NJD991291105  
Transporter EPA ID: NJR000029967  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 060811  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 060811  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09150622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: D008  
Quantity: 46420  
Unit: P  
Hand Code: T04

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108170432**

Manifest Code: NJA5314961  
 EPA ID: NYR000140947  
 Date Shipped: 20060811  
 TSDf EPA ID: NJD991291105  
 Transporter EPA ID: NJR000029967  
 Transporter 2 EPA ID: Not reported  
 Date Trans1 Transported Waste: 060811  
 Date Trans2 Transported Waste: 000000  
 Date TSDf Received Waste: 060811  
 Transporter 1 Decal: Not reported  
 Transporter 2 Decal: Not reported  
 Data Entry Number: 09150622  
 Reference Manifest Number: Not reported  
 Was Load Rejected (Y/N): No  
 Reason Load Was Rejected: Not reported  
 Waste Code: D008  
 Quantity: 47180  
 Unit: P  
 Hand Code: T04

Manifest Code: NJA5314937  
 EPA ID: NYR000140947  
 Date Shipped: 20060811  
 TSDf EPA ID: NJD991291105  
 Transporter EPA ID: NJR000029967  
 Transporter 2 EPA ID: Not reported  
 Date Trans1 Transported Waste: 060811  
 Date Trans2 Transported Waste: 000000  
 Date TSDf Received Waste: 060811  
 Transporter 1 Decal: Not reported  
 Transporter 2 Decal: Not reported  
 Data Entry Number: 09260621  
 Reference Manifest Number: Not reported  
 Was Load Rejected (Y/N): No  
 Reason Load Was Rejected: Not reported  
 Waste Code: D008  
 Quantity: 20  
 Unit: CY  
 Hand Code: T04

**G34  
 NNW  
 1/8-1/4  
 845 ft.**

**MCCAREN MEWS LLC  
 204 NORTH 11TH STREET  
 BROOKLYN, NY 11201**

**NY MANIFEST S108232351  
 N/A**

**Site 2 of 2 in cluster G**

**Relative:  
 Lower**

NY MANIFEST:  
 Document ID: NJA5314895  
 Manifest Status: Not reported  
 Trans1 State ID: NJR000029967  
 Trans2 State ID: Not reported  
 Generator Ship Date: 08/10/2006  
 Trans1 Recv Date: 08/10/2006  
 Trans2 Recv Date: Not reported

**Actual:  
 14 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108232351**

TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314896  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108232351**

Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314897  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314898

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108232351**

Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00018  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314925  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00018  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314926  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314927  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSDF ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314928  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314929  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00018  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314930  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00018  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314931  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108232351**

Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314932  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314933  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

Document ID: NJA5314934  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00018  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314935  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/10/2006  
Trans1 Recv Date: 08/10/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/10/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00018  
Units: Y - Cubic yards\* (.85 tons)

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108232351**

Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314936  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/11/2006  
Trans1 Recv Date: 08/11/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/11/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MCCAREN MEWS LLC (Continued)**

**S108232351**

Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314937  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/11/2006  
Trans1 Recv Date: 08/11/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/11/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314938  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/11/2006  
Trans1 Recv Date: 08/11/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/11/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSDF ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314939  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/11/2006  
Trans1 Recv Date: 08/11/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/11/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSDF ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MCCAREN MEWS LLC (Continued)

S108232351

Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

Document ID: NJA5314940  
Manifest Status: Not reported  
Trans1 State ID: NJR000029967  
Trans2 State ID: Not reported  
Generator Ship Date: 08/11/2006  
Trans1 Recv Date: 08/11/2006  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/11/2006  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000140947  
Trans1 EPA ID: 50181  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: DT - Dump trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 06  
Facility Type: Generator  
EPA ID: NYR000140947  
Facility Name: MCCAREN MEWS LLC  
Facility Address: 204 NORTH 11TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: MCCAREN MEWS LLC  
Mailing Contact: MCKINLEY FAULKNER  
Mailing Address: 320 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11201  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 919-601-2723

[Click this hyperlink](#) while viewing on your computer to access 52 additional NY\_MANIFEST: record(s) in the EDR Site Report.

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**35**      **BAYARD PROPERTIES**  
**NE**      **735 LORIMER STREET**  
**1/8-1/4**   **BROOKLYN, NY 11211**  
**867 ft.**

**UST**      **U001833953**  
**HIST UST**   **N/A**

**Relative:**  
**Lower**

**UST:**

**Actual:**  
**14 ft.**

Facility ID: 2-249157  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground, vaulted, with access  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 5000  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Exempt Suction Piping  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: Product Level Gauge (A/G)  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: 03/15/05

**UST\_PBS\_FAC:**  
 Facility Id: 2-249157  
 Expiration Date: 12/20/10  
 Renewal Date: 03/06/02  
 Total Capacity: 0  
 Facility Type: Not reported  
 Mailing Company: HYDRO TECH ENVIRONMENTAL CORP  
 Mailing Title: Not reported  
 Mailing Contact: ANTOINETTE OLLIVIERRE  
 Mailing Address: 1111 FULTON STREET, 2ND FLOOR  
 Mailing Address 2: Not reported  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip Code: 11238  
 Mailing Phone No: (718) 636-0800  
 Mailing Email: Not reported  
 Owner Title: CHIEF OPERATING OFFICER  
 Owner Name: JOSEPH KRANZLER

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BAYARD PROPERTIES (Continued)**

**U001833953**

Owner Address: 400 RELLA BOULEVARD  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10901  
Owner Phone: (845) 369-7600  
Owner Company: BAYARD APARTMENTS LLC  
Emergency Contact: JOSEPH KRANZLER  
Emergency Phone: (845) 369-7600  
Operator: JOSEPH KRANZLER  
Operator Phone: (845) 369-7600  
Owner City: MONTEBELLO  
Owner Sub Type: Corporate or Commercial

**HIST UST:**

PBS Number: 2-249157  
SPDES Number: Not reported  
Emergency Contact: FRAIDY TAUBER  
Emergency Telephone: (914) 425-1362  
Operator: SVETORSAR  
Operator Telephone: (917) 532-5359  
Owner Name: AINTSAR REALTY CORP  
Owner Address: P O BOX 215  
Owner City,St,Zip: MONSEY, NY 10952  
Owner Telephone: (914) 425-1362  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: AINTSAR REALTY CORP  
Mailing Address: P O BOX 215  
Mailing Address 2: Not reported  
Mailing City,St,Zip: MONSEY, NY 10952  
Mailing Contact: MAYER STEG  
Mailing Telephone: (914) 425-1362  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 735 LORIMER STREET  
Tank Id: 001  
Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
Install Date: Not reported  
Capacity (gals): 5000  
Product Stored: NOS 1,2, OR 4 FUEL OIL  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Product Level Gauge  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BAYARD PROPERTIES (Continued)**

**U001833953**

Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: OTHER  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/03/2000  
 Expiration Date: 07/07/2002  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 5000  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**H36  
 NE  
 1/8-1/4  
 879 ft.**

**68 RICHARDSON STREET  
 68 RICHARDSON STREET  
 BROOKLYN, NY**

**LTANKS S100879125  
 HIST LTANKS N/A**

**Site 1 of 6 in cluster H**

**Relative:  
 Lower**

**LTANKS:**

**Actual:  
 15 ft.**

Site ID: 111528  
 Spill Date: 01/25/94  
 Facility Addr2: Not reported  
 Facility ID: 9312569  
 Program Number: 9312569  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: SMMARTIN  
 Referred To: Not reported  
 Reported to Dept: 01/25/94  
 CID: 14  
 Spill Cause: Tank Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Other  
 Cleanup Ceased: 02/26/01  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

68 RICHARDSON STREET (Continued)

S100879125

Spill Closed Dt: 06/11/01  
Remediation Phase: 0  
Date Entered In Computer: 01/28/94  
Spill Record Last Update: 09/04/01  
Spille Namer: HARRY NADLER  
Spiller Company: BERNSTEIN REALTY  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Address: 855 6TH AVE  
Spiller City,St,Zip: NEW YORK, NY 10001-  
Spiller County: 001  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 9312569  
DER Facility ID: 97543  
Site ID: 111528  
Operable Unit ID: 994568  
Operable Unit: 01  
Material ID: 387992  
Material Code: 0001  
Material Name: #2 Fuel Oil  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: -1.00  
Units: Pounds  
Recovered: 0.00  
Resource Affected: Groundwater  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 9312569 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "MARTINKAT" CLOSURE LETTER DATED 7/30/2001. SMM END DECRemark -  
9312569  
Remarks: Start CallerRemark - 9312569 AFTER TANK WAS CLEANED - OWNER FOUND RESIDUAL OIL  
PUMP PIT - CALLED BOB DECK, HE SAID THAT OIL SHOWED UP IN SUMP PIT OWNER ASKED  
TO SET UP TEMP. TANK (1080 GAL) AND CLEANED THE 2500 GAL UST. FOR INSPE END  
CallerRemark -9312569

HIST LTANKS:  
Region of Spill: 2  
Spill Number: 9312569  
Investigator: MARTINKAT  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

68 RICHARDSON STREET (Continued)

S100879125

Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 01/25/1994  
Spill Time: 15:30  
Reported to Department Date: 01/25/94  
Reported to Department Time: 16:17  
SWIS: 61  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Name: BERNSTEIN REALTY  
Spiller Address: 855 6TH AVE  
Spiller City,St,Zip: NEW YORK, NY 10001-  
Facility Contact: HARRY NADLER  
Facility Phone: Not reported  
Facility Extention: Not reported  
Spill Cause: Tank Failure  
Resource Affectd: Groundwater  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Other  
PBS Number: Not reported  
Cleanup Ceased: 02/26/01  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 06/11/01  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 01/28/94  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 09/04/01  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: -1  
Unkonwn Quantity Spilled: False  
Units: Pounds  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: #2 FUEL OIL  
Class Type: #2 FUEL OIL  
Times Material Entry In File: 24464  
CAS Number: Not reported  
Last Date: 19941207

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**68 RICHARDSON STREET (Continued)**

**S100879125**

DEC Remarks: CLOSURE LETTER DATED 7/30/2001. SMM  
 Spill Cause: AFTER TANK WAS CLEANED - OWNER FOUND RESIDUAL OIL PUMP PIT - CALLED BOB DECK, HE SAID THAT OIL SHOWED UP IN SUMP PIT OWNER ASKED TO SET UP TEMP. TANK 1080 GAL) AND CLEANED THE 2500 GAL UST. FOR INSPE

**H37  
 NE  
 1/8-1/4  
 879 ft.**

**68-70 RICHARDSON STREET CO.  
 68-70 RICHARDSON STREET  
 BROOKLYN, NY 11211**

**UST U003065932  
 HIST UST N/A**

**Site 2 of 6 in cluster H**

**Relative:  
 Lower**

**UST:**

**Actual:  
 15 ft.**

Facility ID: 2-602669  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - In Place  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 1500  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Aboveground/Underground Combination  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: 04/01/97

**UST\_PBS\_FAC:**

Facility Id: 2-602669  
 Expiration Date: 04/17/01  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: Not reported  
 Mailing Company: BERNSTEIN REAL ESTATE  
 Mailing Title: Not reported  
 Mailing Contact: HARRY NADLER  
 Mailing Address: 855 AVENUE OF THE AMERICAS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**68-70 RICHARDSON STREET CO. (Continued)**

**U003065932**

Mailing Address 2: Not reported  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip Code: 10001  
Mailing Phone No: (212) 594-1414  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: C/O 388 CLAYTON ROAD  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 10583  
Owner Phone: (212) 594-1414  
Owner Company: 68-70 RICHARDSON STREET CO.  
Emergency Contact: HARRY NADLER  
Emergency Phone: (212) 594-1414  
Operator: HARRY NADLER  
Operator Phone: (212) 594-1414  
Owner City: SCARSDALE  
Owner Sub Type: Corporate or Commercial

**HIST UST:**

PBS Number: 2-602669  
SPDES Number: Not reported  
Emergency Contact: HARRY NADLER  
Emergency Telephone: (212) 594-1414  
Operator: HARRY NADLER  
Operator Telephone: (212) 594-1414  
Owner Name: 68-70 RICHARDSON STREET CO.  
Owner Address: C/O 388 CLAYTON ROAD  
Owner City,St,Zip: SCARSDALE, NY 10583  
Owner Telephone: (212) 594-1414  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: BERNSTEIN REAL ESTATE  
Mailing Address: 855 AVENUE OF THE AMERICAS  
Mailing Address 2: Not reported  
Mailing City,St,Zip: NEW YORK, NY 10001  
Mailing Contact: HARRY NADLER  
Mailing Telephone: (212) 594-1414  
Owner Mark: First Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.  
Facility Addr2: Not reported  
Tank Id: 001  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 1500  
Product Stored: NOS 1,2, OR 4 FUEL OIL  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: None  
Pipe Location: Aboveground/Underground Combination  
Pipe Type: STEEL/IRON  
Pipe Internal: None  
Pipe External: None  
Second Containment: None

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**68-70 RICHARDSON STREET CO. (Continued)**

**U003065932**

Leak Detection: None  
 Overfill Prot: None  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: No Missing Data  
 Date Closed: 04/01/1997  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: MANUFACTURING  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: Not reported  
 Expiration Date: 04/17/2001  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 0  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: 0  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**I38 WING HON HOLDING**  
**WNW 212-218 NORTH 9TH STREET**  
**1/8-1/4 BROOKLYN, NY 11211**  
**907 ft.**

**UST U004048783**  
**N/A**

**Site 1 of 2 in cluster I**

**Relative:**  
**Lower**

UST:

**Actual:**  
**15 ft.**

Facility ID: 2-609548  
 Program Type: PBS  
 Tank Number: 002  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground, vaulted, with access  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 551  
 Material Name: Diesel  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

WING HON HOLDING (Continued)

U004048783

Tank Internal Protection 2: Not reported  
Pipe Location Name: Aboveground/Underground Combination  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: None  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 08/01/96

UST\_PBS\_FAC:  
Facility Id: 2-609548  
Expiration Date: 05/13/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: COMMERCIAL / COPORATION  
Mailing Company: TRC RAVIV ASSOCIATES, INC.  
Mailing Title: Not reported  
Mailing Contact: MR. MORGAN I. EVANS  
Mailing Address: 57 EAST WILLOW STREET  
Mailing Address 2: Not reported  
Mailing City: MILLBURN,  
Mailing State: NJ  
Mailing Zip Code: 07041  
Mailing Phone No: (973) 564-6006  
Mailing Email: Not reported  
Owner Title: PRESIDENT  
Owner Name: ALBERT CHAN  
Owner Address: 2 REWE STREET + 300 VANDER VOORT AVENUE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 963-1010  
Owner Company: WING HON HOLDING INC.  
Emergency Contact: RAYMOND LEUNG  
Emergency Phone: (718) 963-1010  
Operator: ALBERT CHAN  
Operator Phone: (718) 963-1010  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-609548  
Program Type: PBS  
Tank Number: 001  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground, vaulted, with access

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

WING HON HOLDING (Continued)

U004048783

Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 551  
Material Name: Diesel  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Aboveground/Underground Combination  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: None  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 08/01/96

UST\_PBS\_FAC:

Facility Id: 2-609548  
Expiration Date: 05/13/09  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: COMMERCIAL / COPORATION  
Mailing Company: TRC RAVIV ASSOCIATES, INC.  
Mailing Title: Not reported  
Mailing Contact: MR. MORGAN I. EVANS  
Mailing Address: 57 EAST WILLOW STREET  
Mailing Address 2: Not reported  
Mailing City: MILLBURN,  
Mailing State: NJ  
Mailing Zip Code: 07041  
Mailing Phone No: (973) 564-6006  
Mailing Email: Not reported  
Owner Title: PRESIDENT  
Owner Name: ALBERT CHAN  
Owner Address: 2 REWE STREET + 300 VANDER VOORT AVENUE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 963-1010  
Owner Company: WING HON HOLDING INC.  
Emergency Contact: RAYMOND LEUNG  
Emergency Phone: (718) 963-1010  
Operator: ALBERT CHAN  
Operator Phone: (718) 963-1010

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Database(s)  
 EDR ID Number  
 EPA ID Number

**WING HON HOLDING (Continued)**

**U004048783**

Owner City: BROOKLYN  
 Owner Sub Type: Corporate or Commercial

**H39  
 ENE  
 1/8-1/4  
 992 ft.**

**FDNY ENGINE 229 / LADDER 146  
 75 RICHARDSON STREET  
 BROOKLYN, NY 11211**

**UST U004078047  
 N/A**

**Site 3 of 6 in cluster H**

**Relative:  
 Lower**

UST:  
 Facility ID: 2-600510  
 Program Type: PBS  
 Tank Number: 002  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - In Place  
 Active Status: Inactive  
 Install Date: 05/01/97  
 Capacity Gallons: 275  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: No Piping  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: None  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: 05/01/97

**Actual:  
 15 ft.**

UST\_PBS\_FAC:  
 Facility Id: 2-600510  
 Expiration Date: 03/16/99  
 Renewal Date: / /  
 Total Capacity: 550  
 Facility Type: Not reported  
 Mailing Company: F.D.N.Y.  
 Mailing Title: Not reported  
 Mailing Contact: MIKHAIL ALTSHILER  
 Mailing Address: 250 LIVINGSTON STREET  
 Mailing Address 2: Not reported  
 Mailing City: BROOKLYN

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**FDNY ENGINE 229 / LADDER 146 (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U004078047**

Mailing State: NY  
 Mailing Zip Code: 11211  
 Mailing Phone No: (718) 403-1580  
 Mailing Email: Not reported  
 Owner Title: Not reported  
 Owner Name: Not reported  
 Owner Address: 250 LIVINGSTON STREET  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11211  
 Owner Phone: (718) 403-1580  
 Owner Company: F.D.N.Y.  
 Emergency Contact: F.D.N.Y.  
 Emergency Phone: (718) 403-1580  
 Operator: COMPANY OFFICER  
 Operator Phone: (718) 965-8229  
 Owner City: BROOKLYN  
 Owner Sub Type: Local Government

**H40 ENE 1/8-1/4 994 ft.**  
**NYC FIRE DEPT ENGINE CO 229**  
**75 RICHARDSON ST**  
**BROOKLYN, NY 11211**

**RCRA-SQG 1001197486**  
**FINDS NYR000040410**

**Site 4 of 6 in cluster H**

**Relative:  
 Lower**

RCRAInfo:  
 Owner: NYC FIRE DEPT  
 (718) 965-8229  
 EPA ID: NYR000040410

**Actual:  
 15 ft.**

Contact: Not reported  
 Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**H41**      **ENGINE COMPANY 229**  
**ENE**      **75 RICHARDSON ST**  
**1/8-1/4**    **BROOKLYN, NY**  
**994 ft.**

**LTANKS**    **S102619299**  
**HIST LTANKS**    **N/A**

**Site 5 of 6 in cluster H**

**Relative:**  
**Lower**

LTANKS:

**Actual:**  
**15 ft.**

Site ID: 108052  
 Spill Date: 06/20/97  
 Facility Addr2: Not reported  
 Facility ID: 9703488  
 Program Number: 9703488  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: ADZHITOM  
 Referred To: SOURCE TO BE INVESTIGATED  
 Reported to Dept: 06/20/97  
 CID: 14  
 Spill Cause: Tank Failure  
 Water Affected: Not reported  
 Spill Source: Institutional, Educational, Gov., Other  
 Spill Notifier: Other  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: True  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Remediation Phase: 1  
 Date Entered In Computer: 06/20/97  
 Spill Record Last Update: 12/22/06  
 Spiller Namer: LT MOLINARO  
 Spiller Company: ENGINE COMPANY 229  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 Spiller Address: 75 RICHARDSON ST  
 Spiller City,St,Zip: BROOKLYN, ZZ  
 Spiller County: 001  
 Spiller Contact: LT MOLINARO  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 9703488  
 DER Facility ID: 94982  
 Site ID: 108052  
 Operable Unit ID: 1046280  
 Operable Unit: 01  
 Material ID: 336370  
 Material Code: 0009  
 Material Name: Gasoline  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**ENGINE COMPANY 229 (Continued)**

**S102619299**

Site ID: Not reported  
 Spill Tank Test: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate: Not reported  
 Gross Fail: Not reported  
 Modified By: Not reported  
 Last Modified: Not reported  
 Test Method: Not reported  
 DEC Remarks:

Start DECRemark - 9703488 Prior to Sept, 2004 data translation this spill Lead DEC Field was "ZHITOMIRSKY" TRANSFERRED FROM Y.KRIMGOLD. 8-3-2005 Reviewed report received by NYSDEC on June 13, 2005. The report stated that free product is present in wells MW-2 and MW-4. Petroleum absorbent socks have been replaced several times in both wells. Also, the report stated that in July 2001, laboratory analysis identified the product as kerosene. In addition, the report stated that the most likely off-site source is the upgradient neighboring property, which was known to have underground storage tanks. A letter was sent to DDC/URS to inform the City that at NYSDEC request, an investigation was performed at the neighboring property (Spill #0130048, 407 Leonard Street). The investigation results showed no signs of contamination and the spill report for that property was closed. Therefore, the Department requested that DDC/URS repeat the fingerprint analysis of the free product in wells MW-2 and MW-4, and investigate alternative sources for the free product contamination. AZ 9-28-2005 Staff received and reviewed a monitoring report from the City's contractor which stated that free product is present in several wells. The reports suggested that the most likely off-site source is the up-gradient neighboring property, which has underground storage tanks. Staff responded that an investigation was performed, at DEC's request, at the neighboring property (Spill #0130048, 407 Leonard Street). The investigation results showed no signs of contamination and the spill report for that property was closed. Staff asked the City to repeat the petroleum fingerprint analysis to help determine the source of the product. This analysis indicated that the product is likely kerosene. Although kerosene tanks were never present at the site, NYFD has practice of mixing kerosene and diesel fuel. There is a diesel AST in the basement of the facility. Staff asked Jane Staten (URS) to investigate the possibility of leakage from the diesel AST into the subsurface through underground lines or other conveyances. AZ 9/26/2006 The site was transferred from URS to Greyhawk on January 1, 2006. In July 2006 Greyhawk reported that due to the lack of documentation from the previous CM, Roux performed a reconnaissance visit to the site. Eight of nine monitoring wells were located and gauged. MW-08 was probably destroyed during ongoing construction activities at the neighboring property. MW-04 continues to contain free product at 0.16'. Absorbent socks in wells MW-04 and MW-02 were replaced. AZ 12-07-2006 Staff received and reviewed a monitoring reports from Roux dated September 22 and November 20, 2006. November report states that Gw sampling was not conducted for April through June 2006 because Greyhawk mistakenly considered the spill closed. Free phase (kerosene) was detected in MW-02(0.03') and MW-04(0.23') during July-September quarterly monitoring event. MW-08 could not be located. Roux recommended reduce frequency of gw sampling and reporting from quarterly to semi-annual since dissolved phase remains only in MW-09, continue quarterly gaging of wells, continue using absorbent socks, conduct additional investigation to determine potential sources of kerosene product (work plan will be submitted to DEC), attempt to locate MW-08. DEC concurred. MW-08 should be located or replaced. AZ 12/22/2006 At the meeting with DDC/Greyhawk on 12/12/2006 DEC inquired about the remedial progress at this site. Greyhawk will advance a few borings to resolve this issue. They will

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

ENGINE COMPANY 229 (Continued)

S102619299

Remarks: submit a work plan. AZ END DECRemark - 9703488  
Start CallerRemark - 9703488 DURING TANK CLOSURE - SOIL SAMPLE HAS BEEN TAKEN  
AND THEY RECIEVED POSITIVE PID ON ONE SAMPLE END CallerRemark - 9703488

HIST LTANKS:

Region of Spill: 2  
Spill Number: 9703488  
Investigator: KRIMGOLD  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 06/20/1997  
Spill Time: 10:00  
Reported to Department Date: 06/20/97  
Reported to Department Time: 10:37  
SWIS: 61  
Spiller Contact: LT MOLINARO  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Name: ENGINE COMPANY 229  
Spiller Address: 75 RICHARDSON ST  
Spiller City,St,Zip: BROOKLYN  
Facility Contact: LT MOLINARO  
Facility Phone: Not reported  
Facility Extention: Not reported  
Spill Cause: Tank Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Non Commercial/Industrial  
Spill Notifier: Other  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: True  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 06/20/97  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 06/23/97  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**ENGINE COMPANY 229 (Continued)**

**S102619299**

Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: GASOLINE  
 Class Type: GASOLINE  
 Times Material Entry In File: 21329  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: Not reported  
 Spill Cause: DURING TANK CLOSURE - SOIL SAMPLE HAS BEEN TAKEN AND THEY RECIEVED POSITIVE  
 PID ON ONE SAMPLE

**H42  
 ENE  
 1/8-1/4  
 994 ft.**

**FDNY ENGINE 229 / LADDER 146  
 75 RICHARDSON STREET  
 BROOKLYN, NY 11211**

**AST U003178517  
 HIST AST N/A  
 HIST UST**

**Site 6 of 6 in cluster H**

**Relative:  
 Lower**

AST:

**Actual:  
 15 ft.**

Facility ID: 2-600510  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Aboveground - in contact with soil  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: 12/01/97  
 Capacity Gallons: 2000  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Aboveground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: Vent Whistle  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**FDNY ENGINE 229 / LADDER 146 (Continued)**

**U003178517**

Date Tank Closed:	12/01/97
AST_PBS_FAC:	
Facility Id:	2-600510
Expiration Date:	03/16/99
Renewal Date:	/ /
Total Capacity:	550
Facility Type:	Not reported
Mailing Company:	F.D.N.Y.
Mailing Title:	Not reported
Mailing Contact:	MIKHAIL ALTSHILER
Mailing Address:	250 LIVINGSTON STREET
Mailing Address 2:	Not reported
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip Code:	11211
Mailing Phone No:	(718) 403-1580
Mailing Email:	Not reported
Owner Title:	Not reported
Owner Name:	Not reported
Owner Address:	250 LIVINGSTON STREET
Owner Address 2:	Not reported
Owner State:	NY
Owner Zip Code:	11211
Owner Phone:	(718) 403-1580
Owner Company:	F.D.N.Y.
Emergency Contact:	F.D.N.Y.
Emergency Phone:	(718) 403-1580
Operator:	COMPANY OFFICER
Operator Phone:	(718) 965-8229
Owner City:	BROOKLYN
Owner Sub Type:	Local Government
Facility ID:	2-600510
Program Type:	PBS
Tank Number:	003
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Aboveground on crib, rack, or cradle
Tank Status:	In Service
Active Status:	Active
Install Date:	12/01/97
Capacity Gallons:	550
Material Name:	Diesel
Percentage:	100
Tank Type Name:	Steel/Carbon Steel/Iron
Tank Internal Protection:	None
Tank Internal Protection 1:	Painted/Asphalt Coating
Tank Internal Protection 2:	Not reported
Pipe Location Name:	Aboveground/Underground Combination
Pipe Type Name:	Steel/Carbon Steel/Iron
Pipe External Protection 1:	Jacketed
Pipe External Protection 2:	Not reported
Tank Secondary Containment 1:	Diking (Aboveground)
Tank Secondary Containment 2:	Not reported
Pipe Secondary Containment:	Not reported
Tank Leak Detection 1:	In-Tank System (ATG)
Tank Leak Detection 2:	Other

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**FDNY ENGINE 229 / LADDER 146 (Continued)**

**U003178517**

Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: Automatic Shut-Off  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Catch Basin  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: / /

**AST\_PBS\_FAC:**

Facility Id: 2-600510  
 Expiration Date: 03/16/99  
 Renewal Date: / /  
 Total Capacity: 550  
 Facility Type: Not reported  
 Mailing Company: F.D.N.Y.  
 Mailing Title: Not reported  
 Mailing Contact: MIKHAIL ALTSHILER  
 Mailing Address: 250 LIVINGSTON STREET  
 Mailing Address 2: Not reported  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip Code: 11211  
 Mailing Phone No: (718) 403-1580  
 Mailing Email: Not reported  
 Owner Title: Not reported  
 Owner Name: Not reported  
 Owner Address: 250 LIVINGSTON STREET  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11211  
 Owner Phone: (718) 403-1580  
 Owner Company: F.D.N.Y.  
 Emergency Contact: F.D.N.Y.  
 Emergency Phone: (718) 403-1580  
 Operator: COMPANY OFFICER  
 Operator Phone: (718) 965-8229  
 Owner City: BROOKLYN  
 Owner Sub Type: Local Government

**HIST AST:**

PBS Number: 2-600510  
 Tank Location: ABOVEGROUND  
 Tank ID: 001  
 Tank Status: 3  
 Install Date: 19971201  
 Capacity (Gal): 2000  
 Product Stored: 3  
 Tank Type: Steel/carbon steel  
 Tank Internal: 0  
 Tank External: 00  
 Pipe Location: Aboveground  
 Pipe Type: STEEL/IRON  
 Pipe Internal: None  
 Pipe External: 0

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

FDNY ENGINE 229 / LADDER 146 (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U003178517

Tank Containment: None  
Leak Detection: 0  
Overfill Protection: 6  
Dispenser Method: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: 12/01/1997  
Test Method: Not reported  
Deleted: False  
Updated: True  
SPDES Number: Not reported  
Latitude: Not reported  
Longitude: Not reported  
SWIS Code: 6101  
Operator: COMPANY OFFICER  
Facility Phone: (718) 965-8229  
Facility Addr2: 75 RICHARDSON STREET  
Facility Type: OTHER  
Emergency: F.D.N.Y.  
Emergency Tel: (718) 403-1580  
Old PBSNO: Not reported  
Date Inspected: Not reported  
Inspector: Not reported  
Result of Inspection: Not reported  
Owner Name: F.D.N.Y.  
Owner Address: 250 LIVINGSTON STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Federal ID: Not reported  
Owner Tel: (718) 403-1580  
Owner Type: Local Government  
Owner Subtype: Not reported  
Mailing Contact: MIKHAIL ALTSHILER  
Mailing Name: F.D.N.Y.  
Mailing Address: 250 LIVINGSTON STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Telephone: (718) 403-1580  
Owner Mark: Second Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.  
Certification Flag: False  
Certification Date: 05/27/1997  
Expiration: 03/16/1999  
Renew Flag: False  
Renew Date: Not reported  
Total Capacity: 550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: Minor Data Missing  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City Code: 01  
Region: 2

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**FDNY ENGINE 229 / LADDER 146 (Continued)**

**U003178517**

PBS Number: 2-600510  
Tank Location: ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE  
Tank ID: 003  
Tank Status: 1  
Install Date: 19971201  
Capacity (Gal): 550  
Product Stored: 6  
Tank Type: Steel/carbon steel  
Tank Internal: 0  
Tank External: 01  
Pipe Location: Aboveground/Underground Combination  
Pipe Type: STEEL/IRON  
Pipe Internal: None  
Pipe External: 05  
Tank Containment: Excavation/Tranch Liner  
Leak Detection: 49  
Overfill Protection: 35  
Dispenser Method: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
SPDES Number: Not reported  
Latitude: Not reported  
Longitude: Not reported  
SWIS Code: 6101  
Operator: COMPANY OFFICER  
Facility Phone: (718) 965-8229  
Facility Addr2: 75 RICHARDSON STREET  
Facility Type: OTHER  
Emergency: F.D.N.Y.  
Emergency Tel: (718) 403-1580  
Old PBSNO: Not reported  
Date Inspected: Not reported  
Inspector: Not reported  
Result of Inspection: Not reported  
Owner Name: F.D.N.Y.  
Owner Address: 250 LIVINGSTON STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Federal ID: Not reported  
Owner Tel: (718) 403-1580  
Owner Type: Local Government  
Owner Subtype: Not reported  
Mailing Contact: MIKHAIL ALTSHILER  
Mailing Name: F.D.N.Y.  
Mailing Address: 250 LIVINGSTON STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Telephone: (718) 403-1580  
Owner Mark: Second Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.  
Certification Flag: False  
Certification Date: 05/27/1997

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EPA ID Number  
EDR ID Number

**FDNY ENGINE 229 / LADDER 146 (Continued)**

**U003178517**

Expiration: 03/16/1999  
Renew Flag: False  
Renew Date: Not reported  
Total Capacity: 550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: Minor Data Missing  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City Code: 01  
Region: 2

**HIST UST:**

PBS Number: 2-600510  
SPDES Number: Not reported  
Emergency Contact: F.D.N.Y.  
Emergency Telephone: (718) 403-1580  
Operator: COMPANY OFFICER  
Operator Telephone: (718) 965-8229  
Owner Name: F.D.N.Y.  
Owner Address: 250 LIVINGSTON STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 403-1580  
Owner Type: Local Government  
Owner Subtype: Not reported  
Mailing Name: F.D.N.Y.  
Mailing Address: 250 LIVINGSTON STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: MIKHAIL ALTSHILER  
Mailing Telephone: (718) 403-1580  
Owner Mark: Second Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.  
Facility Addr2: 75 RICHARDSON STREET  
Tank Id: 002  
Tank Location: UNDERGROUND  
Install Date: 19970501  
Capacity (gals): 275  
Product Stored: LEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: Not reported  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Not reported  
Leak Detection: Not reported  
Overfill Prot: Not reported  
Dispenser: Not reported  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**FDNY ENGINE 229 / LADDER 146 (Continued)**

**U003178517**

Date Closed: 05/01/1997  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 05/27/1997  
Expiration Date: 03/16/1999  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: Minor Data Missing  
Tank Screen: No Missing Data  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

**I43  
WNW  
1/8-1/4  
995 ft.**

**ATELIER VIOLLET  
505 DRIGGS AVE  
BROOKLYN, NY 11211**

**RCRA-SQG 1006810539  
NYR000113456**

**Relative:  
Higher**

**Site 2 of 2 in cluster I**

RCRAInfo:  
Owner: ATELIER VIOLLET  
(718) 782-1727  
EPA ID: NYR000113456  
Contact: JEAN PAUL VIOLLET  
(718) 782-1727  
Classification: Small Quantity Generator  
TSD Activities: Not reported  
Violation Status: No violations found

**Actual:  
17 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**J44**  
**SSW**  
**1/8-1/4**  
**1002 ft.**

**SHWS** **S106780917**  
**N/A**

**BQE/ANSBACHER COLOR & DYE FACTORY**  
**MEEKER AVENUE**  
**BROOKLYN, NY**

**Site 1 of 2 in cluster J**

**Relative:**  
**Lower**

SHWS:

**Actual:**  
**15 ft.**

Program: HW  
 Site Code: 55913  
 Classification: DOES NOT PRESENT A SIGNIFICANT THREAT TO THE PUBLIC HEALTH OR THE ENVIRONMENT - ACTION MAY BE DEFERRED.  
 Region: 2  
 Acres: 0.6  
 HW Code: 224016  
 Record Add: 1999-11-18 12:00:00  
 Record Upd: 2005-01-03 11:56:00  
 Updated By: JAAVERSA  
 Site Description:

This site lies underneath the elevated Brooklyn - Queens Expressway (I-278) along Meeker Avenue between Metropolitan and Union Avenues in the Williamsburg Section of Brooklyn. It is believed that during the construction of the BQE, waste material and debris from the former Ansbacher Color & Dye Factory may have been used as fill material in the project area. A Phase II - type investigation was conducted by the New York State Department of Transportation in 1988. The investigation found hazardous levels of arsenic and lead in the soil and elevated levels of arsenic, lead and cyanide in the groundwater. During the reconstruction of the BQE in the early 1990s, the NYSDOT completed an IRM (soil removal) within the project's right-of way. The remaining contaminated soil is located beneath asphalt and concrete. A Preliminary Site Assessment was completed during the summer of 1999 to evaluate the areas outside the BQE footprint. The sampling results indicate that the subsurface soils within the footprint of the former Ansbacher Plant contain elevated levels of arsenic, lead, and mercury. The groundwater in this area is also contaminated with these metals, but the contaminated groundwater has not migrated significantly beyond the footprint of the former factory.

Environmental Problems: The primary contaminants of concern at this site are arsenic, lead, mercury and cyanide. Investigations indicate that the subsurface soils within the footprint of the former Ansbacher Plant contain elevated levels of arsenic, lead, and mercury. The groundwater in this area is also contaminated with these metals. The site does not constitute a significant threat to the environment as the contaminated soil is covered by existing layers of asphalt and concrete, and the contaminated groundwater has not migrated significantly beyond the footprint of the former factory.

Health Problems Assesment: Soil with residual arsenic and lead contamination remain under the BQE and is covered with several layers of concrete and asphalt. Contaminated soil also underlies several on-site buildings formerly used by Ansbacher. Contaminated groundwater is not used if any, in buildings formerly used by Ansbacher. Off-site sampling of surface soils from residential yards adjacent to the site indicated the presence of metals (particularly arsenic and lead) at concentrations above the range of concentrations typically encountered in urban neighborhoods. However, the exact source of the metals in the soils could not be determined from the data collected. The NYSDOH gave the residents advice on how to minimize their exposure to these surface soil contaminants.

Dump: False  
 Structure: False  
 Lagoon: False  
 Landfill: True  
 Pond: False  
 Disp Start: unknown  
 Disp Term: unknown

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BQE/ANSBACHER COLOR & DYE FACTORY (Continued)**

**S106780917**

Lat/Long: 40:42:52:0 / 73:57:12:0  
Dell: F  
Record Add: 11/18/99  
Record Upd: 11/18/99  
Updated By: INITIAL  
Own Op: 03  
Sub Type: NNN  
Owner Name: Not reported  
Owner Company: ANSBACHER COLOR & DYE FACTORY  
Owner Address: Not reported  
Owner Addr2: Not reported  
Owner City,St,Zip: ZZ  
Owner Country: United States of America  
Own Op: 01  
Sub Type: B99  
Owner Name: Not reported  
Owner Company: NYS Department of Transportation  
Owner Address: STATE CAMPUS, BUILDING 5  
Owner Addr2: Not reported  
Owner City,St,Zip: ALBANY, NY 12232  
Owner Country: United States of America  
Own Op: 01  
Sub Type: NNN  
Owner Name: Not reported  
Owner Company: NYS Department of Transportation  
Owner Address: State Campus - Building 5  
Owner Addr2: Not reported  
Owner City,St,Zip: Albany, NY 12232  
Owner Country: United States of America  
Own Op: 04  
Sub Type: NNN  
Owner Name: Not reported  
Owner Company: Ansbacher Color & Dye Factory  
Owner Address: Meeker Avenue  
Owner Addr2: Not reported  
Owner City,St,Zip: Brooklyn, NY 11211  
Owner Country: United States of America  
Own Op: 04  
Sub Type: B99  
Owner Name: Not reported  
Owner Company: ANSBACHER COLOR & DYE FACTORY  
Owner Address: MEEKER AVENUE  
Owner Addr2: Not reported  
Owner City,St,Zip: BROOKLYN, NY  
Owner Country: United States of America  
HW Code: 224016  
Waste Type: ARSENIC  
Waste Quantity: UNKNOWN  
Waste Code: Not reported  
HW Code: 224016  
Waste Type: LEAD  
Waste Quantity: UNKNOWN  
Waste Code: Not reported  
Crossref ID: Not reported  
Cross Ref Type Code: Not reported  
Cross Ref Type: Not reported  
Record Added Date: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**BQE/ANSBACHER COLOR & DYE FACTORY (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

Record Updated: Not reported  
 Updated By: Not reported

**S106780917**

**K45  
 SW  
 1/8-1/4  
 1033 ft.**

**NYC BD OF ED - H VAN ARSDALE HS  
 257 N 6TH ST  
 BROOKLYN, NY 11211**

**RCRA-SQG  
 FINDS  
 NY MANIFEST**

**1000104050  
 NYD982797052**

**Site 1 of 2 in cluster K**

**Relative:  
 Lower**

**RCRAInfo:**

Owner: NYC BD OF ED  
 (212) 555-1212  
 EPA ID: NYD982797052  
 Contact: Not reported  
 Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**Actual:  
 14 ft.**

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**NY MANIFEST:**

Document ID: NYB2179962  
 Manifest Status: Completed copy  
 Trans1 State ID: MA7222NY  
 Trans2 State ID: Not reported  
 Generator Ship Date: 891107  
 Trans1 Recv Date: 891107  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 891107  
 Part A Recv Date: 891117  
 Part B Recv Date: 891129  
 Generator EPA ID: NYD982797052  
 Trans1 EPA ID: NYD049178296  
 Trans2 EPA ID: Not reported  
 TSDF ID: NYD049178296  
 Waste Code: F003 - UNKNOWN  
 Quantity: 00050  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DM - Metal drums, barrels  
 Handling Method: B Incineration, heat recovery, burning.  
 Specific Gravity: 100  
 Waste Code: Not reported  
 Quantity: 00020  
 Units: P - Pounds

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYC BD OF ED - H VAN ARSDALE HS (Continued)

1000104050

Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 100  
Waste Code: Not reported  
Quantity: 00350  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 100  
Waste Code: Not reported  
Quantity: 00500  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 100  
Year: 89  
Facility Type: Generator  
EPA ID: NYD982797052  
Facility Name: H VAN ARSDALE HS  
Facility Address: 257 N 6TH ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: NEW YORK CITY BOARD OF EDUCATION  
Mailing Contact: MR CARDELLO  
Mailing Address: H.VAN ARSDALE HS 28-11 QUEENS  
Mailing City: PLAZA NO.RM905 LONG IS CY  
Mailing State: NY  
Mailing Zip: 11101  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-387-7658

Document ID: NYB2180790  
Manifest Status: Completed copy  
Trans1 State ID: GW8136NY  
Trans2 State ID: Not reported  
Generator Ship Date: 891211  
Trans1 Recv Date: 891211  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 891211  
Part A Recv Date: 891219  
Part B Recv Date: 891227  
Generator EPA ID: NYD982797052  
Trans1 EPA ID: NYD049178296  
Trans2 EPA ID: Not reported  
TSD ID: NYD049178296  
Waste Code: F003 - UNKNOWN  
Quantity: 00006  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYC BD OF ED - H VAN ARSDALE HS (Continued)**

**1000104050**

Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00026
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00060
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00007
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00014
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	D002 - NON-LISTED CORROSIVE WASTES
Quantity:	00060
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Year:	89
Facility Type:	Generator
EPA ID:	NYD982797052
Facility Name:	H VAN ARSDALE HS
Facility Address:	257 N 6TH ST
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	NEW YORK CITY BOARD OF EDUCATION
Mailing Contact:	MR CARDELLO
Mailing Address:	H.VAN ARSDALE HS 28-11 QUEENS
Mailing City:	PLAZA NO.RM905 LONG IS CY
Mailing State:	NY
Mailing Zip:	11101
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-387-7658
Document ID:	NYB2180790
Manifest Status:	Completed copy

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NYC BD OF ED - H VAN ARSDALE HS (Continued)**

**1000104050**

Trans1 State ID: GW8136NY  
 Trans2 State ID: Not reported  
 Generator Ship Date: 891211  
 Trans1 Recv Date: 891211  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 891211  
 Part A Recv Date: 891219  
 Part B Recv Date: 891227  
 Generator EPA ID: NYD982797052  
 Trans1 EPA ID: NYD049178296  
 Trans2 EPA ID: Not reported  
 TSDF ID: NYD049178296  
 Waste Code: U188 - PHENOL  
 Quantity: 00300  
 Units: P - Pounds  
 Number of Containers: 002  
 Container Type: DM - Metal drums, barrels  
 Handling Method: T Chemical, physical, or biological treatment.  
 Specific Gravity: 100  
 Waste Code: Not reported  
 Quantity: 00010  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DM - Metal drums, barrels  
 Handling Method: B Incineration, heat recovery, burning.  
 Specific Gravity: 100  
 Year: 89  
 Facility Type: Generator  
 EPA ID: NYD982797052  
 Facility Name: H VAN ARDALE HS  
 Facility Address: 257 N 6TH ST  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NEW YORK CITY BOARD OF EDUCATION  
 Mailing Contact: MR CARDELLO  
 Mailing Address: H.VAN ARSDALE HS 28-11 QUEENS  
 Mailing City: PLAZA NO.RM905 LONG IS CY  
 Mailing State: NY  
 Mailing Zip: 11101  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 718-387-7658

**K46  
 SW  
 1/8-1/4  
 1033 ft.**

**H. VAN ARSDALE H. S. - K650  
 257 NORTH 6TH STREET  
 BROOKLYN, NY 11211**

**HIST UST U001839931  
 N/A**

**Site 2 of 2 in cluster K**

**Relative:  
 Lower**

HIST UST:  
 PBS Number: 2-355348  
 SPDES Number: Not reported  
 Emergency Contact: SCHOOL SAFETY  
 Emergency Telephone: (212) 979-3300  
 Operator: PLANT OPERATION  
 Operator Telephone: (718) 391-6000

**Actual:  
 14 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

H. VAN ARSDALE H. S. - K650 (Continued)

U001839931

Owner Name: N.Y.C. BOARD OF EDUCATION  
Owner Address: 28-11 QUEENS PLAZA NORTH  
Owner City,St,Zip: LONG ISLAND CITY, NY 11101  
Owner Telephone: (718) 391-6832  
Owner Type: Local Government  
Owner Subtype: Not reported  
Mailing Name: OFFICE OF BUILDING SERVICES  
Mailing Address: 28-11 QUEENS PLAZA NORTH  
Mailing Address 2: 5TH FLOOR  
Mailing City,St,Zip: LONG ISLAND CITY, NY 11101  
Mailing Contact: FRANK CARDELLO NTROL  
Mailing Telephone: (718) 391-6832  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 257 NORTH 6TH STREET  
Tank Id: 001  
Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
Install Date: Not reported  
Capacity (gals): 10000  
Product Stored: NOS 1,2, OR 4 FUEL OIL  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Painted/Asphalt Coating  
Pipe Location: Aboveground/Underground Combination  
Pipe Type: STEEL/IRON  
Pipe Internal: None  
Pipe External: Painted/Asphalt Coating  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Product Level Gauge  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: SCHOOL  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 05/15/2000  
Expiration Date: 06/28/2003  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 20000  
FAMT: True  
Facility Screen: No Missing Data

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**H. VAN ARSDALE H. S. - K650 (Continued)**

**U001839931**

<p>Owner Screen:          Tank Screen:          Dead Letter:          CBS Number:          Town or City:          County Code:          Town or City:          Region:</p> <p>PBS Number:          SPDES Number:          Emergency Contact:          Emergency Telephone:          Operator:          Operator Telephone:          Owner Name:          Owner Address:          Owner City,St,Zip:          Owner Telephone:          Owner Type:          Owner Subtype:          Mailing Name:          Mailing Address:          Mailing Address 2:          Mailing City,St,Zip:          Mailing Contact:          Mailing Telephone:          Owner Mark:          Facility Status:</p> <p>Facility Addr2:          Tank Id:          Tank Location:          Install Date:          Capacity (gals):          Product Stored:          Tank Type:          Tank Internal:          Tank External:          Pipe Location:          Pipe Type:          Pipe Internal:          Pipe External:          Second Containment:          Leak Detection:          Overfill Prot:          Dispenser:          Date Tested:          Next Test Date:          Missing Data for Tank:          Date Closed:          Test Method:          Deleted:          Updated:          Lat/long:          Lat/long:</p>	<p>Minor Data Missing          Minor Data Missing          False          Not reported          NEW YORK CITY          61          01          2</p> <p>2-355348          Not reported          SCHOOL SAFETY          (212) 979-3300          PLANT OPERATION          (718) 391-6000          N.Y.C. BOARD OF EDUCATION          28-11 QUEENS PLAZA NORTH          LONG ISLAND CITY, NY 11101          (718) 391-6832          Local Government          Not reported          OFFICE OF BUILDING SERVICES          28-11 QUEENS PLAZA NORTH          5TH FLOOR          LONG ISLAND CITY, NY 11101          FRANK CARDELLO            NTRLO          (718) 391-6832          First Owner          1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.          257 NORTH 6TH STREET          002          UNDERGROUND, VAULTED, WITH ACCESS          Not reported          10000          NOS 1,2, OR 4 FUEL OIL          Steel/carbon steel          Not reported          Painted/Asphalt Coating          Aboveground/Underground Combination          STEEL/IRON          None          Painted/Asphalt Coating          Diking          None          Product Level Gauge          Suction          Not reported          Not reported          Minor Data Missing          Not reported          Not reported          Not reported          False          True          Not reported          Not reported</p>
--	---

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**H. VAN ARSDALE H. S. - K650 (Continued)**

**U001839931**

SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: SCHOOL  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 05/15/2000  
 Expiration Date: 06/28/2003  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 20000  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: Minor Data Missing  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**47  
 ENE  
 1/8-1/4  
 1074 ft.**

**ALL BORO  
 391 LEONARD STREET  
 BROOKLYN, NY 11211**

**AST A100292993  
 N/A**

**Relative:  
 Equal**

AST:

**Actual:  
 16 ft.**

Facility ID: 2-609713  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Aboveground - in contact with soil  
 Tank Status: In Service  
 Active Status: Active  
 Install Date: / /  
 Capacity Gallons: 3000  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: Fiberglass Liner (FRP)  
 Tank Internal Protection 1: Fiberglass  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Aboveground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: Original Sacrificial Anode  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: Vent Whistle

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**ALL BORO (Continued)**

**A100292993**

Type Of Overfill Prevention 2:    Not reported  
 Dispenser Method:                    None  
 Spill Prevention:                      None  
 Tightness Test Method:              Testing Not Required  
 Date Tested:                            / /  
 Next Test Date:                        / /  
 Date Tank Closed:                     / /

AST\_PBS\_FAC:

Facility Id:                              2-609713  
 Expiration Date:                       09/30/09  
 Renewal Date:                          / /  
 Total Capacity:                        3000  
 Facility Type:                           Not reported  
 Mailing Company:                      ALL BORO  
 Mailing Title:                          Not reported  
 Mailing Contact:                       MICHAEL RICATTO  
 Mailing Address:                       391 LEONARD STREET  
 Mailing Address 2:                     Not reported  
 Mailing City:                            BROOKLYN  
 Mailing State:                          NY  
 Mailing Zip Code:                      11211  
 Mailing Phone No:                      (718) 387-0702  
 Mailing Email:                         Not reported  
 Owner Title:                            PRESIDENT  
 Owner Name:                            MICHAEL RICATTO  
 Owner Address:                         391 LEONARD STREET  
 Owner Address 2:                       Not reported  
 Owner State:                            NY  
 Owner Zip Code:                        11211  
 Owner Phone:                            (718) 387-0702  
 Owner Company:                        MICHAEL RICATTO  
 Emergency Contact:                    MICHAEL RICATTO  
 Emergency Phone:                      (718) 387-0702  
 Operator:                                MICHAEL RICATTO  
 Operator Phone:                        (718) 387-0702  
 Owner City:                              BROOKLYN  
 Owner Sub Type:                        Corporate or Commercial

**L48**  
**South**  
**1/8-1/4**  
**1080 ft.**

**NYCT - METROPOLITAN AVE STATION (G LINE)**  
**METROPOLITAN & UNION AVE**  
**BROOKLYN, NY 11211**

**FINDS 1001224431**  
**RCRA-LQG NYR000056481**  
**NY MANIFEST**  
**NJ MANIFEST**

**Relative:**  
**Lower**

**Site 1 of 4 in cluster L**

FINDS:  
 Other Pertinent Environmental Activity Identified at Site

**Actual:**  
**13 ft.**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)**

**1001224431**

RCRAInfo:

Owner: MTA NEW YORK CITY TRANSIT  
(212) 307-6010  
EPA ID: NYR000056481  
Contact: WILLIAM JEHLE  
(212) 307-6010

Classification: Large Quantity Generator  
TSDF Activities: Not reported

Violation Status: No violations found

NY MANIFEST:

Document ID: NJA5045170  
Manifest Status: Not reported  
Trans1 State ID: NYD046765574  
Trans2 State ID: Not reported  
Generator Ship Date: 09/08/2003  
Trans1 Recv Date: 09/08/2003  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 09/08/2003  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NJD991291105  
Trans2 EPA ID: Not reported  
TSDF ID: 08424  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 02500  
Units: P - Pounds  
Number of Containers: 009  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 03  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5202509  
Manifest Status: Not reported  
Trans1 State ID: S8424  
Trans2 State ID: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)**

**1001224431**

Generator Ship Date: 10/14/2004  
Trans1 Recv Date: 10/14/2004  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/14/2004  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NYD046765574  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 01500  
Units: P - Pounds  
Number of Containers: 005  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 04  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5006931  
Manifest Status: Not reported  
Trans1 State ID: 06993  
Trans2 State ID: Not reported  
Generator Ship Date: 03/05/2004  
Trans1 Recv Date: 03/05/2004  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 03/05/2004  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00750  
Units: P - Pounds  
Number of Containers: 005  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)

1001224431

Year: 04  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5104797  
Manifest Status: Not reported  
Trans1 State ID: 06993  
Trans2 State ID: Not reported  
Generator Ship Date: 06/02/2004  
Trans1 Recv Date: 06/02/2004  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 06/02/2004  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 02000  
Units: P - Pounds  
Number of Containers: 005  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00

Year: 04  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)

1001224431

Mailing Phone: 646-252-3500

Document ID: NJA5028164  
Manifest Status: Not reported  
Trans1 State ID: 08424  
Trans2 State ID: Not reported  
Generator Ship Date: 09/09/2004  
Trans1 Recv Date: 09/09/2004  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 09/09/2004  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NYD046765574  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00700  
Units: P - Pounds  
Number of Containers: 006  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 04  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5061466  
Manifest Status: Not reported  
Trans1 State ID: 06993  
Trans2 State ID: Not reported  
Generator Ship Date: 02/09/2004  
Trans1 Recv Date: 02/09/2004  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 02/09/2004  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NJD980772768  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291  
Waste Code: D008 - LEAD 5.0 MG/L TCLP

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)

1001224431

Quantity: 00800  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 04  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5025288  
Manifest Status: Not reported  
Trans1 State ID: 08424  
Trans2 State ID: Not reported  
Generator Ship Date: 08/05/2004  
Trans1 Recv Date: 08/05/2004  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/05/2004  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NYD046765574  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00150  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 04  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)

1001224431

Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5222859  
Manifest Status: Not reported  
Trans1 State ID: S8424  
Trans2 State ID: Not reported  
Generator Ship Date: 12/10/2004  
Trans1 Recv Date: 12/10/2004  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 12/10/2004  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: NYD046765574  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 01000  
Units: P - Pounds  
Number of Containers: 004  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 04  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5268326  
Manifest Status: Not reported  
Trans1 State ID: NYD046765574  
Trans2 State ID: Not reported  
Generator Ship Date: 08/05/2005  
Trans1 Recv Date: 08/05/2005  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/08/2005  
Part A Recv Date: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)**

**1001224431**

Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: S8424  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: Not reported  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

Document ID: NJA5226808  
Manifest Status: Not reported  
Trans1 State ID: NYD046765574  
Trans2 State ID: Not reported  
Generator Ship Date: 03/11/2005  
Trans1 Recv Date: 03/11/2005  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 03/11/2005  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000056481  
Trans1 EPA ID: S8424  
Trans2 EPA ID: Not reported  
TSD ID: NJD991291105  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00900  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: Not reported  
Facility Type: Generator  
EPA ID: NYR000056481  
Facility Name: NYCTA METROPOLITAN AVE STATION  
Facility Address: METROPOLITAN AVE & UNION AVE

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)**

**1001224431**

Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: USA  
County: KINGS  
Mailing Name: NYCTA-CPM ENVIRONMENTAL ENGINEERING  
Mailing Contact: N/S  
Mailing Address: 2 BROADWAY 2ND FL  
Mailing City: NEW YORK  
Mailing State: NY  
Mailing Zip: 10004  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 646-252-3500

**NJ MANIFEST:**

Manifest Code: NJA5226808  
EPA ID: NYR000056481  
Date Shipped: 20050311  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NYD046765574  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050311  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050311  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 04250525  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5268326  
EPA ID: NYR000056481  
Date Shipped: 20050805  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NYD046765574  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050805  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050808  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 09060521  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)

1001224431

Manifest Code: NJA5286888  
EPA ID: NYR000056481  
Date Shipped: 20051230  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NYD046765574  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 051230  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 051230  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 02230622  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5061466  
EPA ID: NYR000056481  
Date Shipped: 20040209  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJD980772768  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040209  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040209  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 03190421  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5006931  
EPA ID: NYR000056481  
Date Shipped: 20040305  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJD980772768  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040305  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040305  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 04020421  
Reference Manifest Number: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)

1001224431

Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5104797  
EPA ID: NYR000056481  
Date Shipped: 20040602  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NJD980772768  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040602  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040602  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 06170425  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5025288  
EPA ID: NYR000056481  
Date Shipped: 20040805  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NYD046765574  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040805  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040805  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 08310421  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5028164  
EPA ID: NYR000056481  
Date Shipped: 20040909  
TSDf EPA ID: NJD991291105

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)

1001224431

Transporter EPA ID: NYD046765574  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040909  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040909  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 10150422  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5202509  
EPA ID: NYR000056481  
Date Shipped: 20041014  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NYD046765574  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 041014  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 041014  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 12060425  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5222859  
EPA ID: NYR000056481  
Date Shipped: 20041210  
TSDf EPA ID: NJD991291105  
Transporter EPA ID: NYD046765574  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 041210  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 041210  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 01240525  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**NYCT - METROPOLITAN AVE STATION (G LINE) (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

Unit: Not reported  
 Hand Code: Not reported

**1001224431**

**L49  
 South  
 1/8-1/4  
 1081 ft.**

**522 METROPOLITAN AVE  
 522 METROPOLITAN AVE  
 BROOKLYN, NY**

**LTANKS S102673301  
 HIST LTANKS N/A**

**Site 2 of 4 in cluster L**

**Relative:  
 Lower**

**LTANKS:**

**Actual:  
 13 ft.**

Site ID: 127377  
 Spill Date: 02/29/96  
 Facility Addr2: Not reported  
 Facility ID: 9515443  
 Program Number: 9515443  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: TOMASELLO  
 Referred To: Not reported  
 Reported to Dept: 03/01/96  
 CID: 14  
 Spill Cause: Tank Overfill  
 Water Affected: Not reported  
 Spill Source: Private Dwelling  
 Spill Notifier: Local Agency  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 02/24/03  
 Remediation Phase: 0  
 Date Entered In Computer: 03/01/96  
 Spill Record Last Update: 02/24/03  
 Spiller Name: JACOB  
 Spiller Company: TERMINAL OIL COMPANY  
 Spiller Phone: (718) 369-2825  
 Spiller Extention: Not reported  
 Spiller Address: Not reported  
 Spiller City,St,Zip: ZZ  
 Spiller County: 001  
 Spiller Contact: MS CASTANO  
 Spiller Phone: (718) 782-4799  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 9515443  
 DER Facility ID: 110011  
 Site ID: 127377  
 Operable Unit ID: 1030089  
 Operable Unit: 01  
 Material ID: 569746  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

522 METROPOLITAN AVE (Continued)

S102673301

Material FA: Petroleum  
Quantity: 300.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 9515443 TANK OVERFILL INTO SOIL - ALTERNATIVE PHONE #  
718-330-3236 MR MUNZO END CallerRemark - 9515443

HIST LTANKS:

Region of Spill: 2  
Spill Number: 9515443  
Investigator: TOMASELLO  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 02/29/1996  
Spill Time: 09:51  
Reported to Department Date: 03/01/96  
Reported to Department Time: 09:48  
SWIS: 61  
Spiller Contact: MS CASTANO  
Spiller Phone: (718) 782-4799  
Spiller Extension: Not reported  
Spiller Name: TERMINAL OIL COMPANY  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Facility Contact: JACOB  
Facility Phone: (718) 369-2825  
Facility Extension: Not reported  
Spill Cause: Tank Overfill  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Private Dwelling  
Spill Notifier: Local Agency  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**522 METROPOLITAN AVE (Continued)**

**S102673301**

Enforcement Date: / /  
 Investigation Complete: / /  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Date Region Sent Summary to Central Office: / /  
 Corrective Action Plan Submitted: / /  
 Date Spill Entered In Computer Data File: 03/01/96  
 Time Spill Entered In Computer Data File: Not reported  
 Spill Record Last Update: 03/26/96  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 300  
 Unkonwn Quantity Spilled: False  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: #2 FUEL OIL  
 Class Type: #2 FUEL OIL  
 Times Material Entry In File: 24464  
 CAS Number: Not reported  
 Last Date: 19941207  
 DEC Remarks: Not reported  
 Spill Cause: TANK OVERFILL INTO SOIL - ALTERNATIVE PHONE 718-330-3236 MR MUNZO

**L50**  
**South**  
**1/8-1/4**  
**1083 ft.**

**524 METROPOLITAN AVE**  
**524 METROPOLITAN AVENUE**  
**BROOKLYN, NY 11211**

**AST A100194112**  
**N/A**

**Site 3 of 4 in cluster L**

**Relative:**  
**Lower**

AST:  
 Facility ID: 2-607066  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Aboveground - in contact with soil  
 Tank Status: In Service  
 Active Status: Active  
 Install Date: / /  
 Capacity Gallons: 4750  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: Jacketed  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Aboveground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: Painted/Asphalt Coating

**Actual:**  
**13 ft.**

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**524 METROPOLITAN AVE (Continued)**

**A100194112**

Pipe External Protection 2:    Not reported  
 Tank Secondary Containment 1: Diking (Aboveground)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment:    Not reported  
 Tank Leak Detection 1:        Impervious Barrier/Concrete Pad (A/G)  
 Tank Leak Detection 2:        Not reported  
 Pipe Leak Detection 1:        Exempt Suction Piping  
 Pipe Leak Detection 2:        Not reported  
 Type Of Overfill Prevention 1: Product Level Gauge (A/G)  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method:            Suction  
 Spill Prevention:              Not reported  
 Tightness Test Method:        Testing Not Required  
 Date Tested:                    / /  
 Next Test Date:                / /  
 Date Tank Closed:             / /

**AST\_PBS\_FAC:**

Facility Id:                    2-607066  
 Expiration Date:              10/03/06  
 Renewal Date:                / /  
 Total Capacity:               4750  
 Facility Type:                 Not reported  
 Mailing Company:             A&F MANAGEMENT CORP.  
 Mailing Title:                 Not reported  
 Mailing Contact:              ALEXANDER KARAS  
 Mailing Address:              PO BOX 3162  
 Mailing Address 2:            Not reported  
 Mailing City:                 LONG ISLAND CITY  
 Mailing State:                NY  
 Mailing Zip Code:             11103  
 Mailing Phone No:            (718) 388-5134  
 Mailing Email:                Not reported  
 Owner Title:                  Not reported  
 Owner Name:                  Not reported  
 Owner Address:                PO BOX 3162  
 Owner Address 2:              Not reported  
 Owner State:                 NY  
 Owner Zip Code:              11103  
 Owner Phone:                 (718) 388-5262  
 Owner Company:              A&F MANAGEMENT CORP.  
 Emergency Contact:         ALEX KARAS  
 Emergency Phone:            (917) 483-1944  
 Operator:                     HARVEY COPELAND  
 Operator Phone:              (718) 388-5134  
 Owner City:                  LONG ISLAND CITY  
 Owner Sub Type:              Corporate or Commercial

**M51  
 SE  
 1/8-1/4  
 1085 ft.**

**TOP HAT CLEANERS  
 592 LORIMER STREET  
 BROOKLYN, NY**

**DRYCLEANERS    S106435477  
 N/A**

**Site 1 of 2 in cluster M**

**Relative:  
 Higher**

**DRYCLEANERS:**  
 Facility ID:    2-6101-00344  
 Region:        KINGS

**Actual:  
 22 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**52**  
**WNW**  
**1/8-1/4**  
**1086 ft.**

**NYNEX**  
**DRIGGS AVE / N 8TH ST**  
**BROOKLYN, NY 11211**

**NY MANIFEST**    **1009233709**  
**N/A**

**Relative:**  
**Higher**

NY MANIFEST:

**Actual:**  
**18 ft.**

Document ID: MIA3014495  
 Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC  
 Trans1 State ID: Not reported  
 Trans2 State ID: Not reported  
 Generator Ship Date: 950324  
 Trans1 Recv Date: 950324  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 950411  
 Part A Recv Date: Not reported  
 Part B Recv Date: 950428  
 Generator EPA ID: NYP000919464  
 Trans1 EPA ID: NYD046765574  
 Trans2 EPA ID: Not reported  
 TSDF ID: MID096963194  
 Waste Code: D008 - LEAD 5.0 MG/L TCLP  
 Quantity: 00900  
 Units: P - Pounds  
 Number of Containers: 003  
 Container Type: DM - Metal drums, barrels  
 Handling Method: L Landfill.  
 Specific Gravity: 100  
 Year: 95  
 Facility Type: Generator  
 EPA ID: NYP000919464  
 Facility Name: NYNEX  
 Facility Address: DRIGGS AVE & N 8TH ST  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NYNEX  
 Mailing Contact: SUSHMITA BISWAS  
 Mailing Address: 221 EAST 37TH STREET  
 Mailing City: NEW YORK  
 Mailing State: NY  
 Mailing Zip: 10016  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 212-338-7126

**M53**  
**SE**  
**1/8-1/4**  
**1092 ft.**

**TOP HAT CLEANERS**  
**592 LORIMER ST**  
**BROOKLYN, NY 11211**

**RCRA-SQG**    **1000116872**  
**FINDS**    **NYD981183247**  
**NY MANIFEST**

Site 2 of 2 in cluster M

**Relative:**  
**Higher**

**Actual:**  
**22 ft.**

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**TOP HAT CLEANERS (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**1000116872**

RCRAInfo:

Owner: KY-SUNG SUNG  
 (212) 555-1212  
 EPA ID: NYD981183247

Contact: Not reported

Classification: Small Quantity Generator  
 TSDF Activities: Not reported

Violation Status: Violations exist

Regulation Violated:	Not reported
Area of Violation:	NYGCE
Date Violation Determined:	03/23/2001
Actual Date Achieved Compliance:	04/12/2001
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	04/05/2001
Penalty Type:	Not reported

There are 1 violation record(s) reported at this site:

Evaluation	Area of Violation
Compliance Evaluation Inspection	NYGCE

Date of  
Compliance  
 20010412

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**NY MANIFEST:**

Document ID: NYA9834715  
 Manifest Status: Completed copy

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

Trans1 State ID: 000000000  
Trans2 State ID: 000000000  
Generator Ship Date: 891212  
Trans1 Recv Date: 891212  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 891212  
Part A Recv Date: 891221  
Part B Recv Date: 891219  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSDF ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 89  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC0138982  
Manifest Status: Completed copy  
Trans1 State ID: 000000000  
Trans2 State ID: 000000000  
Generator Ship Date: 900228  
Trans1 Recv Date: 900228  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 900228  
Part A Recv Date: 900315  
Part B Recv Date: 900313  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSDF ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

Handling Method: R Material recovery of more than 75 percent of the total material.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC0180617  
Manifest Status: Completed copy  
Trans1 State ID: 000000000  
Trans2 State ID: 000000000  
Generator Ship Date: 900330  
Trans1 Recv Date: 900330  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 900330  
Part A Recv Date: 900419  
Part B Recv Date: 900411  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSD ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: R Material recovery of more than 75 percent of the total material.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**TOP HAT CLEANERS (Continued)**

**1000116872**

Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779
Document ID:	NYC0078985
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	900207
Trans1 Recv Date:	900207
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	900207
Part A Recv Date:	900216
Part B Recv Date:	900215
Generator EPA ID:	NYD981183247
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSD ID:	NYD980785760
Waste Code:	F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV
Quantity:	00060
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	90
Facility Type:	Generator
EPA ID:	NYD981183247
Facility Name:	TOP HAT CLNRS
Facility Address:	592 LORIMER ST
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	TOP HAT CLEANERS
Mailing Contact:	Not reported
Mailing Address:	592 LORIMER STREET
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip:	11211
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779
Document ID:	NYC0235956
Manifest Status:	Completed after the designated time period for a TSD to get a copy to the DEC
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	900427
Trans1 Recv Date:	900427
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	900427
Part A Recv Date:	900604
Part B Recv Date:	900510
Generator EPA ID:	NYD981183247
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

TSDF ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC0037168  
Manifest Status: Completed copy  
Trans1 State ID: 000000000  
Trans2 State ID: 000000000  
Generator Ship Date: 900111  
Trans1 Recv Date: 900111  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 900111  
Part A Recv Date: 900117  
Part B Recv Date: 900117  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSDF ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC0307866  
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC  
Trans1 State ID: 000000000  
Trans2 State ID: 000000000  
Generator Ship Date: 900525  
Trans1 Recv Date: 900525  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 900525  
Part A Recv Date: 900712  
Part B Recv Date: 900606  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSDF ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC2035754  
Manifest Status: Completed copy  
Trans1 State ID: HW8207NY  
Trans2 State ID: Not reported  
Generator Ship Date: 930105  
Trans1 Recv Date: 930105  
Trans2 Recv Date: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

TSD Site Recv Date: 930105  
Part A Recv Date: 930113  
Part B Recv Date: 930114  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSD ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 93  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC2188618  
Manifest Status: Completed copy  
Trans1 State ID: HW8207NY  
Trans2 State ID: Not reported  
Generator Ship Date: 930303  
Trans1 Recv Date: 930303  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 930303  
Part A Recv Date: 930315  
Part B Recv Date: 930311  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSD ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 93  
Facility Type: Generator  
EPA ID: NYD981183247

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**TOP HAT CLEANERS (Continued)**

**1000116872**

Facility Name:	TOP HAT CLNRS
Facility Address:	592 LORIMER ST
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	TOP HAT CLEANERS
Mailing Contact:	Not reported
Mailing Address:	592 LORIMER STREET
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip:	11211
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779
Document ID:	NYC2307791
Manifest Status:	Completed copy
Trans1 State ID:	HW8207NY
Trans2 State ID:	Not reported
Generator Ship Date:	930601
Trans1 Recv Date:	930601
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	930601
Part A Recv Date:	930616
Part B Recv Date:	930610
Generator EPA ID:	NYD981183247
Trans1 EPA ID:	ILD984908202
Trans2 EPA ID:	Not reported
TSD ID:	NYD980785760
Waste Code:	F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV
Quantity:	00060
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	93
Facility Type:	Generator
EPA ID:	NYD981183247
Facility Name:	TOP HAT CLNRS
Facility Address:	592 LORIMER ST
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	TOP HAT CLEANERS
Mailing Contact:	Not reported
Mailing Address:	592 LORIMER STREET
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip:	11211
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779
Document ID:	NYC2374593

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

Manifest Status: Completed copy  
Trans1 State ID: HW8207NY  
Trans2 State ID: Not reported  
Generator Ship Date: 930624  
Trans1 Recv Date: 930624  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 930624  
Part A Recv Date: 930702  
Part B Recv Date: 930706  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: Not reported  
TSD ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 93  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC2273073  
Manifest Status: Completed copy  
Trans1 State ID: AM6252NY  
Trans2 State ID: Not reported  
Generator Ship Date: 930429  
Trans1 Recv Date: 930429  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 930429  
Part A Recv Date: 930510  
Part B Recv Date: 930507  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSD ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 93  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC4272682  
Manifest Status: Completed after the designated time period for a TSDf to get a copy to the DEC  
Trans1 State ID: NYGF2859  
Trans2 State ID: Not reported  
Generator Ship Date: 960911  
Trans1 Recv Date: 960911  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 960919  
Part A Recv Date: 960919  
Part B Recv Date: 961015  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: Not reported  
TSDf ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 96  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**TOP HAT CLEANERS (Continued)**

**1000116872**

Mailing Zip:	11211
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779
Document ID:	NYC4337897
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	NYGF2859
Trans2 State ID:	Not reported
Generator Ship Date:	961107
Trans1 Recv Date:	961107
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	961114
Part A Recv Date:	961121
Part B Recv Date:	961204
Generator EPA ID:	NYD981183247
Trans1 EPA ID:	ILD984908202
Trans2 EPA ID:	Not reported
TSDF ID:	OHD980587364
Waste Code:	F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV
Quantity:	00195
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	96
Facility Type:	Generator
EPA ID:	NYD981183247
Facility Name:	TOP HAT CLNRS
Facility Address:	592 LORIMER ST
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	TOP HAT CLEANERS
Mailing Contact:	Not reported
Mailing Address:	592 LORIMER STREET
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip:	11211
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779
Document ID:	NYC0332954
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	900622
Trans1 Recv Date:	900622
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	900622
Part A Recv Date:	900823
Part B Recv Date:	900628
Generator EPA ID:	NYD981183247
Trans1 EPA ID:	ILD051060408

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

Trans2 EPA ID: Not reported  
TSD ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC0439514  
Manifest Status: Completed after the designated time period for a TSD to get a copy to the DEC  
Trans1 State ID: 000000000  
Trans2 State ID: 000000000  
Generator Ship Date: 900816  
Trans1 Recv Date: 900816  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 900816  
Part A Recv Date: 900913  
Part B Recv Date: 900905  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD051060408  
Trans2 EPA ID: Not reported  
TSD ID: NYD980785760  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC3941021  
Manifest Status: Completed copy  
Trans1 State ID: GF2859NY  
Trans2 State ID: Not reported  
Generator Ship Date: 960328  
Trans1 Recv Date: 960328  
Trans2 Recv Date: 960402  
TSD Site Recv Date: 960403  
Part A Recv Date: 960404  
Part B Recv Date: 960416  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: ARD981908551  
TSDF ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 96  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC4191737  
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC  
Trans1 State ID: GF2859NY  
Trans2 State ID: 1643BCOK  
Generator Ship Date: 960717  
Trans1 Recv Date: 960717

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

TOP HAT CLEANERS (Continued)

1000116872

Trans2 Recv Date: 960719  
TSD Site Recv Date: 960720  
Part A Recv Date: 960801  
Part B Recv Date: 960812  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: ARD981908551  
TSD ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 96  
Facility Type: Generator  
EPA ID: NYD981183247  
Facility Name: TOP HAT CLNRS  
Facility Address: 592 LORIMER ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: TOP HAT CLEANERS  
Mailing Contact: Not reported  
Mailing Address: 592 LORIMER STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-7779

Document ID: NYC3779908  
Manifest Status: Completed copy  
Trans1 State ID: NYGF2859  
Trans2 State ID: HQ32109  
Generator Ship Date: 970226  
Trans1 Recv Date: 970226  
Trans2 Recv Date: 970303  
TSD Site Recv Date: 970304  
Part A Recv Date: 970311  
Part B Recv Date: 970313  
Generator EPA ID: NYD981183247  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: MOD095038998  
TSD ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00060  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 97  
Facility Type: Generator

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**TOP HAT CLEANERS (Continued)**

**1000116872**

EPA ID:	NYD981183247
Facility Name:	TOP HAT CLNRS
Facility Address:	592 LORIMER ST
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	TOP HAT CLEANERS
Mailing Contact:	Not reported
Mailing Address:	592 LORIMER STREET
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip:	11211
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779
Document ID:	NYA6635823
Manifest Status:	Completed copy
Trans1 State ID:	AM6252
Trans2 State ID:	Not reported
Generator Ship Date:	870403
Trans1 Recv Date:	870403
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	870403
Part A Recv Date:	870409
Part B Recv Date:	870413
Generator EPA ID:	NYD981183247
Trans1 EPA ID:	ILD000805911
Trans2 EPA ID:	Not reported
TSD ID:	NYD980785760
Waste Code:	F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV
Quantity:	00080
Units:	P - Pounds
Number of Containers:	001
Container Type:	CF - Fiber or plastic boxes, cartons
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	87
Facility Type:	Generator
EPA ID:	NYD981183247
Facility Name:	TOP HAT CLNRS
Facility Address:	592 LORIMER ST
Facility City:	BROOKLYN
Facility Zip 4:	Not reported
Country:	Not reported
County:	KINGS
Mailing Name:	TOP HAT CLEANERS
Mailing Contact:	Not reported
Mailing Address:	592 LORIMER STREET
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip:	11211
Mailing Zip4:	Not reported
Mailing Country:	Not reported
Mailing Phone:	718-782-7779

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**TOP HAT CLEANERS (Continued)**

**1000116872**

[Click this hyperlink](#) while viewing on your computer to access  
 55 additional NY\_MANIFEST: record(s) in the EDR Site Report.

**J54**  
**SSW**  
**1/8-1/4**  
**1098 ft.**

**S/W COR METROPOLITAN/MARC**  
**S/W COR METROPOLITAN/MARC**  
**BROOKLYN, NY**

**LTANKS** **S100494686**  
**HIST LTANKS** **N/A**

**Site 2 of 2 in cluster J**

**Relative:**  
**Higher**

**Actual:**  
**17 ft.**

**LTANKS:**

Site ID: 63483  
 Spill Date: 01/28/93  
 Facility Addr2: Not reported  
 Facility ID: 9212269  
 Program Number: 9212269  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: WXSUN  
 Referred To: MONITORING ONLY  
 Reported to Dept: 01/28/93  
 CID: 12  
 Spill Cause: Tank Failure  
 Water Affected: Not reported  
 Spill Source: Gasoline Station  
 Spill Notifier: Other  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: True  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Remediation Phase: 1  
 Date Entered In Computer: 01/29/93  
 Spill Record Last Update: 11/14/06  
 Spille Namer: JOSEPH MACCHIA, JR.  
 Spiller Company: CITGO STATION/NORTHLAND  
 Spiller Phone: (516) 933-0700  
 Spiller Extention: Not reported  
 Spiller Address: 556 CENTRAL AVENUE  
 Spiller City,St,Zip: BETHPAGE, NY 11714  
 Spiller County: 001  
 Spiller Contact: JOSEPH MACCHIA, JR  
 Spiller Phone: (516) 933-0700  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 9212269  
 DER Facility ID: 61317  
 Site ID: 63483  
 Operable Unit ID: 979256  
 Operable Unit: 01  
 Material ID: 402123  
 Material Code: 0009  
 Material Name: Gasoline  
 Case No.: Not reported  
 Material FA: Petroleum

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

S/W COR METROPOLITAN/MARC (Continued)

S100494686

Quantity: -1.00  
Units: Pounds  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 9212269 Prior to Sept, 2004 data translation this spill Lead DEC Field was "SUN" 10/10/95: This is additional information about material spilled from the translation of the old spill file: CONTAM MONITORING. 402 Metropolitan Avenue, Brooklyn Owner: Estate of James J. Mannix and Joseph M. Mattone Leased by: Joseph Macchia - Northland Marketing Spill #8907310 reported on 10/24/89 when four 550 gallon underground storage tanks (USTs) failed a tank test. Spill #9212269 was reported on 1/28/93 when Soil Mechanics (hired by the Estate of James Mannix and Joseph Mattone) installed three on-site monitoring wells and encountered 3 1/4 feet of gasoline in MW3. Spill # 9213355 reported on 3/2/93 when six 550 USTs failed a tightness test. Repairs were made to the stick box and vent lines and the tanks passed a retest on 4/2/93 3/9/93 Case No. R2-0941-93-03 initiated. 12/6/94 Order on Consent No. R2-0966-93-03 signed by Joseph Macchia. All threespill numbers cited in Schedule B - Petroleum Discharge and Clean-Up Violations. After the signing of the Consent Order, Macchia contracted Berninger Environmental as their consultant. Including the three wells installed by Soil Mechanics, thereis now a total of thirteen monitoring wells both on and off-site. The site is currently on a monthly monitoring and bailing schedule. According to the February 2001 Monitoring Report, the hottest well is MW-3 (in the middle of the property, downgradient of the tank mat) with a total of .97 feet of floating product. The report also indicates that a total of 304 gallons of free product has been bailed from the site wells during these monthly visits. In numerous meetings and letters dated8/12/98 and 1/22/99 and 9/30/97, DEC required Northland to periodically perform Vacuum Enhanced Fluid Recovery (VEFR) until the tanks are removed and a permanent remediation system installed. According to DEC's file, VEFR was only performed on fiveoccasions with a total of 267 gallons of free product recovered. 9/12/03 Letter mailed to Joe Macchia requiring additional investigation and remediation. 09/23/03 Reassigned from Rommel to Sun. 02/12/04-Sun-File Update by Sun:-On 09/22/03, Joe Sun sent and also faxed a letter and Stipulation Agreement to Joseph Macchia, Jr. of Northland Marketing Corp. requesting complete delineation of petroleum contamination, submittal of Investigation Summary Report followed by a submittal of a Remedial Action Plan. The investigation must include, but not limited to the following: (1) Confirm groundwater flow direction by surveying site wells, (2) Install additional wells to delineate the contamination to the west, (3) Implemenmt a sampling program, on a quarterly basis, for all non-product monitoring wells and analyze for EPA Method 8270 B/N and 8021 including MTBE, (4) Determine the type of product in MW-9 via product ID analysis, (5) Repair MW-3. Currently the cap for the 2" PVC casing cannot be placed due to insufficient clearance between top of casing and its manhole cover. The PVC casing needs to be shortened. The Department set a deadline of October 3, 2003 for signing of the Stipulation Agreement by the Respondent.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

EDR ID Number  
EPA ID Number  
Database(s)

**S/W COR METROPOLITAN/MARC (Continued)**

**S100494686**

-Monthly Monitoring Report (January 2004, by Berninger Environmental, Inc. (Water Berninger, 631-588-2251): The monitoring wells were gauged on 12/22/03. The free phase products were detected on three monitoring wells: 0.59 feet on MW-1, 0.93 feet on MW-3 and 1.20 feet on MW-6. Snow/ice covered the following monitoring wells: MW-7, MW-8, MW-12 and Mw-13, and thus those wells were not gauged. Consultant's Report stated that " it appears that other contractors are working on site, areas fenced off with locked gates, thus denying access to monitoring wells, for at least the sixth time drum for bailing product is missing, various utility mark outs, missing well designation markings etc." -02/12/04-Joe Sun called the Manager of the current Used Car4 Services on-site (Alex Tulchistka, 718-388-2424) about what kind of construction activities are being performed onsite. He replied that no new construction activity is performed and no fence or locked gate was installed onsite as far as he knew. Joe Sun then called Walter Berninger again and informed him the conflict information from the Car Service Manager. Berninger will take the picture next time when they perform the monitoring activity and provide more details on gauging the monitoring wells. 12/30/04 File Update by Sun: On 12/21/04, Joe Sun mailed a letter to Kenneth Raisch and Christopher Todd of The Estate of James Mannix and Joseph Matton informing them that the Remedial Action Plan (RAP) submitted by their consultant, Advanced Site Restoration (ASR) has been reviewed by the Department and has the following comments: - ASR proposed two remedial approaches for managing the petroleum-contaminated soil to be excavated on site. The first approach, transport off-site and proper disposal, is approved by the Department. The alternative, stabilization/solidification approach, is not approved as proposed. If ASR still wishes to pursue this approach the Department has the following comments and requirements which need to be addressed and a revised RAP needs to be resubmitted for review: 1. To evaluate the effectiveness of the proposed remedial process on the subject site, the horizontal hydraulic gradient at the site must be determined, and the hydraulic conductivity and porosity of the soil must be estimated. The seepage velocity and direction of the ground water flow must be calculated. 2. Redraft the Soil Remediation section (page 5) for clarity, and refer to the product as cold mix asphalt as is done in the applicable Beneficial Use Determination (BUD) approvals. 3. The use of the term cement based (page 6, second to last paragraph) is potentially confusing. The 2001 amendment to BUD Approval 93-0007 allows for the addition of Portland Cement to improve the physical properties of the product, but the petroleum contamination is still stabilized with asphalt emulsion. 4. The sampling schedule required by the BUD (sampling method, analytical method, number of samples and timing of samples) should be tabulated and included in the RAP. 5. The proposed uses for the cold mix asphalt (see page 6, second to last paragraph) are not consistent with the BUD (see 2001 amendment to BUD Approval 93-0007, Operational Requirements, bullet 2). Use of this material as a substitute for conventional asphalt pavement would be a more appropriate application. The Department has the following comments regarding the proposed free product recovery and groundwater remediation. These issues must be addressed in the revised RAP: 1. Provide the formula used to calculate the amount of BioRem required. 2. The plan to periodically re-inoculate the site with BioRem is troubling. If conditions are suitable for the constituent bacteria in BioRem to grow, re-inoculation would be unnecessary. If conditions are unsuitable for growth, the addition of more of the same bacteria will not change things. BioRem should be contacted to learn the optimum conditions for growth, and the acceptable concentrations. A sampling plan to determine if conditions on the site are within these ranges should be provided for review. BioRem should also provide information about the terminal electron acceptors utilized by their proprietary bacteria so the attenuative capacity of the site can be estimated, and compared to the concentration of residual contamination.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

S/W COR METROPOLITAN/MARC (Continued)

S100494686

This comparison is best done with TPH data, rather than the STARS list of compounds for gasoline spills that is usually requested. 3. There is a potential for LNAPL to be present in areas outside the limits of the proposed excavation. If this is confirmed, depending upon the estimated amount of LNAPL, another technology in addition to BioRem may be required for remediation. 4. The 8 to 18 month time frame allotted for bio-remediation is considerably longer than the 7 to 14 weeks stated in the BioRem H-10 Specification Sheet. A soil and ground water monitoring plan to track the bio-remediation should be developed, and included for review in the re-drafted RAP 5. The RAP should have a provision that samples will be collected and analyzed at the discretion of the ASR site supervisor (see page 9, second to last paragraph) or the direction of the DEC project manager. 6. If soil excavation does not commence soon after the product is removed from the wells with the vac-truck, the wells should be monitored daily for free product and the vac-truck recalled when appropriate. 03/01/05 File Update by Sun: On 02/28/05, Sun sent a letter to the property owner informing him that the Department has reviewed the revised remedial action plan (RAP), prepared by Advanced Site Restoration, LLC dated February 17, 2005. ASR proposed to excavate the contaminated soil and dispose of property off-site and use Bio Rem product H-10 for subsurface bioremediation of hydrocarbon contamination in groundwater. ASR also proposed to remove the free product with a vacuum truck if free-floating hydrocarbons are detected. The Department approves the revised RAP proposed in Reference 1, as noted below: 1. Collection of Soil Samples: As per DER-10 Section 5.4, soil samples must be collected from the bottom of each sidewall for every 30 linear feet of sidewall and one sample from the bottom for every 900 square feet of bottom area. In all cases, samples should be biased toward locations of highest expected contamination as indicated by field evidence or PID measurements. 2. Salvage of Existing Groundwater Monitoring Wells: Page 4 of the revised RAP in Reference 1 under Section 5.0 Groundwater Remediation stated that ASR will attempt to salvage any groundwater observation wells still existing on the site. If additional wells are needed, they will be installed strategically, to maximize the data that can be obtained. It should be noted that according to the historical data, free product was detected in monitoring wells MW-1, MW-3, MW-6 and MW-11. These four monitoring wells and other existing wells must be restored at the same locations or at the locations to be consulted with the Department if they were destroyed during excavation. 11/11/05: Sun received UST Closure Report for the subject site, dated 11/07/05. 11/23/05: Review of the monthly report dated 10/19/05 indicated that Total BTEX ranged from <MDL to 20,900 ppb, and MTBE ranged from <NDL to 6,300ppb. A total of 16 Monitoring wells were gauged and sampled. Only one well (MW-11) had free phased product with thickness of 0.23 feet. (Sun) 12/13/05: Review of the monthly report dated 11/10/05 indicated that Total BTEX ranged from <MDL to 20,900 ppb (October, 2005), and MTBE ranged from <NDL to 6,300ppb (October, 2005). A total of 16 Monitoring wells were gauged and sampled. Only two wells (MW-11 & MW-12) had free phased product with max thickness of 0.49 feet. (Sun) 02/21/06: Review of the monthly report dated 02/10/06 indicated that Total BTEX ranged from <MDL to 13,060 ppb (December, 2005), and MTBE ranged from <NDL to 10,000ppb (December, 2005). A total of 16 Monitoring wells were gauged and sampled. Only two wells (MW-11 & MW-12) had free phased product with max thickness of 0.27 feet. (Sun) 11/14/06-Sun: Based on the Quarterly Report, dated 9/11/06, BTEX ranged 5,258 to 11,180 ppb, and MTBE ranged from 170 ppb to 8000 ppb. (Sun) END  
DECRemark - 9212269  
Remarks: Start CallerRemark - 9212269 WILL BAIL WELL-WILL PULL TANK-OLD AND STEEL (O'DOWD) END CallerRemark - 9212269

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

S/W COR METROPOLITAN/MARC (Continued)

S100494686

HIST LTANKS:

Region of Spill: 2  
Spill Number: 9212269  
Investigator: ROMMEL  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 01/28/1993  
Spill Time: 08:30  
Reported to Department Date: 01/28/93  
Reported to Department Time: 10:18  
SWIS: 61  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Name: CITGO STATION  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Facility Contact: Not reported  
Facility Phone: Not reported  
Facility Extention: Not reported  
Spill Cause: Tank Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Gas Station  
Spill Notifier: Other  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: True  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 01/29/93  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 08/08/95  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: -1

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**S/W COR METROPOLITAN/MARC (Continued)**

**S100494686**

Unkonwn Quantity Spilled: False  
 Units: Not reported  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: GASOLINE  
 Class Type: GASOLINE  
 Times Material Entry In File: 21329  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: 10/10/95: This is additional information about material spilled from the translation of the old spill file: CONTAM MONITORING.  
 Spill Cause: WILL BAIL WELL-WILL PULL TANK-OLD AND STEEL O DOWD)

**55  
 NNW  
 1/8-1/4  
 1100 ft.**

**432 DRIGGS AVE CORP.  
 432 DRIGGS AVENUE  
 BROOKLYN, NY 11211**

**UST U001835486  
 HIST UST N/A**

**Relative:  
 Lower**

UST:

Facility ID: 2-282464  
 Program Type: PBS  
 Tank Number: 01  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - In Place  
 Active Status: Inactive  
 Install Date: 12/01/69  
 Capacity Gallons: 3000  
 Material Name: #2 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Exempt Suction Piping  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Horner EZY3/EZY3 Locator Plus  
 Date Tested: 05/22/03  
 Next Test Date: / /  
 Date Tank Closed: 07/11/03

UST\_PBS\_FAC:

Facility Id: 2-282464  
 Expiration Date: 07/14/07

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**432 DRIGGS AVE CORP. (Continued)**

**U001835486**

Renewal Date: 03/06/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: 432 DRIGGS AVE CORP.  
Mailing Title: Not reported  
Mailing Contact: M. MOSKOVITS  
Mailing Address: 181 NORTH 11TH STREET  
Mailing Address 2: SUITE 101  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-8139  
Mailing Email: Not reported  
Owner Title: V.P.  
Owner Name: MAGDALENA MOSKOVITS  
Owner Address: 432 DRIGGS AVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 438-2675  
Owner Company: 432 DRIGGS AVE CORP.  
Emergency Contact: LUDVIK MOSKOVITS  
Emergency Phone: (718) 438-2675  
Operator: 432 DRIGGS AVE CORP  
Operator Phone: (718) 388-8139  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

**HIST UST:**

PBS Number: 2-282464  
SPDES Number: Not reported  
Emergency Contact: LUDVIK MOSKOVITS  
Emergency Telephone: (718) 438-2675  
Operator: 432 DRIGGS AVE CORP  
Operator Telephone: (718) 387-1102  
Owner Name: 432 DRIGGS AVE CORP  
Owner Address: 432 DRIGGS AVE CORP  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 387-1102  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 432 DRIGGS AVE CORP  
Mailing Address: 432 DRIGGS AVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: Not reported  
Mailing Telephone: (718) 387-1102  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
Facility Addr2: 432 DRIGGS AVE  
Tank Id: 001  
Tank Location: UNDERGROUND  
Install Date: 19691201  
Capacity (gals): 3000  
Product Stored: NOS 1,2, OR 4 FUEL OIL

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**432 DRIGGS AVE CORP. (Continued)**

**U001835486**

Tank Type: Steel/carbon steel  
 Tank Internal: Not reported  
 Tank External: Not reported  
 Pipe Location: Not reported  
 Pipe Type: STEEL/IRON  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: Not reported  
 Dispenser: Suction  
 Date Tested: 05/01/1998  
 Next Test Date: 05/01/2003  
 Missing Data for Tank: Minor Data Missing  
 Date Closed: Not reported  
 Test Method: Horner EZ Check  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: Not reported  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 06/12/1998  
 Expiration Date: 07/14/2002  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 3000  
 FAMT: True  
 Facility Screen: Minor Data Missing  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**N56  
 ENE  
 1/8-1/4  
 1104 ft.**

**GAS STATION  
 392 LEONARD STREET  
 BROOKLYN, NY**

**LTANKS S106124543  
 N/A**

**Site 1 of 5 in cluster N**

**Relative:  
 Lower**

LTANKS:  
 Site ID: 246017  
 Spill Date: 12/16/03  
 Facility Addr2: Not reported  
 Facility ID: 0310672  
 Program Number: 0310672  
 SWIS: 2401  
 Region of Spill: 2

**Actual:  
 15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GAS STATION (Continued)**

**S106124543**

Investigator: SMSANGES  
Referred To: Not reported  
Reported to Dept: 12/16/03  
CID: 14  
Spill Cause: Tank Failure  
Water Affected: Not reported  
Spill Source: Gasoline Station  
Spill Notifier: Citizen  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 12/16/03  
Remediation Phase: 0  
Date Entered In Computer: 12/16/03  
Spill Record Last Update: 12/16/03  
Spille Namer: Not reported  
Spiller Company: Not reported  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Address: Not reported  
Spiller City,St,Zip: \*\*\*Update\*\*\*, ZZ  
Spiller County: 001  
Spiller Contact: ANNY  
Spiller Phone: (203) 876-7430  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0310672  
DER Facility ID: 202028  
Site ID: 246017  
Operable Unit ID: 878333  
Operable Unit: 01  
Material ID: 499520  
Material Code: 0008  
Material Name: Diesel  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Pounds  
Recovered: 0.00  
Resource Affected: Sewer  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 0310672 Prior to Sept, 2004 data translation this spill Lead

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**GAS STATION (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**S106124543**

Remarks: DEC Field was "SANGESLAND" END DECRemark - 0310672  
Start CallerRemark - 0310672 CALLER DOES NOT WISH TO GIVE HIS NAME, BUT STATES THAT THE GAS STATION IS POLLUTING THE SEWER BY A BROKEN HOSE OR OTHER, THEY ARE SWEEPING INTO THE SEWER SYSTEM. CALLER VERY CONCERNED. UNKNOWN AMOUNTS. WOULD LIKE SOMEONE TO COME CHECK OUT. END CallerRemark - 0310672

**N57  
ENE  
1/8-1/4  
1112 ft.**

**278 FUEL STOP, INC.  
392 LEONARD STREET  
BROOKLYN, NY 11211**

**UST U003031010  
HIST UST N/A**

**Site 2 of 5 in cluster N**

**Relative:  
Lower**

**UST:**

**Actual:  
15 ft.**

Facility ID: 2-510793  
Program Type: PBS  
Tank Number: 004  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: 11/01/39  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Excavation/Trench Liner System  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 01/01/94  
Next Test Date: / /  
Date Tank Closed: 04/01/99

**UST\_PBS\_FAC:**

Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /  
Total Capacity: 16550  
Facility Type: Not reported  
Mailing Company: 278 FUEL STOP, INC.  
Mailing Title: Not reported  
Mailing Contact: KULDEEP S. SAKOTA, PRES

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-3329  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 392 LEONARD STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 388-3329  
Owner Company: 278 FUEL STOP, INC.  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Phone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Phone: (718) 388-3329  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-510793  
Program Type: PBS  
Tank Number: 006A  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: In Service  
Active Status: Active  
Install Date: 04/01/99  
Capacity Gallons: 4000  
Material Name: Diesel  
Percentage: 100  
Tank Type Name: Fiberglass Coated Steel  
Tank Internal Protection: None  
Tank Internal Protection 1: Jacketed  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Fiberglass Reinforced Plastic (FRP)  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Double-Walled (Underground)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Interstitial - Electronic Monitoring  
Tank Leak Detection 2: In-Tank System (ATG)  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: High Level Alarm  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Submersible  
Spill Prevention: Catch Basin  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: 04/01/14  
Date Tank Closed: / /

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

UST\_PBS\_FAC:

Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /  
Total Capacity: 16550  
Facility Type: Not reported  
Mailing Company: 278 FUEL STOP, INC.  
Mailing Title: Not reported  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-3329  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 392 LEONARD STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 388-3329  
Owner Company: 278 FUEL STOP, INC.  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Phone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Phone: (718) 388-3329  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-510793  
Program Type: PBS  
Tank Number: 001  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: In Service  
Active Status: Active  
Install Date: 08/01/72  
Capacity Gallons: 4000  
Material Name: Diesel  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: Painted/Asphalt Coating  
Tank Internal Protection 2: Retrofitted Sacrificial Anode  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Fiberglass Reinforced Plastic (FRP)  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: In-Tank System (ATG)  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

Pipe Leak Detection 2:	Not reported
Type Of Overfill Prevention 1:	High Level Alarm
Type Of Overfill Prevention 2:	Not reported
Dispenser Method:	Submersible
Spill Prevention:	Catch Basin
Tightness Test Method:	Petro-Tite/Petro Comp
Date Tested:	01/01/94
Next Test Date:	01/01/99
Date Tank Closed:	/ /
<b>UST_PBS_FAC:</b>	
Facility Id:	2-510793
Expiration Date:	02/16/09
Renewal Date:	/ /
Total Capacity:	16550
Facility Type:	Not reported
Mailing Company:	278 FUEL STOP, INC.
Mailing Title:	Not reported
Mailing Contact:	KULDEEP S. SAKOTA, PRES
Mailing Address:	392 LEONARD STREET
Mailing Address 2:	Not reported
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip Code:	11211
Mailing Phone No:	(718) 388-3329
Mailing Email:	Not reported
Owner Title:	Not reported
Owner Name:	Not reported
Owner Address:	392 LEONARD STREET
Owner Address 2:	Not reported
Owner State:	NY
Owner Zip Code:	11211
Owner Phone:	(718) 388-3329
Owner Company:	278 FUEL STOP, INC.
Emergency Contact:	KULDEEP S SAHOTA
Emergency Phone:	(201) 548-1658
Operator:	278 FUEL STOP, INC.
Operator Phone:	(718) 388-3329
Owner City:	BROOKLYN
Owner Sub Type:	Corporate or Commercial
Facility ID:	2-510793
Program Type:	PBS
Tank Number:	008A
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Underground
Tank Status:	In Service
Active Status:	Active
Install Date:	04/01/99
Capacity Gallons:	4000
Material Name:	Gasoline
Percentage:	100
Tank Type Name:	Fiberglass Coated Steel
Tank Internal Protection:	None
Tank Internal Protection 1:	Jacketed
Tank Internal Protection 2:	Not reported
Pipe Location Name:	Underground/On-ground

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

Pipe Type Name: Fiberglass Reinforced Plastic (FRP)  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Double-Walled (Underground)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Interstitial - Electronic Monitoring  
Tank Leak Detection 2: In-Tank System (ATG)  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: High Level Alarm  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Submersible  
Spill Prevention: Catch Basin  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: 04/01/14  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /  
Total Capacity: 16550  
Facility Type: Not reported  
Mailing Company: 278 FUEL STOP, INC.  
Mailing Title: Not reported  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-3329  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 392 LEONARD STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 388-3329  
Owner Company: 278 FUEL STOP, INC.  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Phone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Phone: (718) 388-3329  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-510793  
Program Type: PBS  
Tank Number: 007A  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: In Service  
Active Status: Active

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

Install Date: 04/01/99  
Capacity Gallons: 4000  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Fiberglass Coated Steel  
Tank Internal Protection: None  
Tank Internal Protection 1: Jacketed  
Tank Internal Protection 2: Not reported  
Pipe Location Name: Underground/On-ground  
Pipe Type Name: Fiberglass Reinforced Plastic (FRP)  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Double-Walled (Underground)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: Interstitial - Electronic Monitoring  
Tank Leak Detection 2: In-Tank System (ATG)  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: High Level Alarm  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Submersible  
Spill Prevention: Catch Basin  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: 04/01/14  
Date Tank Closed: / /  
  
UST\_PBS\_FAC:  
Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /  
Total Capacity: 16550  
Facility Type: Not reported  
Mailing Company: 278 FUEL STOP, INC.  
Mailing Title: Not reported  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-3329  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 392 LEONARD STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 388-3329  
Owner Company: 278 FUEL STOP, INC.  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Phone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Phone: (718) 388-3329  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

Facility ID: 2-510793  
Program Type: PBS  
Tank Number: 003  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: 11/01/39  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Excavation/Trench Liner System  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 01/01/94  
Next Test Date: / /  
Date Tank Closed: 04/01/99

UST\_PBS\_FAC:

Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /  
Total Capacity: 16550  
Facility Type: Not reported  
Mailing Company: 278 FUEL STOP, INC.  
Mailing Title: Not reported  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-3329  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 392 LEONARD STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

278 FUEL STOP, INC. (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U003031010

Owner Phone: (718) 388-3329  
Owner Company: 278 FUEL STOP, INC.  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Phone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Phone: (718) 388-3329  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-510793  
Program Type: PBS  
Tank Number: 005  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: 11/01/39  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Excavation/Trench Liner System  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 01/01/94  
Next Test Date: / /  
Date Tank Closed: 04/01/99

UST\_PBS\_FAC:

Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /  
Total Capacity: 16550  
Facility Type: Not reported  
Mailing Company: 278 FUEL STOP, INC.  
Mailing Title: Not reported  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-3329  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 392 LEONARD STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 388-3329  
Owner Company: 278 FUEL STOP, INC.  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Phone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Phone: (718) 388-3329  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-510793  
Program Type: PBS  
Tank Number: 006  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: In Service  
Active Status: Active  
Install Date: 11/01/39  
Capacity Gallons: 550  
Material Name: Diesel  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Excavation/Trench Liner System  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: / /

UST\_PBS\_FAC:  
Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

Total Capacity:	16550
Facility Type:	Not reported
Mailing Company:	278 FUEL STOP, INC.
Mailing Title:	Not reported
Mailing Contact:	KULDEEP S. SAKOTA, PRES
Mailing Address:	392 LEONARD STREET
Mailing Address 2:	Not reported
Mailing City:	BROOKLYN
Mailing State:	NY
Mailing Zip Code:	11211
Mailing Phone No:	(718) 388-3329
Mailing Email:	Not reported
Owner Title:	Not reported
Owner Name:	Not reported
Owner Address:	392 LEONARD STREET
Owner Address 2:	Not reported
Owner State:	NY
Owner Zip Code:	11211
Owner Phone:	(718) 388-3329
Owner Company:	278 FUEL STOP, INC.
Emergency Contact:	KULDEEP S SAHOTA
Emergency Phone:	(201) 548-1658
Operator:	278 FUEL STOP, INC.
Operator Phone:	(718) 388-3329
Owner City:	BROOKLYN
Owner Sub Type:	Corporate or Commercial
Facility ID:	2-510793
Program Type:	PBS
Tank Number:	002
Tank Model:	Not reported
Pipe Model:	Not reported
Tank Location Name:	Underground
Tank Status:	Closed - Removed
Active Status:	Inactive
Install Date:	11/01/39
Capacity Gallons:	550
Material Name:	Gasoline
Percentage:	100
Tank Type Name:	Steel/Carbon Steel/Iron
Tank Internal Protection:	None
Tank Internal Protection 1:	None
Tank Internal Protection 2:	Not reported
Pipe Location Name:	No Piping
Pipe Type Name:	Steel/Carbon Steel/Iron
Pipe External Protection 1:	None
Pipe External Protection 2:	Not reported
Tank Secondary Containment 1:	Excavation/Trench Liner System
Tank Secondary Containment 2:	Not reported
Pipe Secondary Containment:	Not reported
Tank Leak Detection 1:	None
Tank Leak Detection 2:	Not reported
Pipe Leak Detection 1:	Not reported
Pipe Leak Detection 2:	Not reported
Type Of Overfill Prevention 1:	None
Type Of Overfill Prevention 2:	Not reported
Dispenser Method:	Suction

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 01/01/94  
Next Test Date: / /  
Date Tank Closed: 04/01/99  
  
UST\_PBS\_FAC:  
Facility Id: 2-510793  
Expiration Date: 02/16/09  
Renewal Date: / /  
Total Capacity: 16550  
Facility Type: Not reported  
Mailing Company: 278 FUEL STOP, INC.  
Mailing Title: Not reported  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-3329  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 392 LEONARD STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 388-3329  
Owner Company: 278 FUEL STOP, INC.  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Phone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Phone: (718) 388-3329  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

HIST UST:  
PBS Number: 2-510793  
SPDES Number: Not reported  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Telephone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Telephone: (718) 388-3329  
Owner Name: 278 FUEL STOP, INC.  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 278 FUEL STOP, INC.  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

278 FUEL STOP, INC. (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U003031010

Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
Facility Addr2: 392 LEONARD STREET  
Tank Id: 006  
Tank Location: UNDERGROUND  
Install Date: 19391101  
Capacity (gals): 550  
Product Stored: DIESEL  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Vault (w/o access)  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-510793  
SPDES Number: Not reported  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Telephone: (201) 548-1658

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

Operator: 278 FUEL STOP, INC.  
Operator Telephone: (718) 388-3329  
Owner Name: 278 FUEL STOP, INC.  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 278 FUEL STOP, INC.  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 392 LEONARD STREET  
Tank Id: 006A  
Tank Location: UNDERGROUND  
Install Date: 19990401  
Capacity (gals): 4000  
Product Stored: DIESEL  
Tank Type: Fiberglass coated steel  
Tank Internal: None  
Tank External: Jacketed  
Pipe Location: Underground  
Pipe Type: STAINLESS STEEL ALLOY  
Pipe Internal: None  
Pipe External: None  
Second Containment: Vault (w/access)  
Leak Detection: 14  
Overfill Prot: High Level Alarm, Catch Basin  
Dispenser: Submersible  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16550

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**278 FUEL STOP, INC. (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U003031010**

FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	No Missing Data
Tank Screen:	Minor Data Missing
Dead Letter:	False
CBS Number:	Not reported
Town or City:	NEW YORK CITY
County Code:	61
Town or City:	01
Region:	2
PBS Number:	2-510793
SPDES Number:	Not reported
Emergency Contact:	KULDEEP S SAHOTA
Emergency Telephone:	(201) 548-1658
Operator:	278 FUEL STOP, INC.
Operator Telephone:	(718) 388-3329
Owner Name:	278 FUEL STOP, INC.
Owner Address:	392 LEONARD STREET
Owner City,St,Zip:	BROOKLYN, NY 11211
Owner Telephone:	(718) 388-3329
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Name:	278 FUEL STOP, INC.
Mailing Address:	392 LEONARD STREET
Mailing Address 2:	Not reported
Mailing City,St,Zip:	BROOKLYN, NY 11211
Mailing Contact:	KULDEEP S. SAKOTA, PRES
Mailing Telephone:	(718) 388-3329
Owner Mark:	Second Owner
Facility Status:	1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.
Facility Addr2:	392 LEONARD STREET
Tank Id:	007A
Tank Location:	UNDERGROUND
Install Date:	19990401
Capacity (gals):	4000
Product Stored:	UNLEADED GASOLINE
Tank Type:	Fiberglass coated steel
Tank Internal:	None
Tank External:	Jacketed
Pipe Location:	Underground
Pipe Type:	STAINLESS STEEL ALLOY
Pipe Internal:	None
Pipe External:	None
Second Containment:	Vault (w/access)
Leak Detection:	14
Overfill Prot:	High Level Alarm, Catch Basin
Dispenser:	Submersible
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	No Missing Data
Date Closed:	Not reported
Test Method:	Not reported
Deleted:	False
Updated:	True

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

278 FUEL STOP, INC. (Continued)

U003031010

Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-510793  
SPDES Number: Not reported  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Telephone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Telephone: (718) 388-3329  
Owner Name: 278 FUEL STOP, INC.  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 278 FUEL STOP, INC.  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.

Facility Addr2: 392 LEONARD STREET  
Tank Id: 008A  
Tank Location: UNDERGROUND  
Install Date: 19990401  
Capacity (gals): 4000  
Product Stored: UNLEADED GASOLINE  
Tank Type: Fiberglass coated steel  
Tank Internal: None  
Tank External: Jacketed

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

Pipe Location: Underground  
Pipe Type: STAINLESS STEEL ALLOY  
Pipe Internal: None  
Pipe External: None  
Second Containment: Vault (w/access)  
Leak Detection: 14  
Overfill Prot: High Level Alarm, Catch Basin  
Dispenser: Submersible  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-510793  
SPDES Number: Not reported  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Telephone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Telephone: (718) 388-3329  
Owner Name: 278 FUEL STOP, INC.  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 278 FUEL STOP, INC.  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

278 FUEL STOP, INC. (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U003031010

Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
Facility Addr2: 392 LEONARD STREET  
Tank Id: 001  
Tank Location: UNDERGROUND  
Install Date: 19720801  
Capacity (gals): 4000  
Product Stored: DIESEL  
Tank Type: Steel/carbon steel  
Tank Internal: None  
Tank External: 12  
Pipe Location: Underground  
Pipe Type: STAINLESS STEEL ALLOY  
Pipe Internal: None  
Pipe External: None  
Second Containment: None  
Leak Detection: In-tank System  
Overfill Prot: High Level Alarm, Catch Basin  
Dispenser: Submersible  
Date Tested: 01/01/1994  
Next Test Date: Not reported  
Missing Data for Tank: No Missing Data  
Date Closed: Not reported  
Test Method: Petro-Tite  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-510793

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

SPDES Number: Not reported  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Telephone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Telephone: (718) 388-3329  
Owner Name: 278 FUEL STOP, INC.  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 278 FUEL STOP, INC.  
Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
  
Facility Addr2: 392 LEONARD STREET  
Tank Id: 002  
Tank Location: UNDERGROUND  
Install Date: 19391101  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Vault (w/o access)  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 01/01/1994  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 04/01/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

Renew Flag:	False
Renewal Date:	Not reported
Total Capacity:	16550
FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	No Missing Data
Tank Screen:	Minor Data Missing
Dead Letter:	False
CBS Number:	Not reported
Town or City:	NEW YORK CITY
County Code:	61
Town or City:	01
Region:	2
PBS Number:	2-510793
SPDES Number:	Not reported
Emergency Contact:	KULDEEP S SAHOTA
Emergency Telephone:	(201) 548-1658
Operator:	278 FUEL STOP, INC.
Operator Telephone:	(718) 388-3329
Owner Name:	278 FUEL STOP, INC.
Owner Address:	392 LEONARD STREET
Owner City,St,Zip:	BROOKLYN, NY 11211
Owner Telephone:	(718) 388-3329
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Name:	278 FUEL STOP, INC.
Mailing Address:	392 LEONARD STREET
Mailing Address 2:	Not reported
Mailing City,St,Zip:	BROOKLYN, NY 11211
Mailing Contact:	KULDEEP S. SAKOTA, PRES
Mailing Telephone:	(718) 388-3329
Owner Mark:	Second Owner
Facility Status:	1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.
Facility Addr2:	392 LEONARD STREET
Tank Id:	003
Tank Location:	UNDERGROUND
Install Date:	19391101
Capacity (gals):	550
Product Stored:	UNLEADED GASOLINE
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	STEEL/IRON
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	Vault (w/o access)
Leak Detection:	None
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	01/01/1994
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	04/01/1999

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**278 FUEL STOP, INC. (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U003031010**

Test Method:	Horner EZ Check
Deleted:	False
Updated:	True
Lat/long:	Not reported
Lat/long:	Not reported
SWIS ID:	6101
Old PBS Number:	Not reported
Facility Type:	RETAIL GASOLINE SALES
Inspected Date:	Not reported
Inspector:	Not reported
Inspection Result:	Not reported
Federal ID:	Not reported
Certification Flag:	False
Certification Date:	02/19/1999
Expiration Date:	02/16/2004
Renew Flag:	False
Renewal Date:	Not reported
Total Capacity:	16550
FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	No Missing Data
Tank Screen:	Minor Data Missing
Dead Letter:	False
CBS Number:	Not reported
Town or City:	NEW YORK CITY
County Code:	61
Town or City:	01
Region:	2
PBS Number:	2-510793
SPDES Number:	Not reported
Emergency Contact:	KULDEEP S SAHOTA
Emergency Telephone:	(201) 548-1658
Operator:	278 FUEL STOP, INC.
Operator Telephone:	(718) 388-3329
Owner Name:	278 FUEL STOP, INC.
Owner Address:	392 LEONARD STREET
Owner City,St,Zip:	BROOKLYN, NY 11211
Owner Telephone:	(718) 388-3329
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Name:	278 FUEL STOP, INC.
Mailing Address:	392 LEONARD STREET
Mailing Address 2:	Not reported
Mailing City,St,Zip:	BROOKLYN, NY 11211
Mailing Contact:	KULDEEP S. SAKOTA, PRES
Mailing Telephone:	(718) 388-3329
Owner Mark:	Second Owner
Facility Status:	1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.
Facility Addr2:	392 LEONARD STREET
Tank Id:	004
Tank Location:	UNDERGROUND
Install Date:	19391101
Capacity (gals):	550
Product Stored:	UNLEADED GASOLINE

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

278 FUEL STOP, INC. (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U003031010

Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Vault (w/o access)  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 01/01/1994  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 04/01/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-510793  
SPDES Number: Not reported  
Emergency Contact: KULDEEP S SAHOTA  
Emergency Telephone: (201) 548-1658  
Operator: 278 FUEL STOP, INC.  
Operator Telephone: (718) 388-3329  
Owner Name: 278 FUEL STOP, INC.  
Owner Address: 392 LEONARD STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 388-3329  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: 278 FUEL STOP, INC.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EPA ID Number

EDR ID Number  
EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

Mailing Address: 392 LEONARD STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: KULDEEP S. SAKOTA, PRES  
Mailing Telephone: (718) 388-3329  
Owner Mark: Second Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
Facility Addr2: 392 LEONARD STREET  
Tank Id: 005  
Tank Location: UNDERGROUND  
Install Date: 19391101  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: STEEL/IRON  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Vault (w/o access)  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 01/01/1994  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 04/01/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: RETAIL GASOLINE SALES  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 02/19/1999  
Expiration Date: 02/16/2004  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 16550  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**278 FUEL STOP, INC. (Continued)**

**U003031010**

Region: 2

**58**  
**SSE**  
 1/8-1/4  
 1128 ft.

**S KLENOSKY INC**  
**543 METROPOLITAN AVE**  
**BROOKLYN, NY 11211**

**RCRA-SQG** **1000890352**  
**FINDS** **NY0000348300**  
**NY MANIFEST**

**Relative:**  
**Higher**

RCRAInfo:  
 Owner: S KLENOSKY INC  
 (718) 782-7141

**Actual:**  
**17 ft.**

EPA ID: NY0000348300  
 Contact: Not reported  
 Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**NY MANIFEST:**

Document ID: NYB5796819  
 Manifest Status: Completed copy  
 Trans1 State ID: 2A218  
 Trans2 State ID: Not reported  
 Generator Ship Date: 940620  
 Trans1 Recv Date: 940620  
 Trans2 Recv Date: Not reported  
 TSD Site Recv Date: 940620  
 Part A Recv Date: 940715  
 Part B Recv Date: 940714  
 Generator EPA ID: NY0000348300  
 Trans1 EPA ID: NYD982719221  
 Trans2 EPA ID: Not reported  
 TSDF ID: NYD077444263  
 Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
 Quantity: 01600  
 Units: P - Pounds  
 Number of Containers: 004  
 Container Type: DM - Metal drums, barrels  
 Handling Method: B Incineration, heat recovery, burning.  
 Specific Gravity: 100  
 Waste Code: Not reported  
 Quantity: 02400  
 Units: P - Pounds  
 Number of Containers: 006  
 Container Type: DM - Metal drums, barrels

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**S KLENOSKY INC (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**1000890352**

Handling Method: T Chemical, physical, or biological treatment.  
 Specific Gravity: 100  
 Year: 94  
 Facility Type: Generator  
 EPA ID: NY0000348300  
 Facility Name: KLENOSKY PAINT  
 Facility Address: 534 METROPOLITAN AVE  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: KLENOSKY PAINT  
 Mailing Contact: IRWIN KLENOSKY  
 Mailing Address: 534 METROPOLITAN AVE  
 Mailing City: BROOLYN  
 Mailing State: NY  
 Mailing Zip: 11211  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 718-782-7141

**59**  
**WSW**  
**1/8-1/4**  
**1150 ft.**

**BROTHERS CLEANERS**  
**106 ROEBLING ST**  
**BROOKLYN, NY 11211**

**RCRA-SQG** 1001113364  
**NY MANIFEST** NYR000023549

**Relative:**  
**Higher**

RCRAInfo:  
 Owner: ANTHONY BLAKE  
 (718) 782-6744

**Actual:**  
**18 ft.**

EPA ID: NYR000023549  
 Contact: ANTHONY BLAKE  
 (718) 782-6744

Classification: Small Quantity Generator  
 TSDF Activities: Not reported

Violation Status: No violations found

**NY MANIFEST:**

Document ID: NYC4113101  
 Manifest Status: Completed copy  
 Trans1 State ID: GF2859NY  
 Trans2 State ID: OK1684BC  
 Generator Ship Date: 960718  
 Trans1 Recv Date: 960718  
 Trans2 Recv Date: 960724  
 TSD Site Recv Date: 960725  
 Part A Recv Date: Not reported  
 Part B Recv Date: 960806  
 Generator EPA ID: NYR000023549  
 Trans1 EPA ID: ILD984908202  
 Trans2 EPA ID: ARD981908551  
 TSDF ID: OHD980587364  
 Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
 Quantity: 00195  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DF - Fiberboard or plastic drums (glass)

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 96  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC4337908  
Manifest Status: Completed after the designated time period for a TSDf to get a copy to the DEC  
Trans1 State ID: NYGF2859  
Trans2 State ID: Not reported  
Generator Ship Date: 961107  
Trans1 Recv Date: 961107  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 961114  
Part A Recv Date: 961120  
Part B Recv Date: 961204  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: Not reported  
TSDf ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 96  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC4425478  
Manifest Status: Completed copy  
Trans1 State ID: NYGF2859  
Trans2 State ID: HQ32109  
Generator Ship Date: 970226  
Trans1 Recv Date: 970226  
Trans2 Recv Date: 970303  
TSD Site Recv Date: 970304  
Part A Recv Date: Not reported  
Part B Recv Date: 970313  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: MOD095038998  
TSDF ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 97  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC4754248  
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC  
Trans1 State ID: NYAM6252  
Trans2 State ID: 1GT281OK  
Generator Ship Date: 970717  
Trans1 Recv Date: 970717  
Trans2 Recv Date: 970722  
TSD Site Recv Date: 970723  
Part A Recv Date: Not reported  
Part B Recv Date: 970814  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: ILD984908202  
Trans2 EPA ID: MOD095038998

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

TSDF ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 97  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6084145  
Manifest Status: Not reported  
Trans1 State ID: ILD984908202  
Trans2 State ID: SCR000074591  
Generator Ship Date: 04/17/2000  
Trans1 Recv Date: 04/17/2000  
Trans2 Recv Date: 04/19/2000  
TSD Site Recv Date: 04/20/2000  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSDF ID: NYCGF1411  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00390  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 00  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6245594  
Manifest Status: Not reported  
Trans1 State ID: SCR000075150  
Trans2 State ID: SCR000074591  
Generator Ship Date: 08/07/2000  
Trans1 Recv Date: 08/07/2000  
Trans2 Recv Date: 08/08/2000  
TSD Site Recv Date: 08/11/2000  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NYGF2859  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00390  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 00  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6264156  
Manifest Status: Not reported  
Trans1 State ID: SCR000075150  
Trans2 State ID: NJD071629976  
Generator Ship Date: 10/25/2000  
Trans1 Recv Date: 10/25/2000  
Trans2 Recv Date: 10/27/2000

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

TSD Site Recv Date: 10/31/2000  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NYCGF1411  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 00  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6368343  
Manifest Status: Not reported  
Trans1 State ID: SCR000075150  
Trans2 State ID: Not reported  
Generator Ship Date: 03/22/2001  
Trans1 Recv Date: 03/22/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 03/30/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NYCGF1411  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Generator  
EPA ID: NYR000023549

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BROTHERS CLEANERS (Continued)**

**1001113364**

Facility Name: BROTHERS CLEANERS  
 Facility Address: 106 ROEBLING STREET  
 Facility City: BROOLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: BROTHERS CLEANERS  
 Mailing Contact: ANTHONY BLAKE  
 Mailing Address: 106 ROEBLING STREET  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip: 22322  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 718-782-6477

Document ID: NYC6421307  
 Manifest Status: Not reported  
 Trans1 State ID: SCR000075150  
 Trans2 State ID: MOD095038998  
 Generator Ship Date: 04/20/2001  
 Trans1 Recv Date: 04/20/2001  
 Trans2 Recv Date: 04/27/2001  
 TSD Site Recv Date: 04/28/2001  
 Part A Recv Date: Not reported  
 Part B Recv Date: Not reported  
 Generator EPA ID: NYR000023549  
 Trans1 EPA ID: OHD980587364  
 Trans2 EPA ID: Not reported  
 TSDF ID: NYCGF1411  
 Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
 Quantity: 00195  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DF - Fiberboard or plastic drums (glass)  
 Handling Method: B Incineration, heat recovery, burning.  
 Specific Gravity: 01.00  
 Year: 01  
 Facility Type: Generator  
 EPA ID: NYR000023549  
 Facility Name: BROTHERS CLEANERS  
 Facility Address: 106 ROEBLING STREET  
 Facility City: BROOLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: BROTHERS CLEANERS  
 Mailing Contact: ANTHONY BLAKE  
 Mailing Address: 106 ROEBLING STREET  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip: 22322  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 718-782-6477

Document ID: NYC7269401

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BROTHERS CLEANERS (Continued)**

**1001113364**

Manifest Status: Not reported  
 Trans1 State ID: NY83381JN  
 Trans2 State ID: 718L8D  
 Generator Ship Date: 02/12/2004  
 Trans1 Recv Date: 02/12/2004  
 Trans2 Recv Date: 02/20/2004  
 TSD Site Recv Date: 02/23/2004  
 Part A Recv Date: Not reported  
 Part B Recv Date: Not reported  
 Generator EPA ID: NYR000023549  
 Trans1 EPA ID: TXR000050930  
 Trans2 EPA ID: Not reported  
 TSD ID: OHD980587  
 Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
 Quantity: 00195  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DF - Fiberboard or plastic drums (glass)  
 Handling Method: B Incineration, heat recovery, burning.  
 Specific Gravity: 01.00  
 Year: 04  
 Facility Type: Generator  
 EPA ID: NYR000023549  
 Facility Name: BROTHERS CLEANERS  
 Facility Address: 106 ROEBLING STREET  
 Facility City: BROOLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: BROTHERS CLEANERS  
 Mailing Contact: ANTHONY BLAKE  
 Mailing Address: 106 ROEBLING STREET  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip: 22322  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 718-782-6477

Document ID: NYC7394624  
 Manifest Status: Not reported  
 Trans1 State ID: NYAP6277  
 Trans2 State ID: NJ132TWA  
 Generator Ship Date: 07/28/2004  
 Trans1 Recv Date: 07/28/2004  
 Trans2 Recv Date: 07/30/2004  
 TSD Site Recv Date: 08/02/2004  
 Part A Recv Date: Not reported  
 Part B Recv Date: Not reported  
 Generator EPA ID: NYR000023549  
 Trans1 EPA ID: TXR000050930  
 Trans2 EPA ID: Not reported  
 TSD ID: OHD980587  
 Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
 Quantity: 00195  
 Units: P - Pounds  
 Number of Containers: 001

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 04  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6625326  
Manifest Status: Not reported  
Trans1 State ID: SCR000075150  
Trans2 State ID: Not reported  
Generator Ship Date: 12/28/2001  
Trans1 Recv Date: 12/28/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 01/11/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: GF1411NY  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6582633  
Manifest Status: Not reported  
Trans1 State ID: SCR000075150  
Trans2 State ID: SCR000074591  
Generator Ship Date: 07/12/2001  
Trans1 Recv Date: 07/12/2001  
Trans2 Recv Date: 07/19/2001  
TSD Site Recv Date: 07/19/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NYCAD4502  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC4624492  
Manifest Status: Not reported  
Trans1 State ID: ILD984908202  
Trans2 State ID: MOD095038998  
Generator Ship Date: 03/18/1998  
Trans1 Recv Date: 03/18/1998  
Trans2 Recv Date: 03/27/1998  
TSD Site Recv Date: 03/27/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

Trans2 EPA ID: Not reported  
TSD ID: AM6252NY  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00780  
Units: P - Pounds  
Number of Containers: 004  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6674545  
Manifest Status: Not reported  
Trans1 State ID: SCR000075150  
Trans2 State ID: MOD095038998  
Generator Ship Date: 03/22/2002  
Trans1 Recv Date: 03/22/2002  
Trans2 Recv Date: 03/28/2002  
TSD Site Recv Date: 03/28/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NJXAB6362  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC7528724  
Manifest Status: Not reported  
Trans1 State ID: TXR000050930  
Trans2 State ID: NJD071629976  
Generator Ship Date: 04/06/2005  
Trans1 Recv Date: 04/06/2005  
Trans2 Recv Date: 04/08/2005  
TSD Site Recv Date: 04/11/2005  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: 71148JRNY  
Trans2 EPA ID: 133TWANJ  
TSD ID: OHD980587364  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: Not reported  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC5288106  
Manifest Status: Not reported  
Trans1 State ID: ILD984908202  
Trans2 State ID: Not reported  
Generator Ship Date: 06/18/1998  
Trans1 Recv Date: 06/18/1998

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

Trans2 Recv Date: Not reported  
TSD Site Recv Date: 06/26/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NYAP4503  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC5462076  
Manifest Status: Not reported  
Trans1 State ID: ILD984908202  
Trans2 State ID: SCD987574647  
Generator Ship Date: 12/03/1998  
Trans1 Recv Date: 12/03/1998  
Trans2 Recv Date: 12/08/1998  
TSD Site Recv Date: 12/11/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NYAP4503  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BROTHERS CLEANERS (Continued)**

1001113364

EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Document ID: NYC6819006  
Manifest Status: Not reported  
Trans1 State ID: SCR000075150  
Trans2 State ID: NJD071629976  
Generator Ship Date: 09/25/2002  
Trans1 Recv Date: 09/25/2002  
Trans2 Recv Date: 09/27/2002  
TSD Site Recv Date: 09/27/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYR000023549  
Trans1 EPA ID: OHD980587364  
Trans2 EPA ID: Not reported  
TSD ID: NYGF1411  
Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
Quantity: 00195  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Generator  
EPA ID: NYR000023549  
Facility Name: BROTHERS CLEANERS  
Facility Address: 106 ROEBLING STREET  
Facility City: BROOLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: BROTHERS CLEANERS  
Mailing Contact: ANTHONY BLAKE  
Mailing Address: 106 ROEBLING STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 22322  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-782-6477

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BROTHERS CLEANERS (Continued)**

**1001113364**

Document ID: NYC7107660  
 Manifest Status: Not reported  
 Trans1 State ID: TXR000050930  
 Trans2 State ID: MOR000505347  
 Generator Ship Date: 08/25/2003  
 Trans1 Recv Date: 08/25/2003  
 Trans2 Recv Date: 08/27/2003  
 TSD Site Recv Date: 08/28/2003  
 Part A Recv Date: Not reported  
 Part B Recv Date: Not reported  
 Generator EPA ID: NYR000023549  
 Trans1 EPA ID: OHD980587364  
 Trans2 EPA ID: Not reported  
 TSD ID: NY58468JH  
 Waste Code: F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV  
 Quantity: 00195  
 Units: P - Pounds  
 Number of Containers: 001  
 Container Type: DF - Fiberboard or plastic drums (glass)  
 Handling Method: B Incineration, heat recovery, burning.  
 Specific Gravity: 01.00  
 Year: 03  
 Facility Type: Generator  
 EPA ID: NYR000023549  
 Facility Name: BROTHERS CLEANERS  
 Facility Address: 106 ROEBLING STREET  
 Facility City: BROOLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: BROTHERS CLEANERS  
 Mailing Contact: ANTHONY BLAKE  
 Mailing Address: 106 ROEBLING STREET  
 Mailing City: BROOKLYN  
 Mailing State: NY  
 Mailing Zip: 22322  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 718-782-6477

[Click this hyperlink](#) while viewing on your computer to access  
 5 additional NY\_MANIFEST: record(s) in the EDR Site Report.

**N60 GRAF AIR PROPERTY**  
**ENE 407 LEONARD ST**  
**1/8-1/4 BROOKLYN, NY 11222**  
**1152 ft.**

**Relative:**  
**Lower**

**Actual:**  
**15 ft.**

**Site 3 of 5 in cluster N**

**RCRA-SQG 1000457706**  
**FINDS NYD986929677**  
**NY MANIFEST**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**GRAF AIR PROPERTY (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

1000457706

RCRAInfo:  
Owner: GRAF AIR PROPERTY  
(212) 555-1212  
EPA ID: NYD986929677  
Contact: PAT FITZGERALD  
(815) 338-3120  
Classification: Conditionally Exempt Small Quantity Generator  
TSDF Activities: Not reported  
Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**NY MANIFEST:**

Document ID: NYB2096343  
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC  
Trans1 State ID: MK8837  
Trans2 State ID: Not reported  
Generator Ship Date: 901116  
Trans1 Recv Date: 901116  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 901116  
Part A Recv Date: 901212  
Part B Recv Date: 901217  
Generator EPA ID: NYD986929677  
Trans1 EPA ID: NYD006801245  
Trans2 EPA ID: Not reported  
TSDF ID: NYD082785429  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00110  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 90  
Facility Type: Generator  
EPA ID: NYD986929677  
Facility Name: GRAF AIR  
Facility Address: 407 LEONARD ST  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: GRAF AIR

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**GRAF AIR PROPERTY (Continued)**

**1000457706**

Mailing Contact: Not reported  
 Mailing Address: PO BOX 48  
 Mailing City: WOODSTOCK  
 Mailing State: IL  
 Mailing Zip: 60098  
 Mailing Zip4: Not reported  
 Mailing Country: Not reported  
 Mailing Phone: 815-338-3120

**N61  
 ENE  
 1/8-1/4  
 1153 ft.**

**D L BRENNER & SONS INC  
 407 LEONARD ST  
 BROOKLYN, NY 11222**

**UST U000400141  
 HIST UST N/A**

**Site 4 of 5 in cluster N**

**Relative:  
 Lower**

UST:  
 Facility ID: 2-257958  
 Program Type: PBS  
 Tank Number: 003  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 550  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Galvanized Steel  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: 10/01/90

**Actual:  
 15 ft.**

UST\_PBS\_FAC:  
 Facility Id: 2-257958  
 Expiration Date: 08/24/92  
 Renewal Date: / /  
 Total Capacity: 0  
 Facility Type: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**D L BRENNER & SONS INC (Continued)**

**U000400141**

Mailing Company: PATRICK J. FITZGERALD  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City: WOODSTOCK  
Mailing State: IL  
Mailing Zip Code: 60098  
Mailing Phone No: (305) 981-0568  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner Address 2: Not reported  
Owner State: FL  
Owner Zip Code: 33024  
Owner Phone: (305) 981-0568  
Owner Company: D L BRENNER REALTY  
Emergency Contact: A BRENNER  
Emergency Phone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Phone: (718) 387-8785  
Owner City: HOLLYWOOD  
Owner Sub Type: Not reported

Facility ID: 2-257958  
Program Type: PBS  
Tank Number: 001  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Diesel  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**D L BRENNER & SONS INC (Continued)**

**U000400141**

Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/01/90

UST\_PBS\_FAC:  
Facility Id: 2-257958  
Expiration Date: 08/24/92  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PATRICK J. FITZGERALD  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City: WOODSTOCK  
Mailing State: IL  
Mailing Zip Code: 60098  
Mailing Phone No: (305) 981-0568  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner Address 2: Not reported  
Owner State: FL  
Owner Zip Code: 33024  
Owner Phone: (305) 981-0568  
Owner Company: D L BRENNER REALTY  
Emergency Contact: A BRENNER  
Emergency Phone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Phone: (718) 387-8785  
Owner City: HOLLYWOOD  
Owner Sub Type: Not reported

Facility ID: 2-257958  
Program Type: PBS  
Tank Number: 004  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Other  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**D L BRENNER & SONS INC (Continued)**

**U000400141**

Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/01/90

UST\_PBS\_FAC:  
Facility Id: 2-257958  
Expiration Date: 08/24/92  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PATRICK J. FITZGERALD  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City: WOODSTOCK  
Mailing State: IL  
Mailing Zip Code: 60098  
Mailing Phone No: (305) 981-0568  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner Address 2: Not reported  
Owner State: FL  
Owner Zip Code: 33024  
Owner Phone: (305) 981-0568  
Owner Company: D L BRENNER REALTY  
Emergency Contact: A BRENNER  
Emergency Phone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Phone: (718) 387-8785  
Owner City: HOLLYWOOD  
Owner Sub Type: Not reported

Facility ID: 2-257958  
Program Type: PBS  
Tank Number: 002  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Diesel  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

D L BRENNER & SONS INC (Continued)

U000400141

Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/01/90

UST\_PBS\_FAC:  
Facility Id: 2-257958  
Expiration Date: 08/24/92  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PATRICK J. FITZGERALD  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City: WOODSTOCK  
Mailing State: IL  
Mailing Zip Code: 60098  
Mailing Phone No: (305) 981-0568  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner Address 2: Not reported  
Owner State: FL  
Owner Zip Code: 33024  
Owner Phone: (305) 981-0568  
Owner Company: D L BRENNER REALTY  
Emergency Contact: A BRENNER  
Emergency Phone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Phone: (718) 387-8785  
Owner City: HOLLYWOOD  
Owner Sub Type: Not reported

Facility ID: 2-257958  
Program Type: PBS  
Tank Number: 005  
Tank Model: Not reported  
Pipe Model: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**D L BRENNER & SONS INC (Continued)**

**U000400141**

Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Other  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/01/90

UST\_PBS\_FAC:  
Facility Id: 2-257958  
Expiration Date: 08/24/92  
Renewal Date: / /  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: PATRICK J. FITZGERALD  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City: WOODSTOCK  
Mailing State: IL  
Mailing Zip Code: 60098  
Mailing Phone No: (305) 981-0568  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner Address 2: Not reported  
Owner State: FL  
Owner Zip Code: 33024  
Owner Phone: (305) 981-0568  
Owner Company: D L BRENNER REALTY  
Emergency Contact: A BRENNER  
Emergency Phone: (718) 387-8785  
Operator: D L BRENNER & SONS INC

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**D L BRENNER & SONS INC (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**U000400141**

Operator Phone: (718) 387-8785  
Owner City: HOLLYWOOD  
Owner Sub Type: Not reported

**HIST UST:**

PBS Number: 2-257958  
SPDES Number: Not reported  
Emergency Contact: A BRENNER  
Emergency Telephone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Telephone: (718) 387-8785  
Owner Name: D L BRENNER REALTY  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner City,St,Zip: HOLLYWOOD, FL 33024  
Owner Telephone: (305) 981-0568  
Owner Type: Not reported  
Owner Subtype: Not reported  
Mailing Name: PATRICK J. FITZGERALD  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City,St,Zip: WOODSTOCK, IL 60098  
Mailing Contact: Not reported  
Mailing Telephone: (305) 981-0568  
Owner Mark: First Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons)  
and Subpart 360-14.  
Facility Addr2: 407 LEONARD ST  
Tank Id: 001  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: DIESEL  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/01/1990  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: Not reported  
Inspected Date: Not reported  
Inspector: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**D L BRENNER & SONS INC (Continued)**

**U000400141**

Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 08/24/1987  
Expiration Date: 08/24/1992  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 0  
FAMT: True  
Facility Screen: Minor Data Missing  
Owner Screen: Minor Data Missing  
Tank Screen: 0  
Dead Letter: True  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-257958  
SPDES Number: Not reported  
Emergency Contact: A BRENNER  
Emergency Telephone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Telephone: (718) 387-8785  
Owner Name: D L BRENNER REALTY  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner City,St,Zip: HOLLYWOOD, FL 33024  
Owner Telephone: (305) 981-0568  
Owner Type: Not reported  
Owner Subtype: Not reported  
Mailing Name: PATRICK J. FITZGERALD  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City,St,Zip: WOODSTOCK, IL 60098  
Mailing Contact: Not reported  
Mailing Telephone: (305) 981-0568  
Owner Mark: First Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons)  
and Subpart 360-14.

Facility Addr2: 407 LEONARD ST  
Tank Id: 002  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: DIESEL  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**D L BRENNER & SONS INC (Continued)**

**U000400141**

Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/01/1990  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 08/24/1987  
Expiration Date: 08/24/1992  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 0  
FAMT: True  
Facility Screen: Minor Data Missing  
Owner Screen: Minor Data Missing  
Tank Screen: 0  
Dead Letter: True  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

PBS Number: 2-257958  
SPDES Number: Not reported  
Emergency Contact: A BRENNER  
Emergency Telephone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Telephone: (718) 387-8785  
Owner Name: D L BRENNER REALTY  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner City,St,Zip: HOLLYWOOD, FL 33024  
Owner Telephone: (305) 981-0568  
Owner Type: Not reported  
Owner Subtype: Not reported  
Mailing Name: PATRICK J. FITZGERALD  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City,St,Zip: WOODSTOCK, IL 60098  
Mailing Contact: Not reported  
Mailing Telephone: (305) 981-0568  
Owner Mark: First Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.  
Facility Addr2: 407 LEONARD ST  
Tank Id: 003  
Tank Location: UNDERGROUND  
Install Date: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

D L BRENNER & SONS INC (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site

U000400141

Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/01/1990  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 08/24/1987  
Expiration Date: 08/24/1992  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 0  
FAMT: True  
Facility Screen: Minor Data Missing  
Owner Screen: Minor Data Missing  
Tank Screen: 0  
Dead Letter: True  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-257958  
SPDES Number: Not reported  
Emergency Contact: A BRENNER  
Emergency Telephone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Telephone: (718) 387-8785  
Owner Name: D L BRENNER REALTY  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner City,St,Zip: HOLLYWOOD, FL 33024  
Owner Telephone: (305) 981-0568  
Owner Type: Not reported  
Owner Subtype: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

D L BRENNER & SONS INC (Continued)

EDR ID Number  
EPA ID Number

Database(s)

U000400141

Mailing Name: PATRICK J. FITZGERALD  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City,St,Zip: WOODSTOCK, IL 60098  
Mailing Contact: Not reported  
Mailing Telephone: (305) 981-0568  
Owner Mark: First Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons)  
and Subpart 360-14.  
Facility Addr2: 407 LEONARD ST  
Tank Id: 004  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNKNOWN  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/01/1990  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 08/24/1987  
Expiration Date: 08/24/1992  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 0  
FAMT: True  
Facility Screen: Minor Data Missing  
Owner Screen: Minor Data Missing  
Tank Screen: 0  
Dead Letter: True  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

D L BRENNER & SONS INC (Continued)

EDR ID Number  
EPA ID Number

Database(s)

U000400141

PBS Number: 2-257958  
SPDES Number: Not reported  
Emergency Contact: A BRENNER  
Emergency Telephone: (718) 387-8785  
Operator: D L BRENNER & SONS INC  
Operator Telephone: (718) 387-8785  
Owner Name: D L BRENNER REALTY  
Owner Address: 508 BRIARWOOD CIRCLE  
Owner City,St,Zip: HOLLYWOOD, FL 33024  
Owner Telephone: (305) 981-0568  
Owner Type: Not reported  
Owner Subtype: Not reported  
Mailing Name: PATRICK J. FITZGERALD  
Mailing Address: P.O BOX 48  
Mailing Address 2: 13711 JACKSON ST RD  
Mailing City,St,Zip: WOODSTOCK, IL 60098  
Mailing Contact: Not reported  
Mailing Telephone: (305) 981-0568  
Owner Mark: First Owner  
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.  
Facility Addr2: 407 LEONARD ST  
Tank Id: 005  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNKNOWN  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/01/1990  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 08/24/1987  
Expiration Date: 08/24/1992  
Renew Flag: False

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**D L BRENNER & SONS INC (Continued)**

**U000400141**

Renewal Date: Not reported  
 Total Capacity: 0  
 FAMT: True  
 Facility Screen: Minor Data Missing  
 Owner Screen: Minor Data Missing  
 Tank Screen: 0  
 Dead Letter: True  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**L62**  
**South**  
**1/8-1/4**  
**1163 ft.**

**FREMRO SERVICES INC.**  
**447 UNION AVENUE**  
**BROOKLYN, NY 11211**

**UST U003297832**  
**HIST UST N/A**

**Site 4 of 4 in cluster L**

**Relative:**  
**Lower**

**UST:**

**Actual:**  
**14 ft.**

Facility ID: 2-603384  
 Program Type: PBS  
 Tank Number: 004  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Administratively Closed  
 Active Status: Inactive  
 Install Date: 03/01/98  
 Capacity Gallons: 550  
 Material Name: Waste Oil/Used Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: Underground/On-ground  
 Pipe Type Name: Steel/Carbon Steel/Iron  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Not reported  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: / /

**UST\_PBS\_FAC:**

Facility Id: 2-603384

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**FREMRO SERVICES INC. (Continued)**

**U003297832**

Expiration Date: 03/17/03  
Renewal Date: 11/18/02  
Total Capacity: 0  
Facility Type: Not reported  
Mailing Company: FREMRO SERVICES INC.  
Mailing Title: Not reported  
Mailing Contact: HOWARD FREMDER  
Mailing Address: 2905 MANDALEY BEACH RD.  
Mailing Address 2: Not reported  
Mailing City: WONTAGH  
Mailing State: NY  
Mailing Zip Code: 11793  
Mailing Phone No: (718) 221-3481  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 447 UNION AVENUE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 384-2171  
Owner Company: FREMRO SERVICES INC.  
Emergency Contact: HOWARD FRENDER  
Emergency Phone: (718) 384-2171  
Operator: HOWARD FRENDER  
Operator Phone: (718) 384-2171  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

**HIST UST:**

PBS Number: 2-603384  
SPDES Number: Not reported  
Emergency Contact: HOWARD FRENDER  
Emergency Telephone: (516) 221-3481  
Operator: HOWARD FRENDER  
Operator Telephone: (718) 384-2171  
Owner Name: FREMRO SERVICES INC.  
Owner Address: 447 UNION AVENUE  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 384-2171  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: FREMRO SERVICES INC.  
Mailing Address: 2905 MANDALEY BEACH RD.  
Mailing Address 2: Not reported  
Mailing City,St,Zip: WONTAGH, NY 11793  
Mailing Contact: HOWARD FREMDER  
Mailing Telephone: (718) 221-3481  
Owner Mark: First Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: Not reported  
Tank Id: 004  
Tank Location: UNDERGROUND  
Install Date: 19980301  
Capacity (gals): 550  
Product Stored: USED OIL  
Tank Type: Steel/carbon steel

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**FREMRO SERVICES INC. (Continued)**

**U003297832**

Tank Internal: None  
 Tank External: None  
 Pipe Location: Underground  
 Pipe Type: STEEL/IRON  
 Pipe Internal: None  
 Pipe External: None  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: None  
 Dispenser: 0  
 Date Tested: Not reported  
 Next Test Date: Not reported  
 Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: Not reported  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 04/02/1998  
 Expiration Date: 03/17/2003  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 550  
 FAMT: True  
 Facility Screen: Minor Data Missing  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**O63**  
**SSW**  
**1/8-1/4**  
**1175 ft.**

**JOE'S AUTO REPAIR CORNER INC.**  
**445 METROPOLITAN AVENUE**  
**BROOKLYN, NY 11211**

**UST U004078261**  
**N/A**

**Site 1 of 4 in cluster O**

**Relative:**  
**Lower**

UST:  
 Facility ID: 2-477060  
 Program Type: PBS  
 Tank Number: 5  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive

**Actual:**  
**15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/95  
Next Test Date: / /  
Date Tank Closed: 10/29/99

UST\_PBS\_FAC:  
Facility Id: 2-477060  
Expiration Date: 10/04/06  
Renewal Date: / /  
Total Capacity: 250  
Facility Type: Not reported  
Mailing Company: YOSEPH ZANCO  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City: BAYSIDE  
Mailing State: NY  
Mailing Zip Code: 11360  
Mailing Phone No: (347) 219-4909  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 208-41 15TH DRIVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11360  
Owner Phone: (347) 219-4909  
Owner Company: YOSEPH ZANCO  
Emergency Contact: YOSEPH ZANCO  
Emergency Phone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Phone: (718) 782-2881  
Owner City: BAYSIDE  
Owner Sub Type: Corporate or Commercial

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Facility ID: 2-477060  
Program Type: PBS  
Tank Number: 4  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/95  
Next Test Date: / /  
Date Tank Closed: 10/29/99

**UST\_PBS\_FAC:**

Facility Id: 2-477060  
Expiration Date: 10/04/06  
Renewal Date: / /  
Total Capacity: 250  
Facility Type: Not reported  
Mailing Company: YOSEPH ZANCO  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City: BAYSIDE  
Mailing State: NY  
Mailing Zip Code: 11360  
Mailing Phone No: (347) 219-4909  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 208-41 15TH DRIVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11360

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Owner Phone: (347) 219-4909  
Owner Company: YOSEPH ZANCO  
Emergency Contact: YOSEPH ZANCO  
Emergency Phone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Phone: (718) 782-2881  
Owner City: BAYSIDE  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-477060  
Program Type: PBS  
Tank Number: 9  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground, vaulted, with access  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 0  
Material Name: Waste Oil/Used Oil  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: No Piping  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: None  
Spill Prevention: Not reported  
Tightness Test Method: Testing Not Required  
Date Tested: / /  
Next Test Date: / /  
Date Tank Closed: 10/29/99

**UST\_PBS\_FAC:**

Facility Id: 2-477060  
Expiration Date: 10/04/06  
Renewal Date: / /  
Total Capacity: 250  
Facility Type: Not reported  
Mailing Company: YOSEPH ZANCO  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City: BAYSIDE  
Mailing State: NY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Mailing Zip Code: 11360  
Mailing Phone No: (347) 219-4909  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 208-41 15TH DRIVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11360  
Owner Phone: (347) 219-4909  
Owner Company: YOSEPH ZANCO  
Emergency Contact: YOSEPH ZANCO  
Emergency Phone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Phone: (718) 782-2881  
Owner City: BAYSIDE  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-477060  
Program Type: PBS  
Tank Number: 2  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/95  
Next Test Date: / /  
Date Tank Closed: 10/29/99

UST\_PBS\_FAC:  
Facility Id: 2-477060  
Expiration Date: 10/04/06  
Renewal Date: / /

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Total Capacity: 250  
Facility Type: Not reported  
Mailing Company: YOSEPH ZANCO  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City: BAYSIDE  
Mailing State: NY  
Mailing Zip Code: 11360  
Mailing Phone No: (347) 219-4909  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 208-41 15TH DRIVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11360  
Owner Phone: (347) 219-4909  
Owner Company: YOSEPH ZANCO  
Emergency Contact: YOSEPH ZANCO  
Emergency Phone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Phone: (718) 782-2881  
Owner City: BAYSIDE  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-477060  
Program Type: PBS  
Tank Number: 3  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Spill Prevention: Not reported  
 Tightness Test Method: Horner EZ Check I or II  
 Date Tested: 03/01/95  
 Next Test Date: / /  
 Date Tank Closed: 10/29/99

**UST\_PBS\_FAC:**

Facility Id: 2-477060  
 Expiration Date: 10/04/06  
 Renewal Date: / /  
 Total Capacity: 250  
 Facility Type: Not reported  
 Mailing Company: YOSEPH ZANCO  
 Mailing Title: Not reported  
 Mailing Contact: Not reported  
 Mailing Address: 208-41 15TH DRIVE  
 Mailing Address 2: Not reported  
 Mailing City: BAYSIDE  
 Mailing State: NY  
 Mailing Zip Code: 11360  
 Mailing Phone No: (347) 219-4909  
 Mailing Email: Not reported  
 Owner Title: Not reported  
 Owner Name: Not reported  
 Owner Address: 208-41 15TH DRIVE  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11360  
 Owner Phone: (347) 219-4909  
 Owner Company: YOSEPH ZANCO  
 Emergency Contact: YOSEPH ZANCO  
 Emergency Phone: (347) 219-4909  
 Operator: YOSEPH ZANCO  
 Operator Phone: (718) 782-2881  
 Owner City: BAYSIDE  
 Owner Sub Type: Corporate or Commercial

Facility ID: 2-477060  
 Program Type: PBS  
 Tank Number: 6  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 550  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Galvanized Steel  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/95  
Next Test Date: / /  
Date Tank Closed: 10/29/99

UST\_PBS\_FAC:  
Facility Id: 2-477060  
Expiration Date: 10/04/06  
Renewal Date: / /  
Total Capacity: 250  
Facility Type: Not reported  
Mailing Company: YOSEPH ZANCO  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City: BAYSIDE  
Mailing State: NY  
Mailing Zip Code: 11360  
Mailing Phone No: (347) 219-4909  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 208-41 15TH DRIVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11360  
Owner Phone: (347) 219-4909  
Owner Company: YOSEPH ZANCO  
Emergency Contact: YOSEPH ZANCO  
Emergency Phone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Phone: (718) 782-2881  
Owner City: BAYSIDE  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-477060  
Program Type: PBS  
Tank Number: 8  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/95  
Next Test Date: / /  
Date Tank Closed: 10/29/99

UST\_PBS\_FAC:  
Facility Id: 2-477060  
Expiration Date: 10/04/06  
Renewal Date: / /  
Total Capacity: 250  
Facility Type: Not reported  
Mailing Company: YOSEPH ZANCO  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City: BAYSIDE  
Mailing State: NY  
Mailing Zip Code: 11360  
Mailing Phone No: (347) 219-4909  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 208-41 15TH DRIVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11360  
Owner Phone: (347) 219-4909  
Owner Company: YOSEPH ZANCO  
Emergency Contact: YOSEPH ZANCO  
Emergency Phone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Phone: (718) 782-2881  
Owner City: BAYSIDE  
Owner Sub Type: Corporate or Commercial

Facility ID: 2-477060  
Program Type: PBS  
Tank Number: 1

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: Closed - Removed  
Active Status: Inactive  
Install Date: / /  
Capacity Gallons: 550  
Material Name: Gasoline  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Galvanized Steel  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: Vault (w/o access)  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Not reported  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: None  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Horner EZ Check I or II  
Date Tested: 03/01/95  
Next Test Date: / /  
Date Tank Closed: 10/29/99

**UST\_PBS\_FAC:**

Facility Id: 2-477060  
Expiration Date: 10/04/06  
Renewal Date: / /  
Total Capacity: 250  
Facility Type: Not reported  
Mailing Company: YOSEPH ZANCO  
Mailing Title: Not reported  
Mailing Contact: Not reported  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City: BAYSIDE  
Mailing State: NY  
Mailing Zip Code: 11360  
Mailing Phone No: (347) 219-4909  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 208-41 15TH DRIVE  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11360  
Owner Phone: (347) 219-4909  
Owner Company: YOSEPH ZANCO  
Emergency Contact: YOSEPH ZANCO

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U004078261**

Emergency Phone: (347) 219-4909  
 Operator: YOSEPH ZANCO  
 Operator Phone: (718) 782-2881  
 Owner City: BAYSIDE  
 Owner Sub Type: Corporate or Commercial

Facility ID: 2-477060  
 Program Type: PBS  
 Tank Number: 7  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - Removed  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 550  
 Material Name: Gasoline  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: Galvanized Steel  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: Vault (w/o access)  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: Suction  
 Spill Prevention: Not reported  
 Tightness Test Method: Horner EZ Check I or II  
 Date Tested: 03/01/95  
 Next Test Date: / /  
 Date Tank Closed: 10/29/99

**UST\_PBS\_FAC:**

Facility Id: 2-477060  
 Expiration Date: 10/04/06  
 Renewal Date: / /  
 Total Capacity: 250  
 Facility Type: Not reported  
 Mailing Company: YOSEPH ZANCO  
 Mailing Title: Not reported  
 Mailing Contact: Not reported  
 Mailing Address: 208-41 15TH DRIVE  
 Mailing Address 2: Not reported  
 Mailing City: BAYSIDE  
 Mailing State: NY  
 Mailing Zip Code: 11360  
 Mailing Phone No: (347) 219-4909  
 Mailing Email: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**U004078261**

Owner Title: Not reported  
 Owner Name: Not reported  
 Owner Address: 208-41 15TH DRIVE  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11360  
 Owner Phone: (347) 219-4909  
 Owner Company: YOSEPH ZANCO  
 Emergency Contact: YOSEPH ZANCO  
 Emergency Phone: (347) 219-4909  
 Operator: YOSEPH ZANCO  
 Operator Phone: (718) 782-2881  
 Owner City: BAYSIDE  
 Owner Sub Type: Corporate or Commercial

**O64  
 SSW  
 1/8-1/4  
 1175 ft.**

**JOE'S AUTO REPAIR CORNER INC.  
 445 METROPOLITAN AVENUE  
 BROOKLYN, NY 11211**

**HIST UST**

**U003065866  
 N/A**

**Site 2 of 4 in cluster O**

**Relative:  
 Lower**

HIST UST:  
 PBS Number: 2-477060  
 SPDES Number: Not reported  
 Emergency Contact: YOSEPH ZANCO  
 Emergency Telephone: (347) 219-4909  
 Operator: YOSEPH ZANCO  
 Operator Telephone: (718) 782-2881  
 Owner Name: YOSEPH ZANCO  
 Owner Address: 208-41 15TH DRIVE  
 Owner City,St,Zip: BAYSIDE, NY 11360  
 Owner Telephone: (347) 219-4909  
 Owner Type: Corporate/Commercial  
 Owner Subtype: Not reported  
 Mailing Name: YOSEPH ZANCO  
 Mailing Address: 208-41 15TH DRIVE  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: BAYSIDE, NY 11360  
 Mailing Contact: Not reported  
 Mailing Telephone: (347) 219-4909  
 Owner Mark: Second Owner  
 Facility Status: 4 - Subpart 360-14 only (active)  
 Facility Addr2: 445 METROPOLITAN AVENUE  
 Tank Id: 9  
 Tank Location: UNDERGROUND, VAULTED, WITH ACCESS  
 Install Date: Not reported  
 Capacity (gals): 0  
 Product Stored: USED OIL  
 Tank Type: Steel/carbon steel  
 Tank Internal: Not reported  
 Tank External: Not reported  
 Pipe Location: Not reported  
 Pipe Type: Not reported  
 Pipe Internal: Not reported  
 Pipe External: Not reported  
 Second Containment: Not reported  
 Leak Detection: Not reported  
 Overfill Prot: Not reported

**Actual:  
 15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Dispenser: Not reported  
Date Tested: Not reported  
Next Test Date: Not reported  
Missing Data for Tank: Major Data Missing (which is on the certificate)  
Date Closed: 10/29/1999  
Test Method: Not reported  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported  
Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 1  
Tank Location: UNDERGROUND

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported  
Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 2  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported  
Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 3  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported  
Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 4  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

Site

**U003065866**

Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported  
Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 5  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported  
Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 6  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250  
FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 7  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported  
SWIS ID: 6101  
Old PBS Number: Not reported  
Facility Type: OTHER  
Inspected Date: Not reported  
Inspector: Not reported  
Inspection Result: Not reported  
Federal ID: Not reported  
Certification Flag: False  
Certification Date: 10/05/2001  
Expiration Date: 10/04/2006  
Renew Flag: False  
Renewal Date: Not reported  
Total Capacity: 250

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

FAMT: True  
Facility Screen: No Missing Data  
Owner Screen: No Missing Data  
Tank Screen: Minor Data Missing  
Dead Letter: False  
CBS Number: Not reported  
Town or City: NEW YORK CITY  
County Code: 61  
Town or City: 01  
Region: 2  
  
PBS Number: 2-477060  
SPDES Number: Not reported  
Emergency Contact: YOSEPH ZANCO  
Emergency Telephone: (347) 219-4909  
Operator: YOSEPH ZANCO  
Operator Telephone: (718) 782-2881  
Owner Name: YOSEPH ZANCO  
Owner Address: 208-41 15TH DRIVE  
Owner City,St,Zip: BAYSIDE, NY 11360  
Owner Telephone: (347) 219-4909  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: YOSEPH ZANCO  
Mailing Address: 208-41 15TH DRIVE  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BAYSIDE, NY 11360  
Mailing Contact: Not reported  
Mailing Telephone: (347) 219-4909  
Owner Mark: Second Owner  
Facility Status: 4 - Subpart 360-14 only (active)  
Facility Addr2: 445 METROPOLITAN AVENUE  
Tank Id: 8  
Tank Location: UNDERGROUND  
Install Date: Not reported  
Capacity (gals): 550  
Product Stored: UNLEADED GASOLINE  
Tank Type: Steel/carbon steel  
Tank Internal: Not reported  
Tank External: Not reported  
Pipe Location: Not reported  
Pipe Type: GALVANIZED STEEL  
Pipe Internal: Not reported  
Pipe External: Not reported  
Second Containment: Diking  
Leak Detection: None  
Overfill Prot: Not reported  
Dispenser: Suction  
Date Tested: 03/01/1995  
Next Test Date: Not reported  
Missing Data for Tank: Minor Data Missing  
Date Closed: 10/29/1999  
Test Method: Horner EZ Check  
Deleted: False  
Updated: True  
Lat/long: Not reported  
Lat/long: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**U003065866**

SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: OTHER  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 10/05/2001  
 Expiration Date: 10/04/2006  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 250  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: Minor Data Missing  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**O65**  
**SSW**  
**1/8-1/4**  
**1175 ft.**

**UNICO GAS STATION**  
**445 METROPOLITIAN AVE**  
**BROOKLYN, NY**

**LTANKS S104278570**  
**HIST LTANKS N/A**

**Site 3 of 4 in cluster O**

**Relative:**  
**Lower**

**LTANKS:**

**Actual:**  
**15 ft.**

Site ID: 148052  
 Spill Date: 10/28/99  
 Facility Addr2: Not reported  
 Facility ID: 9909193  
 Program Number: 9909193  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: hmdudek  
 Referred To: Not reported  
 Reported to Dept: 10/28/99  
 CID: 14  
 Spill Cause: Tank Failure  
 Water Affected: Not reported  
 Spill Source: Gasoline Station  
 Spill Notifier: Local Agency  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: True  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 10/07/05  
 Remediation Phase: 0  
 Date Entered In Computer: 10/28/99  
 Spill Record Last Update: 10/26/05  
 Spille Namer: JOE

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**UNICO GAS STATION (Continued)**

**S104278570**

Spiller Company: UNICO GAS STATION  
Spiller Phone: (000) 000-0000  
Spiller Extention: Not reported  
Spiller Address: 445 METROPOLITIAN AVE  
Spiller City,St,Zip: BROOKLYN, ZZ  
Spiller County: 001  
Spiller Contact: JOE  
Spiller Phone: (000) 000-0000  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 9909193  
DER Facility ID: 126027  
Site ID: 148052  
Operable Unit ID: 1083803  
Operable Unit: 01  
Material ID: 298281  
Material Code: 0009  
Material Name: Gasoline  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 9909193 Prior to Sept, 2004 data translation this spill Lead DEC Field was "ROMMEL" 11/1/99 On site. All tanks out. Station covered with fresh concrete already. Two 55 gallon drums on side of station need to be disposed. All tanks off site. No stockpile of soil. Spill 9909344 reported by anonymous citizen. 11/2/99 Spoke to Butch (516) 831-2982 - beeper? from ITAR Tanks. Dr. Munroe was on site to collect samples from the excavation. NO soil was removed. Concrete slab was removed. PBS needs to be updated - tanks listed as temporarily-out-of-service. Site visit 10/5/05 - Site abandoned. No drums present. END DECRemark - 9909193  
Remarks: Start CallerRemark - 9909193 underground storage tanks were being removed and contaminated soil was discovered - site assessment will be done and the owner will decide what he wants to do for clean up END CallerRemark - 9909193

HIST LTANKS:  
Region of Spill: 2  
Spill Number: 9909193  
Investigator: ROMMEL  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

UNICO GAS STATION (Continued)

S104278570

Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 10/28/1999  
Spill Time: 12:00  
Reported to Department Date: 10/28/99  
Reported to Department Time: 13:45  
SWIS: 61  
Spiller Contact: JOE  
Spiller Phone: (000) 000-0000  
Spiller Extention: Not reported  
Spiller Name: UNICO GAS STATION  
Spiller Address: 445 METROPOLITIAN AVE  
Spiller City,St,Zip: BROOKLYN  
Facility Contact: JOE  
Facility Phone: (000) 000-0000  
Facility Extention: Not reported  
Spill Cause: Tank Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Gas Station  
Spill Notifier: Local Agency  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: True  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 10/28/99  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 11/02/99  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: True  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: True  
Material: GASOLINE  
Class Type: GASOLINE  
Times Material Entry In File: 21329  
CAS Number: Not reported  
Last Date: 19940929

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**UNICO GAS STATION (Continued)**

**S104278570**

DEC Remarks: 11/1/99 On site. All tanks out. Station covered with fresh concrete already. Two 55 gallon drums on side of station need to be disposed. All tanks off site. No stockpile of soil. Spill 9909344 reported by anonymous citi en. 11/2/99 Spoke to Butch 516) 831-2982 - beeper? from ITAR Tanks. Dr. Munroe was on site to collect samples from the excavation. NO soil was removed. Concrete slab was removed. PBS needs to be updated - tanks listed as temporarily-out-of-service.

Spill Cause: underground storage tanks were being removed and contaminated soil was discovered - site assessment will be done and the owner will decide what he wants to do for clean up

**O66  
 SSW  
 1/8-1/4  
 1175 ft.**

**JOE'S AUTO REPAIR CORNER INC.  
 445 METROPOLITAN AVENUE  
 BROOKLYN, NY 11211**

**AST A100194001  
 N/A**

**Site 4 of 4 in cluster O**

**Relative:  
 Lower**

AST:  
 Facility ID: 2-477060  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Aboveground on crib, rack, or cradle  
 Tank Status: In Service  
 Active Status: Active  
 Install Date: 09/01/00  
 Capacity Gallons: 250  
 Material Name: Waste Oil/Used Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron  
 Tank Internal Protection: None  
 Tank Internal Protection 1: None  
 Tank Internal Protection 2: Not reported  
 Pipe Location Name: No Piping  
 Pipe Type Name: No Piping  
 Pipe External Protection 1: None  
 Pipe External Protection 2: Not reported  
 Tank Secondary Containment 1: None  
 Tank Secondary Containment 2: Not reported  
 Pipe Secondary Containment: Not reported  
 Tank Leak Detection 1: None  
 Tank Leak Detection 2: Not reported  
 Pipe Leak Detection 1: Not reported  
 Pipe Leak Detection 2: Not reported  
 Type Of Overfill Prevention 1: None  
 Type Of Overfill Prevention 2: Not reported  
 Dispenser Method: None  
 Spill Prevention: Not reported  
 Tightness Test Method: Testing Not Required  
 Date Tested: / /  
 Next Test Date: / /  
 Date Tank Closed: / /

**Actual:  
 15 ft.**

AST\_PBS\_FAC:  
 Facility Id: 2-477060  
 Expiration Date: 10/04/06  
 Renewal Date: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**JOE'S AUTO REPAIR CORNER INC. (Continued)**

**A100194001**

Total Capacity: 250  
 Facility Type: Not reported  
 Mailing Company: YOSEPH ZANCO  
 Mailing Title: Not reported  
 Mailing Contact: Not reported  
 Mailing Address: 208-41 15TH DRIVE  
 Mailing Address 2: Not reported  
 Mailing City: BAYSIDE  
 Mailing State: NY  
 Mailing Zip Code: 11360  
 Mailing Phone No: (347) 219-4909  
 Mailing Email: Not reported  
 Owner Title: Not reported  
 Owner Name: Not reported  
 Owner Address: 208-41 15TH DRIVE  
 Owner Address 2: Not reported  
 Owner State: NY  
 Owner Zip Code: 11360  
 Owner Phone: (347) 219-4909  
 Owner Company: YOSEPH ZANCO  
 Emergency Contact: YOSEPH ZANCO  
 Emergency Phone: (347) 219-4909  
 Operator: YOSEPH ZANCO  
 Operator Phone: (718) 782-2881  
 Owner City: BAYSIDE  
 Owner Sub Type: Corporate or Commercial

**67  
 SSE  
 1/8-1/4  
 1204 ft.**

**METROPOLITAN CLEANERS  
 568 METROPOLITAN AVE.  
 BROOKLYN, NY 11211**

**DRYCLEANERS S106435470  
 N/A**

**Relative:  
 Higher**

DRYCLEANERS:  
 Facility ID: 2-6101-00500  
 Region: KINGS

**Actual:  
 21 ft.**

**N68  
 ENE  
 1/8-1/4  
 1230 ft.**

**ISRAEL M DOLGIN ASSOC  
 101 RICHARDSON STREET  
 BROOKLYN, NY 11211**

**UST U004047204  
 N/A**

**Relative:  
 Lower**

**Site 5 of 5 in cluster N**

UST:  
 Facility ID: 2-090301  
 Program Type: PBS  
 Tank Number: 001  
 Tank Model: Not reported  
 Pipe Model: Not reported  
 Tank Location Name: Underground  
 Tank Status: Closed - In Place  
 Active Status: Inactive  
 Install Date: / /  
 Capacity Gallons: 5000  
 Material Name: #6 Fuel Oil  
 Percentage: 100  
 Tank Type Name: Steel/Carbon Steel/Iron

**Actual:  
 15 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**ISRAEL M DOLGIN ASSOC (Continued)**

**U004047204**

Tank Internal Protection:        None  
Tank Internal Protection 1:       None  
Tank Internal Protection 2:       Not reported  
Pipe Location Name:                No Piping  
Pipe Type Name:                    Steel/Carbon Steel/Iron  
Pipe External Protection 1:        None  
Pipe External Protection 2:        Not reported  
Tank Secondary Containment 1:    Vault (w/o access)  
Tank Secondary Containment 2:    Not reported  
Pipe Secondary Containment:       Not reported  
Tank Leak Detection 1:            None  
Tank Leak Detection 2:            Not reported  
Pipe Leak Detection 1:            Exempt Suction Piping  
Pipe Leak Detection 2:            Not reported  
Type Of Overfill Prevention 1:    Product Level Gauge (A/G)  
Type Of Overfill Prevention 2:    Not reported  
Dispenser Method:                Suction  
Spill Prevention:                  Not reported  
Tightness Test Method:            Testing Not Required  
Date Tested:                        / /  
Next Test Date:                    / /  
Date Tank Closed:                 09/30/88

**UST\_PBS\_FAC:**

Facility Id:                        2-090301  
Expiration Date:                    03/24/02  
Renewal Date:                      11/13/01  
Total Capacity:                    0  
Facility Type:                      Not reported  
Mailing Company:                   ISRAEL M. GOLGIN ASSOC.  
Mailing Title:                      Not reported  
Mailing Contact:                   NEIL DOLGIN  
Mailing Address:                   101 RICHARDSON STREET  
Mailing Address 2:                 Not reported  
Mailing City:                        BROOKLYN  
Mailing State:                       NY  
Mailing Zip Code:                   11211  
Mailing Phone No:                  (718) 388-7700  
Mailing Email:                      Not reported  
Owner Title:                        VP  
Owner Name:                        NEIL DOLGIN  
Owner Address:                      101 RICHARDSON ST  
Owner Address 2:                    Not reported  
Owner State:                        NY  
Owner Zip Code:                    11211  
Owner Phone:                        (718) 388-7700  
Owner Company:                    ISRAEL M.DOLGIN ASSOCIATES  
Emergency Contact:                NEIL A DOLGIN  
Emergency Phone:                  (718) 388-7700  
Operator:                            PATRICK CORZIE  
Operator Phone:                    (718) 388-7700  
Owner City:                         BROOKLYN  
Owner Sub Type:                    Corporate or Commercial

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**69**  
**East**  
**1/8-1/4**  
**1244 ft.**

**COOPER PARK**  
**95 JACKSON STREET**  
**BROOKLYN, NY**

**LTANKS**    **S101341307**  
**HIST LTANKS**    **N/A**

**Relative:**  
**Higher**

LTANKS:

**Actual:**  
**22 ft.**

Site ID: 315998  
 Spill Date: 01/27/95  
 Facility Addr2: Not reported  
 Facility ID: 9414271  
 Program Number: 9414271  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: HEALY  
 Referred To: Not reported  
 Reported to Dept: 01/27/95  
 CID: 12  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Institutional, Educational, Gov., Other  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 03/29/96  
 Remediation Phase: 0  
 Date Entered In Computer: 01/27/95  
 Spill Record Last Update: 12/16/05  
 Spiller Namer: Not reported  
 Spiller Company: NYC HOUSING AUTHORITY  
 Spiller Phone: (212) 306-3142  
 Spiller Extention: Not reported  
 Spiller Address: Not reported  
 Spiller City,St,Zip: ZZ  
 Spiller County: 001  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 9414271  
 DER Facility ID: 204947  
 Site ID: 315998  
 Operable Unit ID: 1007841  
 Operable Unit: 01  
 Material ID: 373014  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: -1.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: 315998

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**COOPER PARK (Continued)**

**S101341307**

Spill Tank Test: 18152  
 Tank Number: 001  
 Tank Size: 0  
 Test Method: 00  
 Leak Rate: 0.00  
 Gross Fail: Not reported  
 Modified By: Spills  
 Last Modified: 10/01/04  
 Test Method: Unknown  
 DEC Remarks: Not reported  
 Remarks: Start CallerRemark - 9414271 TANK TEST FAILURE - COULD NOT MAINTAIN LEVEL END  
 CallerRemark - 9414271

**HIST LTANKS:**

Region of Spill: 2  
 Spill Number: 9414271  
 Investigator: HEALY  
 Caller Name: Not reported  
 Caller Agency: Not reported  
 Caller Phone: Not reported  
 Caller Extension: Not reported  
 Notifier Name: Not reported  
 Notifier Agency: Not reported  
 Notifier Phone: Not reported  
 Notifier Extension: Not reported  
 Spill Date: 01/27/1995  
 Spill Time: 15:20  
 Reported to Department Date: 01/27/95  
 Reported to Department Time: 15:49  
 SWIS: 61  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Extension: Not reported  
 Spiller Name: NYC HOUSING AUTHORITY  
 Spiller Address: Not reported  
 Spiller City,St,Zip: Not reported  
 Facility Contact: Not reported  
 Facility Phone: (212) 306-3142  
 Facility Extension: Not reported  
 Spill Cause: Tank Test Failure  
 Resource Affectd: On Land  
 Water Affected: Not reported  
 Spill Source: Other Non Commercial/Industrial  
 Spill Notifier: Tank Tester  
 PBS Number: 2-474630  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 Spiller Cleanup Date: / /  
 Enforcement Date: / /  
 Investigation Complete: / /  
 UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 03/29/96  
 Date Region Sent Summary to Central Office: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**COOPER PARK (Continued)**

**S101341307**

Corrective Action Plan Submitted: / /  
 Date Spill Entered In Computer Data File: 01/27/95  
 Time Spill Entered In Computer Data File: Not reported  
 Spill Record Last Update: 03/29/96  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: 001  
 Tank Size: 0  
 Test Method: Not reported  
 Leak Rate Failed Tank: 0.00  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: -1  
 Unkonwn Quantity Spilled: False  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: #2 FUEL OIL  
 Class Type: #2 FUEL OIL  
 Times Material Entry In File: 24464  
 CAS Number: Not reported  
 Last Date: 19941207  
 DEC Remarks: 10/10/95: This is additional information about material spilled from the translation of the old spill file: TTF.  
 Spill Cause: TANK TEST FAILURE - COULD NOT MAINTAIN LEVEL

**P70 NEW YORK TELEPHONE COMPANY**  
**SE LORIMER ST / METROPOLITAN AVE.**  
**1/8-1/4 BROOKLYN, NY 11211**  
**1298 ft.**

**CT MANIFEST 1007924418**  
**N/A**

**Site 1 of 2 in cluster P**

**Relative:  
 Higher**

**Actual:  
 25 ft.**

CT MANIFEST:  
 Manifest No: Not reported  
 Waste Occurence: Not reported  
 UNNA: Not reported  
 Hazard Class: Not reported  
 US Dot Description: Not reported  
 No of Containers: Not reported  
 Container Type: Not reported  
 Quantity: Not reported  
 Weight/Volume: Not reported  
 Additional Description: Not reported  
 Handling Code: Not reported  
 Date Record Was Last Modified: Not reported  
 DEO Who Last Modified Record: Not reported  
 Manifest No: Not reported  
 Waste Occurence: Not reported  
 EPA Waste Code: Not reported  
 Recycled Waste?: Not reported  
 Date Record Was Last Modified: Not reported  
 DEO Who Last Modified Record: Not reported  
 Year: 1994  
 Manifest ID: CTF0204753  
 TSDf EPA ID: CTD000604488  
 TSDf Name: CLEAN HARBORS OF CONNECTICUT, INC.  
 TSDf Address: 51 BRODERICK RD  
 TSDf City,St,Zip: BRISTOL, CT 06010

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**NEW YORK TELEPHONE COMPANY (Continued)**

**1007924418**

TSDF Country:            USA  
 TSDF Telephone:        Not reported  
 Transport Date:         02/18/94  
 Transporter EPA ID:    MAD039322250  
 Transporter Name:      CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.  
 Transporter Country:    USA  
 Transporter Phone:     Not reported  
 Trans 2 Date:            02/18/94  
 Trans 2 EPA ID:         MAD039322250  
 Trans 2 Name:            CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.  
 Trans 2 Address:        Not reported  
 Trans 2 City,St,Zip:    CT  
 Trans 2 Country:        USA  
 Trans 2 Phone:          Not reported  
 Generator EPA ID:        NYP000913277  
 Generator Phone:        2123958544  
 Generator Address:      Not reported  
 Generator City,State,Zip: Not reported  
 Generator Country:     Not reported  
 Special Handling:        Yes  
 Discrepancies:          Yes  
 Date Shipped:            02/18/94  
 Date Received:          02/21/94  
 Last modified date:     04/26/04  
 Last modified by:        IG  
 Comments:                Not reported

**P71  
 SE  
 1/8-1/4  
 1298 ft.**

**NYNEX  
 LORIMER ST / METROPOLITAN  
 BROOKLYN, NY 11211**

**NY MANIFEST    1009233299  
 N/A**

**Site 2 of 2 in cluster P**

**Relative:  
 Higher**

NY MANIFEST:  
 Document ID:            CTF0204753  
 Manifest Status:        Completed copy  
 Trans1 State ID:        XW51DVNJ  
 Trans2 State ID:        XW51DVNJ  
 Generator Ship Date:    940218  
 Trans1 Recv Date:      940218  
 Trans2 Recv Date:      940218  
 TSD Site Recv Date:    940221  
 Part A Recv Date:      Not reported  
 Part B Recv Date:      940307  
 Generator EPA ID:        NYP000913277  
 Trans1 EPA ID:         MAD039322250  
 Trans2 EPA ID:         MAD039322250  
 TSDF ID:                CTD000604488  
 Waste Code:             D008 - LEAD 5.0 MG/L TCLP  
 Quantity:                00003  
 Units:                    Y - Cubic yards\* (.85 tons)  
 Number of Containers:    001  
 Container Type:          DT - Dump trucks  
 Handling Method:        T Chemical, physical, or biological treatment.  
 Specific Gravity:        100  
 Year:                     94  
 Facility Type:            Generator  
 EPA ID:                  NYP000913277

**Actual:  
 25 ft.**

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**NYNEX (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**1009233299**

Facility Name: NYNEX  
 Facility Address: LORIMER ST & METROPOLITAN  
 Facility City: BROOKLYN  
 Facility Zip 4: Not reported  
 Country: Not reported  
 County: KINGS  
 Mailing Name: NYNEX  
 Mailing Contact: CARMEN RAMOS  
 Mailing Address: 1095 AVE OF AMER  
 Mailing City: NEW YORK  
 Mailing State: NY  
 Mailing Zip: 10036  
 Mailing Zip4: Not reported  
 Mailing Country: USA  
 Mailing Phone: 212-395-8544

**Q72**  
**SW**  
 1/4-1/2  
 1337 ft.

**402 METROPOLITAN AVE.**  
**402 METROPOLITAN AVE**  
**BROOKLYN, NY**

**LTANKS** **S100494817**  
**HIST LTANKS** **N/A**

**Site 1 of 2 in cluster Q**

**Relative:**  
**Higher**

**Actual:**  
**17 ft.**

**LTANKS:**  
 Site ID: 168459  
 Spill Date: 03/02/93  
 Facility Addr2: Not reported  
 Facility ID: 9213355  
 Program Number: 9213355  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: O'DOWD  
 Referred To: Not reported  
 Reported to Dept: 03/03/93  
 CID: 12  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Gasoline Station  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: 05/04/95  
 Cleanup Meets Standard: True  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: True  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 05/04/95  
 Remediation Phase: 0  
 Date Entered In Computer: 03/10/93  
 Spill Record Last Update: 07/19/05  
 Spille Namer: Not reported  
 Spiller Company: UNKNOWN OWNER-LANDLORD  
 Spiller Phone: (718) 961-8880  
 Spiller Extention: Not reported  
 Spiller Address: Not reported  
 Spiller City,St,Zip: ZZ  
 Spiller County: 001  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**402 METROPOLITAN AVE. (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

Site

**S100494817**

Spiller Extention: DEC Region: Program Number: DER Facility ID: Site ID: Operable Unit ID: Operable Unit: Material ID: Material Code: Material Name: Case No.: Material FA: Quantity: Units: Recovered: Resource Affected: Oxygenate: Site ID: Operable Unit ID: Operable Unit: Material ID: Material Code: Material Name: Case No.: Material FA: Quantity: Units: Recovered: Resource Affected: Oxygenate: Site ID: Spill Tank Test: Tank Number: Tank Size: Test Method: Leak Rate: Gross Fail: Modified By: Last Modified: Test Method: DEC Remarks: Remarks:	Not reported 2 9213355 61317 168459 977609 01 403149 0009 Gasoline Not reported Petroleum 0.00 Pounds 0.00 Soil True 168459 977609 01 572955 1213A MTBE (METHYL-TERT-BUTYL ETHER) 01634044 Hazardous Material 0.00 Not reported 0.00 Soil True 168459 15797 Not reported 0 00 0.00 Not reported Spills 10/01/04 Unknown Not reported Start CallerRemark - 9213355 TO EXCAVATE & INVEST & POSSIBLY REPAIR SEE SPILL # 9212269. END CallerRemark - 9213355
---	---

**HIST LTANKS:**

Region of Spill: Spill Number: Investigator: Caller Name: Caller Agency: Caller Phone: Caller Extension: Notifier Name: Notifier Agency: Notifier Phone: Notifier Extension: Spill Date:	2 9213355 O'DOWD Not reported Not reported Not reported Not reported Not reported Not reported Not reported Not reported 03/02/1993
---	--

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**402 METROPOLITAN AVE. (Continued)**

**S100494817**

Spill Time: 20:00  
 Reported to Department Date: 03/03/93  
 Reported to Department Time: 15:24  
 SWIS: 61  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 Spiller Name: UNKNOWN OWNER-LANDLORD  
 Spiller Address: Not reported  
 Spiller City,St,Zip: Not reported  
 Facility Contact: Not reported  
 Facility Phone: (718) 961-8880  
 Facility Extention: Not reported  
 Spill Cause: Tank Test Failure  
 Resource Affectd: On Land  
 Water Affected: Not reported  
 Spill Source: Gas Station  
 Spill Notifier: Tank Tester  
 PBS Number: Not reported  
 Cleanup Ceased: 05/04/95  
 Cleanup Meets Standard: True  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 Spiller Cleanup Date: / /  
 Enforcement Date: / /  
 Investigation Complete: / /  
 UST Involvement: True  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 05/04/95  
 Date Region Sent Summary to Central Office: / /  
 Corrective Action Plan Submitted: / /  
 Date Spill Entered In Computer Data File: 03/10/93  
 Time Spill Entered In Computer Data File: Not reported  
 Spill Record Last Update: 05/04/95  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: 0  
 Test Method: Not reported  
 Leak Rate Failed Tank: 0.00  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: False  
 Units: Not reported  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: GASOLINE  
 Class Type: GASOLINE  
 Times Material Entry In File: 21329  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: 10/10/95: This is additional information about material spilled from the translation of the old spill file: NO LEAD.  
 Spill Cause: TO EXCAVATE INVEST POSSIBLY REPAIR SEE SPILL 9212269.

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**Q73**      **402 METROPOLITAN AV/BKLYN**  
**SW**        **402 METROPOLITAN AVENUE**  
**1/4-1/2**    **NEW YORK CITY, NY**  
**1338 ft.**

**LTANKS**    **S106703388**  
**HIST LTANKS**    **N/A**

**Site 2 of 2 in cluster Q**

**Relative:**  
**Higher**

**LTANKS:**

**Actual:**  
**17 ft.**

Site ID: 63482  
 Spill Date: 10/24/89  
 Facility Addr2: Not reported  
 Facility ID: 8907310  
 Program Number: 8907310  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: SULLIVAN  
 Referred To: Not reported  
 Reported to Dept: 10/24/89  
 CID: 12  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: 05/04/95  
 Cleanup Meets Standard: True  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: True  
 Spill Class: Known release that creates a file or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 05/04/95  
 Remediation Phase: 0  
 Date Entered In Computer: 10/25/89  
 Spill Record Last Update: 07/25/05  
 Spiller Name: Not reported  
 Spiller Company: DITAL ENERGY CORP  
 Spiller Phone: (718) 384-2705  
 Spiller Extention: Not reported  
 Spiller Address: 402 METROPOLITAN AVENUE  
 Spiller City,St,Zip: BROOKLYN, NY  
 Spiller County: 001  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 8907310  
 DER Facility ID: 61317  
 Site ID: 63482  
 Operable Unit ID: 934941  
 Operable Unit: 01  
 Material ID: 444098  
 Material Code: 0009  
 Material Name: Gasoline  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: -1.00  
 Units: Pounds  
 Recovered: 0.00  
 Resource Affected: Groundwater  
 Oxygenate: False

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

402 METROPOLITAN AV/BKLYN (Continued)

EDR ID Number  
EPA ID Number

Database(s)

S106703388

Site ID: 63482  
Spill Tank Test: 10867  
Tank Number: Not reported  
Tank Size: 0  
Test Method: 00  
Leak Rate: 0.00  
Gross Fail: Not reported  
Modified By: Spills  
Last Modified: 10/01/04  
Test Method: Unknown  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 8907310 (4) 550 GAL TANKS MANIFOLDED FAILED AIR PRESSURE TEST WITH A LEAK RATE OF 1.5LBS/1/2HR, NYCFD ON SCENE, TANKS TO BE ISOLATED & RETESTED. SEE SPILL # 9212269. END CallerRemark - 8907310

HIST LTANKS:

Region of Spill: 2  
Spill Number: 8907310  
Investigator: SULLIVAN  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 10/24/1989  
Spill Time: 16:00  
Reported to Department Date: 10/24/89  
Reported to Department Time: 16:42  
SWIS: 61  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extension: Not reported  
Spiller Name: DITAL ENERGY CORP  
Spiller Address: 402 METROPOLITAN AVENUE  
Spiller City,St,Zip: BROOKLYN, NY  
Facility Contact: Not reported  
Facility Phone: (718) 384-2705  
Facility Extension: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: Groundwater  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Tank Tester  
PBS Number: 2-402850  
Cleanup Ceased: 05/04/95  
Cleanup Meets Standard: True  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: True  
Spill Class: Known release that creates a file or hazard. DEC Response. Willing Responsible Party. Corrective action taken.

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**402 METROPOLITAN AV/BKLYN (Continued)**

**S106703388**

Spill Closed Dt: 05/04/95  
 Date Region Sent Summary to Central Office: / /  
 Corrective Action Plan Submitted: / /  
 Date Spill Entered In Computer Data File: 10/25/89  
 Time Spill Entered In Computer Data File: Not reported  
 Spill Record Last Update: 05/04/95  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: 0  
 Test Method: Not reported  
 Leak Rate Failed Tank: 0.00  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: -1  
 Unkonwn Quantity Spilled: False  
 Units: Not reported  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: GASOLINE  
 Class Type: GASOLINE  
 Times Material Entry In File: 21329  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: Not reported  
 Spill Cause: 4) 550 GAL TANKS MANIFOLDED FAILED AIR PRESSURE TEST WITH A LEAK RATE OF 1.5LBS/1/2HR, NYCFD ON SCENE, TANKS TO BE ISOLATED RETESTED. SEE SPILL 9212269.

**74  
 West  
 1/4-1/2  
 1449 ft.**

**179 N 6TH STREET  
 BROOKLYN, NY**

**LTANKS S105135025  
 HIST LTANKS N/A**

**Relative:  
 Higher**

**LTANKS:**

**Actual:  
 25 ft.**

Site ID: 306031  
 Spill Date: 07/23/01  
 Facility Addr2: Not reported  
 Facility ID: 0104288  
 Program Number: 0104288  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: TJDEMEO  
 Referred To: Not reported  
 Reported to Dept: 07/23/01  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 12/12/03  
 Remediation Phase: 0

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

(Continued)

S105135025

Date Entered In Computer: 07/23/01  
Spill Record Last Update: 12/12/03  
Spille Namer: Not reported  
Spiller Company: Not reported  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Address: Not reported  
Spiller City,St,Zip: \*\*\*Update\*\*\*, ZZ  
Spiller County: 001  
Spiller Contact: MARY JANE TREVZEN  
Spiller Phone: (718) 387-2316  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0104288  
DER Facility ID: 247190  
Site ID: Not reported  
Operable Unit ID: Not reported  
Operable Unit: Not reported  
Material ID: Not reported  
Material Code: Not reported  
Material Name: Not reported  
Case No.: Not reported  
Material FA: Not reported  
Quantity: Not reported  
Units: Not reported  
Recovered: Not reported  
Resource Affected: Not reported  
Oxygenate: Not reported  
Site ID: 306031  
Spill Tank Test: 1040  
Tank Number: 1  
Tank Size: 4000  
Test Method: 03  
Leak Rate: 0.00  
Gross Fail: F  
Modified By: Spills  
Last Modified: 10/01/04  
Test Method: Horner EZ Check I or II  
DEC Remarks: Start DECRemark - 0104288 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "DEMEO" 11/28/2001 Tank passed EZY 3 LP test on 9/7/01. jz  
12/12/03 TJD Spill closed based on above entry. END DECRemark - 0104288  
Remarks: Start CallerRemark - 0104288 tank contained #2 fuel oil END CallerRemark -  
0104288

HIST LTANKS:

Region of Spill: 2  
Spill Number: 0104288  
Investigator: DEMEO  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 07/23/2001

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

(Continued)

S105135025

Spill Time: 09:00  
Reported to Department Date: 07/23/01  
Reported to Department Time: 10:28  
SWIS: 61  
Spiller Contact: MARY JANE TREVZEN  
Spiller Phone: (718) 387-2316  
Spiller Extention: Not reported  
Spiller Name: Not reported  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Facility Contact: Not reported  
Facility Phone: Not reported  
Facility Extention: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Tank Tester  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 07/23/01  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 11/28/01  
Is Updated: False  
PBS Number: Not reported  
Tank Number: 1  
Tank Size: 4000  
Test Method: Horner EZ Check  
Leak Rate Failed Tank: 0.00  
Gross Leak Rate: Tank Test Failures only pass or fail  
Material Class Type: Not reported  
Quantity Spilled: Not reported  
Unkonwn Quantity Spilled: Not reported  
Units: Not reported  
Quantity Recovered: Not reported  
Unkonwn Quantity Recovered: Not reported  
Material: Not reported  
Class Type: Not reported  
Times Material Entry In File: Not reported  
CAS Number: Not reported  
Last Date: Not reported  
DEC Remarks: 11/28/2001 Tank passed EZY 3 LP test on 9/7/01. j  
Spill Cause: tank contained 2 fuel oil

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**75**  
**West**  
**1/4-1/2**  
**1585 ft.**

**ST VINCENT DEPAUL CHURCH**  
**167 N. 6TH ST**  
**BROOKLYN, NY**

**LTANKS**    **S105998861**  
**N/A**

**Relative:**  
**Higher**

LTANKS:

**Actual:**  
**28 ft.**

Site ID: 177051  
 Spill Date: 05/01/03  
 Facility Addr2: Not reported  
 Facility ID: 0301163  
 Program Number: 0301163  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: JBLISTER  
 Referred To: Not reported  
 Reported to Dept: 05/01/03  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Institutional, Educational, Gov., Other  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 12/21/05  
 Remediation Phase: 0  
 Date Entered In Computer: 05/01/03  
 Spill Record Last Update: 01/06/06  
 Spiller Namer: FR. KING  
 Spiller Company: ST VINCENT DEPAUL CHURCH  
 Spiller Phone: (718) 388-4218  
 Spiller Extention: Not reported  
 Spiller Address: 167 N. 6TH ST  
 Spiller City,St,Zip: BROOKLYN, NY  
 Spiller County: 001  
 Spiller Contact: FR. KING  
 Spiller Phone: (718) 388-4218  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 0301163  
 DER Facility ID: 148793  
 Site ID: 177051  
 Operable Unit ID: 867566  
 Operable Unit: 01  
 Material ID: 509219  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: 177051

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**ST VINCENT DEPAUL CHURCH (Continued)**

**S105998861**

Spill Tank Test: 2902  
 Tank Number: 001  
 Tank Size: 5000  
 Test Method: 03  
 Leak Rate: 0.00  
 Gross Fail: F  
 Modified By: Spills  
 Last Modified: 10/01/04  
 Test Method: Horner EZ Check I or II  
 DEC Remarks: Start DECRemark - 0301163 Prior to Sept, 2004 data translation this spill Lead  
 DEC Field was "KRIMGOLD" 05/02/03 - ROSSAN, DDO - Tank test failure letter was  
 sent 5/2/03 Letter was sent to: Fr. King St  
 Vincent De PaulChurch 167 N 6th Street  
 Brooklyn, NY 11211 END 4/30/2004 SS sent a new  
 ttf ltr 12/06/05 called for Father King who I was informed was no longer at  
 the church. Bishop Manuel will call me when he returns. J Lister 12/21/05  
 Spill closed after receiving documentation that tank was retested and passed.  
 J Lister END DECRemark - 0301163  
 Remarks: Start CallerRemark - 0301163 tank test failure END CallerRemark - 0301163

**76**  
**West**  
**1/4-1/2**  
**1635 ft.**

**187 BEDFORD AVE**  
**187 BEDFORD AVENUE**  
**BROOKLYN, NY 11211**

**LTANKS S106123807**  
**N/A**

**Relative:**  
**Higher**

**LTANKS:**

**Actual:**  
**30 ft.**

Site ID: 147917  
 Spill Date: 10/16/03  
 Facility Addr2: Not reported  
 Facility ID: 0307525  
 Program Number: 0307525  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: BKFALVEY  
 Referred To: Not reported  
 Reported to Dept: 10/16/03  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Private Dwelling  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Remediation Phase: 1  
 Date Entered In Computer: 10/16/03  
 Spill Record Last Update: 11/03/06  
 Spille Namer: ALEX WEROCKI  
 Spiller Company: Not reported  
 Spiller Phone: (646) 87 -6165  
 Spiller Extention: Not reported  
 Spiller Address: 187 BEDFORD AVE  
 Spiller City,St,Zip: BROOKLYN, ZZ

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**187 BEDFORD AVE (Continued)**

**S106123807**

Spiller County: 001  
 Spiller Contact: ALEX WEROCKI  
 Spiller Phone: (646) 87 -6165  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 0307525  
 DER Facility ID: 29992  
 Site ID: 147917  
 Operable Unit ID: 873923  
 Operable Unit: 01  
 Material ID: 501052  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: Not reported  
 Spill Tank Test: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate: Not reported  
 Gross Fail: Not reported  
 Modified By: Not reported  
 Last Modified: Not reported  
 Test Method: Not reported  
 DEC Remarks: Start DECRemark - 0307525 Prior to Sept, 2004 data translation this spill Lead  
 DEC Field was "DEMEO" TTF letter sent to Mr. Wersocki at 187 Bedford Ave Bklyn  
 11211 12/3/05: CBN Called Alex Wersocki (718) 963-2659 and left a message  
 for hm to call me back, but haven't heard from him yet. END DECRemark - 0307525  
 Remarks: Not reported

**R77  
 SSW  
 1/4-1/2  
 1726 ft.**

**STREET  
 HOPE STREET / RODNEY ST  
 BROOKLYN, NY**

**LTANKS S106737728  
 N/A**

**Site 1 of 2 in cluster R**

**Relative:  
 Lower**

LTANKS:  
 Site ID: 335838  
 Spill Date: 01/03/05  
 Facility Addr2: Not reported  
 Facility ID: 0410793  
 Program Number: 0410793  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: TJDEMEO  
 Referred To: Not reported  
 Reported to Dept: 01/03/05  
 CID: 409  
 Spill Cause: Tank Failure  
 Water Affected: Not reported  
 Spill Source: Commercial Vehicle  
 Spill Notifier: Fire Department

**Actual:  
 14 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**STREET (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**S106737728**

Cleanup Ceased: //  
Cleanup Meets Standard: True  
Last Inspection: //  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. No DEC Response. No corrective action required.  
Spill Closed Dt: 01/06/05  
Remediation Phase: 0  
Date Entered In Computer: 01/03/05  
Spill Record Last Update: 01/06/05  
Spille Namer: Not reported  
Spiller Company: UNKNOWN VESSEL  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Address: Not reported  
Spiller City,St,Zip: ZZ  
Spiller County: 001  
Spiller Contact: DISPPATCHER 368  
Spiller Phone: (718) 965-8261  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0410793  
DER Facility ID: 271147  
Site ID: 335838  
Operable Unit ID: 1097897  
Operable Unit: 01  
Material ID: 578043  
Material Code: 0008  
Material Name: Diesel  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 100.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Sewer  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 0410793 IN PROCESS OF CLEAN UP. END CallerRemark - 0410793

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**R78**  
**SSW**  
**1/4-1/2**  
**1726 ft.**

**STREET SPILL**  
**HOPE STREET / RODNEY ST**  
**BROOKLYN, NY**

**LTANKS**    **S106737730**  
**N/A**

**Site 2 of 2 in cluster R**

**Relative:**  
**Lower**

LTANKS:

**Actual:**  
**14 ft.**

Site ID: 335840  
 Spill Date: 01/03/05  
 Facility Addr2: Not reported  
 Facility ID: 0410795  
 Program Number: 0410795  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: TJDMEEO  
 Referred To: Not reported  
 Reported to Dept: 01/03/05  
 CID: 409  
 Spill Cause: Tank Failure  
 Water Affected: Not reported  
 Spill Source: Commercial Vehicle  
 Spill Notifier: Fire Department  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: True  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 01/06/05  
 Remediation Phase: 0  
 Date Entered In Computer: 01/03/05  
 Spill Record Last Update: 01/06/05  
 Spille Namer: ROBERT RICHARDS  
 Spiller Company: BERNHARDT FURNITURE COMP  
 Spiller Phone: (800) 438-7057  
 Spiller Extention: Not reported  
 Spiller Address: UNKNOWN  
 Spiller City,St,Zip: LENOIR, NC  
 Spiller County: 001  
 Spiller Contact: JOESPH MCGOVERN  
 Spiller Phone: (718) 476-6288  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 0410795  
 DER Facility ID: 271147  
 Site ID: 335840  
 Operable Unit ID: 1097899  
 Operable Unit: 01  
 Material ID: 578045  
 Material Code: 0008  
 Material Name: Diesel  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 50.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**STREET SPILL (Continued)**

**S106737730**

Site ID: Not reported  
 Spill Tank Test: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate: Not reported  
 Gross Fail: Not reported  
 Modified By: Not reported  
 Last Modified: Not reported  
 Test Method: Not reported  
 DEC Remarks: Not reported  
 Remarks: Start CallerRemark - 0410795 SANTITATION ON SCENE. END CallerRemark - 0410795

**S79  
 WNW  
 1/4-1/2  
 1744 ft.**

**SERVICE PLATING CO LTD  
 154 N 7TH ST  
 BROOKLYN, NY 11211**

**Site 1 of 2 in cluster S**

**Relative:  
 Higher**

**RCRA-SQG 1000432493  
 FINDS NYD001384072  
 UST  
 CERC-NFRAP  
 NY MANIFEST  
 HIST UST  
 CT MANIFEST**

**Actual:  
 33 ft.**

RCRAInfo:  
 Owner: SERVICE PLATING COMPANY LTD  
 (212) 555-1212  
 EPA ID: NYD001384072  
 Contact: Not reported  
 Classification: Small Quantity Generator  
 TSD Activities: Not reported  
 Violation Status: No violations found

**FINDS:**  
 Other Pertinent Environmental Activity Identified at Site

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AFS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

UST:

Facility ID: 2-479748  
Program Type: PBS  
Tank Number: 001  
Tank Model: Not reported  
Pipe Model: Not reported  
Tank Location Name: Underground  
Tank Status: In Service  
Active Status: Active  
Install Date: / /  
Capacity Gallons: 3000  
Material Name: #2 Fuel Oil  
Percentage: 100  
Tank Type Name: Steel/Carbon Steel/Iron  
Tank Internal Protection: None  
Tank Internal Protection 1: None  
Tank Internal Protection 2: Not reported  
Pipe Location Name: No Piping  
Pipe Type Name: Steel/Carbon Steel/Iron  
Pipe External Protection 1: None  
Pipe External Protection 2: Not reported  
Tank Secondary Containment 1: None  
Tank Secondary Containment 2: Not reported  
Pipe Secondary Containment: Not reported  
Tank Leak Detection 1: None  
Tank Leak Detection 2: Not reported  
Pipe Leak Detection 1: Exempt Suction Piping  
Pipe Leak Detection 2: Not reported  
Type Of Overfill Prevention 1: Product Level Gauge (A/G)  
Type Of Overfill Prevention 2: Not reported  
Dispenser Method: Suction  
Spill Prevention: Not reported  
Tightness Test Method: Unknown  
Date Tested: / /  
Next Test Date: 12/27/87  
Date Tank Closed: / /

UST\_PBS\_FAC:

Facility Id: 2-479748  
Expiration Date: 02/01/00  
Renewal Date: / /  
Total Capacity: 3000  
Facility Type: Not reported  
Mailing Company: ALL PLATING CORPORATION  
Mailing Title: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Mailing Contact: RUBEN A. MIRENSKY  
Mailing Address: 154 NORTH 7TH STREET  
Mailing Address 2: Not reported  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip Code: 11211  
Mailing Phone No: (718) 388-9360  
Mailing Email: Not reported  
Owner Title: Not reported  
Owner Name: Not reported  
Owner Address: 154 NORTH 7TH STREET  
Owner Address 2: Not reported  
Owner State: NY  
Owner Zip Code: 11211  
Owner Phone: (718) 388-9360  
Owner Company: 154 NORTH 7TH STREET R. E. CORPORATION  
Emergency Contact: RUBEN A. MINERNSKY  
Emergency Phone: (516) 538-0423  
Operator: RUBEN A. MINERNSKY  
Operator Phone: (718) 388-9360  
Owner City: BROOKLYN  
Owner Sub Type: Corporate or Commercial

**CERC-NFRAP:**

Site ID: 0204153  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: Removal Only Site (No Site Assessment Work Needed)

Site Description: NYC Dept. of Environmental Protection responded to odor complaints, issued notice letters to which there was no action by the owner. The site which is non-operational, contains acids, cyanides in open vats, tanks, etc. Preliminary assessment indicates site is removal eligible. Site is being archived with approval of removal program (see J. Witkowski email 04/11/05).

**CERCLIS-NFRAP Assessment History:**

Action: Notice Letters Issued  
Date Started: Not reported  
Date Completed: 06/25/1998  
Priority Level: Not reported

Action: REMOVAL ASSESSMENT  
Date Started: 02/18/1998  
Date Completed: 08/10/1998  
Priority Level: Not reported

Action: REMOVAL NEGOTIATIONS  
Date Started: 06/25/1998  
Date Completed: 08/21/1998  
Priority Level: Not reported

Action: Public Notice Published  
Date Started: Not reported  
Date Completed: 10/13/1998  
Priority Level: Not reported

Action: REMOVAL

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**SERVICE PLATING CO LTD (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

1000432493

Date Started: 08/26/1998  
Date Completed: 11/04/1998  
Priority Level: Cleaned up

Action: NON-NATIONAL PRIORITIES LIST POTENTIALLY RESPONSIBLE PARTY SEARCH  
Date Started: 03/24/1998  
Date Completed: 09/27/2001  
Priority Level: Search Complete, No Viable PRPs

Action: LIEN ON POTENTIALLY RESPONSIBLE PARTY PROPERTY  
Date Started: Not reported  
Date Completed: 11/04/2001  
Priority Level: Not reported

Action: ADMINISTRATIVE RECORDS  
Date Started: 10/13/1998  
Date Completed: 03/07/2005  
Priority Level: Admin Record Compiled for a Removal Event

Action: ARCHIVE SITE  
Date Started: Not reported  
Date Completed: 04/11/2005  
Priority Level: Not reported

**NY MANIFEST:**

Document ID: NYB7125786  
Manifest Status: Completed after the designated time period for a TSDf to get a copy to the DEC  
Trans1 State ID: PC4339NY  
Trans2 State ID: Not reported  
Generator Ship Date: 961216  
Trans1 Recv Date: 961216  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 961216  
Part A Recv Date: 970108  
Part B Recv Date: 970109  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: NYD049178296  
Trans2 EPA ID: Not reported  
TSDf ID: NYD049178296  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 06400  
Units: P - Pounds  
Number of Containers: 016  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 100  
Year: 96  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number  
Database(s)

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: PAE6261636  
Manifest Status: Completed copy  
Trans1 State ID: PAAH0317  
Trans2 State ID: Not reported  
Generator Ship Date: 970106  
Trans1 Recv Date: 970106  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 970106  
Part A Recv Date: 970122  
Part B Recv Date: 970122  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: PAD982661381  
Trans2 EPA ID: Not reported  
TSDF ID: PAD085690592  
Waste Code: F009 - UNKNOWN  
Quantity: 00050  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Waste Code: Not reported  
Quantity: 00500  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 010  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 100  
Year: 97  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: ALA0067513  
Manifest Status: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Trans1 State ID: NJD986607380  
Trans2 State ID: Not reported  
Generator Ship Date: 10/14/1998  
Trans1 Recv Date: 10/14/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/20/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: ALD981020894  
Trans2 EPA ID: Not reported  
TSDF ID: NYJA334  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00110  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00055  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00083  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00275  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 005  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Mailing Phone: 718-388-9360

Document ID: ALA0068623  
Manifest Status: Not reported  
Trans1 State ID: NJD986607380  
Trans2 State ID: Not reported  
Generator Ship Date: 10/27/1998  
Trans1 Recv Date: 10/27/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 11/03/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: ALD981020894  
Trans2 EPA ID: Not reported  
TSD ID: AA998BNJ  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00010  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: ALA0070460  
Manifest Status: Not reported  
Trans1 State ID: NJD986607380  
Trans2 State ID: Not reported  
Generator Ship Date: 10/14/1998  
Trans1 Recv Date: 10/14/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/20/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: ALD981020894  
Trans2 EPA ID: Not reported  
TSD ID: NYJA334  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Quantity: 00055  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Waste Code: D005 - BARIUM 100.0 MG/L TCLP  
Quantity: 00005  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: MIA7123394  
Manifest Status: Not reported  
Trans1 State ID: NJD054126164  
Trans2 State ID: Not reported  
Generator Ship Date: 10/21/1998  
Trans1 Recv Date: 10/21/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/27/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: MID000724831  
Trans2 EPA ID: Not reported  
TSD ID: Not reported  
Waste Code: F007 - PLATING BATH SOL FM ELECTROPLATING OPER  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: L Landfill.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: MIA7123395  
Manifest Status: Not reported  
Trans1 State ID: NJD054126164  
Trans2 State ID: Not reported  
Generator Ship Date: 10/26/1998  
Trans1 Recv Date: 10/26/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 11/05/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: MID000724831  
Trans2 EPA ID: Not reported  
TSD ID: Not reported  
Waste Code: D006 - CADMIUM 1.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: MIA7123396  
Manifest Status: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Trans1 State ID: NJD054126164  
Trans2 State ID: Not reported  
Generator Ship Date: 10/30/1998  
Trans1 Recv Date: 10/30/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 11/05/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: MID000724831  
Trans2 EPA ID: Not reported  
TSD ID: AC747GNJ  
Waste Code: D006 - CADMIUM 1.0 MG/L TCLP  
Quantity: 00030  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: MIA7123397  
Manifest Status: Not reported  
Trans1 State ID: NJD054126164  
Trans2 State ID: Not reported  
Generator Ship Date: 11/02/1998  
Trans1 Recv Date: 11/02/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 11/05/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: MID000724831  
Trans2 EPA ID: Not reported  
TSD ID: Not reported  
Waste Code: D006 - CADMIUM 1.0 MG/L TCLP  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: MIA7123398  
Manifest Status: Not reported  
Trans1 State ID: NJD054126164  
Trans2 State ID: Not reported  
Generator Ship Date: 10/28/1998  
Trans1 Recv Date: 10/28/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 11/10/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: MID000724831  
Trans2 EPA ID: Not reported  
TSD ID: Not reported  
Waste Code: F007 - PLATING BATH SOL FM ELECTROPLATING OPER  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: MIA7151249  
Manifest Status: Not reported  
Trans1 State ID: NJD054126164  
Trans2 State ID: Not reported  
Generator Ship Date: 10/13/1998  
Trans1 Recv Date: 10/13/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/27/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: MID000724831  
Trans2 EPA ID: Not reported  
TSD ID: AC747GNJ  
Waste Code: F007 - PLATING BATH SOL FM ELECTROPLATING OPER  
Quantity: 00020  
Units: Y - Cubic yards\* (.85 tons)  
Number of Containers: 001  
Container Type: CM - Metal boxes, cases, roll-offs  
Handling Method: L Landfill.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: NJA2960228  
Manifest Status: Not reported  
Trans1 State ID: NJD071629976  
Trans2 State ID: Not reported  
Generator Ship Date: 10/13/1998  
Trans1 Recv Date: 10/13/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/13/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: NJD002385730  
Trans2 EPA ID: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

TSDF ID: 03217  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00340  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: TT - Cargo tank, tank trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: NJA2960229  
Manifest Status: Not reported  
Trans1 State ID: NJD071629976  
Trans2 State ID: Not reported  
Generator Ship Date: 10/14/1998  
Trans1 Recv Date: 10/14/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/14/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: NJD002385730  
Trans2 EPA ID: Not reported  
TSDF ID: 03217  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00186  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: TT - Cargo tank, tank trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: NJA2960230  
Manifest Status: Not reported  
Trans1 State ID: NJD071629976  
Trans2 State ID: Not reported  
Generator Ship Date: 10/14/1998  
Trans1 Recv Date: 10/14/1998  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/14/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: NJD002385730  
Trans2 EPA ID: Not reported  
TSDF ID: 03217  
Waste Code: F007 - PLATING BATH SOL FM ELECTROPLATING OPER  
Quantity: 00833  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: TT - Cargo tank, tank trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

Document ID: NJA2960238  
Manifest Status: Not reported  
Trans1 State ID: PAR000035949  
Trans2 State ID: Not reported  
Generator Ship Date: 11/02/1998  
Trans1 Recv Date: 11/02/1998  
Trans2 Recv Date: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

TSD Site Recv Date: 11/02/1998  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD001384072  
Trans1 EPA ID: NJD002385730  
Trans2 EPA ID: Not reported  
TSD ID: 50134  
Waste Code: D007 - CHROMIUM 5.0 MG/L TCLP  
Quantity: 01081  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 001  
Container Type: TT - Cargo tank, tank trucks  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 98  
Facility Type: Generator  
EPA ID: NYD001384072  
Facility Name: SERVICE PLATING CO LTD  
Facility Address: 154 NORTH 7TH STREET  
Facility City: BROOKLYN  
Facility Zip 4: Not reported  
Country: Not reported  
County: KINGS  
Mailing Name: SERVICE PLATING CO LTD  
Mailing Contact: FRED ACCINELLIAL  
Mailing Address: 154 NORTH 7TH STREET  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: Not reported  
Mailing Country: Not reported  
Mailing Phone: 718-388-9360

**HIST UST:**

PBS Number: 2-479748  
SPDES Number: Not reported  
Emergency Contact: RUBEN A. MINERNSKY  
Emergency Telephone: (516) 538-0423  
Operator: RUBEN A. MINERNSKY  
Operator Telephone: (718) 388-9360  
Owner Name: 154 NORTH 7TH STREET R. E. CORPORATION  
Owner Address: 154 NORTH 7TH STREET  
Owner City,St,Zip: BROOKLYN, NY 11211  
Owner Telephone: (718) 388-9360  
Owner Type: Corporate/Commercial  
Owner Subtype: Not reported  
Mailing Name: ALL PLATING CORPORATION  
Mailing Address: 154 NORTH 7TH STREET  
Mailing Address 2: Not reported  
Mailing City,St,Zip: BROOKLYN, NY 11211  
Mailing Contact: RUBEN A. MIRENSKY  
Mailing Telephone: (718) 388-9360  
Owner Mark: First Owner  
Facility Status: 1 - Active PBS facility, i.e. total capacity of the PBS tanks is greater than 1,100 gallons, regardless if Subpart 360-14 tanks exist or not at the facility.  
Facility Addr2: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Tank Id: 001  
 Tank Location: UNDERGROUND  
 Install Date: Not reported  
 Capacity (gals): 3000  
 Product Stored: NOS 1,2, OR 4 FUEL OIL  
 Tank Type: Steel/carbon steel  
 Tank Internal: None  
 Tank External: None  
 Pipe Location: None  
 Pipe Type: STEEL/IRON  
 Pipe Internal: None  
 Pipe External: None  
 Second Containment: None  
 Leak Detection: None  
 Overfill Prot: Product Level Gauge  
 Dispenser: Suction  
 Date Tested: Not reported  
 Next Test Date: 12/27/1987  
 Missing Data for Tank: No Missing Data  
 Date Closed: Not reported  
 Test Method: Not reported  
 Deleted: False  
 Updated: True  
 Lat/long: Not reported  
 Lat/long: Not reported  
 SWIS ID: 6101  
 Old PBS Number: Not reported  
 Facility Type: MANUFACTURING  
 Inspected Date: Not reported  
 Inspector: Not reported  
 Inspection Result: Not reported  
 Federal ID: Not reported  
 Certification Flag: False  
 Certification Date: 01/30/1995  
 Expiration Date: 02/01/2000  
 Renew Flag: False  
 Renewal Date: Not reported  
 Total Capacity: 3000  
 FAMT: True  
 Facility Screen: No Missing Data  
 Owner Screen: No Missing Data  
 Tank Screen: No Missing Data  
 Dead Letter: False  
 CBS Number: Not reported  
 Town or City: NEW YORK CITY  
 County Code: 61  
 Town or City: 01  
 Region: 2

**CT MANIFEST:**

Manifest No: Not reported  
 Waste Occurrence: Not reported  
 UNNA: Not reported  
 Hazard Class: Not reported  
 US Dot Description: Not reported  
 No of Containers: Not reported  
 Container Type: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**SERVICE PLATING CO LTD (Continued)**

**1000432493**

Quantity: Not reported  
 Weight/Volume: Not reported  
 Additional Description: Not reported  
 Handling Code: Not reported  
 Date Record Was Last Modified: Not reported  
 DEO Who Last Modified Record: Not reported  
 Manifest No: Not reported  
 Waste Occurrence: Not reported  
 EPA Waste Code: Not reported  
 Recycled Waste?: Not reported  
 Date Record Was Last Modified: Not reported  
 DEO Who Last Modified Record: Not reported  
 Year: 1998  
 Manifest ID: CTF0535724  
 TSDF EPA ID: CTD000604488  
 TSDF Name: CLEAN HARBORS OF CONNECTICUT, INC.  
 TSDF Address: 51 BRODERICK RD  
 TSDF City,St,Zip: BRISTOL, CT 06010  
 TSDF Country: USA  
 TSDF Telephone: Not reported  
 Transport Date: 10/20/98  
 Transporter EPA ID: NJD071629976  
 Transporter Name: S-J TRANSPORTATION CO  
 Transporter Country: USA  
 Transporter Phone: Not reported  
 Trans 2 Date: / /  
 Trans 2 EPA ID: Not reported  
 Trans 2 Name: Not reported  
 Trans 2 Address: Not reported  
 Trans 2 City,St,Zip: CT  
 Trans 2 Country: USA  
 Trans 2 Phone: Not reported  
 Generator EPA ID: NYD001384072  
 Generator Phone: 7329066908  
 Generator Address: Not reported  
 Generator City,State,Zip: Not reported  
 Generator Country: Not reported  
 Special Handling: Not reported  
 Discrepancies: No  
 Date Shipped: 10/20/98  
 Date Received: 10/20/98  
 Last modified date: 04/26/04  
 Last modified by: IG  
 Comments: Not reported

**S80** 154-158 NORTH 7TH ST/BKLY  
**WNW** 154-158 NORTH 7TH STREET  
 1/4-1/2 BROOKLYN, NY  
 1744 ft.

**LTANKS** S104275561  
**HIST LTANKS** N/A

**Site 2 of 2 in cluster S**

**Relative:  
 Higher**

LTANKS:  
 Site ID: 219940  
 Spill Date: 01/16/90  
 Facility Addr2: Not reported  
 Facility ID: 8909928  
 Program Number: 8909928  
 SWIS: 2401

**Actual:  
 33 ft.**

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**154-158 NORTH 7TH ST/BKLY (Continued)**

**S104275561**

Region of Spill: 2  
 Investigator: BKFALVEY  
 Referred To: Not reported  
 Reported to Dept: 01/16/90  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Remediation Phase: 1  
 Date Entered In Computer: 01/23/90  
 Spill Record Last Update: 09/22/06  
 Spille Namer: Not reported  
 Spiller Company: Not reported  
 Spiller Phone: (718) 388-9360  
 Spiller Extention: Not reported  
 Spiller Address: Not reported  
 Spiller City,St,Zip: ZZ  
 Spiller County: 001  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 8909928  
 DER Facility ID: 181901  
 Site ID: 219940  
 Operable Unit ID: 936938  
 Operable Unit: 01  
 Material ID: 443066  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: -1.00  
 Units: Not reported  
 Recovered: 0.00  
 Resource Affected: Groundwater  
 Oxygenate: False  
 Site ID: 219940  
 Spill Tank Test: 11255  
 Tank Number: Not reported  
 Tank Size: 0  
 Test Method: 00  
 Leak Rate: 0.00  
 Gross Fail: Not reported  
 Modified By: Spills  
 Last Modified: 10/01/04  
 Test Method: Unknown  
 DEC Remarks: Start DECRemark - 8909928 Tank test failure. PBS file shows tank in service,

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

154-158 NORTH 7TH ST/BKLY (Continued)

S104275561

Remarks: but next tank tes due prior to the date of this spill. PBS registration expired in 2000. Need to follow up. 9/22/06 left message for attorney found on deed to contact Williamsburgh Square LLC (new owner as of 2003). address:154 N. 7th St., Brooklyn 11211. deed had no individual's name (only corporation).  
bf END DECRemark - 8909928  
Start CallerRemark - 8909928 3K TANK FAILED PETRO TITE WITH A LEAK RATE OF -.161GPH. END CallerRemark - 8909928

HIST LTANKS:

Region of Spill: 2  
Spill Number: 8909928  
Investigator: SIGONA  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 01/16/1990  
Spill Time: 15:45  
Reported to Department Date: 01/16/90  
Reported to Department Time: 16:22  
SWIS: 61  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extension: Not reported  
Spiller Name: Not reported  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Facility Contact: Not reported  
Facility Phone: (718) 388-9360  
Facility Extension: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectcd: Groundwater  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Tank Tester  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 01/23/90  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 11/15/94  
Is Updated: False

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**154-158 NORTH 7TH ST/BKLY (Continued)**

**S104275561**

PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: 0  
 Test Method: Not reported  
 Leak Rate Failed Tank: 0.00  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: -1  
 Unkonwn Quantity Spilled: False  
 Units: Not reported  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: #2 FUEL OIL  
 Class Type: #2 FUEL OIL  
 Times Material Entry In File: 24464  
 CAS Number: Not reported  
 Last Date: 19941207  
 DEC Remarks: Not reported  
 Spill Cause: 3K TANK FAILED PETRO TITE WITH A LEAK RATE OF -.161GPH.

**81  
 NW  
 1/4-1/2  
 1745 ft.**

**NATIONAL PAPER STOCK; INC.  
 136 NORTH 10TH STREET  
 BROOKLYN, NY 11211**

**SWF/LF S105841743  
 N/A**

**Relative:  
 Higher**

SWF/LF:  
 Flag: INACTIVE  
 Secondary Addr: Not reported  
 Region Code: 2  
 Phone Number: 7180000000  
 Owner Name: Not reported  
 Owner Type: Not reported  
 Owner Address: Not reported  
 Owner Addr2: Not reported  
 Owner City,St,Zip: Not reported  
 Owner Email: Not reported  
 Owner Phone: Not reported  
 Contact Name: LOU MANZIONE; OWNER  
 Contact Address: Not reported  
 Contact Addr2: Not reported  
 Contact City,St,Zip: Not reported  
 Contact Email: Not reported  
 Contact Phone: Not reported  
 Activity Desc: Transfer station - regulated  
 Activity Number: 24T91  
 Active: No  
 East Coordinate: 590200  
 North Coordinate: 4506000  
 Accuracy Code: Not reported  
 Regulatory Status: Not reported  
 Waste Type: Not reported  
 Authorization #: 2-6104-00184  
 Authorization Date: Not reported  
 Expiration Date: Not reported

**Actual:  
 28 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

82  
 North  
 1/4-1/2  
 1888 ft.

PS 610  
 50 BEDFORD AVE  
 BROOKLYN, NY

LTANKS S104621884  
 HIST LTANKS N/A

Relative:  
 Lower

LTANKS:

Actual:  
 14 ft.

Site ID: 117362  
 Spill Date: 06/30/00  
 Facility Addr2: Not reported  
 Facility ID: 0004062  
 Program Number: 0004062  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: TJDME0  
 Referred To: Not reported  
 Reported to Dept: 07/05/00  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 03/21/05  
 Remediation Phase: 0  
 Date Entered In Computer: 07/05/00  
 Spill Record Last Update: 03/21/05  
 Spille Namer: Not reported  
 Spiller Company: NONE  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 Spiller Address: Not reported  
 Spiller City,St,Zip: NN  
 Spiller County: 001  
 Spiller Contact: FRANK CARDELLO  
 Spiller Phone: (718) 391-6832  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 0004062  
 DER Facility ID: 102108  
 Site ID: 117362  
 Operable Unit ID: 825295  
 Operable Unit: 01  
 Material ID: 568984  
 Material Code: 0002  
 Material Name: #4 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: 117362

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

PS 610 (Continued)

EDR ID Number  
EPA ID Number

Database(s)

Site \_\_\_\_\_ S104621884

Spill Tank Test: 309  
Tank Number: 1  
Tank Size: 20000  
Test Method: 03  
Leak Rate: 0.00  
Gross Fail: Not reported  
Modified By: Spills  
Last Modified: 10/01/04  
Test Method: Horner EZ Check I or II  
DEC Remarks: Start DECRemark - 0004062 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "DEMEO" 3/21/2005 This spill number (tank test failure) is  
being closed out and consolidated with a new spill (#0413160) which involves  
the removal of this tank and contaminated soil found around it. END DECRemark -  
0004062  
Remarks: Start CallerRemark - 0004062 tank test failure, no product leaked END  
CallerRemark - 0004062

Site ID: 339016  
Spill Date: 03/17/05  
Facility Addr2: Not reported  
Facility ID: 0413160  
Program Number: 0413160  
SWIS: 2401  
Region of Spill: 2  
Investigator: KSTANG  
Referred To: Not reported  
Reported to Dept: 03/17/05  
CID: 14  
Spill Cause: Tank Failure  
Water Affected: Not reported  
Spill Source: Commercial/Industrial  
Spill Notifier: Local Agency  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Not reported  
Spill Closed Dt: / /  
Remediation Phase: 1  
Date Entered In Computer: 03/18/05  
Spill Record Last Update: 04/13/06  
Spille Namer: LEE GUGERMAN, MS.  
Spiller Company: SCA  
Spiller Phone: (718) 472-8502  
Spiller Extention: Not reported  
Spiller Address: 30-30 THOMSON AVE.  
Spiller City,St,Zip: LIC, NY 11101  
Spiller County: 001  
Spiller Contact: LEE GUGERMAN, MS.  
Spiller Phone: (718) 472-8502  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0413160  
DER Facility ID: 102108  
Site ID: 339016  
Operable Unit ID: 1100934

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Database(s)      EDR ID Number  
 EPA ID Number

**PS 610 (Continued)**

**S104621884**

Operable Unit: 01  
 Material ID: 581083  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: Not reported  
 Spill Tank Test: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate: Not reported  
 Gross Fail: Not reported  
 Modified By: Not reported  
 Last Modified: Not reported  
 Test Method: Not reported  
 DEC Remarks:

Start DECRemark - 0413160 3/21/2005 There was an earlier tank test failure spill number (0004062-DeMeo) which has now been closed out in favor of this new spill number. Earth Tech believes that the old tank was relined after the tank failed the prior tank test several years ago, however no work was ever done to remediate the contamination which occurred because of that leak. Earth Tech believes that approx 2 years ago this buried tank was taken out of service. Since that time the building has been supplied by an above ground 5,000 gal tank. Unknown if the buried tank was ever emptied. Earth Tech recently did soil borings around the UST area and came back with high contamination levels. This information was forwarded to the City SCA (SCA Contact: Lee Guterman 718-472-5802) SCA has now decided to remove the UST and excavate out the contaminated soil around it. Earth Tech is modifying the standard city bid package to site specific conditions and will work with the city as they put the excavation/remediation work out to bid. Bid package should go out around April 1st, 2005. Work should be done summer 2005.  
 04/13/06- Case was transferred from Jake Krimgold to Koon Tang. END DECRemark - 0413160

Remarks: Start CallerRemark - 0413160 OLD TANK THAT WAS INSTALLED AND WANTED IT TO BE REMOVED. THEY TOOK TESTS AND FOUND THAT THE TANK HAS LEAKED. THE TANK HAS FAILED MANY TIMES BEFORE. TOOK TESTS FROM THE SOIL. HAS NOT BEEN CLEANED OR REMOVED. OUTSIDE UNDERGROUND TANK. 20,000 GAL CAPACITY. END CallerRemark - 0413160

**HIST LTANKS:**

Region of Spill: 2  
 Spill Number: 0004062  
 Investigator: DEMEO  
 Caller Name: Not reported  
 Caller Agency: Not reported  
 Caller Phone: Not reported  
 Caller Extension: Not reported  
 Notifier Name: Not reported  
 Notifier Agency: Not reported  
 Notifier Phone: Not reported  
 Notifier Extension: Not reported  
 Spill Date: 06/30/2000  
 Spill Time: 15:30

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

PS 610 (Continued)

S104621884

Reported to Department Date: 07/05/00  
Reported to Department Time: 07:02  
SWIS: 61  
Spiller Contact: FRANK CARDELLO  
Spiller Phone: (718) 391-6832  
Spiller Extention: Not reported  
Spiller Name: NONE  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Facility Contact: Not reported  
Facility Phone: Not reported  
Facility Extention: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Tank Tester  
PBS Number: 2-355305  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 07/05/00  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 07/07/00  
Is Updated: False  
PBS Number: Not reported  
Tank Number: 1  
Tank Size: 20000  
Test Method: Horner EZ Check  
Leak Rate Failed Tank: 0.00  
Gross Leak Rate: Not reported  
PBS Number: Not reported  
Tank Number: 1  
Tank Size: 20000  
Test Method: Horner EZ Check  
Leak Rate Failed Tank: 0.00  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: False  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: #4 FUEL OIL  
Class Type: #4 FUEL OIL  
Times Material Entry In File: 1751  
CAS Number: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

PS 610 (Continued)

EDR ID Number  
EPA ID Number

Database(s)

S104621884

Last Date: 19941205  
DEC Remarks: Not reported  
Spill Cause: tank test failure, no product leaked

T83  
ENE  
1/4-1/2  
1970 ft.

CITY BARREL & DRUM CO INC  
421 MEEKER AVE  
BROOKLYN, NY 11222

RCRA-SQG  
FINDS  
CERC-NFRAP  
NY MANIFEST

1000439573  
NYD068298835

Site 1 of 2 in cluster T

Relative:  
Higher

RCRAInfo:  
Owner: HARRY GOLDSTEIN  
(212) 555-1212  
EPA ID: NYD068298835  
Contact: HARRY GOLDSTEIN  
(201) 388-9227  
Classification: Small Quantity Generator  
TSD Activities: Not reported  
Violation Status: No violations found

Actual:  
17 ft.

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CERC-NFRAP:

Site ID: 0201593  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP

Site Description: Not reported

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY  
Date Started: Not reported  
Date Completed: 04/25/1980  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: Not reported  
Date Completed: 09/02/1987  
Priority Level: NFRAP (No Further Remedial Action Planned)

Action: ARCHIVE SITE  
Date Started: Not reported  
Date Completed: 09/02/1987  
Priority Level: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**CITY BARREL & DRUM CO INC (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

1000439573

NY MANIFEST:

No Manifest Records Available

**T84  
 ENE  
 1/4-1/2  
 1970 ft.**

**CITY BARREL  
 421 MEEKER STREET  
 BROOKLYN, NY 11222**

**HSWDS S108146441  
 N/A**

**Site 2 of 2 in cluster T**

**Relative:  
 Higher**

HSWDS:

**Actual:  
 17 ft.**

Facility ID:	Not reported
Region:	2
Facility Status:	None
Owner Type:	Public
Owner:	Harry Goldstein
Owner Address:	421 Meeker St.
Owner Phone:	(212)388-9227
Operator Type:	Same
Operator:	Unknown
Operator:	Unknown
Operator Phone:	Unknown
EPA ID:	NYD068298835
Registry:	Not on NYS Registry of Inactive Haz Waste Disposal Sites
Registry Site ID:	None
RCRA Permitted:	Unknown
Site Code:	1
Owner City State:	Brooklyn, NY 11222
Operator City State:	Not reported
Quadrangle:	Unknown
Latitude:	40 43'15"N
Longitude:	73 56'30"W
Acres:	0.00
Operator Date:	1940
Close Date:	Unknown
Completed:	PA
Active:	Unknown
PCB's Disposed:	No
Pesticides Disposed:	No
Metals Disposed:	No
Asbestos Disposed:	No
Volatile Organic Compounds Disposed:	No
Semi Volatile Organic Compounds Disposed:	No
Analytical Info Exists for Air:	Not reported
Analytical Info Exists for Ground:	None
Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Sediments:	Not reported
Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Substance:	Not reported
Analytical Info Exists for Waste:	Not reported
Analytical Info Exists for Leachate:	Not reported
Analytical Info Exists for EP Toxicity:	Not reported
Analytical Info Exists for TCLP:	Not reported
Threat to Environment/Public Health:	None
Surface Water Contamination:	No
Surface Water Body Class:	Unknown
Groundwater Contamination:	No
Groundwater Classification:	Unknown

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**CITY BARREL (Continued)**

**S108146441**

Drinking Water Contamination:	No
Drinking Water Supply is Active:	Unknown
Any Known Fish or Wildlife:	No
Hazardous Exposure:	Unknown
Site Has Controlled Access:	Unknown
Ambient Air Contamination:	Unknown
Direct Contact:	Unknown
EPA Hazardous Ranking System Score:	Unknown
Inventory:	F
Nefrap:	Not reported
Mailing:	Not reported
Tax Map No:	Not reported
Qualify:	0
Next Action:	Not reported
Agencies:	Not reported
Air:	Not reported
Building:	Not reported
Site Desc:	Not reported
Drink:	Not reported
Eptox:	Not reported
Fish:	Not reported
Ground:	Not reported
Ground Desc:	Not reported
Hazardous Threat:	Not reported
Haz Threat Desc:	Not reported
Leachate:	Not reported
Preparer:	Not reported
Sediment:	Not reported
Soil:	Not reported
Surface:	Not reported
Status:	Not reported
Surface Soil:	Not reported
Surface:	Not reported
TCLP:	Not reported
Waste:	Not reported

**85  
 NE  
 1/4-1/2  
 2025 ft.**

**UNITED AMBULETTE  
 495 GRAHAM AVE  
 BROOKLYN, NY**

**LTANKS S106737607  
 N/A**

**Relative:  
 Higher**

LTANKS:	
Site ID:	335249
Spill Date:	12/17/04
Facility Addr2:	Not reported
Facility ID:	0410348
Program Number:	0410348
SWIS:	2401
Region of Spill:	2
Investigator:	KMFOLEY
Referred To:	Not reported
Reported to Dept:	12/17/04
CID:	14
Spill Cause:	Tank Test Failure
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Tank Tester
Cleanup Ceased:	/ /

**Actual:  
 18 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**UNITED AMBULETTE (Continued)**

**S106737607**

Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: True  
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 05/03/05  
Remediation Phase: 0  
Date Entered In Computer: 12/17/04  
Spill Record Last Update: 05/03/05  
Spille Namer: BOB  
Spiller Company: BUSINESS  
Spiller Phone: (718) 234-0024  
Spiller Extention: Not reported  
Spiller Address: 495 GRAHAM AVE  
Spiller City,St,Zip: BROOKLYN, NY  
Spiller County: 001  
Spiller Contact: BOB  
Spiller Phone: (718) 234-0024  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0410348  
DER Facility ID: 270469  
Site ID: 335249  
Operable Unit ID: 1097320  
Operable Unit: 01  
Material ID: 577305  
Material Code: 0009  
Material Name: Gasoline  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Groundwater  
Oxygenate: False  
Site ID: 335249  
Spill Tank Test: 150799  
Tank Number: 1  
Tank Size: 4000  
Test Method: 03  
Leak Rate: 0.00  
Gross Fail: 0  
Modified By: Watchdog  
Last Modified: 12/17/04  
Test Method: Horner EZ Check I or II  
DEC Remarks: Start DECRemark - 0410348 12/22/2004 - Sangesland - 4,000 gal gasoline tank - PBS # 2-069140 1/14/2005 TTF letter sent to: United Ambulette 2428 East 18th St, Brooklyn, NY 11222 2/22/05 Reassigned from Rommel to Foley. Spoke to Bob Arcaro, American. He will be submitting documentation and passing test results. No release to environment. 2/28/05 Received passing tightness test results for system. Bob Arcaro to submit affidavit. 3/7/05 Received affidavit. Between 1/31/05 and 2/11/05, American Resource Technology excavated part of the tank system, isolated the tank and piping and the retested. All components tested tight but the condition of the cathodic protection isolating union on the stage 1 was worn and could have compromised the integrity of the

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**UNITED AMBULETTE (Continued)**

**S106737607**

Remarks: line. There was no evidence of contamination in the excavation but the isolating unions were replaced on the stage 1 line, the suction line, the fill line and vent line as a preventative measure. On 2/15/05, a tightness test of the tank system was performed with the piping still exposed and was witnessed by FDNY who had witnessed the tightness test failure on 12/17/04. The system tested tight. END DECRemark - 0410348  
 Start CallerRemark - 0410348 RECOMMEND: GAS TANK HAS A WET LEAK: HAS BEEN REPORTED TO FIRE DEPT; END CallerRemark - 0410348

**86  
 NNE  
 1/4-1/2  
 2043 ft.**

**BERKMAN BROS. INC.  
 55 ECKFORD ST.  
 BROOKLYN, NY 11222**

**CBS AST  
 LTANKS  
 HIST LTANKS  
 CBS**

**S100494954  
 N/A**

**Relative:  
 Higher**

CBS AST:  
 CBS Number: 2-000058  
 Region: STATE  
 ICS Number: 2-125095  
 PBS Number: Not reported  
 MOSF Number: Not reported  
 Telephone: (718) 387-8811  
 Facility Town: NEW YORK CITY  
 Operator: GERALD BERKMAN  
 Emrgncy Contact: GERALD BERKMAN  
 Emrgncy Phone: (516) 799-6958  
 Expiration Date: 06/14/1999  
 Owner Name: BERKMAN BROS. INC.  
 Owner Address: 55 ECKFORD ST.  
 Owner City,St,Zip: BROOKLYN, NY 11222  
 Owner Telephone: (718) 387-8811  
 Owner type: Corporate/Commercial  
 Facility Type: MANUFACTURING  
 Mail Name: BERKMAN BROS. INC.  
 Mail Contact Addr: 55 ECKFORD ST.  
 Mail Contact Addr2: Not reported  
 Mail Contact Contact: GERALD BERKMAN  
 Mail Contact City,St,Zip: BROOKLYN, NY 11222  
 Mail Phone: (718) 387-8811  
 SPDES Number: Not reported  
 Facility Status: ACTIVE FACILITY  
 Owner Sub Type: Not reported

**Actual:  
 17 ft.**

Tank Id: Yes  
 Date Entered: 06/14/1989  
 Capacity (Gal): 500  
 Chemical: Sodium hypochlorite  
 Tank Status: 0  
 Tank Type: Fiberglass reinforced plastic [FRP]  
 Install Date: 11/85  
 Certified Date: 05/20/1997  
 CAS Number: 7681529  
 Substance: Single Hazardous Substance on DEC List  
 Tank Location: ABOVEGROUND  
 Intrnl Protection: None  
 Extrnl Protection: None  
 Pipe Location: Aboveground  
 Pipe Type: PLASTIC  
 Pipe Internal: None

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**BERKMAN BROS. INC. (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**S100494954**

Pipe External: 0  
Pipe Containment: None  
Tank Containment: Other  
Leak Detection: None  
Overfill Protection: Catch Basin  
Haz Percent: 15  
Tank Closed: 01/98  
Total Tanks: 0  
Tank Secret: False  
Last Test: Not reported  
Due Date: Not reported  
Tank Error Status: No Missing Data  
SWIS Code: 6101  
Lat/Long: Not reported  
Pipe Flag: False  
Federal ID: Not reported  
Is Updated: F  
Renew Date: 03/01/93  
Is it There: F  
Deliquent: F  
Date Expired: 06/14/95  
Owner Mark: 1  
Certificate Needs to be Printed: False  
Fiscal Amt for Registration Fee Correct: True  
Renewal Has Been Printed for Facility: True  
Pre-Printed Renewal App Last Printed: 03/03/1997  
Total Capacity of All Active Tanks(gal): 0

**LTANKS:**

Site ID: 107414  
Spill Date: 03/26/93  
Facility Addr2: Not reported  
Facility ID: 9214462  
Program Number: 9214462  
SWIS: 2401  
Region of Spill: 2  
Investigator: KSTANG  
Referred To: Not reported  
Reported to Dept: 03/31/93  
CID: 14  
Spill Cause: Tank Overfill  
Water Affected: Not reported  
Spill Source: Commercial/Industrial  
Spill Notifier: Local Agency  
Cleanup Ceased: 03/31/93  
Cleanup Meets Standard: True  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 03/31/93  
Remediation Phase: 0  
Date Entered In Computer: 04/01/93  
Spill Record Last Update: 09/30/04  
Spille Namer: Not reported  
Spiller Company: MYSTIC FUEL CO.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**BERKMAN BROS. INC. (Continued)**

**S100494954**

Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Address: 1902 STEINWAY ST.  
Spiller City,St,Zip: L.I.C., NY  
Spiller County: 001  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 9214462  
DER Facility ID: 94484  
Site ID: 107414  
Operable Unit ID: 981754  
Operable Unit: 01  
Material ID: 400668  
Material Code: 0003  
Material Name: #6 Fuel Oil  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: -1.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 9214462 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "TANG" END DECRemark - 9214462  
Remarks: Start CallerRemark - 9214462 MYSTIC CLEANED SPILL WITH SPEEDI-DRI, PICK UP AND  
DISPOSED. END CallerRemark - 9214462

**HIST LTANKS:**

Region of Spill: 2  
Spill Number: 9214462  
Investigator: TANG  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 03/26/1993  
Spill Time: 12:00  
Reported to Department Date: 03/31/93  
Reported to Department Time: 08:50  
SWIS: 61  
Spiller Contact: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**BERKMAN BROS. INC. (Continued)**

**S100494954**

Spiller Phone: Not reported  
Spiller Extention: Not reported  
Spiller Name: MYSTIC FUEL CO.  
Spiller Address: 1902 STEINWAY ST.  
Spiller City,St,Zip: L.I.C., NY  
Facility Contact: Not reported  
Facility Phone: Not reported  
Facility Extention: Not reported  
Spill Cause: Tank Overfill  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Local Agency  
PBS Number: Not reported  
Cleanup Ceased: 03/31/93  
Cleanup Meets Standard: True  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 03/31/93  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 04/01/93  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: / /  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: -1  
Unkonwn Quantity Spilled: False  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: #6 FUEL OIL  
Class Type: #6 FUEL OIL  
Times Material Entry In File: 2190  
CAS Number: Not reported  
Last Date: 19940728  
DEC Remarks: Not reported  
Spill Cause: MYSTIC CLEANED SPILL WITH SPEEDI-DRI, PICK UP AND DISPOSED.

**CBS:**

CBS Number: 2-000058  
Program Type: CBS  
Swis Code: 2401  
Town: New York City  
Dec Region: 2

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**BERKMAN BROS. INC. (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

Registered: 1  
 Expiration Date: N/A  
 Facility Type: Manufacturing (Other than Chemical)/Processing

**S100494954**

**87**  
**NNE**  
**1/4-1/2**  
**2049 ft.**

**BRUMAR SHEET METAL INC**  
**498 LEONARD STREET**  
**BROOKLYN, NY 11222**

**LTANKS S105998342**  
**N/A**

**Relative:**  
**Equal**

**LTANKS:**

**Actual:**  
**16 ft.**

Site ID: 265770  
 Spill Date: 03/10/03  
 Facility Addr2: Not reported  
 Facility ID: 0212132  
 Program Number: 0212132  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: VSZHUNE  
 Referred To: Not reported  
 Reported to Dept: 03/10/03  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 09/26/06  
 Remediation Phase: 0  
 Date Entered In Computer: 03/10/03  
 Spill Record Last Update: 10/16/06  
 Spille Namer: JILL HUEY  
 Spiller Company: BRUMAR SHEET METAL INC  
 Spiller Phone: (718) 782-9052  
 Spiller Extention: Not reported  
 Spiller Address: 498 LEONARD ST  
 Spiller City,St,Zip: BROOKLYN, NY 11222-  
 Spiller County: 001  
 Spiller Contact: JILL HUEY  
 Spiller Phone: (718) 782-9052  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 0212132  
 DER Facility ID: 30480  
 Site ID: 265770  
 Operable Unit ID: 865591  
 Operable Unit: 01  
 Material ID: 511867  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**BRUMAR SHEET METAL INC (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**S105998342**

Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: Not reported  
 Spill Tank Test: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate: Not reported  
 Gross Fail: Not reported  
 Modified By: Not reported  
 Last Modified: Not reported  
 Test Method: Not reported  
 DEC Remarks:

Start DECRemark - 0212132 01/27/2006 Kuldeep received the Fax from Brumer, but again information not adequate and need more follow up. 01/23/2006 Kuldeep sent a letter for more information. 01/09/2006 Kuldeep Gupta- Facility Faxed on -01/06/2006 copy of consent Order. Region 2 Nick Lombardo on 01/09/2006 Faxed Report of 5000 gallon Tank Test report of 01/05/2004. 01/06/06 Kuldeep Gupta talked to Ms. Jill Huey and she need a letter in writing what document we need. She wanted to faxit at 1-718-486-6862. DEC Faxed the letter as requested. Kuldeep discussed with Philip Lodico Senior Attorney DEC and found Consent order signed on 03/24/2003 for not this spill. Prior to Sept, 2004 data translation this spill Lead DEC Field was "TIPPLE" Does not appear on PBS database. Called Jill Huey. She stated that she received a Consent Order to bring the facility in compliance with state laws. The tank is 5000 gallons. 3/11/2003 ars. DEC Sigona sent TTF notice on March 14, 2003. 9/11/06 This case was transferred from Albany to Region 2. Zhune spoke to Jill Huey (ph: 718-9052) She doesn't want phone calls. She wants every thing by writing. 9/11/06 A TTF letter was sending to : Jill Huey 498 Leonard Street Brooklyn, NY 11222 09/18/06 Ms. Huey sent a package of documents the passing tank test from 2003 was missing. 09/19/06 I sent a letter requesting her the tank test results from 2003. 09/22/03 Ms. Huey sent a package of 8 pages including the passing tank test results from 2003, letters stated the following: The system test passed. After the system test failed in October due to a vent bad line, we decided to replace all pipes just to be sure we would pass. Also we would like to convey to your department that no contamination was detected in our system. What was the cause of the tank test failure on March 3, 2003? Water in tank issue. Piping needed to be replaced was replaced and systems test passed as a result of replacement. 09/27/06 This case was closed for V. Zhune in accordance with J. Vought. END DECRemark - 0212132

Remarks: Start CallerRemark - 0212132 RECCOMEND CLEAN TANK DISCONNECT PIPING AND RETEST  
 END CallerRemark - 0212132

88  
 NNW  
 1/4-1/2  
 2132 ft.

**NASH METALWARE CO.  
 1 NASSAU AVE.  
 BROOKLYN, NY 11222**

**CBS AST S104073387  
 LTANKS N/A  
 CBS**

**Relative:  
 Lower**

CBS AST:  
 CBS Number: 2-000025  
 Region: STATE  
 ICS Number: 2-125091  
 PBS Number: Not reported  
 MOSF Number: Not reported  
 Telephone: (718) 922-9777  
 Facility Town: NEW YORK CITY  
 Operator: BEN CLARK

**Actual:  
 14 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NASH METALWARE CO. (Continued)**

**S104073387**

Emrgncy Contact: STEPHANIE EISENBERG  
Emrgncy Phone: (212) 431-8660  
Expiration Date: 03/17/1997  
Owner Name: NASH METALWARE CO.  
Owner Address: 1 NASSAU AVE.  
Owner City,St,Zip: BROOKLYN, NY 11222  
Owner Telephone: (718) 384-1500  
Owner type: Corporate/Commercial  
Facility Type: MANUFACTURING  
Mail Name: NASH METALWARE CO.  
Mail Contact Addr: 1 NASSAU AVE.  
Mail Contact Addr2: Not reported  
Mail Contact Contact: STEPHANIE EISENBERG  
Mail Contact City,St,Zip: BROOKLYN, NY 11222  
Mail Phone: (718) 384-1500  
SPDES Number: Not reported  
Facility Status: ACTIVE FACILITY  
Owner Sub Type: Not reported

Tank Id: 001  
Date Entered: 03/17/1989  
Capacity (Gal): 500  
Chemical: Trichloroethene  
Tank Status: 0  
Tank Type: Steel/carbon steel  
Install Date: 06/83  
Certified Date: 03/20/1995  
CAS Number: 79016  
Substance: Single Hazardous Substance on DEC List  
Tank Location: ABOVEGROUND  
Intrnl Protection: None  
Extrnl Protection: None  
Pipe Location: Aboveground  
Pipe Type: STEEL/IRON  
Pipe Internal: None  
Pipe External: 0  
Pipe Containment: None  
Tank Containment: None  
Leak Detection: Other  
Overfill Protection: High Level Alarm  
Haz Percent: 100  
Tank Closed: 00/00  
Total Tanks: 0  
Tank Secret: False  
Last Test: Not reported  
Due Date: Not reported  
Tank Error Status: No Missing Data  
SWIS Code: 6101  
Lat/Long: Not reported  
Pipe Flag: False  
Federal ID: Not reported  
Is Updated: F  
Renew Date: 04/19/93  
Is it There: F  
Deliquent: F  
Date Expired: 03/17/95  
Owner Mark: 1

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NASH METALWARE CO. (Continued)**

**S104073387**

Certificate Needs to be Printed: False  
Fiscal Amt for Registration Fee Correct: True  
Renewal Has Been Printed for Facility: True  
Pre-Printed Renewal App Last Printed: 10/09/1998  
Total Capacity of All Active Tanks(gal): 0

**LTANKS:**

Site ID: 332794  
Spill Date: 10/22/04  
Facility Addr2: 1 NASSAU AVE  
Facility ID: 0408142  
Program Number: 0408142  
SWIS: 2401  
Region of Spill: 2  
Investigator: BKFALVEY  
Referred To: Not reported  
Reported to Dept: 10/22/04  
CID: 14  
Spill Cause: Tank Test Failure  
Water Affected: Not reported  
Spill Source: Commercial/Industrial  
Spill Notifier: Tank Tester  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Remediation Phase: 1  
Date Entered In Computer: 10/22/04  
Spill Record Last Update: 11/03/06  
Spiller Namer: STEHPANIE EISENBERG  
Spiller Company: Not reported  
Spiller Phone: (718) 384-1500  
Spiller Extention: Not reported  
Spiller Address: 1 NASSAU AVE  
Spiller City,St,Zip: BROOKLYN, NY  
Spiller County: 001  
Spiller Contact: STEHPANIE EISENBERG  
Spiller Phone: (718) 384-1500  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0408142  
DER Facility ID: 15779  
Site ID: Not reported  
Operable Unit ID: Not reported  
Operable Unit: Not reported  
Material ID: Not reported  
Material Code: Not reported  
Material Name: Not reported  
Case No.: Not reported  
Material FA: Not reported  
Quantity: Not reported  
Units: Not reported  
Recovered: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**NASH METALWARE CO. (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**S104073387**

Resource Affected: Not reported  
 Oxygenate: Not reported  
 Site ID: 332794  
 Spill Tank Test: 36911  
 Tank Number: 1  
 Tank Size: 10000  
 Test Method: 03  
 Leak Rate: 0.00  
 Gross Fail: 0  
 Modified By: Watchdog  
 Last Modified: 10/22/04  
 Test Method: Horner EZ Check I or II  
 DEC Remarks: Start DECRemark - 0408142 8/05-Spoke with A-1 Crown leak. Will get back to me with the owner information. 9/05-Spoke to Stephanie Eisenberg. tank is no longer in use. Will send in paperwork. S. Scharf 4/06- Called stepahnie Eisenberg- reminded her to send in the paperwork that tanks is empty and building now uses gas. 9/14/06 called Stephanie Eisenberg (owner) - left message. bf 9/21/06 ttf letter sent to S. Eisenberg. bf END DECRemark - 0408142  
 Remarks: Start CallerRemark - 0408142 PBS No: 2-333166 END CallerRemark - 0408142

**CBS:**

CBS Number: 2-000025  
 Program Type: CBS  
 Swis Code: 2401  
 Town: New York City  
 Dec Region: 2  
 Registered: 1  
 Expiration Date: N/A  
 Facility Type: Manufacturing (Other than Chemical)/Processing

**89  
 NW  
 1/4-1/2  
 2246 ft.**

**WYTHE AVE. (BERRY ST.) STATION  
 WYTHE AVE., BERRY ST., N 12TH AND 13TH ST  
 BROOKLYN, NY 11211**

**Manufactured Gas Plants**

**1008407903  
 N/A**

**Relative:  
 Higher**

**Actual:  
 17 ft.  
 U90  
 WNW  
 1/4-1/2  
 2276 ft.**

**93 NORTH 9TH ST  
 BROOKLYN, NY**

**LTANKS S105055184  
 HIST LTANKS N/A**

**Site 1 of 2 in cluster U**

**Relative:  
 Higher**

**LTANKS:**  
 Site ID: 143272  
 Spill Date: 06/26/01  
 Facility Addr2: Not reported  
 Facility ID: 0103335  
 Program Number: 0103335  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: JEDURNIN  
 Referred To: Not reported  
 Reported to Dept: 06/27/01

**Actual:  
 32 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

S105055184

CID: 14  
Spill Cause: Tank Failure  
Water Affected: Not reported  
Spill Source: Unknown  
Spill Notifier: Federal Government  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 10/31/05  
Remediation Phase: 0  
Date Entered In Computer: 06/27/01  
Spill Record Last Update: 10/31/05  
Spille Namer: UNK  
Spiller Company: UNK  
Spiller Phone: (000) 000-0000  
Spiller Extention: Not reported  
Spiller Address: UNK  
Spiller City,St,Zip: UNK, ZZ  
Spiller County: 001  
Spiller Contact: UNK  
Spiller Phone: (000) 000-0000  
Spiller Extention: 0  
DEC Region: 2  
Program Number: 0103335  
DER Facility ID: 122203  
Site ID: 143272  
Operable Unit ID: 840056  
Operable Unit: 01  
Material ID: 535420  
Material Code: 0001  
Material Name: #2 Fuel Oil  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 0103335 On July 10, 2001, RGM Liquid Waste Removal provides NYSDEC with end-point sample results collected on July 3, 2001. 07/11/2001, nysdec notes that the "TANK PULLED,SOIL EXCAVATED AND STOCKPILED WAITING FOR DISPOSAL. ENDPOINT SAMPLES TAKEN." 9/2/03 TIPPLE SENT REQUEST FOR DOCUMENTATION. On September 26, 2003, American Environmental Assessment

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

(Continued)

S105055184

Corporation provided notarized documentation that the tank was properly removed from the site on July 13, 2001. On November 24, 2003, NYSDEC was provided documentation of two Non-hazardous Material Manifests for the disposal of petroleum-contaminated soil dated July 13, 2005. Also, on November 24, 2003, NYSDEC was provided documentation of six soil sample analyses from the sides of the tank pit and the bottom of the pit, dated July 3, 2001. The samples were analyzed for STARS 8021 and 8270 and are acceptable for closing (per TAGM 4046) Spill No.0103335. END DECRemark - 0103335  
Remarks: Start CallerRemark - 0103335 anonymous caller reported tanks being removed and tanks are leaking END CallerRemark - 0103335

HIST LTANKS:

Region of Spill: 2  
Spill Number: 0103335  
Investigator: TIPPLE  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 06/26/2001  
Spill Time: 09:00  
Reported to Department Date: 06/27/01  
Reported to Department Time: 08:45  
SWIS: 61  
Spiller Contact: UNK  
Spiller Phone: (000) 000-0000  
Spiller Extention: 0  
Spiller Name: UNK  
Spiller Address: UNK  
Spiller City,St,Zip: UNK  
Facility Contact: UNK  
Facility Phone: (000) 000-0000  
Facility Extention: Not reported  
Spill Cause: Tank Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Unknown  
Spill Notifier: Federal Government  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 06/27/01

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**(Continued)**

**S105055184**

Time Spill Entered In Computer Data File: Not reported  
 Spill Record Last Update: 07/11/01  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: #2 FUEL OIL  
 Class Type: #2 FUEL OIL  
 Times Material Entry In File: 24464  
 CAS Number: Not reported  
 Last Date: 19941207  
 DEC Remarks: 07/11/2001 TANK PULLED,SOIL EXCAVATED AND STOCKPILED WAITING FOR DISPOSAL.  
 END POINT SAMPLES TAKEN.  
 Spill Cause: anonymous caller reported tanks being removed and tanks are leaking

**U91  
 WNW  
 1/4-1/2  
 2276 ft.**

**COMMERCIAL BUILDING  
 93 NORTH 9TH STREET  
 BROOKLYN, NY**

**LTANKS S104516556  
 HIST LTANKS N/A**

**Site 2 of 2 in cluster U**

**Relative:  
 Higher**

LTANKS:

**Actual:  
 32 ft.**

Site ID: 275967  
 Spill Date: 02/16/00  
 Facility Addr2: Not reported  
 Facility ID: 9913062  
 Program Number: 9913062  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: JEDURNIN  
 Referred To: Not reported  
 Reported to Dept: 02/16/00  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 06/21/05  
 Remediation Phase: 0  
 Date Entered In Computer: 02/16/00  
 Spill Record Last Update: 06/21/05  
 Spille Namer: MYRON CUTLER

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**COMMERCIAL BUILDING (Continued)**

**S104516556**

Spiller Company:            COMMERCIAL BUILDING  
Spiller Phone:              (718) 388-3133  
Spiller Extention:         Not reported  
Spiller Address:            93 NORTH 9TH STREET  
Spiller City,St,Zip:        BROOKLYN, NY  
Spiller County:             001  
Spiller Contact:            MYRON CUTLER  
Spiller Phone:              (718) 388-3133  
Spiller Extention:         Not reported  
DEC Region:                2  
Program Number:          9913062  
DER Facility ID:            224362  
Site ID:                     275967  
Operable Unit ID:         1087599  
Operable Unit:             01  
Material ID:                294921  
Material Code:             0001  
Material Name:             #2 Fuel Oil  
Case No.:                    Not reported  
Material FA:                Petroleum  
Quantity:                    0.00  
Units:                        Gallons  
Recovered:                  0.00  
Resource Affected:        Soil  
Oxygenate:                 False  
Site ID:                     275967  
Spill Tank Test:            22630  
Tank Number:               1  
Tank Size:                  1080  
Test Method:               03  
Leak Rate:                  0.00  
Gross Fail:                 Not reported  
Modified By:                Spills  
Last Modified:             10/01/04  
Test Method:                Horner EZ Check I or II  
DEC Remarks:               Start DECRemark - 9913062 04/24/2000: Tank was re-tested on 04/06/2000 and passed the test. Report was received on 04/24/2000. All piping was replace. pyh 07/11/2001 TANK REMOVED DURING RENOVATIONS (SEE SPILL# 0103335, same site) 01/26/04:Reassigned from Rommel to Austin 02/17/04: Reassigned from AUSTIN to KRIMGOLD. Based on the above information (tank passed test, replaced piping, tank removed) this site is closed. John Durnin 6/21/2005 END DECRemark - 9913062  
  
Remarks:                    Start CallerRemark - 9913062 tank failed the test. END CallerRemark - 9913062

**HIST LTANKS:**

Region of Spill:            2  
Spill Number:              9913062  
Investigator:               ROMMEL  
Caller Name:                Not reported  
Caller Agency:             Not reported  
Caller Phone:               Not reported  
Caller Extension:         Not reported  
Notifier Name:              Not reported  
Notifier Agency:          Not reported  
Notifier Phone:            Not reported  
Notifier Extension:        Not reported  
Spill Date:                  02/16/2000

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

COMMERCIAL BUILDING (Continued)

S104516556

Spill Time: 14:00  
Reported to Department Date: 02/16/00  
Reported to Department Time: 15:34  
SWIS: 61  
Spiller Contact: MYRON CUTLER  
Spiller Phone: (718) 388-3133  
Spiller Extention: Not reported  
Spiller Name: COMMERCIAL BUILDING  
Spiller Address: 93 NORTH 9TH STREET  
Spiller City,St,Zip: BROOKLYN, NY  
Facility Contact: MYRON CUTLER  
Facility Phone: (718) 388-3133  
Facility Extention: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Tank Tester  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 02/16/00  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 07/11/01  
Is Updated: False  
PBS Number: Not reported  
Tank Number: 1  
Tank Size: 1080  
Test Method: Horner EZ Check  
Leak Rate Failed Tank: 0.00  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: False  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: #2 FUEL OIL  
Class Type: #2 FUEL OIL  
Times Material Entry In File: 24464  
CAS Number: Not reported  
Last Date: 19941207  
DEC Remarks: 04/24/2000: Tank was re-tested on 04/06/2000 and passed the test. Report was received on 04/24/2000. All piping was replace. pyh 07/11/2001 TANK REMOVED DURING RENOVATIONS, SEE SPILL 0103335  
Spill Cause: tank failed the test.

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**92**      **MOBIL S/S**  
**NE**      **550 HUMBOLDT STREET**  
**1/4-1/2**      **BROOKLYN, NY**  
**2408 ft.**

**LTANKS**      **S100146394**  
**HIST LTANKS**      **N/A**

**Relative:**  
**Higher**

**LTANKS:**

**Actual:**  
**22 ft.**

Site ID: 59273  
 Spill Date: 10/16/90  
 Facility Addr2: Not reported  
 Facility ID: 9007766  
 Program Number: 9007766  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: DKHARRIN  
 Referred To: Not reported  
 Reported to Dept: 10/16/90  
 CID: 14  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Gasoline Station  
 Spill Notifier: Responsible Party  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: True  
 Spill Class: Known release that creates a file or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Remediation Phase: 3  
 Date Entered In Computer: 10/31/90  
 Spill Record Last Update: 12/22/06  
 Spiller Namer: MELISSA TACCHINO  
 Spiller Company: EXXONMOBIL OIL CORP  
 Spiller Phone: (908) 730-3610  
 Spiller Extention: Not reported  
 Spiller Address: 1545 ROUTE 22 EAST  
 Spiller City,St,Zip: ANNANDALE, NJ 08801  
 Spiller County: 999  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 9007766  
 DER Facility ID: 301050  
 Site ID: 59273  
 Operable Unit ID: 945056  
 Operable Unit: 01  
 Material ID: 431609  
 Material Code: 0009  
 Material Name: Gasoline  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil, Groundwater  
 Oxygenate: True  
 Site ID: 59273

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**MOBIL S/S (Continued)**

**S100146394**

Operable Unit ID: 945056  
Operable Unit: 01  
Material ID: 2106619  
Material Code: 1213A  
Material Name: MTBE (METHYL-TERT-BUTYL ETHER)  
Case No.: 01634044  
Material FA: Hazardous Material  
Quantity: 0.00  
Units: Not reported  
Recovered: 0.00  
Resource Affected: Not reported  
Oxygenate: True  
Site ID: 59273  
Spill Tank Test: 12281  
Tank Number: Not reported  
Tank Size: 0  
Test Method: 00  
Leak Rate: 0.00  
Gross Fail: Not reported  
Modified By: Spills  
Last Modified: 10/01/04  
Test Method: Unknown  
DEC Remarks: Start DECRemark - 9007766 Spill remediation is being tracked under spill no. 90-07766. See also spill no. 05-08671. 11/6/2000: Reassigned from Sullivan to Sigona. PBS records indicate that 14 x 550-gallon, 1 x 4,000-gallon and 1 x 1,000-gallon USTs were either closed in-place or removed from this site. (Sigona) 12/12/2003: Reassigned from Roberts to Harrington (central office) for management. (Rommel) 5/6/2005: Sent letter to Exxon Mobil approving off-site RI work plan. (Harrington) 7/18/2005: Sent letter to Exxon Mobil approving revised RAP. EFR events @ MW-3 and MW-4 will be conducted semi-annually. FS to address dissolved BTEX @ MW-3 will be submitted along with off-site RI report. (Harrington) 10/7/2005: Sent e-mail to Exxon Mobil approving the sensitive receptor survey. (Harrington) 11/28/2005: Sent Exxon Mobil letters approving the SI report and the supplemental SI work plan for the off-site plume delineation. Additional work was required due to the discovery of free product west of McGuinness Boulevard. (Harrington) 7/31/2006: Approved supplemental SI report. Monthly EFR events will now be conducted at wells MW-3, MW-4, MW-11, MW-12, and MW-15A. Work plan for recovery well installation near MW-15 is expected in October. (Harrington) 10/14/2006: Sent an e-mail to Exxon Mobil approving the SI work plan. Plan calls for the installation of six (6) monitoring wells along the west side of McGuinness Boulevard between Bayard and Newton Streets in order to fully delineate and recover the free product observed in this area. (Harrington) END DECRemark - 9007766  
Remarks: Start CallerRemark - 9007766 LINE TEST ONLY, PETRO TITE, LEAK RATE -.011GPH, WILL EXCAVATE, REPAIR & RETEST (REPAIRS BY ALVIN PETROLEUM). END CallerRemark - 9007766

HIST LTANKS:  
Region of Spill: 2  
Spill Number: 9007766  
Investigator: SIGONA  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

MOBIL S/S (Continued)

S100146394

Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 10/16/1990  
Spill Time: 11:00  
Reported to Department Date: 10/16/90  
Reported to Department Time: 12:25  
SWIS: 61  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extension: Not reported  
Spiller Name: EXXONMOBIL OIL CORP.  
Spiller Address: 464 DOUGHTY BLVD.  
Spiller City,St,Zip: INWOOD, NY 11096-  
Facility Contact: MIKE MEOLA  
Facility Phone: (516) 371-0739  
Facility Extension: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Gas Station  
Spill Notifier: Responsible Party  
PBS Number: 2-157295  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: True  
Spill Class: Known release that creates a file or hazard. DEC Response. Willing  
Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 10/31/90  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 11/06/00  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: 0  
Test Method: Not reported  
Leak Rate Failed Tank: 0.00  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: True  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: True  
Material: GASOLINE  
Class Type: GASOLINE  
Times Material Entry In File: 21329  
CAS Number: Not reported  
Last Date: 19940929

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**MOBIL S/S (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**S100146394**

DEC Remarks: reassigned from sullivan to sigona on 11/6/00 PBS records indicate that 14 x 550 gallon and 1 x 4,000 gallon and 1 x 1,000 gallon USTs were either closed in-place or removed from this site.  
 Spill Cause: LINE TEST ONLY, PETRO TITE, LEAK RATE -.011GPH, WILL EXCAVATE, REPAIR RETEST REPAIRS BY ALVIN PETROLEUM).

**93  
 WNW  
 1/4-1/2  
 2451 ft.**

**146 WYTHE AVE/BROOKLYN  
 146 WYTHE AVENUE  
 NEW YORK CITY, NY**

**LTANKS S100142800  
 HIST LTANKS N/A**

**Relative:  
 Higher**

**LTANKS:**

**Actual:  
 30 ft.**

Site ID: 303096  
 Spill Date: 08/23/89  
 Facility Addr2: Not reported  
 Facility ID: 8905160  
 Program Number: 8905160  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: FINGER  
 Referred To: Not reported  
 Reported to Dept: 08/24/89  
 CID: Not reported  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Commercial/Industrial  
 Spill Notifier: Affected Persons  
 Cleanup Ceased: 08/24/89  
 Cleanup Meets Standard: True  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Not reported  
 Spill Closed Dt: 08/24/89  
 Remediation Phase: 0  
 Date Entered In Computer: 09/06/89  
 Spill Record Last Update: 09/30/04  
 Spille Namer: Not reported  
 Spiller Company: Not reported  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 Spiller Address: Not reported  
 Spiller City,St,Zip: \*\*\*Update\*\*\*, ZZ  
 Spiller County: 001  
 Spiller Contact: Not reported  
 Spiller Phone: Not reported  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 8905160  
 DER Facility ID: 244883  
 Site ID: 303096  
 Operable Unit ID: 930469  
 Operable Unit: 01  
 Material ID: 445602  
 Material Code: 0066A  
 Material Name: UNKNOWN PETROLEUM  
 Case No.: Not reported  
 Material FA: Petroleum

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

146 WYTHE AVE/BROOKLYN (Continued)

S100142800

Quantity: -1.00  
Units: Not reported  
Recovered: 0.00  
Resource Affected: Air  
Oxygenate: False  
Site ID: 303096  
Spill Tank Test: 10473  
Tank Number: Not reported  
Tank Size: 0  
Test Method: 00  
Leak Rate: 0.00  
Gross Fail: Not reported  
Modified By: Spills  
Last Modified: 10/01/04  
Test Method: Unknown  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 8905160 CONTRACTOR SAND BLASTING ADJACENT BLDG CAUSING MATERIAL TO AFFECT RESIDENTS OF THE NEIGHBORHOOD, REFERRED CASE TO THE NYCDEP & DOH. END CallerRemark - 8905160

HIST LTANKS:

Region of Spill: 2  
Spill Number: 8905160  
Investigator: FINGER  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 08/23/1989  
Spill Time: 16:45  
Reported to Department Date: 08/24/89  
Reported to Department Time: 14:30  
SWIS: 61  
Spiller Contact: Not reported  
Spiller Phone: Not reported  
Spiller Extension: Not reported  
Spiller Name: Not reported  
Spiller Address: Not reported  
Spiller City,St,Zip: Not reported  
Facility Contact: Not reported  
Facility Phone: Not reported  
Facility Extension: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: Air  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Affected Persons  
PBS Number: Not reported  
Cleanup Ceased: 08/24/89  
Cleanup Meets Standard: True  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**146 WYTHE AVE/BROOKLYN (Continued)**

**S100142800**

Enforcement Date: / /  
 Investigation Complete: / /  
 UST Involvement: False  
 Spill Class: Not reported  
 Spill Closed Dt: 08/24/89  
 Date Region Sent Summary to Central Office: / /  
 Corrective Action Plan Submitted: / /  
 Date Spill Entered In Computer Data File: 09/06/89  
 Time Spill Entered In Computer Data File: Not reported  
 Spill Record Last Update: / /  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: 0  
 Test Method: Not reported  
 Leak Rate Failed Tank: 0.00  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: -1  
 Unkonwn Quantity Spilled: False  
 Units: Not reported  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: UNKNOWN PETROLEUM  
 Class Type: UNKNOWN PETROLEUM  
 Times Material Entry In File: 16414  
 CAS Number: Not reported  
 Last Date: 19940929  
 DEC Remarks: Not reported  
 Spill Cause: CONTRACTOR SAND BLASTING ADJACENT BLDG CAUSING MATERIAL TO AFFECT RESIDENTS OF THE NEIGHBORHOOD, REFERRED CASE TO THE NYCDEP DOH.

**V94 APARTMENT BUILDING**  
**SSW 278 SOUTH 2ND ST**  
**1/4-1/2 BROOKLYN, NY**  
**2460 ft.**

**LTANKS S107789097**  
**N/A**

**Relative: Higher**  
**Site 1 of 4 in cluster V**

**Actual: 33 ft.**

LTANKS:  
 Site ID: 362171  
 Spill Date: 04/06/06  
 Facility Addr2: Not reported  
 Facility ID: 0600215  
 Program Number: 0600215  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: HRPATEL  
 Referred To: Not reported  
 Reported to Dept: 04/06/06  
 CID: 12  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Institutional, Educational, Gov., Other  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**APARTMENT BUILDING (Continued)**

**S107789097**

UST Involvement: False  
 Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 11/17/06  
 Remediation Phase: 0  
 Date Entered In Computer: 04/06/06  
 Spill Record Last Update: 11/20/06  
 Spille Namer: CHUCK MERRITT  
 Spiller Company: APARTMENT BUILDING  
 Spiller Phone: (718) 767-7997  
 Spiller Extention: Not reported  
 Spiller Address: 278 SOUTH 2ND ST  
 Spiller City,St,Zip: BROOKLYN, NY 11201  
 Spiller County: 001  
 Spiller Contact: CHUCK MERRITT  
 Spiller Phone: (718) 767-7997  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 0600215  
 DER Facility ID: 312409  
 Site ID: 362171  
 Operable Unit ID: 1120273  
 Operable Unit: 01  
 Material ID: 2109769  
 Material Code: 0001  
 Material Name: #2 Fuel Oil  
 Case No.: Not reported  
 Material FA: Petroleum  
 Quantity: 0.00  
 Units: Gallons  
 Recovered: 0.00  
 Resource Affected: Soil  
 Oxygenate: False  
 Site ID: 362171  
 Spill Tank Test: 1488943  
 Tank Number: 1  
 Tank Size: 4000  
 Test Method: 03  
 Leak Rate: 0.00  
 Gross Fail: 0  
 Modified By: Watchdog  
 Last Modified: 04/06/06  
 Test Method: Horner EZ Check I or II  
 DEC Remarks: Start DECRemark - 0600215 04/07/06-Hiralkumar Patel. Spoke with Jim at Protest and he found that tank was leaking. this is 4000 gal AST vaulted in Concrete. haven't heard after tank test. Left message for Chuck Merritt at Merritt Engineering. 04/17/06-Hiralkumar Patel. Left message for Ms. Marian at Merritt Engineering. Received call from Maryann Wagh from Merritt Engineering. she gave me following information about owner of property: Super REalty LLC Mr. Abe Lasker (917) 753-8996. Left message for Chuck at Merritt as Maryann doesn't have latest information on case. Spoke with Abe Lasker at Super Realty. as per Mr. Lasker, somebody did work at site on Thursday to find out leakage. he doesn't know who did it. He is the Manager of property and his address is: Abe Lasker Super Realty LLC PO Box 110525 Brooklyn, NY 11211 Ph. (917) 753-8996 FAX (718) 336-8983 Received call from Chuck (FAX: 718-767-7996) from Merritt Engineering. as per him, Protest did isolationtest and found leakage in pipings. Spoke with John at Pro Test. these are two

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**APARTMENT BUILDING (Continued)**

**S107789097**

different buildings and as per him, he found leakage in Vent pipe and remote fill. one building has vent pipe only leakage and another has vent pipe and remote fill. hedoesn't know which one has what problem, so he will fax me that information with copies of test results. he still waiting to get approval for repair work. 05/11/06-Hiralkumar Patel. Left message for Jim at Protest. Received message from Jim. they haven't heard from owner yet. left message from Mr. Merritt. 06/02/06-Hiralkumar Patel. Spoke to John at Protest. He will call back with more information. 07/06/06-Hiralkumar Patel. spoke to Mr. Lasker and asked to send work invoice and testresult. Mr. Lasker will call back. spoke to Maria at Protest. she will call back with updates. 08/01/06-Hiralkumar Patel. left message for Mr. Lasker. received call from Mr. Lasker. he will call protest and will call back with updates. 08/29/06-Hiralkumar Patel. spoke with John at protest. they will be going onsite for repair work in next two weeks. if find any contamination, will remove it and if necessary will take endpoint samples. will send lab analyticals by first week of Oct. 2006.09/25/06-Hiralkumar Patel. spoke with Bob at Protest. he will check and call back. received call from Bob. he found that Protest has done some piping replacement work and he couldn't find test results. he will ask John to call the Department. 11/08/06-Hiralkumar Patel. left message for John at Protest. 11/17/06-Hiralkumar Patel. received letter and tank test result from Ted from Protest. as per Ted, leak was at vent pipe. they have replaced leaking vent pipe portion. no PBS record. spoke with Mr. Lasker. this building has been sold out in Aug. 06 and has new management. Mr. Lasker has new management company's information in office and will fax this information. sent fax to Mr. Lasker requesting new management's information and asked him to contact DEC Falvey. sent email to DEC Falvey with Mr. Lasker's contact number and detail about tank and site. Mr. Falvey will contact new management about tank registration. based on available documents, case closed. 11/20/06-Hiralkumar Patel. received fax from Mr. Lasker. as per Mr. Lasker, tank is registered. new management is: Mag Realty Corp 475 Washington AVenue Brooklyn, NY 11238 Ph. (718) 622-6157 Fax (718) 789-3500 Contact: Mitch Asher spoke with Mr. Asher. he doesn't know about registration. he will check and will do registration if not registered. Mr. Asher asked to send application form. END DECRemark - 0600215  
 Start CallerRemark - 0600215 Tank test failure. END CallerRemark - 0600215

Remarks:

V95  
 SW  
 1/4-1/2  
 2465 ft.

274 SOUTH 2ND ST  
 274 SOUTH 2ND ST  
 BROOKLYN, NY

LTANKS S102662645  
 HIST LTANKS N/A

Site 2 of 4 in cluster V

Relative:  
 Higher

LTANKS:

Actual:  
 34 ft.

Site ID: 280545  
 Spill Date: 09/19/96  
 Facility Addr2: Not reported  
 Facility ID: 9607724  
 Program Number: 9607724  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: LUCE  
 Referred To: Not reported  
 Reported to Dept: 09/19/96  
 CID: 12  
 Spill Cause: Tank Overfill  
 Water Affected: Not reported  
 Spill Source: Institutional, Educational, Gov., Other  
 Spill Notifier: Responsible Party

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

274 SOUTH 2ND ST (Continued)

EDR ID Number  
EPA ID Number

Database(s)

S102662645

Cleanup Ceased: //  
Cleanup Meets Standard: False  
Last Inspection: //  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 10/29/96  
Remediation Phase: 0  
Date Entered In Computer: 09/19/96  
Spill Record Last Update: 11/19/96  
Spille Namer: TONY CARUCCI  
Spiller Company: AJ LIBERTY PARK OIL CO  
Spiller Phone: (718) 894-9218  
Spiller Extention: Not reported  
Spiller Address: 67-70 73RD PLACE  
Spiller City,St,Zip: MIDDLE VILLAGE, NY 11379-  
Spiller County: 001  
Spiller Contact: TONY CARUCCI  
Spiller Phone: (718) 894-9218  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 9607724  
DER Facility ID: 227791  
Site ID: 280545  
Operable Unit ID: 1035842  
Operable Unit: 01  
Material ID: 346985  
Material Code: 0001  
Material Name: #2 Fuel Oil  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 25.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Not reported  
Remarks: Start CallerRemark - 9607724 DRIVER OVERFILLED THE OIL TANK - ABSORBANTS ARE BEING APPLIED TO THE SPILL END CallerRemark - 9607724

HIST LTANKS:

Region of Spill: 2  
Spill Number: 9607724  
Investigator: LUCE  
Caller Name: Not reported  
Caller Agency: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

274 SOUTH 2ND ST (Continued)

S102662645

Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 09/19/1996  
Spill Time: 13:30  
Reported to Department Date: 09/19/96  
Reported to Department Time: 13:57  
SWIS: 61  
Spiller Contact: TONY CARUCCI  
Spiller Phone: (718) 894-9218  
Spiller Extension: Not reported  
Spiller Name: AJ LIBERTY PARK OIL CO  
Spiller Address: 67-70 73RD PLACE  
Spiller City,St,Zip: MIDDLE VILLAGE, NY 11379-  
Facility Contact: TONY CARUCCI  
Facility Phone: (718) 894-9218  
Facility Extension: Not reported  
Spill Cause: Tank Overfill  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Non Commercial/Industrial  
Spill Notifier: Responsible Party  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 10/29/96  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 09/19/96  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 11/19/96  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 25  
Unkonwn Quantity Spilled: False  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: #2 FUEL OIL  
Class Type: #2 FUEL OIL

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**274 SOUTH 2ND ST (Continued)**

**S102662645**

Times Material Entry In File: 24464  
 CAS Number: Not reported  
 Last Date: 19941207  
 DEC Remarks: SPOKE TO TONY - DRIVEWAY - DRIVERS CLEANING INSURANCE COMPANY GOING TO CHECK IT OUT - SWEET CLAIMS GAVE TONY \$ , ASKED TO CALL BACK WHEN HE KNOWS AMOUNT - HE SAID MAY BE 25-50 BUT HE DOESN T KNOW. PBS REGISTRATION EXPIRED.  
 Spill Cause: DRIVER OVERFILLED THE OIL TANK - ABSORBANTS ARE BEING APPLIED TO THE SPILL

**V96**  
**SSW**  
**1/4-1/2**  
**2473 ft.**

**273 SOUTH SECOND STREET**  
**273 SOUTH SECOND STREET**  
**BROOKLYN, NY**

**LTANKS S102959974**  
**HIST LTANKS N/A**

**Site 3 of 4 in cluster V**

**Relative:**  
**Higher**

**LTANKS:**

**Actual:**  
**33 ft.**

Site ID: 276183  
 Spill Date: 01/20/98  
 Facility Addr2: Not reported  
 Facility ID: 9712027  
 Program Number: 9712027  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: SFRAHMAN  
 Referred To: Not reported  
 Reported to Dept: 01/28/98  
 CID: 12  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported  
 Spill Source: Private Dwelling  
 Spill Notifier: Tank Tester  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: 04/04/05  
 Remediation Phase: 0  
 Date Entered In Computer: 01/28/98  
 Spill Record Last Update: 04/04/05  
 Spille Namer: MR STIMETZ  
 Spiller Company: 273 SOUTH SECOND STREET  
 Spiller Phone: (718) 387-3783  
 Spiller Extention: Not reported  
 Spiller Address: 273 SOUTH SECOND STREET  
 Spiller City,St,Zip: BROOKLYN, NY  
 Spiller County: 001  
 Spiller Contact: JOHN LEDDY  
 Spiller Phone: (516) 321-4670  
 Spiller Extention: Not reported  
 DEC Region: 2  
 Program Number: 9712027  
 DER Facility ID: 224543  
 Site ID: 276183  
 Operable Unit ID: 1054698  
 Operable Unit: 01  
 Material ID: 326658

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

273 SOUTH SECOND STREET (Continued)

S102959974

Material Code: 0001  
Material Name: #2 Fuel Oil  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: Not reported  
Spill Tank Test: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate: Not reported  
Gross Fail: Not reported  
Modified By: Not reported  
Last Modified: Not reported  
Test Method: Not reported  
DEC Remarks: Start DECRemark - 9712027 Prior to Sept, 2004 data translation this spill Lead  
DEC Field was "AUSTIN" NO PBS. 3/11/03 - SAMUEL- File available in  
active unassigned spill files. 3/3/05 - Austin - Reassigned to Rahman  
04/04/05-SR//No Further Action was issued on 03/24/1999 by Christopher P.  
Tomasello. Records are in the file. END DECRemark - 9712027  
Remarks: Start CallerRemark - 9712027 TANK TEST FAILURE END CallerRemark - 9712027

HIST LTANKS:

Region of Spill: 2  
Spill Number: 9712027  
Investigator: TOMASELLO  
Caller Name: Not reported  
Caller Agency: Not reported  
Caller Phone: Not reported  
Caller Extension: Not reported  
Notifier Name: Not reported  
Notifier Agency: Not reported  
Notifier Phone: Not reported  
Notifier Extension: Not reported  
Spill Date: 01/20/1998  
Spill Time: 11:30  
Reported to Department Date: 01/28/98  
Reported to Department Time: 10:52  
SWIS: 61  
Spiller Contact: JOHN LEDDY  
Spiller Phone: (516) 321-4670  
Spiller Extension: Not reported  
Spiller Name: 273 SOUTH SECOND STREET  
Spiller Address: 273 SOUTH SECOND STREET  
Spiller City,St,Zip: BROOKLYN, NY  
Facility Contact: MR STIMETZ  
Facility Phone: (718) 387-3783  
Facility Extension: Not reported  
Spill Cause: Tank Test Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Private Dwelling  
Spill Notifier: Tank Tester

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**273 SOUTH SECOND STREET (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**S102959974**

PBS Number: Not reported  
 Cleanup Ceased: / /  
 Cleanup Meets Standard: False  
 Last Inspection: / /  
 Recommended Penalty: Penalty Not Recommended  
 Spiller Cleanup Date: / /  
 Enforcement Date: / /  
 Investigation Complete: / /  
 UST Involvement: False  
 Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
 Willing Responsible Party. Corrective action taken.  
 Spill Closed Dt: / /  
 Date Region Sent Summary to Central Office: / /  
 Corrective Action Plan Submitted: / /  
 Date Spill Entered In Computer Data File: 01/28/98  
 Time Spill Entered In Computer Data File: Not reported  
 Spill Record Last Update: 01/28/98  
 Is Updated: False  
 PBS Number: Not reported  
 Tank Number: Not reported  
 Tank Size: Not reported  
 Test Method: Not reported  
 Leak Rate Failed Tank: Not reported  
 Gross Leak Rate: Not reported  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: True  
 Material: #2 FUEL OIL  
 Class Type: #2 FUEL OIL  
 Times Material Entry In File: 24464  
 CAS Number: Not reported  
 Last Date: 19941207  
 DEC Remarks: NO PBS.  
 Spill Cause: TANK TEST FAILURE

**V97  
 SW  
 1/4-1/2  
 2478 ft.**

**APARTMENT BUILDING  
 265 SOUTH 2ND ST.  
 BROOKLYN, NY**

**LTANKS S107789096  
 N/A**

**Site 4 of 4 in cluster V**

**Relative:  
 Higher**

LTANKS:  
 Site ID: 362170  
 Spill Date: 04/06/06  
 Facility Addr2: Not reported  
 Facility ID: 0600214  
 Program Number: 0600214  
 SWIS: 2401  
 Region of Spill: 2  
 Investigator: HRPATEL  
 Referred To: Not reported  
 Reported to Dept: 04/06/06  
 CID: 12  
 Spill Cause: Tank Test Failure  
 Water Affected: Not reported

**Actual:  
 36 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

APARTMENT BUILDING (Continued)

S107789096

Spill Source: Institutional, Educational, Gov., Other  
Spill Notifier: Tank Tester  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: False  
Spill Class: Known release with minimal potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 11/17/06  
Remediation Phase: 0  
Date Entered In Computer: 04/06/06  
Spill Record Last Update: 11/20/06  
Spille Namer: CHUCK MERRITT  
Spiller Company: APARTMENT BUILDING  
Spiller Phone: (718) 767-7997  
Spiller Extention: Not reported  
Spiller Address: 265 SOUTH 2ND ST.  
Spiller City,St,Zip: BROOKLYN, NY 11201  
Spiller County: 001  
Spiller Contact: CHUCK MERRITT  
Spiller Phone: (718) 767-7997  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0600214  
DER Facility ID: 312408  
Site ID: 362170  
Operable Unit ID: 1120272  
Operable Unit: 01  
Material ID: 2109768  
Material Code: 0001  
Material Name: #2 Fuel Oil  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: 362170  
Spill Tank Test: 1488942  
Tank Number: 1  
Tank Size: 4000  
Test Method: 03  
Leak Rate: 0.00  
Gross Fail: 0  
Modified By: Watchdog  
Last Modified: 04/06/06  
Test Method: Horner EZ Check I or II  
DEC Remarks: Start DECRemark - 0600214 04/07/06-Hiralkumar Patel. Spoke with Jim at Protest and he found that tank was leaking. this is 4000 gal AST vaulted in Concrete. haven't heard after tank test. Left message for Chuck Merritt at Merritt Engineering. 04/17/06-Hiralkumar Patel. Left message for Ms. Marian at Merritt Engineering. Received call from Maryann Wagh from Merritt Engineering. she gave me following information about owner of property: Super REalty LLC Mr. Abe Lasker (917) 753-8996.Left message for Chuck at Merritt as Maryann doesn't have latest information on case. Spoke with Abe Lasker at Super

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**APARTMENT BUILDING (Continued)**

**S107789096**

Realty. as per Mr. Lasker, somebody did work at site on Thursday to find out leakage. he doesn't know who did it. He is the Manager of property and his address is: Abe Lasker Super Realty LLC PO Box 110525 Brooklyn, NY 11211 Ph. (917) 753-8996 FAX (718) 336-8983 Received call from Chuck (FAX: 718-767-7996) from Merritt Engineering. as per him, Protest did isolation test and found leakage in pipings. Spoke with John at Pro Test. these are two different buildings and as per him, he found leakage in Vent pipe and remote fill. one building has vent pipe only leakage and another has vent pipe and remote fill. he doesn't know which one has what problem, so he will fax me that information with copies of test results. he still waiting to get approval for repair work. 05/11/06-Hiralkumar Patel. Left message for Jim at Protest. Received message from Jim. they haven't heard from owner yet. left message for Mr. Merritt. 06/01/06-Hiralkumar Patel. Spoke at Protest. Jim is out of office and will be back tomorrow. 06/02/06-Hiralkumar Patel. Spoke to John at Protest. He will call back with more information. 07/06/06-Hiralkumar Patel. spoke to Mr. Lasker and asked to send work invoice and test result. Mr. Lasker will call back. spoke to Maria at Protest. she will call back with updates. 08/01/06-Hiralkumar Patel. left message for Mr. Lasker. received call from Mr. Lasker. he will call protest and will call back with updates. 08/29/06-Hiralkumar Patel. spoke with John. they will be going onsite for repair work in next two weeks. if find any contamination, will remove it and if necessary will take endpoint samples. will send lab analyticals by first week of Oct. 2006. 09/25/06-Hiralkumar Patel. spoke with Bob at Protest. he will check and call back. received call from Bob. he found that Protest has done some piping replacement work and he couldn't find test results. he will ask John to call the Department. 11/08/06-Hiralkumar Patel. left message for John at Protest. 11/17/06-Hiralkumar Patel. received letter and tank test result from Ted from Protest. as per Ted, leak was at remote fill above grade. they have relocate the remote fill and replaced some aboveground pipings. no PBS record. spoke with Mr. Lasker. this building has been sold out in Aug. 06 and has new management. Mr. Lasker has new management company's information in office and will fax this information. sent fax to Mr. Lasker requesting new management's information and asked him to contact DEC Falvey. sent email to DEC Falvey with Mr. Lasker's contact number and detail about tank and site. Mr. Falvey will contact new management about tank registration. based on available documents, case closed. 11/20/06-Hiralkumar Patel. received fax from Mr. Lasker. as per Mr. Lasker, tank is registered. new management is: Mag Realty Corp 475 Washington Avenue Brooklyn, NY 11238 Ph. (718) 622-6157 Fax (718) 789-3500 Contact: Mitch Asher spoke with Mr. Asher. he doesn't know about registration. he will check and will do registration if not registered. Mr. Asher asked to send application form. END DEC Remark - 0600214 Start Caller Remark - 0600214 Tank test failure. END Caller Remark - 0600214

Remarks:

**98**            **NATIONS RENT**  
**NW**           **91 N. 12TH ST**  
**1/4-1/2**       **BROOKLYN, NY**  
**2589 ft.**

**LTANKS**    **S104621824**  
**HIST LTANKS**    **N/A**

**Relative:**        LTANKS:  
**Equal**            Site ID:            304635  
                       Spill Date:        06/19/00  
**Actual:**           Facility Addr2:     Not reported  
**16 ft.**            Facility ID:        0003390  
                       Program Number: 0003390  
                       SWIS:             2401  
                       Region of Spill: 2  
                       Investigator:     SMSANGES  
                       Referred To:     Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NATIONS RENT (Continued)**

**S104621824**

Reported to Dept: 06/19/00  
CID: 14  
Spill Cause: Tank Failure  
Water Affected: Not reported  
Spill Source: Commercial/Industrial  
Spill Notifier: Other  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
UST Involvement: True  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: 12/09/03  
Remediation Phase: 0  
Date Entered In Computer: 06/19/00  
Spill Record Last Update: 12/09/03  
Spille Namer: UNK  
Spiller Company: UNK  
Spiller Phone: (000) 000-0000  
Spiller Extention: Not reported  
Spiller Address: UNK  
Spiller City,St,Zip: UNK, ZZ  
Spiller County: 001  
Spiller Contact: CALLER  
Spiller Phone: Not reported  
Spiller Extention: Not reported  
DEC Region: 2  
Program Number: 0003390  
DER Facility ID: 246066  
Site ID: 304635  
Operable Unit ID: 824755  
Operable Unit: 01  
Material ID: 551710  
Material Code: 0010A  
Material Name: HYDRAULIC OIL  
Case No.: Not reported  
Material FA: Other  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: 304635  
Operable Unit ID: 824755  
Operable Unit: 01  
Material ID: 551711  
Material Code: 0015A  
Material Name: MOTOR OIL  
Case No.: Not reported  
Material FA: Petroleum  
Quantity: 0.00  
Units: Gallons  
Recovered: 0.00  
Resource Affected: Soil  
Oxygenate: False  
Site ID: 304635



Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**NATIONS RENT (Continued)**

**S104621824**

Spill Time: 13:00  
Reported to Department Date: 06/19/00  
Reported to Department Time: 13:21  
SWIS: 61  
Spiller Contact: CALLER  
Spiller Phone: ( ) -  
Spiller Extention: Not reported  
Spiller Name: UNK  
Spiller Address: UNK  
Spiller City,St,Zip: UNK  
Facility Contact: UNK  
Facility Phone: (000) 000-0000  
Facility Extention: Not reported  
Spill Cause: Tank Failure  
Resource Affectd: On Land  
Water Affected: Not reported  
Spill Source: Other Commercial/Industrial  
Spill Notifier: Other  
PBS Number: Not reported  
Cleanup Ceased: / /  
Cleanup Meets Standard: False  
Last Inspection: / /  
Recommended Penalty: Penalty Not Recommended  
Spiller Cleanup Date: / /  
Enforcement Date: / /  
Investigation Complete: / /  
UST Involvement: True  
Spill Class: Known release that creates potential for fire or hazard. DEC Response.  
Willing Responsible Party. Corrective action taken.  
Spill Closed Dt: / /  
Date Region Sent Summary to Central Office: / /  
Corrective Action Plan Submitted: / /  
Date Spill Entered In Computer Data File: 06/19/00  
Time Spill Entered In Computer Data File: Not reported  
Spill Record Last Update: 03/15/01  
Is Updated: False  
PBS Number: Not reported  
Tank Number: Not reported  
Tank Size: Not reported  
Test Method: Not reported  
Leak Rate Failed Tank: Not reported  
Gross Leak Rate: Not reported  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: True  
Units: Gallons  
Quantity Recovered: 0  
Unkonwn Quantity Recovered: False  
Material: DIESEL  
Class Type: DIESEL  
Times Material Entry In File: 10625  
CAS Number: Not reported  
Last Date: 19940728  
Material Class Type: Petroleum  
Quantity Spilled: 0  
Unkonwn Quantity Spilled: True  
Units: Gallons

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**NATIONS RENT (Continued)**

**S104621824**

Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: HYDRAULIC OIL  
 Class Type: HYDRAULIC OIL  
 Times Material Entry In File: 1846  
 CAS Number: Not reported  
 Last Date: 19940728  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: False  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: MOTOR OIL  
 Class Type: MOTOR OIL  
 Times Material Entry In File: 508  
 CAS Number: Not reported  
 Last Date: 19940728  
 Material Class Type: Petroleum  
 Quantity Spilled: 0  
 Unkonwn Quantity Spilled: True  
 Units: Gallons  
 Quantity Recovered: 0  
 Unkonwn Quantity Recovered: False  
 Material: WASTE OIL  
 Class Type: WASTE OIL  
 Times Material Entry In File: 9509  
 CAS Number: Not reported  
 Last Date: 19940927  
 DEC Remarks: 6/20 SPOKE WITH TYREE..CLEANUP IN PROGRESS, WILL TAKE END POINT SAMPLES 3/15/01  
 HISTORICAL SITE CLEANUP MANAGED BY S. SANGESLAND THE SITE HAS BEEN TRANSFERRED  
 TO S.S. SPILL 9906362  
 Spill Cause: caller reporting a spill of material from a leaky tank no clean up as of yet  
 and no callback is necessary

**99** **RADIAC RESEARCH CORP**  
**West** **33 S FIRST ST**  
**1/2-1** **BROOKLYN, NY 11211**  
**3987 ft.**

**Relative:**  
**Higher**

**Actual:**  
**18 ft.**

**PADS 1000245435**  
**RCRA-SQG NYD049178296**  
**FINDS**  
**RCRA-TSDF**  
**CORRACTS**  
**FTTS**  
**NY MANIFEST**  
**HIST FTTS**  
**RI MANIFEST**  
**NJ MANIFEST**  
**CT MANIFEST**

**RCRAInfo Corrective Action Summary:**

Event: CA Prioritization, Facility or area was assigned a low corrective action  
 priority.  
 Event Date: 02/10/1993

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**RADIAC RESEARCH CORP (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

Site

**1000245435**

Event: RFA Completed  
 Event Date: 11/29/1985

**RCRAInfo:**

Owner: JOHN TEKIN, ARTHUR F GREEN, KEITH FOLEY  
 (718) 963-2233  
 EPA ID: NYD049178296  
 Contact: JOE MAHAL  
 (718) 963-2233

Classification: TSDF  
 TSDF Activities: Not reported

**BIENNIAL REPORTS:**

Last Biennial Reporting Year: 2005

<u>Waste</u>	<u>Quantity (Lbs)</u>	<u>Waste</u>	<u>Quantity (Lbs)</u>
D001	0.00	D002	0.00
D004	0.00	D005	0.00
D006	0.00	D007	0.00
D008	0.00	D009	0.00
D011	0.00	D018	0.00
D022	0.00	D038	0.00
D039	0.00	F002	0.00
F003	0.00	LABP	0.00
U226	0.00		

Violation Status: Violations exist

Regulation Violated: 373 Permit/373-2.9(h)(3)  
 Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
 Date Violation Determined: 06/24/2004  
 Actual Date Achieved Compliance: 06/24/2004  
 Enforcement Action: WRITTEN INFORMAL  
 Enforcement Action Date: 10/14/2004  
 Penalty Type: Not reported

Regulation Violated: 373 Permit/373-2.3(b)  
 Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
 Date Violation Determined: 06/24/2004  
 Actual Date Achieved Compliance: 06/24/2004  
 Enforcement Action: WRITTEN INFORMAL  
 Enforcement Action Date: 10/14/2004  
 Penalty Type: Not reported

Regulation Violated: 373 Permit  
 Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
 Date Violation Determined: 06/24/2004  
 Actual Date Achieved Compliance: 06/24/2004  
 Enforcement Action: WRITTEN INFORMAL  
 Enforcement Action Date: 10/14/2004  
 Penalty Type: Not reported

Regulation Violated: Not reported  
 Area of Violation: TRANSPORTER ROAD INSPECTION  
 Date Violation Determined: 05/08/2001  
 Actual Date Achieved Compliance: 06/21/2001  
 Enforcement Action: WRITTEN INFORMAL  
 Enforcement Action Date: 03/27/1985

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Penalty Type:	Not reported
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	05/08/2002
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	03/28/2000
Actual Date Achieved Compliance:	09/08/2000
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	05/08/2000
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	TSD-LAND BAN REQUIREMENTS
Date Violation Determined:	03/28/2000
Actual Date Achieved Compliance:	09/08/2000
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	05/08/2000
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	09/27/1999
Actual Date Achieved Compliance:	04/04/2000
Enforcement Action:	INITIAL 3008(A) COMPLIANCE ORDER
Enforcement Action Date:	02/15/2000
Penalty Type:	Final Monetary Penalty
Enforcement Action:	FINAL 3008(A) COMPLIANCE ORDER
Enforcement Action Date:	04/04/2000
Penalty Type:	Final Monetary Penalty
Regulation Violated:	Not reported
Area of Violation:	TSD-LAND BAN REQUIREMENTS
Date Violation Determined:	09/27/1999
Actual Date Achieved Compliance:	04/04/2000
Enforcement Action:	INITIAL 3008(A) COMPLIANCE ORDER
Enforcement Action Date:	02/15/2000
Penalty Type:	Final Monetary Penalty
Enforcement Action:	FINAL 3008(A) COMPLIANCE ORDER
Enforcement Action Date:	04/04/2000
Penalty Type:	Final Monetary Penalty
Regulation Violated:	6nycrr373-2.3(d) & Permit Cond
Area of Violation:	TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	07/26/1999
Actual Date Achieved Compliance:	08/13/1999
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	07/26/1999
Penalty Type:	Final Monetary Penalty
Enforcement Action:	INITIAL 3008(A) COMPLIANCE ORDER
Enforcement Action Date:	10/27/1998
Penalty Type:	Final Monetary Penalty
Enforcement Action:	FINAL 3008(A) COMPLIANCE ORDER
Enforcement Action Date:	04/04/2000

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 04/20/1999  
Actual Date Achieved Compliance: 04/04/2000  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/23/1999  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-LAND BAN REQUIREMENTS  
Date Violation Determined: 04/20/1999  
Actual Date Achieved Compliance: 04/04/2000  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/23/1999  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 05/15/1998  
Actual Date Achieved Compliance: 04/04/2000  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/11/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 10/27/1998  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-LAND BAN REQUIREMENTS  
Date Violation Determined: 05/15/1998  
Actual Date Achieved Compliance: 04/04/2000  
Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 07/26/1999  
Penalty Type: Final Monetary Penalty  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 10/27/1998  
Penalty Type: Final Monetary Penalty

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty

Regulation Violated: Not reported  
Area of Violation: TSD-LAND BAN REQUIREMENTS  
Date Violation Determined: 04/28/1997  
Actual Date Achieved Compliance: 04/04/2000

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/11/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 10/02/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty

Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 04/28/1997  
Actual Date Achieved Compliance: 04/04/2000

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/11/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 10/02/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty

Regulation Violated: 40CFR265.16(d)(4) & (e)  
Area of Violation: TSD-GENERAL STANDARDS  
Date Violation Determined: 06/28/1996  
Actual Date Achieved Compliance: 07/08/1996

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Penalty Type: Final Monetary Penalty  
Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 12/16/1994  
Penalty Type: Final Monetary Penalty  
Regulation Violated: 6nycrr373-2.5(d)(1), 373-2.2(h)  
Area of Violation: TSD-PART B APPLICATION  
Date Violation Determined: 06/28/1996  
Actual Date Achieved Compliance: 07/08/1996  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/11/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 10/27/1998  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty  
Regulation Violated: 6NYCRR373-2.2(g)(2) & (4)  
Area of Violation: TSD-GENERAL STANDARDS  
Date Violation Determined: 06/28/1996  
Actual Date Achieved Compliance: 12/17/1997  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/11/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 10/02/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty  
Regulation Violated: 40cfr265.32(c)and 265.33  
Area of Violation: TSD-GENERAL STANDARDS  
Date Violation Determined: 06/28/1996  
Actual Date Achieved Compliance: 07/08/1996  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/11/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 10/02/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 04/04/2000  
Penalty Type: Final Monetary Penalty

Regulation Violated: 6NYCRR 376.5(a)(1)(ii)(a')  
Area of Violation: TSD-CONTAINERS REQUIREMENTS  
Date Violation Determined: 06/07/1995  
Actual Date Achieved Compliance: 07/08/1996

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 07/20/1990  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 05/28/1991  
Penalty Type: Final Monetary Penalty

Regulation Violated: 6NYCRR373-2.3(f)  
Area of Violation: TSD-PREPAREDNESS/PREVENTION REQUIREMENTS  
Date Violation Determined: 06/07/1995  
Actual Date Achieved Compliance: 07/08/1996

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 12/16/1994  
Penalty Type: Final Monetary Penalty

Regulation Violated: iNYCRR373-2.2(h)(5)  
Area of Violation: TSD-GENERAL STANDARDS  
Date Violation Determined: 06/07/1995  
Actual Date Achieved Compliance: 04/17/1996

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Penalty Type: Final Monetary Penalty  
Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 12/16/1994  
Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-MANIFEST REQUIREMENTS  
Date Violation Determined: 12/16/1994  
Actual Date Achieved Compliance: 01/30/1995  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 12/16/1994  
Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-LAND BAN REQUIREMENTS  
Date Violation Determined: 12/16/1994  
Actual Date Achieved Compliance: 05/17/1995  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 12/16/1994  
Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 12/16/1994  
Actual Date Achieved Compliance: 05/17/1995  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty  
Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty  
Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 12/16/1994  
Penalty Type: Final Monetary Penalty  
Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 02/01/1991  
Actual Date Achieved Compliance: 01/30/1992  
Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 07/20/1990  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 05/28/1991  
Penalty Type: Final Monetary Penalty

Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 12/21/1990  
Actual Date Achieved Compliance: 05/28/1991

Enforcement Action: INITIAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 06/28/1996  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 03/05/1997  
Penalty Type: Final Monetary Penalty

Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 07/20/1990  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 05/28/1991  
Penalty Type: Final Monetary Penalty

Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 07/26/1990  
Actual Date Achieved Compliance: 01/30/1992

Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 07/20/1990  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 05/28/1991  
Penalty Type: Final Monetary Penalty

Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 07/20/1990  
Actual Date Achieved Compliance: 05/28/1991

Enforcement Action: WRITTEN INFORMAL  
Enforcement Action Date: 07/20/1990  
Penalty Type: Final Monetary Penalty

Enforcement Action: FINAL 3008(A) COMPLIANCE ORDER  
Enforcement Action Date: 05/28/1991  
Penalty Type: Final Monetary Penalty

Regulation Violated: Not reported  
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)  
Date Violation Determined: 05/11/1990  
Actual Date Achieved Compliance: 09/24/1990

Enforcement Action: WRITTEN INFORMAL

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**RADIAC RESEARCH CORP (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**1000245435**

Enforcement Action Date:	05/11/1990
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	09/19/1986
Actual Date Achieved Compliance:	09/30/1986
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	09/19/1986
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS
Date Violation Determined:	05/15/1986
Actual Date Achieved Compliance:	08/20/1986
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	05/15/1986
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	05/02/1986
Actual Date Achieved Compliance:	07/11/1986
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	05/02/1986
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	07/31/1984
Actual Date Achieved Compliance:	07/12/1985
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	03/27/1985
Penalty Type:	Not reported
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	05/08/2002
Penalty Type:	Not reported

**Penalty Summary:**

Penalty Description	Penalty Date	Penalty Amount	Lead Agency
-----	-----	-----	-----
Final Monetary Penalty	4/4/2000	20000	STATE
Proposed Monetary Penalty	2/15/2000	20000	STATE
Proposed Monetary Penalty	10/27/1998	24995	STATE
Proposed Monetary Penalty	10/2/1997	1200	STATE
Final Monetary Penalty	4/11/1997	12000	EPA
Final Monetary Penalty	3/5/1997	12100	EPA
Final Monetary Penalty	5/28/1991	40000	STATE

There are 33 violation record(s) reported at this site:

<u>Evaluation</u>	<u>Area of Violation</u>	<u>Date of Compliance</u>
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20040624
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20040624
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20040624
CDI	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19850712
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000908

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Site	Database(s)	EDR ID Number EPA ID Number
<b>RADIAC RESEARCH CORP (Continued)</b>		<b>1000245435</b>
Compliance Evaluation Inspection	TSD-LAND BAN REQUIREMENTS	20000908
	TSD-LAND BAN REQUIREMENTS	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
	TSD-LAND BAN REQUIREMENTS	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
	TSD-LAND BAN REQUIREMENTS	20000404
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19990813
	TSD-LAND BAN REQUIREMENTS	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
Compliance Evaluation Inspection	TSD-LAND BAN REQUIREMENTS	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
	TSD-LAND BAN REQUIREMENTS	20000404
Compliance Evaluation Inspection	TSD-LAND BAN REQUIREMENTS	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
Compliance Evaluation Inspection	TSD-LAND BAN REQUIREMENTS	20000404
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	20000404
Compliance Evaluation Inspection	TSD-GENERAL STANDARDS	19960708
	TSD-GENERAL STANDARDS	19960708
	TSD-GENERAL STANDARDS	19971217
	TSD-PART B APPLICATION	19960708
RCRA CEI done W/ Screening Checklist	TSD-CONTAINERS REQUIREMENTS	19960708
	TSD-GENERAL STANDARDS	19960417
	TSD-PREPAREDNESS/PREVENTION REQUIREMENTS	19960708
Compliance Evaluation Inspection	TSD-CONTAINERS REQUIREMENTS	19960708
	TSD-GENERAL STANDARDS	19960417
Compliance Evaluation Inspection	TSD-PREPAREDNESS/PREVENTION REQUIREMENTS	19960708
	TSD-MANIFEST REQUIREMENTS	19950130
Compliance Evaluation Inspection	TSD-LAND BAN REQUIREMENTS	19950517
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19950517
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19920130
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19910528
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19910528
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19920130
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19900924
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19860930
Financial Record Review	TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS	19860820
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19860711
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19850712

**FINDS:**

Other Pertinent Environmental Activity Identified at Site

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**CORRACTS:**

EPA ID: NYD049178296  
EPA Region: 2  
Area Name: SITEWIDE  
Actual Date: 02/10/1993  
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority  
NAICS Code(s): 562112 562211  
Hazardous Waste Collection  
Hazardous Waste Treatment and Disposal

EPA ID: NYD049178296  
EPA Region: 2  
Area Name: SITEWIDE  
Actual Date: 11/29/1985  
Action: CA050 - RFA Completed  
NAICS Code(s): 562112 562211  
Hazardous Waste Collection  
Hazardous Waste Treatment and Disposal

**FTTS INSP:**

Inspection Number: 2004102123577 1  
Region: 02  
Inspection Date: 10/21/2004  
Inspector: L. PAPPALARDO, CN  
Violation occurred: No  
Investigation Type: Section 6 PCB Federal Conducted  
Investigation Reason: For Cause, Disposal  
Legislation Code: TSCA  
Facility Function: Disposer

**NY MANIFEST:**

Document ID: NYG1346634  
Manifest Status: Not reported  
Trans1 State ID: NYD986873107  
Trans2 State ID: Not reported  
Generator Ship Date: 08/07/2001  
Trans1 Recv Date: 08/07/2001

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/09/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: NYD082785429  
Trans2 EPA ID: Not reported  
TSD ID: VR1607  
Waste Code: D011 - SILVER 5.0 MG/L TCLP  
Quantity: 00015  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 003  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: NYG1613979  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 09/15/2001  
Trans1 Recv Date: 09/15/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 09/18/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: OHD083377010  
Trans2 EPA ID: Not reported  
TSD ID: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00300  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D009 - MERCURY 0.2 MG/L TCLP  
Quantity: 01651  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: NYG1615806  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 01/02/2001  
Trans1 Recv Date: 01/02/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 01/03/2001

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: CDX910000000  
Trans2 EPA ID: Not reported  
TSD ID: 56396RNY  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00500  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: NYG1615842  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 03/01/2001  
Trans1 Recv Date: 03/01/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 03/02/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: CDX910000000  
Trans2 EPA ID: Not reported  
TSD ID: 56396RNY  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00400

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: NYG1615851  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 01/18/2001  
Trans1 Recv Date: 01/18/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 01/19/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: CDX910000000  
Trans2 EPA ID: Not reported  
TSD ID: 56396RNY  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00450  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: NYG1615905  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 02/15/2001  
Trans1 Recv Date: 02/15/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 02/16/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: CDX910000000  
Trans2 EPA ID: Not reported  
TSD ID: 56396RNY  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00200  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: NYG1615923  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 01/29/2001  
Trans1 Recv Date: 01/29/2001  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 01/30/2001  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: CDX910000000  
Trans2 EPA ID: Not reported  
TSD ID: 56396RNY  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 00490  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 01  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: MIA7005108  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 09/06/2002  
Trans1 Recv Date: 09/06/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 09/11/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: AD67388NY  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 03200  
Units: P - Pounds  
Number of Containers: 017  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D011 - SILVER 5.0 MG/L TCLP  
Quantity: 00800  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00800  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 01200  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**RADIAC RESEARCH CORP (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

1000245435

Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: MIA7468426  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 01/08/2002  
Trans1 Recv Date: 01/08/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 01/22/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: 284719ANY  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 01200  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: MIA7535421  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 04/11/2002  
Trans1 Recv Date: 04/11/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 04/18/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: 95005R  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 04666  
Units: P - Pounds  
Number of Containers: 010  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: MIA7535434  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 02/11/2002  
Trans1 Recv Date: 02/11/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 02/12/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: 98859KNY  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D011 - SILVER 5.0 MG/L TCLP  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 04400  
Units: P - Pounds  
Number of Containers: 011  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: MIA7535436  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 12/04/2002  
Trans1 Recv Date: 12/04/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 12/19/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: Not reported  
Waste Code: D009 - MERCURY 0.2 MG/L TCLP  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: R Material recovery of more than 75 percent of the total material.  
Specific Gravity: 01.00  
Waste Code: D009 - MERCURY 0.2 MG/L TCLP  
Quantity: 03800  
Units: P - Pounds  
Number of Containers: 017  
Container Type: DM - Metal drums, barrels  
Handling Method: R Material recovery of more than 75 percent of the total material.  
Specific Gravity: 01.00  
Waste Code: D009 - MERCURY 0.2 MG/L TCLP  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: R Material recovery of more than 75 percent of the total material.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Facility Name:                    RADIAC RESEARCH CORP  
Facility Address:                33 S 1ST ST  
Facility City:                    BROOKLYN  
Facility Zip 4:                    4188  
Country:                         Not reported  
County:                         KINGS  
Mailing Name:                    RADIAC RESEARCH  
Mailing Contact:                KEITH FOLEY  
Mailing Address:                261 KENT AVE  
Mailing City:                    BROOKLYN  
Mailing State:                    NY  
Mailing Zip:                     11211  
Mailing Zip4:                    4188  
Mailing Country:                USA  
Mailing Phone:                 718-963-2233  
Mailing Name:                    RADIAC RESEARCH CORP  
Mailing Contact:                JOHN V TEKIN JR  
Mailing Address:                261 KENT AVE  
Mailing City:                    BROOKLYN  
Mailing State:                    NY  
Mailing Zip:                     11211  
Mailing Zip4:                    4188  
Mailing Country:                USA  
Mailing Phone:                 718-963-2233  
  
Document ID:                    MIA7535450  
Manifest Status:                Not reported  
Trans1 State ID:                NYD049178296  
Trans2 State ID:                Not reported  
Generator Ship Date:            05/02/2002  
Trans1 Recv Date:               05/02/2002  
Trans2 Recv Date:               Not reported  
TSD Site Recv Date:            05/10/2002  
Part A Recv Date:               Not reported  
Part B Recv Date:               Not reported  
Generator EPA ID:               NYD049178296  
Trans1 EPA ID:                MID096963194  
Trans2 EPA ID:                Not reported  
TSD ID:                         Not reported  
Waste Code:                    D002 - NON-LISTED CORROSIVE WASTES  
Quantity:                        01200  
Units:                            P - Pounds  
Number of Containers:           003  
Container Type:                 DF - Fiberboard or plastic drums (glass)  
Handling Method:                T Chemical, physical, or biological treatment.  
Specific Gravity:                01.00  
Waste Code:                    D008 - LEAD 5.0 MG/L TCLP  
Quantity:                        01200  
Units:                            P - Pounds  
Number of Containers:           003  
Container Type:                 DM - Metal drums, barrels  
Handling Method:                T Chemical, physical, or biological treatment.  
Specific Gravity:                01.00  
Waste Code:                    D008 - LEAD 5.0 MG/L TCLP  
Quantity:                        00400  
Units:                            P - Pounds  
Number of Containers:           002

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: MIA7539614  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 10/28/2002  
Trans1 Recv Date: 10/28/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 10/29/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: AD67610  
Waste Code: D009 - MERCURY 0.2 MG/L TCLP  
Quantity: 03600  
Units: P - Pounds  
Number of Containers: 006  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: MIA7539616  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 03/13/2002  
Trans1 Recv Date: 03/13/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 03/15/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: 284720ANY  
Waste Code: D006 - CADMIUM 1.0 MG/L TCLP  
Quantity: 00400  
Units: P - Pounds  
Number of Containers: 001  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: MIA7539617  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 03/27/2002  
Trans1 Recv Date: 03/27/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 04/02/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: 284717A  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00600  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 01200  
Units: P - Pounds  
Number of Containers: 003  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Waste Code: D004 - ARSENIC 5.0 MG/L TCLP  
Quantity: 00800  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: MIA7539631  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 05/31/2002  
Trans1 Recv Date: 05/31/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 06/06/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: AD67610NY  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 03400  
Units: P - Pounds  
Number of Containers: 017  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 00800  
Units: P - Pounds  
Number of Containers: 002  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: MIA7539674  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 12/27/2002  
Trans1 Recv Date: 12/27/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 01/07/2003  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSDF ID: AD63524NY  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 12500  
Units: P - Pounds  
Number of Containers: 005  
Container Type: DM - Metal drums, barrels  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Document ID: MIA7636793  
Manifest Status: Not reported  
Trans1 State ID: NYD049178296  
Trans2 State ID: Not reported  
Generator Ship Date: 08/07/2002  
Trans1 Recv Date: 08/07/2002  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 08/14/2002  
Part A Recv Date: Not reported  
Part B Recv Date: Not reported  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: MID096963194  
Trans2 EPA ID: Not reported  
TSD ID: AD67951NY  
Waste Code: D008 - LEAD 5.0 MG/L TCLP  
Quantity: 07200  
Units: P - Pounds  
Number of Containers: 036  
Container Type: DM - Metal drums, barrels  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Waste Code: D011 - SILVER 5.0 MG/L TCLP  
Quantity: 01600  
Units: P - Pounds  
Number of Containers: 031  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 01200  
Units: P - Pounds  
Number of Containers: 004  
Container Type: DF - Fiberboard or plastic drums (glass)  
Handling Method: B Incineration, heat recovery, burning.  
Specific Gravity: 01.00  
Year: 02  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233  
  
Document ID: NYO2875212  
Manifest Status: Completed copy  
Trans1 State ID: NY2A004  
Trans2 State ID: Not reported  
Generator Ship Date: 840423  
Trans1 Recv Date: 840423  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 840502  
Part A Recv Date: 840510  
Part B Recv Date: 840508  
Generator EPA ID: NYD049178296  
Trans1 EPA ID: NYD049178296  
Trans2 EPA ID: Not reported  
TSD ID: MAD053452637  
Waste Code: D001 - NON-LISTED IGNITABLE WASTES  
Quantity: 06720  
Units: P - Pounds  
Number of Containers: 168  
Container Type: DM - Metal drums, barrels  
Handling Method: Not reported  
Specific Gravity: 100  
Year: 84  
Facility Type: Both Generator and TSD  
EPA ID: NYD049178296  
Facility Name: RADIAC RESEARCH CORP  
Facility Address: 33 S 1ST ST  
Facility City: BROOKLYN  
Facility Zip 4: 4188  
Country: Not reported  
County: KINGS  
Mailing Name: RADIAC RESEARCH  
Mailing Contact: KEITH FOLEY  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Mailing Name: RADIAC RESEARCH CORP  
Mailing Contact: JOHN V TEKIN JR  
Mailing Address: 261 KENT AVE  
Mailing City: BROOKLYN  
Mailing State: NY  
Mailing Zip: 11211  
Mailing Zip4: 4188  
Mailing Country: USA  
Mailing Phone: 718-963-2233

[Click this hyperlink](#) while viewing on your computer to access  
2597 additional NY\_MANIFEST: record(s) in the EDR Site Report.

**HIST FTTS INSP:**

Inspection Number: 2004102123577 1  
Region: 02  
Inspection Date: Not reported  
Inspector: L. PAPPALARDO, CN  
Violation occurred: No  
Investigation Type: Section 6 PCB Federal Conducted  
Investigation Reason: For Cause, Disposal  
Legislation Code: TSCA  
Facility Function: Disposer

**RI MANIFEST:**

Manifest Docket Number: NYA6255216  
Waste Description: RADIOACTIVE SOL  
Quantity: 200.0  
WT/Vol Units: P  
Item Number: 1  
Transporter Name: RADIAC RESEARCH  
Transporter EPA ID: NYD049178296  
GEN Cert Date: 02/10/88  
Transporter Recpt Date: / /  
Transporter 2 Recpt Date: / /  
TSDf Recpt Date: / /  
EPA ID: RI0000649921  
Number Of Containers: 0.00  
Container Type: Not reported  
Waste Code1: R006  
Waste Code2: Not reported  
Waste Code3: Not reported  
Comment: Not reported  
Fee Exempt Code: 0.00000  
TSDf Name: RADIAC RESEARCH  
TSDf ID: NYD049178296  
Date Imported: / /  
Transporter 2 Name: Not reported  
Transporter 2 ID: Not reported

Manifest Docket Number: NYA6255216  
Waste Description: RADIOACTIVE LIQ  
Quantity: 570.0  
WT/Vol Units: P  
Item Number: 2  
Transporter Name: RADIAC RESEARCH

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Transporter EPA ID:            NYD049178296  
GEN Cert Date:                02/10/88  
Transporter Recpt Date:        / /  
Transporter 2 Recpt Date:      / /  
TSDF Recpt Date:              / /  
EPA ID:                         RI0000649921  
Number Of Containers:         0.00  
Container Type:                Not reported  
Waste Code1:                  R006  
Waste Code2:                  Not reported  
Waste Code3:                  Not reported  
Comment:                      Not reported  
Fee Exempt Code:               0.00000  
TSDF Name:                    RADIAC RESEARCH  
TSDF ID:                       NYD049178296  
Date Imported:                 / /  
Transporter 2 Name:            Not reported  
Transporter 2 ID:              Not reported

**NJ MANIFEST:**

Manifest Code:                NJA5062424  
EPA ID:                        NYD049178296  
Date Shipped:                 20050104  
TSDF EPA ID:                 NJD002182897  
Transporter EPA ID:          NYD049178296  
Transporter 2 EPA ID:        Not reported  
Date Trans1 Transported Waste: 050104  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste:   050105  
Tranporter 1 Decal:         Not reported  
Tranporter 2 Decal:         Not reported  
Data Entry Number:          04250522  
Reference Manifest Number:   Not reported  
Was Load Rejected (Y/N):    No  
Reason Load Was Rejected:   Not reported  
Waste Code:                  Not reported  
Quantity:                      Not reported  
Unit:                           Not reported  
Hand Code:                    Not reported

Manifest Code:                NJA5082859  
EPA ID:                        NYD049178296  
Date Shipped:                 20050119  
TSDF EPA ID:                 NJD002182897  
Transporter EPA ID:          NYD049178296  
Transporter 2 EPA ID:        Not reported  
Date Trans1 Transported Waste: 050119  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste:   050119  
Tranporter 1 Decal:         Not reported  
Tranporter 2 Decal:         Not reported  
Data Entry Number:          03010521  
Reference Manifest Number:   Not reported  
Was Load Rejected (Y/N):    No

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5104138  
EPA ID: NYD049178296  
Date Shipped: 20050202  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050202  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050203  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 04190521  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5062459  
EPA ID: NYD049178296  
Date Shipped: 20050324  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: NYD049178296  
Date Trans1 Transported Waste: 050324  
Date Trans2 Transported Waste: 050329  
Date TSDf Received Waste: 050329  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 05180522  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA2876755  
EPA ID: NYD049178296  
Date Shipped: 20050407  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050407  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050412  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 06160522  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA2876770  
EPA ID: NYD049178296  
Date Shipped: 20050407  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050407  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050412  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 06160522  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA2876756  
EPA ID: NYD049178296  
Date Shipped: 20050420  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050420  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050421  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 06160522  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Hand Code: Not reported

Manifest Code: NJA2876765  
EPA ID: NYD049178296  
Date Shipped: 20050426  
TSDF EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050426  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 050427  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 06160522  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5104135  
EPA ID: NYD049178296  
Date Shipped: 20050505  
TSDF EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050505  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 050506  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 06010521  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5062427  
EPA ID: NYD049178296  
Date Shipped: 20050526  
TSDF EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050526  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 050527

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 07120525  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5062428  
EPA ID: NYD049178296  
Date Shipped: 20050526  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050526  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050527  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 07120525  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA2876773  
EPA ID: NYD049178296  
Date Shipped: 20050607  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050607  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050610  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 07070522  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Manifest Code: NJA2876766  
EPA ID: NYD049178296  
Date Shipped: 20050613  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 050613  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 050624  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 08090535  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5082892  
EPA ID: NYD049178296  
Date Shipped: 20040108  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040108  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040108  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 03120421  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA2876657  
EPA ID: NYD049178296  
Date Shipped: 20040119  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040119  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040123  
Tranporter 1 Decal: Not reported  
Tranporter 2 Decal: Not reported  
Data Entry Number: 03090425  
Reference Manifest Number: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5082895  
EPA ID: NYD049178296  
Date Shipped: 20040122  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040122  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040123  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 03100422  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5082885  
EPA ID: NYD049178296  
Date Shipped: 20040206  
TSDf EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040206  
Date Trans2 Transported Waste: 000000  
Date TSDf Received Waste: 040206  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 03170421  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA2876658  
EPA ID: NYD049178296  
Date Shipped: 20040209  
TSDf EPA ID: NJD002182897

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040209  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 040210  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 03170422  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5082887  
EPA ID: NYD049178296  
Date Shipped: 20040224  
TSDF EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040224  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 040301  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 03300422  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported  
Unit: Not reported  
Hand Code: Not reported

Manifest Code: NJA5082888  
EPA ID: NYD049178296  
Date Shipped: 20040305  
TSDF EPA ID: NJD002182897  
Transporter EPA ID: NYD049178296  
Transporter 2 EPA ID: Not reported  
Date Trans1 Transported Waste: 040305  
Date Trans2 Transported Waste: 000000  
Date TSDF Received Waste: 040305  
Transporter 1 Decal: Not reported  
Transporter 2 Decal: Not reported  
Data Entry Number: 04020425  
Reference Manifest Number: Not reported  
Was Load Rejected (Y/N): No  
Reason Load Was Rejected: Not reported  
Waste Code: Not reported  
Quantity: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

RADIAC RESEARCH CORP (Continued)

EDR ID Number  
EPA ID Number

Database(s)

1000245435

Unit: Not reported  
Hand Code: Not reported

CT MANIFEST:

Manifest No: NYG5242617  
Waste Occurrence: 1  
UNNA: 2924  
Hazard Class: 3  
US Dot Description: FLAMMABLE LIQUIDS, CORROSIVE, N.O.S.  
No of Containers: 2  
Container Type: DM  
Quantity: 110  
Weight/Volume: G  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG5242617  
Waste Occurrence: 1  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG5242617  
Waste Occurrence: 1  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Year: 2004  
Manifest ID: NYG5242617  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 07/01/04  
Transporter EPA ID: NYD049178296  
Transporter Name: RADIAC RESEARCH CORP.  
Transporter Country: USA  
Transporter Phone: (718)963-2233  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTD045104848  
Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Discrepancies: Not reported  
Date Shipped: 07/01/04  
Date Received: 07/01/04  
Last modified date: 10/06/05  
Last modified by: CYF  
Comments: Not reported

Manifest No: NYG5242617  
Waste Occurrence: 1  
UNNA: 2924  
Hazard Class: 3  
US Dot Description: FLAMMABLE LIQUIDS, CORROSIVE, N.O.S.  
No of Containers: 2  
Container Type: DM  
Quantity: 110  
Weight/Volume: G  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG5242617  
Waste Occurrence: 1  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG5242617  
Waste Occurrence: 1  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Year: 2004  
Manifest ID: NYG5242617  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 07/01/04  
Transporter EPA ID: NYD049178296  
Transporter Name: RADIAC RESEARCH CORP.  
Transporter Country: USA  
Transporter Phone: (718)963-2233  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTD045104848  
Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: Not reported  
Generator Country: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 07/01/04  
Date Received: 07/01/04  
Last modified date: 10/06/05  
Last modified by: CYF  
Comments: Not reported

Manifest No: nyg3373677  
Waste Occurrence: 1  
UNNA: 3077  
Hazard Class: 9  
US Dot Description: HAZARDOUS WASTE, SOLID, N.O.S.  
No of Containers: 3  
Container Type: DF  
Quantity: 300  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/28/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg3373677  
Waste Occurrence: 1  
EPA Waste Code: D009  
Recycled Waste?: F  
Date Record Was Last Modified: 11/28/05  
DEO Who Last Modified Record: JEB  
Year: 2004  
Manifest ID: nyg3373677  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 04/21/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: ctp000019564  
Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 04/21/04  
Date Received: 04/22/04  
Last modified date: 11/28/05

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Last modified by: JEB  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg3373686  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 05/03/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: ctp000019564  
Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 05/03/04  
Date Received: / /  
Last modified date: 12/12/05  
Last modified by: jbr  
Comments: Not reported

Manifest No: nyg3373983  
Waste Occurrence: 1  
UNNA: 2809  
Hazard Class: 8  
US Dot Description: MERCURY  
No of Containers: 001  
Container Type: DF  
Quantity: 1  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Manifest No: nyg3373983  
Waste Occurrence: 1  
EPA Waste Code: D009  
Recycled Waste?: F  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Year: 2004  
Manifest ID: nyg3373983  
TSDf EPA ID: NYD049178296

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 06/08/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: ctp000024624  
Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 06/08/04  
Date Received: 06/10/04  
Last modified date: 11/09/05  
Last modified by: DMG  
Comments: Not reported

Manifest No: NYG4290543  
Waste Occurrence: 1  
UNNA: 1992  
Hazard Class: 3  
US Dot Description: FLAMMABLE LIQUIDS, TOXIC, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 30  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4290543  
Waste Occurrence: 2  
UNNA: 2014  
Hazard Class: 5.1  
US Dot Description: HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS (20% - 40%)  
No of Containers: 1  
Container Type: DF  
Quantity: 30  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4290543

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Waste Occurrence: 3  
UNNA: 2672  
Hazard Class: 8  
US Dot Description: AMMONIA SOLUTION  
No of Containers: 1  
Container Type: DF  
Quantity: 30  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4290543  
Waste Occurrence: 4  
UNNA: 2794  
Hazard Class: 8  
US Dot Description: BATTERIES, WET, FILLED WITH ACID  
No of Containers: 1  
Container Type: DF  
Quantity: 50  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4290543  
Waste Occurrence: 1  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4290543  
Waste Occurrence: 2  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4290543  
Waste Occurrence: 3  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4290543  
Waste Occurrence: 4  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Year: 2004  
Manifest ID: NYG4290543  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**RADIAC RESEARCH CORP (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

1000245435

Transport Date: 07/26/04  
Transporter EPA ID: CTR000003939  
Transporter Name: ENVIRONMENTAL MAINTENANCE SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (203)758-5550  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028276  
Generator Phone: (860)243-1616  
Generator Address: 85 GRANBY ST  
Generator City,State,Zip: BLOOMFIELD, CT 06002-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 07/26/04  
Date Received: 07/27/04  
Last modified date: 11/18/05  
Last modified by: CYF  
Comments: Not reported  
Year: 2004  
Manifest ID: NYG4290552  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 07/26/04  
Transporter EPA ID: CTR000003939  
Transporter Name: ENVIRONMENTAL MAINTENANCE SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (203)758-5550  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028276  
Generator Phone: (860)243-1616  
Generator Address: 85 GRANBY ST  
Generator City,State,Zip: BLOOMFIELD, CT 06002-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 07/26/04  
Date Received: 07/26/04  
Last modified date: 11/18/05  
Last modified by: CYF  
Comments: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Manifest No: nyg2851974  
Waste Occurrence: 1  
UNNA: 3266  
Hazard Class: 8  
US Dot Description: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
No of Containers: 1  
Container Type: DM  
Quantity: 150  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/07/05  
DEO Who Last Modified Record: CYF  
Manifest No: nyg2851974  
Waste Occurrence: 2  
UNNA: 2735  
Hazard Class: 3  
US Dot Description: AMINES, FLAMMABLE, CORROSIVE, N.O.S. (OR POLYAMINES)  
No of Containers: 1  
Container Type: DF  
Quantity: 100  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/07/05  
DEO Who Last Modified Record: CYF  
Manifest No: nyg2851974  
Waste Occurrence: 1  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/07/05  
DEO Who Last Modified Record: CYF  
Manifest No: nyg2851974  
Waste Occurrence: 2  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/07/05  
DEO Who Last Modified Record: CYF  
Year: 2004  
Manifest ID: nyg2851974  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 08/24/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028326  
Generator Phone: (860)728-1600  
Generator Address: 36 KENOSIA AVE  
Generator City,State,Zip: DANBURY, CT 06810-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 08/24/04  
Date Received: 08/28/04  
Last modified date: 11/07/05  
Last modified by: CYF  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg3374487  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 08/24/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028326  
Generator Phone: (860)728-1600  
Generator Address: 36 KENOSIA AVE  
Generator City,State,Zip: DANBURY, CT 06810-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 08/24/04  
Date Received: 08/28/04  
Last modified date: 11/10/05  
Last modified by: DMG  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg3374505  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 08/24/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: ctp000028326  
Generator Phone: (860)728-1600  
Generator Address: 36 KENOSIA AVE  
Generator City,State,Zip: DANBURY, CT 06810-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 08/24/04  
Date Received: 08/28/04  
Last modified date: 11/10/05  
Last modified by: DMG  
Comments: Not reported

Manifest No: NYG4293909  
Waste Occurrence: 1  
UNNA: 3175  
Hazard Class: 4.1  
US Dot Description: SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 10  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF

Manifest No: NYG4293909  
Waste Occurrence: 2  
UNNA: 1950  
Hazard Class: 2.1  
US Dot Description: AEROSOLS, FLAMMABLE  
No of Containers: 1  
Container Type: DM  
Quantity: 160  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF

Manifest No: NYG4293909  
Waste Occurrence: 3  
UNNA: 1263  
Hazard Class: 3  
US Dot Description: PAINT OR PAINT RELATED MATERIAL  
No of Containers: 1  
Container Type: DM  
Quantity: 200  
Weight/Volume: P  
Additional Description: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4293909  
Waste Occurrence: 4  
UNNA: 1950  
Hazard Class: 2.1  
US Dot Description: AEROSOLS, FLAMMABLE  
No of Containers: 1  
Container Type: DF  
Quantity: 60  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4293909  
Waste Occurrence: 1  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4293909  
Waste Occurrence: 2  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4293909  
Waste Occurrence: 3  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG4293909  
Waste Occurrence: 4  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/18/05  
DEO Who Last Modified Record: CYF  
Year: 2004  
Manifest ID: NYG4293909  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 09/30/04  
Transporter EPA ID: CTR000003939  
Transporter Name: ENVIRONMENTAL MAINTENANCE SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (203)758-5550  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028406  
Generator Phone: Not reported  
Generator Address: 855 STANLEY ST  
Generator City,State,Zip: NEW BRITAIN, CT 06109-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 09/30/04  
Date Received: 09/01/04  
Last modified date: 11/18/05  
Last modified by: CYF  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg4293918  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 09/30/04  
Transporter EPA ID: CTR000003939  
Transporter Name: ENVIRONMENTAL MAINTENANCE SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (203)758-5550  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028406  
Generator Phone: Not reported  
Generator Address: 855 STANLEY ST  
Generator City,State,Zip: NEW BRITAIN, CT 06109-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 09/30/04  
Date Received: 10/01/04  
Last modified date: 11/18/05  
Last modified by: CYF  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg4293927  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: / /  
Transporter EPA ID: CTR000003939

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Transporter Name: ENVIRONMENTAL MAINTENANCE SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (203)758-5550  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: ctp000028406  
Generator Phone: Not reported  
Generator Address: 855 STANLEY ST  
Generator City,State,Zip: NEW BRITAIN, CT 06109-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: / /  
Date Received: / /  
Last modified date: 11/18/05  
Last modified by: CYF  
Comments: Not reported

Manifest No: nyg5423742  
Waste Occurrence: 1  
UNNA: 3289  
Hazard Class: 6.1  
US Dot Description: TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 16  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg5423742  
Waste Occurrence: 2  
UNNA: 3264  
Hazard Class: 8  
US Dot Description: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 34  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg5423742  
Waste Occurrence: 3  
UNNA: 3264  
Hazard Class: 8  
US Dot Description: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 6

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg5423742  
Waste Occurrence: 4  
UNNA: 3264  
Hazard Class: 8  
US Dot Description: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 40  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg5423742  
Waste Occurrence: 1  
EPA Waste Code: D003  
Recycled Waste?: F  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg5423742  
Waste Occurrence: 2  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg5423742  
Waste Occurrence: 3  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg5423742  
Waste Occurrence: 4  
EPA Waste Code: D002  
Recycled Waste?: F  
Date Record Was Last Modified: 11/10/05  
DEO Who Last Modified Record: JEB  
Year: 2004  
Manifest ID: nyg5423742  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 11/09/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028469  
Generator Phone: (860)444-5801  
Generator Address: 20 ROPE FERRY RD  
Generator City,State,Zip: WATERFORD, CT 06385-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 11/09/04  
Date Received: 11/12/04  
Last modified date: 11/10/05  
Last modified by: JEB  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg5423769  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 11/09/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028469  
Generator Phone: (860)444-5801  
Generator Address: 20 ROPE FERRY RD  
Generator City,State,Zip: WATERFORD, CT 06385-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 11/09/04  
Date Received: 11/12/04  
Last modified date: 11/10/05  
Last modified by: JEB  
Comments: Not reported  
  
Manifest No: nyg3373839  
Waste Occurrence: 1  
UNNA: 1950  
Hazard Class: 2.1  
US Dot Description: AEROSOLS, FLAMMABLE  
No of Containers: 001  
Container Type: DF

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Quantity: 10  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Manifest No: nyg3373839  
Waste Occurrence: 2  
UNNA: 1993  
Hazard Class: 3  
US Dot Description: FLAMMABLE LIQUIDS, N.O.S.  
No of Containers: 001  
Container Type: DM  
Quantity: 180  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Manifest No: nyg3373839  
Waste Occurrence: 3  
UNNA: 1993  
Hazard Class: 3  
US Dot Description: FLAMMABLE LIQUIDS, N.O.S.  
No of Containers: 001  
Container Type: DF  
Quantity: 41  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Manifest No: nyg3373839  
Waste Occurrence: 4  
UNNA: 3099  
Hazard Class: 5.1  
US Dot Description: OXIDIZING LIQUID, TOXIC, N.O.S.  
No of Containers: 001  
Container Type: DF  
Quantity: 15  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Manifest No: nyg3373839  
Waste Occurrence: 1  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Manifest No: nyg3373839  
Waste Occurrence: 2  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Manifest No: nyg3373839  
Waste Occurrence: 3  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Manifest No: nyg3373839  
Waste Occurrence: 4  
EPA Waste Code: D001  
Recycled Waste?: F  
Date Record Was Last Modified: 11/09/05  
DEO Who Last Modified Record: DMG  
Year: 2004  
Manifest ID: nyg3373839  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 06/02/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTR000502849  
Generator Phone: 2035758220  
Generator Address: 750 CHASE PKWY  
Generator City,State,Zip: WATERBURY, CT 06708  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 06/02/04  
Date Received: 06/04/04  
Last modified date: 11/09/05  
Last modified by: DMG  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg3373848  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 06/02/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTR000502849  
Generator Phone: 2035758220  
Generator Address: 750 CHASE PKWY  
Generator City,State,Zip: WATERBURY, CT 06708  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 06/02/04  
Date Received: 06/04/04  
Last modified date: 11/09/05  
Last modified by: DMG  
Comments: Not reported  
Year: 2004  
Manifest ID: nyg3373866  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 06/02/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTR000502849  
Generator Phone: 2035758220  
Generator Address: 750 CHASE PKWY  
Generator City,State,Zip: WATERBURY, CT 06708  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 06/02/04  
Date Received: 06/04/04  
Last modified date: 11/09/05  
Last modified by: DMG  
Comments: Not reported  
  
Manifest No: nyg2851551  
Waste Occurrence: 1  
UNNA: 2809  
Hazard Class: 8  
US Dot Description: MERCURY

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

No of Containers: 1  
Container Type: DF  
Quantity: 75  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/25/05  
DEO Who Last Modified Record: JEB  
Manifest No: nyg2851551  
Waste Occurrence: 1  
EPA Waste Code: D009  
Recycled Waste?: F  
Date Record Was Last Modified: 11/25/05  
DEO Who Last Modified Record: JEB  
Year: 2004  
Manifest ID: nyg2851551  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: 261 KENT AVENUE  
TSDf City,St,Zip: BROOKLYN, NY 11211  
TSDf Country: USA  
TSDf Telephone: (718)963-2233  
Transport Date: 01/07/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: ctp000027857  
Generator Phone: Not reported  
Generator Address: BRIDGE ST  
Generator City,State,Zip: DEEP RIVER, CT 06417  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 01/07/04  
Date Received: 01/09/04  
Last modified date: 11/25/05  
Last modified by: JEB  
Comments: Not reported

Manifest No: NYG2870667  
Waste Occurrence: 1  
UNNA: 3267  
Hazard Class: 8  
US Dot Description: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 15  
Weight/Volume: P  
Additional Description: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Handling Code: Not reported  
Date Record Was Last Modified: 11/08/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG2870667  
Waste Occurrence: 2  
UNNA: 3077  
Hazard Class: 9  
US Dot Description: HAZARDOUS WASTE, SOLID, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 10  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/08/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG2870667  
Waste Occurrence: 3  
UNNA: 3082  
Hazard Class: 9  
US Dot Description: HAZARDOUS WASTE, LIQUID, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 10  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/08/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG2870667  
Waste Occurrence: 4  
UNNA: 1993  
Hazard Class: COMBUSTIBLE  
US Dot Description: COMBUSTIBLE LIQUID, N.O.S.  
No of Containers: 1  
Container Type: DF  
Quantity: 10  
Weight/Volume: P  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 11/08/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG2870667  
Waste Occurrence: 2  
EPA Waste Code: D007  
Recycled Waste?: F  
Date Record Was Last Modified: 11/08/05  
DEO Who Last Modified Record: CYF  
Manifest No: NYG2870667  
Waste Occurrence: 3  
EPA Waste Code: D005  
Recycled Waste?: F  
Date Record Was Last Modified: 11/08/05  
DEO Who Last Modified Record: CYF  
Year: 2004  
Manifest ID: NYG2870667  
TSDF EPA ID: NYD049178296

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 09/30/04  
Transporter EPA ID: CTR000003939  
Transporter Name: ENVIRONMENTAL MAINTENANCE SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (203)758-5550  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028407  
Generator Phone: (860)583-9545  
Generator Address: 61 CENTER ST  
Generator City,State,Zip: BRISTOL, CT 06010-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 09/30/04  
Date Received: 10/01/04  
Last modified date: 11/08/05  
Last modified by: CYF  
Comments: Not reported  
Year: 2004  
Manifest ID: NYG4293954  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 09/30/04  
Transporter EPA ID: CTR000003939  
Transporter Name: ENVIRONMENTAL MAINTENANCE SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (203)758-5550  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028407  
Generator Phone: (860)583-9545  
Generator Address: 61 CENTER ST  
Generator City,State,Zip: BRISTOL, CT 06010-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 09/30/04

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Date Received: 10/01/04  
Last modified date: 11/18/05  
Last modified by: CYF  
Comments: Not reported

Manifest No: nyg5260113  
Waste Occurrence: 1  
UNNA: 3077  
Hazard Class: 9  
US Dot Description: HAZARDOUS WASTE, SOLID, N.O.S.  
No of Containers: 1  
Container Type: CM  
Quantity: 0  
Weight/Volume: T  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Manifest No: nyg5260113  
Waste Occurrence: 1  
EPA Waste Code: D008  
Recycled Waste?: F  
Date Record Was Last Modified: 10/06/05  
DEO Who Last Modified Record: CYF  
Year: 2004  
Manifest ID: nyg5260113  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: 261 KENT AVENUE  
TSDF City,St,Zip: BROOKLYN, NY 11211  
TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 09/03/04  
Transporter EPA ID: Not reported  
Transporter Name: Not reported  
Transporter Country: Not reported  
Transporter Phone: Not reported  
Trans 2 Date: / /  
Trans 2 EPA ID: NJD054126164  
Trans 2 Name: FREEHOLD CARTAGE, INC.  
Trans 2 Address: P.O. BOX 5010  
Trans 2 City,St,Zip: FREEHOLD, NJ 07728  
Trans 2 Country: USA  
Trans 2 Phone: (732)462-1001  
Generator EPA ID: ctp000028355  
Generator Phone: (203)407-2000  
Generator Address: 550-560 NEW HALL ST  
Generator City,State,Zip: HAMDEN, CT 06517-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 09/03/04  
Date Received: / /  
Last modified date: 10/06/05  
Last modified by: CYF  
Comments: Not reported  
Year: 2004

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
 EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Manifest ID:                    nyg5260122  
 TSDf EPA ID:                   NYD049836679  
 TSDf Name:                    CWM CHEMICAL SERVICES LLC  
 TSDf Address:                 PO BOX 200  
 TSDf City,St,Zip:             MODEL CITY, NY 14107  
 TSDf Country:                 USA  
 TSDf Telephone:               7167540246  
 Transport Date:                09/03/04  
 Transporter EPA ID:           Not reported  
 Transporter Name:            Not reported  
 Transporter Country:        Not reported  
 Transporter Phone:          Not reported  
 Trans 2 Date:                 / /  
 Trans 2 EPA ID:                Not reported  
 Trans 2 Name:                 Not reported  
 Trans 2 Address:              Not reported  
 Trans 2 City,St,Zip:         Not reported  
 Trans 2 Country:             Not reported  
 Trans 2 Phone:                Not reported  
 Generator EPA ID:             CTP000028355  
 Generator Phone:              (203)407-2000  
 Generator Address:          550-560 NEW HALL ST  
 Generator City,State,Zip:    HAMDEN, CT 06517-  
 Generator Country:          USA  
 Special Handling:             Not reported  
 Discrepancies:                Not reported  
 Date Shipped:                 09/03/04  
 Date Received:                09/21/04  
 Last modified date:          10/06/05  
 Last modified by:             CYF  
 Comments:                      Not reported

Manifest No:                    nyg3374433  
 Waste Occurrence:            1  
 UNNA:                            1993  
 Hazard Class:                 3  
 US Dot Description:          FLAMMABLE LIQUIDS, N.O.S.  
 No of Containers:            005  
 Container Type:                CF  
 Quantity:                        5160  
 Weight/Volume:               P  
 Additional Description:      Not reported  
 Handling Code:                 Not reported  
 Date Record Was Last Modified: 11/09/05  
 DEO Who Last Modified Record: DMG  
 Manifest No:                    nyg3374433  
 Waste Occurrence:            1  
 EPA Waste Code:               D001  
 Recycled Waste?:             F  
 Date Record Was Last Modified: 11/09/05  
 DEO Who Last Modified Record: DMG  
 Year:                              2004  
 Manifest ID:                    nyg3374433  
 TSDf EPA ID:                   NYD049178296  
 TSDf Name:                     RADIAC RESEARCH CORP.  
 TSDf Address:                 261 KENT AVENUE  
 TSDf City,St,Zip:             BROOKLYN, NY 11211

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

TSDF Country: USA  
TSDF Telephone: (718)963-2233  
Transport Date: 07/22/04  
Transporter EPA ID: CTD018811802  
Transporter Name: ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (860)528-9500  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000028278  
Generator Phone: (860)236-2501  
Generator Address: 126 BEVERLY RD  
Generator City,State,Zip: WEST HARTFORD, CT 06119-  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 07/22/04  
Date Received: / /  
Last modified date: 11/09/05  
Last modified by: DMG  
Comments: Not reported

Manifest No: Not reported  
Waste Occurrence: Not reported  
UNNA: Not reported  
Hazard Class: Not reported  
US Dot Description: Not reported  
No of Containers: Not reported  
Container Type: Not reported  
Quantity: Not reported  
Weight/Volume: Not reported  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Manifest No: Not reported  
Waste Occurrence: Not reported  
EPA Waste Code: Not reported  
Recycled Waste?: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Year: 2003  
Manifest ID: nyb9445725  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: Not reported  
TSDF City,St,Zip: BROOKLYN, NY  
TSDF Country: USA  
TSDF Telephone: Not reported  
Transport Date: 10/28/03  
Transporter EPA ID: MER000500595  
Transporter Name: AMERITECH ENVIRONMENTAL SERVICES, INC.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Transporter Country: USA  
Transporter Phone: (207)438-9149  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: Not reported  
Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: CT  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 10/28/03  
Date Received: 10/29/03  
Last modified date: 10/21/04  
Last modified by: CYF  
Comments: Not reported

Manifest No: Not reported  
Waste Occurrence: Not reported  
UNNA: Not reported  
Hazard Class: Not reported  
US Dot Description: Not reported  
No of Containers: Not reported  
Container Type: Not reported  
Quantity: Not reported  
Weight/Volume: Not reported  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Manifest No: Not reported  
Waste Occurrence: Not reported  
EPA Waste Code: Not reported  
Recycled Waste?: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Year: 2003  
Manifest ID: nyb9445743  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: Not reported  
TSDf City,St,Zip: BROOKLYN, NY  
TSDf Country: USA  
TSDf Telephone: Not reported  
Transport Date: 10/28/03  
Transporter EPA ID: MER000500595  
Transporter Name: AMERITECH ENVIRONMENTAL SERVICES, INC.  
Transporter Country: USA  
Transporter Phone: (207)438-9149  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

1000245435

Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: Not reported  
Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: CT  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 10/28/03  
Date Received: 10/29/03  
Last modified date: 10/21/04  
Last modified by: CYF  
Comments: Not reported

Manifest No: Not reported  
Waste Occurrence: Not reported  
UNNA: Not reported  
Hazard Class: Not reported  
US Dot Description: Not reported  
No of Containers: Not reported  
Container Type: Not reported  
Quantity: Not reported  
Weight/Volume: Not reported  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Manifest No: Not reported  
Waste Occurrence: Not reported  
EPA Waste Code: Not reported  
Recycled Waste?: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Year: 2003  
Manifest ID: nyg2821815  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: Not reported  
TSDF City,St,Zip: BROOKLYN, NY  
TSDF Country: USA  
TSDF Telephone: Not reported  
Transport Date: 07/11/03  
Transporter EPA ID: NYD049178296  
Transporter Name: RADIAC RESEARCH CORP.  
Transporter Country: USA  
Transporter Phone: Not reported  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: CT  
Trans 2 Country: USA  
Trans 2 Phone: Not reported  
Generator EPA ID: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Generator Phone: Not reported  
Generator Address: Not reported  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 07/11/03  
Date Received: 07/14/03  
Last modified date: 10/18/04  
Last modified by: CYF  
Comments: Not reported

Manifest No: Not reported  
Waste Occurrence: Not reported  
UNNA: Not reported  
Hazard Class: Not reported  
US Dot Description: Not reported  
No of Containers: Not reported  
Container Type: Not reported  
Quantity: Not reported  
Weight/Volume: Not reported  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Manifest No: Not reported  
Waste Occurrence: Not reported  
EPA Waste Code: Not reported  
Recycled Waste?: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Year: 2003  
Manifest ID: nyb9755712  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: Not reported  
TSDf City,St,Zip: BROOKLYN, NY  
TSDf Country: USA  
TSDf Telephone: Not reported  
Transport Date: 05/19/03  
Transporter EPA ID: NYD046765574  
Transporter Name: PRICE TRUCKING CORP.  
Transporter Country: USA  
Transporter Phone: (716)822-1414  
Trans 2 Date: / /  
Trans 2 EPA ID: Not reported  
Trans 2 Name: Not reported  
Trans 2 Address: Not reported  
Trans 2 City,St,Zip: Not reported  
Trans 2 Country: Not reported  
Trans 2 Phone: Not reported  
Generator EPA ID: CTP000027160  
Generator Phone: Not reported  
Generator Address: 200 PICKET DISTRICT RD  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Discrepancies: Not reported  
Date Shipped: 05/19/03  
Date Received: 05/20/03  
Last modified date: 06/03/05  
Last modified by: JEB  
Comments: Not reported

Manifest No: Not reported  
Waste Occurrence: Not reported  
UNNA: Not reported  
Hazard Class: Not reported  
US Dot Description: Not reported  
No of Containers: Not reported  
Container Type: Not reported  
Quantity: Not reported  
Weight/Volume: Not reported  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Manifest No: Not reported  
Waste Occurrence: Not reported  
EPA Waste Code: Not reported  
Recycled Waste?: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported

Year: 2003  
Manifest ID: nyg3554793  
TSDf EPA ID: NYD049178296  
TSDf Name: RADIAC RESEARCH CORP.  
TSDf Address: Not reported  
TSDf City,St,Zip: BROOKLYN, NY  
TSDf Country: USA  
TSDf Telephone: Not reported  
Transport Date: 08/22/03  
Transporter EPA ID: CTD983896341  
Transporter Name: WASTE MANAGEMENT N.E.E.T., INC.  
Transporter Country: USA  
Transporter Phone: (860)342-0667  
Trans 2 Date: 08/22/03  
Trans 2 EPA ID: NJD054126164  
Trans 2 Name: FREEHOLD CARTAGE, INC.  
Trans 2 Address: P.O. BOX 5010  
Trans 2 City,St,Zip: FREEHOLD, NJ 07728  
Trans 2 Country: USA  
Trans 2 Phone: (732)462-1001  
Generator EPA ID: CTP000027412  
Generator Phone: Not reported  
Generator Address: 30 GILLIES RD  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 08/22/03  
Date Received: 09/09/03  
Last modified date: 10/08/04  
Last modified by: CYF

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Comments: Not reported

Manifest No: Not reported  
Waste Occurrence: Not reported  
UNNA: Not reported  
Hazard Class: Not reported  
US Dot Description: Not reported  
No of Containers: Not reported  
Container Type: Not reported  
Quantity: Not reported  
Weight/Volume: Not reported  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Manifest No: Not reported  
Waste Occurrence: Not reported  
EPA Waste Code: Not reported  
Recycled Waste?: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Year: 2004  
Manifest ID: nja5123366  
TSDF EPA ID: NJD980536593  
TSDF Name: ONYX ENVIRONMENTAL SERVICES  
TSDF Address: 1 EDEN LANE  
TSDF City,St,Zip: FLANDERS, NJ 07836  
TSDF Country: USA  
TSDF Telephone: 9736913923  
Transport Date: 05/05/04  
Transporter EPA ID: NJD080631369  
Transporter Name: ONYX ENVIRONMENTAL SERVICES, L.L.C.  
Transporter Country: USA  
Transporter Phone: (973)691-7321  
Trans 2 Date: 05/11/04  
Trans 2 EPA ID: NJD054126164  
Trans 2 Name: FREEHOLD CARTAGE, INC.  
Trans 2 Address: P.O. BOX 5010  
Trans 2 City,St,Zip: FREEHOLD, NJ 07728  
Trans 2 Country: USA  
Trans 2 Phone: (732)462-1001  
Generator EPA ID: ctp000027408  
Generator Phone: Not reported  
Generator Address: 176 S BROAD ST  
Generator City,State,Zip: STONINGTON, CT 06379  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 05/05/04  
Date Received: 05/12/04  
Last modified date: 11/22/05  
Last modified by: JEB  
Comments: Not reported  
Year: 2004  
Manifest ID: nja5123433  
TSDF EPA ID: NJD980536593  
TSDF Name: ONYX ENVIRONMENTAL SERVICES

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

TSDF Address: 1 EDEN LANE  
TSDF City,St,Zip: FLANDERS, NJ 07836  
TSDF Country: USA  
TSDF Telephone: 9736913923  
Transport Date: 04/27/04  
Transporter EPA ID: NJD080631369  
Transporter Name: ONYX ENVIRONMENTAL SERVICES, L.L.C.  
Transporter Country: USA  
Transporter Phone: (973)691-7321  
Trans 2 Date: 05/04/04  
Trans 2 EPA ID: NJD054126164  
Trans 2 Name: FREEHOLD CARTAGE, INC.  
Trans 2 Address: P.O. BOX 5010  
Trans 2 City,St,Zip: FREEHOLD, NJ 07728  
Trans 2 Country: USA  
Trans 2 Phone: (732)462-1001  
Generator EPA ID: CTP000027408  
Generator Phone: Not reported  
Generator Address: 176 S BROAD ST  
Generator City,State,Zip: STONINGTON, CT 06379  
Generator Country: USA  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 04/27/04  
Date Received: 05/05/04  
Last modified date: 11/02/05  
Last modified by: JEB  
Comments: Not reported  
Year: 2003  
Manifest ID: nyg3555171  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: Not reported  
TSDF City,St,Zip: BROOKLYN, NY  
TSDF Country: USA  
TSDF Telephone: Not reported  
Transport Date: 09/24/03  
Transporter EPA ID: CTD983896341  
Transporter Name: WASTE MANAGEMENT N.E.E.T., INC.  
Transporter Country: USA  
Transporter Phone: (860)342-0667  
Trans 2 Date: 10/09/03  
Trans 2 EPA ID: NJD054126164  
Trans 2 Name: FREEHOLD CARTAGE, INC.  
Trans 2 Address: P.O. BOX 5010  
Trans 2 City,St,Zip: FREEHOLD, NJ 07728  
Trans 2 Country: USA  
Trans 2 Phone: (732)462-1001  
Generator EPA ID: CTP000027408  
Generator Phone: Not reported  
Generator Address: 176 S BROAD ST  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 09/24/03  
Date Received: 01/15/03

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

Last modified date: 10/08/04  
Last modified by: CYF  
Comments: Not reported

Manifest No: Not reported  
Waste Occurrence: Not reported  
UNNA: Not reported  
Hazard Class: Not reported  
US Dot Description: Not reported  
No of Containers: Not reported  
Container Type: Not reported  
Quantity: Not reported  
Weight/Volume: Not reported  
Additional Description: Not reported  
Handling Code: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Manifest No: Not reported  
Waste Occurrence: Not reported  
EPA Waste Code: Not reported  
Recycled Waste?: Not reported  
Date Record Was Last Modified: Not reported  
DEO Who Last Modified Record: Not reported  
Year: 2003  
Manifest ID: NYG3959118  
TSDF EPA ID: NYD049178296  
TSDF Name: RADIAC RESEARCH CORP.  
TSDF Address: Not reported  
TSDF City,St,Zip: BROOKLYN, NY  
TSDF Country: USA  
TSDF Telephone: Not reported  
Transport Date: 11/04/03  
Transporter EPA ID: CTD001162072  
Transporter Name: EARTH TECHNOLOGY II LLC  
Transporter Country: USA  
Transporter Phone: (203)230-2040  
Trans 2 Date: 11/05/03  
Trans 2 EPA ID: CTD001162072  
Trans 2 Name: EARTH TECHNOLOGY II LLC  
Trans 2 Address: 250 SACKETT POINT RD  
Trans 2 City,St,Zip: NORTH HAVEN, CT 06473-  
Trans 2 Country: USA  
Trans 2 Phone: (203)230-2040  
Generator EPA ID: CTP000027404  
Generator Phone: Not reported  
Generator Address: 75 STILLMAN AVE  
Generator City,State,Zip: Not reported  
Generator Country: Not reported  
Special Handling: Not reported  
Discrepancies: Not reported  
Date Shipped: 11/04/03  
Date Received: 11/06/03  
Last modified date: 10/27/04  
Last modified by: CYF  
Comments: Not reported  
Year: 2003  
Manifest ID: NYG3959127

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**RADIAC RESEARCH CORP (Continued)**

**1000245435**

TSDF EPA ID: NYD049836679  
 TSDF Name: CWM CHEMICAL SERVICES LLC  
 TSDF Address: PO BOX 200  
 TSDF City,St,Zip: MODEL CITY, NY 14107  
 TSDF Country: USA  
 TSDF Telephone: 7167540246  
 Transport Date: 11/04/03  
 Transporter EPA ID: CTD001145341  
 Transporter Name: HAMILTON SUNDSTRAND CORPORATION - A UTC COMPANY  
 Transporter Country: USA  
 Transporter Phone: (860)654-5376  
 Trans 2 Date: 11/10/03  
 Trans 2 EPA ID: CTD001162072  
 Trans 2 Name: EARTH TECHNOLOGY II LLC  
 Trans 2 Address: 250 SACKETT POINT RD  
 Trans 2 City,St,Zip: NORTH HAVEN, CT 06473-  
 Trans 2 Country: USA  
 Trans 2 Phone: (203)230-2040  
 Generator EPA ID: CTP000027404  
 Generator Phone: Not reported  
 Generator Address: 75 STILLMAN AVE  
 Generator City,State,Zip: Not reported  
 Generator Country: Not reported  
 Special Handling: Not reported  
 Discrepancies: Not reported  
 Date Shipped: 11/04/03  
 Date Received: 11/11/03  
 Last modified date: 10/27/04  
 Last modified by: CYF  
 Comments: Not reported

[Click this hyperlink](#) while viewing on your computer to access  
 289 additional CT MANIFEST: record(s) in the EDR Site Report.

**100 EQUITY WORKS Manufactured Gas Plants 1008407885**  
**East MASPETH AND VANDERVORT AVES. N/A**  
**1/2-1 BROOKLYN, NY 11211**  
**5012 ft.**

Relative:  
 Lower

**Actual: 15 ft. 101 MOBIL OIL BROOKLYN TERMINAL DEL SHWS S105972445**  
**NNE 300 NORTH HENRY STREET N/A**  
**1/2-1 BROOKLYN, NY**  
**5066 ft.**

Relative:  
 Lower DEL SHWS:  
 Year: Not reported  
 Site Code Id: 224013  
 Actual: 12 ft. Site Classification: D1  
 Region: 2  
 Epa Id Number: Not reported  
 Site Type - Dump: No  
 Site Type - Structure: No  
 Site Type - Lagoon: No  
 Site Type - Landfill: No

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**MOBIL OIL BROOKLYN TERMINAL (Continued)**

**S105972445**

Site Type - Treatment Pond: No  
Site Size (Acres): 15 Acres  
Site Size Comment: Not reported  
Period Associated With HW Start: Not reported  
Period Associated With HW End: Not reported  
Lat/Long: 0 0' 0" / 0 0' 0"  
Lat/Long Decimal: 0.00000 / 0.00000  
Lat/Long (dms): 0 0 0 / 0 0 0  
Hazardous Waste Disposed: Not reported  
Quantity: Not reported  
Air Data Available: No  
Surface Water Std Contravention: No  
Groundwater Std Contravention: No  
Soil Type: Not reported  
Sediment Data Available: No  
Groundwater Std Contravention: No  
Drinking Water Std Contravention: No  
Surface Water Std Contravention: No  
Air Standard Contraventions: No  
Legal Action Type: Not reported  
State Legal Action: No  
Federal Legal Action: No  
Enforcement Status Code: Not reported  
Remedial Action Proposed: No  
Remedial Action Under Design: No  
Remedial Action In Progress: No  
Remedial Action Completed: No  
Remedial Action Type: Complete  
Soil Type: Not reported  
Depth To Groundwater: Not reported  
Owner Name: Not reported  
Owner Address: 300 North Henry Street  
Owner City,St,Zip: Brooklyn  
Owner Phone: Not reported  
Owner Contact Name: Not reported  
Owner During Disposal: Mobil Oil  
Owner During Use: Not reported  
Operator Name: Not reported  
Operator Address: Not reported  
Operator City,St,Zip: Not reported  
Operator Phone: Not reported  
Operator Contact Name: Not reported  
Operator During Disposal: Not reported  
Site Type: Dump  
Haz Waste Disposal Period: From: 1900 To: 1985  
Analytical Data Available For: Not reported  
Applicable Std Exceeded In: Not reported  
Geotech Info: Not reported  
Depth To Groundwater: Not reported  
Status: Not reported  
Nature Of Action: Not reported  
Env Problems Assessment: Not reported  
Site Description: Large storage area. Facility was built on an old refinery. Possibility of groundwater contamination due to poor operation. Newton Creek is adjacent to the site.  
Confirmed Hazardous Waste: Gasoline, Kerosene, Fuel Oil, Others: unknown  
Environment Assesment: Site has been remediated.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**MOBIL OIL BROOKLYN TERMINAL (Continued)**

**S105972445**

Health Assessment: Not reported  
Disposal Start Date: Not reported  
Disposal Terminated Date: Not reported  
Air Violation: Not reported  
Groundwater Violation: Not reported  
Drink Water Violation: Not reported  
Surface Water Violation: Not reported  
Legal New York State: Not reported  
Legal Federal: Not reported  
Legal State: Not reported  
Remedial Action Active: Not reported  
Remedial Action Done: Not reported  
NPL Status: Not reported  
Count Operator: Not reported  
Count Owner: Not reported  
NYTM X: 0  
NYTM Y: 0  
Co Name: Not reported  
Co Addr: Not reported  
Operator Addr: Not reported  
Operator Addr 2: Not reported  
Operator Addr 3: Not reported  
Operator Addr 4: Not reported  
HWDP From: Not reported  
From To: Not reported  
Assessment Of Health: Not reported  
Environmental Assessment: Not reported  
Haz Waste Disposed/Quantity: Not reported  
Description: Not reported  
Assessment of Env Programs: Not reported  
Assessment of Health Problems: Not reported  
Site Description: Not reported

## ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BROOKLYN	S105999989	F N W MECHANICAL	139 NORTH 10TH STREET	11211	LTANKS
BROOKLYN	S108146255	BERRY STREET HOUSING PROJECT	SOUTH 10TH STREET	11211	HSWDS
BROOKLYN	S108297543	169-175 NORTH 10TH STREET	169-175 NORTH 10TH STREET	11211	NY Spills
BROOKLYN	S106468964		10TH AVE./11TH STREET		NY Spills
BROOKLYN	S108295828	COMMERCIAL PROPERTY	200 NORTH 11TH STREET	11211	NY Spills
BROOKLYN	S107408042	11TH ST YARD	11TH ST		NY Spills
BROOKLYN	S104284180	ASH ST & MCGINNIS AV	11TH ST CONDUIT		NY Spills, NY Hist Spills
BROOKLYN	S108296639	COSTELLA HOME	2060 WEST 11TH STREET		NY Spills
BROOKLYN	S108295647	CONSTRUCTION SITE	NORTH 11TH ST / ROEBLING		NY Spills
BROOKLYN	S103483447	11TH ST CONDUIT	11TH ST CONDUIT		NY Spills, NY Hist Spills
BROOKLYN	S104648025		14TH ST / 10TH AVE		NY Spills, NY Hist Spills
BROOKLYN	S106126106	MANHOLE 54640	15TH ST 130'FT W OF 8TH		NY Spills
BROOKLYN	1009240808	CONSOLIDATED EDISON	MH4106-455 19TH ST / 8TH AVE		NY MANIFEST
BROOKLYN	S107787353	EXIT 34	ROUTE 278 SOUTHBOUND		NY Spills
BROOKLYN	S105841709	BJR REALTY CORP.	60 SOUTH 2ND STREET (WYTHE ST.	11211	SWF/LF, SWRCY
BROOKLYN	S104192439	ZS7451	9TH AV 30 FT S OF 57TH ST		NY Spills, NY Hist Spills
BROOKLYN	1007205709	BELL ATLANTIC-NY	51ST ST AND 9TH AVE		RCRA-SQG
BROOKLYN	S106015032	VAULT VS1532	WEST 8TH STREET		NY Spills
BROOKLYN	S108295422	ROADWAY	KINGS HIGHWAY / OCEAN AVE		NY Spills
BROOKLYN	S103938400	BOX 38486	KINGS HIGHWAY/ROCKAWAY PK		NY Spills, NY Hist Spills
BROOKLYN	S105057314	MANHOLE #1399	KINGS HWY @ E 19 TH ST		NY Spills, NY Hist Spills
BROOKLYN	S103560694	NYS DOT - BQE	KINGSLAND / MEEKER AVES		NY Spills, NY Hist Spills
BROOKLYN	S108145977	MAGNUM BODY SHOP INC	185A MASPETH AVE	11211	SWF/LF
BROOKLYN	S104787824	MEEKER AVE/MCGUINNESS BLVD	MEEKER AVE/MCGUINNESS BLVD		NY Spills, NY Hist Spills
BROOKLYN	S102569652	UNKNOWN	MEEKER AVENUE		NY Spills, NY Hist Spills
BROOKLYN	S105841740	N. Y. PAVING CO.	957 MEEKER AVE (MEEKER / GARDN	11222	SWF/LF
BROOKLYN	S105841749	ORSANO CARTING CO.	852 MEEKER AVE. (THOMAS / STEW	11222	SWF/LF
BROOKLYN	S102663243	COMMERICAL BUILDING	3937 MESEROLE STREET		NY Spills, NY Hist Spills
BROOKLYN	1009244095	CONSOLIDATED EDISON	MH10-KENT AVE / 9TH ST		NY MANIFEST
BROOKLYN	S108130411	NEW YORK AQUARIUM	SURF AVE AT WEST 8TH STREET		NY Spills
BROOKLYN	S108294486	MULTIPLE FAMILY	335 UNION AVE	11211	NY Spills
BROOKLYN	S107408398	MANHOLE #43243	UNION AVE NEAR HEYWARD ST		NY Spills
BROOKLYN	S107522443	UNION AVENUE	ON UNION AVE		NY Spills
BROOKLYN	1009241662	CONSOLIDATED EDISON	V3364-CLINTON ST S/O W 9TH ST		NY MANIFEST
BROOKLYN	1009242288	CONSOLIDATED EDISON	V4273-CATON PL / E 8TH ST		NY MANIFEST

## EPA Waste Codes Addendum

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D004	ARSENIC
D005	BARIUM
D006	CADMIUM
D007	CHROMIUM
D008	LEAD
D009	MERCURY
D011	SILVER
D018	BENZENE
D022	CHLOROFORM
D038	PYRIDINE
D039	TETRACHLOROETHYLENE
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE

## EPA Waste Codes Addendum

Code	Description
	ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
LABP	LAB PACK
U226	ETHANE, 1,1,1-TRICHLORO-
U226	METHYL CHLOROFORM

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## **FEDERAL RECORDS**

### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/25/2007	Source: EPA
Date Data Arrived at EDR: 01/31/2007	Telephone: N/A
Date Made Active in Reports: 03/12/2007	Last EDR Contact: 01/31/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 04/30/2007
	Data Release Frequency: Quarterly

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/27/2006	Source: EPA
Date Data Arrived at EDR: 11/01/2006	Telephone: N/A
Date Made Active in Reports: 11/22/2006	Last EDR Contact: 02/23/2007
Number of Days to Update: 21	Next Scheduled EDR Contact: 04/30/2007
	Data Release Frequency: Quarterly

### **DELISTED NPL: National Priority List Deletions**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/28/2006	Source: EPA
Date Data Arrived at EDR: 01/31/2007	Telephone: N/A
Date Made Active in Reports: 03/12/2007	Last EDR Contact: 01/31/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 04/30/2007
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **NPL RECOVERY:** Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 03/26/2007
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: No Update Planned

## **CERCLIS:** Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 11/28/2006	Source: EPA
Date Data Arrived at EDR: 12/19/2006	Telephone: 703-603-8960
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 03/21/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 06/18/2007
	Data Release Frequency: Quarterly

## **CERCLIS-NFRAP:** CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 12/20/2006	Source: EPA
Date Data Arrived at EDR: 01/29/2007	Telephone: 703-603-8960
Date Made Active in Reports: 02/27/2007	Last EDR Contact: 03/19/2007
Number of Days to Update: 29	Next Scheduled EDR Contact: 06/18/2007
	Data Release Frequency: Quarterly

## **CORRACTS:** Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 01/04/2007	Source: EPA
Date Data Arrived at EDR: 01/18/2007	Telephone: 800-424-9346
Date Made Active in Reports: 02/27/2007	Last EDR Contact: 03/05/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 06/04/2007
	Data Release Frequency: Quarterly

## **RCRA:** Resource Conservation and Recovery Act Information

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/13/2006	Source: EPA
Date Data Arrived at EDR: 06/28/2006	Telephone: (212) 637-3660
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 04/18/2007
Number of Days to Update: 56	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Quarterly

## **ERNS:** Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2006	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/24/2007	Telephone: 202-267-2180
Date Made Active in Reports: 03/12/2007	Last EDR Contact: 01/24/2007
Number of Days to Update: 47	Next Scheduled EDR Contact: 04/23/2007
	Data Release Frequency: Annually

## **HMIRS:** Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 11/28/2006	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/17/2007	Telephone: 202-366-4555
Date Made Active in Reports: 02/27/2007	Last EDR Contact: 04/17/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Annually

## **US ENG CONTROLS:** Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/24/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/31/2007	Telephone: 703-603-8905
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 04/02/2007
Number of Days to Update: 63	Next Scheduled EDR Contact: 07/02/2007
	Data Release Frequency: Varies

## **US INST CONTROL:** Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/24/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/31/2007	Telephone: 703-603-8905
Date Made Active in Reports: 02/27/2007	Last EDR Contact: 04/02/2007
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/02/2007
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **DOD:** Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 703-692-8801
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 02/08/2007
Number of Days to Update: 62	Next Scheduled EDR Contact: 05/07/2007
	Data Release Frequency: Semi-Annually

## **FUDS:** Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2005	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 09/20/2006	Telephone: 202-528-4285
Date Made Active in Reports: 11/22/2006	Last EDR Contact: 04/02/2007
Number of Days to Update: 63	Next Scheduled EDR Contact: 07/02/2007
	Data Release Frequency: Varies

## **US BROWNFIELDS:** A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients--States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 01/29/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/31/2007	Telephone: 202-566-2777
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 03/12/2007
Number of Days to Update: 63	Next Scheduled EDR Contact: 06/11/2007
	Data Release Frequency: Semi-Annually

## **CONSENT:** Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/23/2006	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 03/06/2007	Telephone: Varies
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 02/06/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/23/2007
	Data Release Frequency: Varies

## **ROD:** Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/10/2007	Source: EPA
Date Data Arrived at EDR: 01/24/2007	Telephone: 703-416-0223
Date Made Active in Reports: 02/27/2007	Last EDR Contact: 03/27/2007
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/02/2007
	Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **UMTRA:** Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 11/08/2006	Telephone: 505-845-0011
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 03/20/2007
Number of Days to Update: 82	Next Scheduled EDR Contact: 06/18/2007
	Data Release Frequency: Varies

## **ODI:** Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## **TRIS:** Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2004	Source: EPA
Date Data Arrived at EDR: 06/22/2006	Telephone: 202-566-0250
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 03/20/2007
Number of Days to Update: 62	Next Scheduled EDR Contact: 06/18/2007
	Data Release Frequency: Annually

## **TSCA:** Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002	Source: EPA
Date Data Arrived at EDR: 04/14/2006	Telephone: 202-260-5521
Date Made Active in Reports: 05/30/2006	Last EDR Contact: 04/16/2007
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Every 4 Years

## **FTTS:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 02/26/2007	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-566-1667
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 03/19/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 06/18/2007
	Data Release Frequency: Quarterly

## **FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 02/26/2007	Source: EPA
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-566-1667
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 03/19/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 06/18/2007
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SSTS:** Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2004	Source: EPA
Date Data Arrived at EDR: 05/11/2006	Telephone: 202-564-4203
Date Made Active in Reports: 05/22/2006	Last EDR Contact: 04/12/2007
Number of Days to Update: 11	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Annually

## **ICIS:** Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/06/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/02/2007	Telephone: 202-564-5088
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 04/16/2007
Number of Days to Update: 61	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Quarterly

## **DOT OPS:** Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 02/14/2007	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 02/28/2007	Telephone: 202-366-4595
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 02/28/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 05/28/2007
	Data Release Frequency: Varies

## **LUCIS:** Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 03/26/2007
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/11/2007
	Data Release Frequency: Varies

## **RADINFO:** Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/30/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/31/2007	Telephone: 202-343-9775
Date Made Active in Reports: 02/27/2007	Last EDR Contact: 01/31/2007
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/30/2007
	Data Release Frequency: Quarterly

## **HIST FTTS:** FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 03/19/2007  
Next Scheduled EDR Contact: 06/18/2007  
Data Release Frequency: No Update Planned

## **CDL:** Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/01/2006  
Date Data Arrived at EDR: 01/08/2007  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 3

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 03/29/2007  
Next Scheduled EDR Contact: 06/25/2007  
Data Release Frequency: Quarterly

## **PADS:** PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/17/2006  
Date Data Arrived at EDR: 11/29/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 43

Source: EPA  
Telephone: 202-566-0500  
Last EDR Contact: 03/02/2007  
Next Scheduled EDR Contact: 05/07/2007  
Data Release Frequency: Annually

## **MLTS:** Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/11/2007  
Date Data Arrived at EDR: 01/26/2007  
Date Made Active in Reports: 02/27/2007  
Number of Days to Update: 32

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169  
Last EDR Contact: 04/02/2007  
Next Scheduled EDR Contact: 07/02/2007  
Data Release Frequency: Quarterly

## **MINES:** Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/15/2006  
Date Data Arrived at EDR: 12/28/2006  
Date Made Active in Reports: 01/29/2007  
Number of Days to Update: 32

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 03/28/2007  
Next Scheduled EDR Contact: 06/25/2007  
Data Release Frequency: Semi-Annually

## **FINDS:** Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/18/2007  
Date Data Arrived at EDR: 01/23/2007  
Date Made Active in Reports: 02/27/2007  
Number of Days to Update: 35

Source: EPA  
Telephone: (212) 637-3000  
Last EDR Contact: 04/02/2007  
Next Scheduled EDR Contact: 07/02/2007  
Data Release Frequency: Quarterly

## **RAATS:** RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995  
Date Data Arrived at EDR: 07/03/1995  
Date Made Active in Reports: 08/07/1995  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4104  
Last EDR Contact: 03/05/2007  
Next Scheduled EDR Contact: 06/04/2007  
Data Release Frequency: No Update Planned

## **BRS:** Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 03/06/2007  
Date Made Active in Reports: 04/13/2007  
Number of Days to Update: 38

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 03/06/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Biennially

## **STATE AND LOCAL RECORDS**

### **HSWDS:** Hazardous Substance Waste Disposal Site Inventory

The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

Date of Government Version: 01/01/2003  
Date Data Arrived at EDR: 10/20/2006  
Date Made Active in Reports: 11/30/2006  
Number of Days to Update: 41

Source: Department of Environmental Conservation  
Telephone: 518-402-9564  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: No Update Planned

### **SHWS:** Inactive Hazardous Waste Disposal Sites in New York State

Referred to as the State Superfund Program, the Inactive Hazardous Waste Disposal Site Remedial Program is the cleanup program for inactive hazardous waste sites and now includes hazardous substance sites

Date of Government Version: 03/05/2007  
Date Data Arrived at EDR: 03/15/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 35

Source: Department of Environmental Conservation  
Telephone: 518-402-9622  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Annually

### **DEL SHWS:** Delisted Registry Sites

A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/04/2006  
Date Data Arrived at EDR: 09/14/2006  
Date Made Active in Reports: 10/16/2006  
Number of Days to Update: 32

Source: Department of Environmental Conservation  
Telephone: 518-402-9622  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Annually

## **SWF/LF:** Facility Register

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/30/2007  
Date Data Arrived at EDR: 01/30/2007  
Date Made Active in Reports: 03/20/2007  
Number of Days to Update: 49

Source: Department of Environmental Conservation  
Telephone: 518-457-2051  
Last EDR Contact: 01/29/2007  
Next Scheduled EDR Contact: 04/30/2007  
Data Release Frequency: Semi-Annually

## **SWRCY:** Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 02/12/2007  
Date Data Arrived at EDR: 02/12/2007  
Date Made Active in Reports: 03/20/2007  
Number of Days to Update: 36

Source: Department of Environmental Conservation  
Telephone: 518-402-8705  
Last EDR Contact: 01/29/2007  
Next Scheduled EDR Contact: 04/30/2007  
Data Release Frequency: Semi-Annually

## **SWTIRE:** Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 08/01/2006  
Date Data Arrived at EDR: 11/15/2006  
Date Made Active in Reports: 11/30/2006  
Number of Days to Update: 15

Source: Department of Environmental Conservation  
Telephone: 518-402-8694  
Last EDR Contact: 02/16/2007  
Next Scheduled EDR Contact: 05/14/2007  
Data Release Frequency: Annually

## **LTANKS:** Spills Information Database

Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

Date of Government Version: 01/17/2007  
Date Data Arrived at EDR: 01/24/2007  
Date Made Active in Reports: 03/20/2007  
Number of Days to Update: 55

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 01/24/2007  
Next Scheduled EDR Contact: 04/23/2007  
Data Release Frequency: Varies

## **HIST LTANKS:** Listing of Leaking Storage Tanks

A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 07/08/2005  
Date Made Active in Reports: 07/14/2005  
Number of Days to Update: 6

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 07/07/2005  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **UST:** Petroleum Bulk Storage (PBS) Database

Facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

Date of Government Version: 03/06/2007  
Date Data Arrived at EDR: 03/15/2007  
Date Made Active in Reports: 04/16/2007  
Number of Days to Update: 32

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 04/23/2007  
Data Release Frequency: No Update Planned

## **CBS UST:** Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in underground tanks of any size

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 02/20/2002  
Date Made Active in Reports: 03/22/2002  
Number of Days to Update: 30

Source: NYSDEC  
Telephone: 518-402-9549  
Last EDR Contact: 10/24/2005  
Next Scheduled EDR Contact: 01/23/2006  
Data Release Frequency: No Update Planned

## **MOSF UST:** Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 02/20/2002  
Date Made Active in Reports: 03/22/2002  
Number of Days to Update: 30

Source: NYSDEC  
Telephone: 518-402-9549  
Last EDR Contact: 07/25/2005  
Next Scheduled EDR Contact: 10/24/2005  
Data Release Frequency: Varies

## **HIST UST:** Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 06/02/2006  
Date Made Active in Reports: 07/20/2006  
Number of Days to Update: 48

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 10/23/2006  
Next Scheduled EDR Contact: 01/22/2007  
Data Release Frequency: Varies

## **AST:** Petroleum Bulk Storage

Registered Aboveground Storage Tanks.

Date of Government Version: 03/06/2007  
Date Data Arrived at EDR: 03/15/2007  
Date Made Active in Reports: 04/16/2007  
Number of Days to Update: 32

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 04/23/2007  
Data Release Frequency: No Update Planned

## **CBS AST:** Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 02/20/2002  
Date Made Active in Reports: 03/22/2002  
Number of Days to Update: 30

Source: NYSDEC  
Telephone: 518-402-9549  
Last EDR Contact: 07/25/2005  
Next Scheduled EDR Contact: 10/24/2005  
Data Release Frequency: No Update Planned

## **HIST AST:** Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 06/02/2006  
Date Made Active in Reports: 07/20/2006  
Number of Days to Update: 48

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 10/23/2006  
Next Scheduled EDR Contact: 01/22/2007  
Data Release Frequency: No Update Planned

## **MOSF AST:** Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 02/20/2002  
Date Made Active in Reports: 03/22/2002  
Number of Days to Update: 30

Source: NYSDEC  
Telephone: 518-402-9549  
Last EDR Contact: 07/25/2005  
Next Scheduled EDR Contact: 10/24/2005  
Data Release Frequency: No Update Planned

## **NY MANIFEST:** Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/26/2006  
Date Data Arrived at EDR: 11/29/2006  
Date Made Active in Reports: 01/05/2007  
Number of Days to Update: 37

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 03/02/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: Annually

## **SPILLS:** Spills Information Database

Data collected on spills reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

Date of Government Version: 01/17/2007  
Date Data Arrived at EDR: 01/24/2007  
Date Made Active in Reports: 03/20/2007  
Number of Days to Update: 55

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 01/24/2007  
Next Scheduled EDR Contact: 04/23/2007  
Data Release Frequency: Varies

## **HIST SPILLS:** SPILLS Database

This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002  
Date Data Arrived at EDR: 07/08/2005  
Date Made Active in Reports: 07/14/2005  
Number of Days to Update: 6

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 07/07/2005  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## **ENG CONTROLS:** Registry of Engineering Controls

Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 03/05/2007  
Date Data Arrived at EDR: 03/15/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 35

Source: Department of Environmental Conservation  
Telephone: 518-402-9553  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **INST CONTROL:** Registry of Institutional Controls

Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 03/05/2007  
Date Data Arrived at EDR: 03/15/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 35

Source: Department of Environmental Conservation  
Telephone: 518-402-9553  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Quarterly

## **VCP:** Voluntary Cleanup Agreements

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

Date of Government Version: 03/05/2007  
Date Data Arrived at EDR: 03/15/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 35

Source: Department of Environmental Conservation  
Telephone: 518-402-9711  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Semi-Annually

## **DRYCLEANERS:** Registered Drycleaners

A listing of all registered drycleaning facilities.

Date of Government Version: 06/15/2004  
Date Data Arrived at EDR: 06/15/2004  
Date Made Active in Reports: 07/29/2004  
Number of Days to Update: 44

Source: Department of Environmental Conservation  
Telephone: 518-402-8403  
Last EDR Contact: 05/21/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## **BROWNFIELDS:** Brownfields Site List

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 03/05/2007  
Date Data Arrived at EDR: 03/15/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 35

Source: Department of Environmental Conservation  
Telephone: 518-402-9764  
Last EDR Contact: 03/15/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Semi-Annually

## **SPDES:** State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 02/28/2007  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 03/20/2007  
Number of Days to Update: 19

Source: Department of Environmental Conservation  
Telephone: 518-402-8233  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/07/2007  
Data Release Frequency: No Update Planned

## **AIRS:** Air Emissions Data

Point source emissions inventory data.

Date of Government Version: 12/31/2002  
Date Data Arrived at EDR: 09/13/2004  
Date Made Active in Reports: 10/18/2004  
Number of Days to Update: 35

Source: Department of Environmental Conservation  
Telephone: 518-402-8452  
Last EDR Contact: 02/19/2007  
Next Scheduled EDR Contact: 05/21/2007  
Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **MOSF:** Major Oil Storage Facility Site Listing

These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 03/06/2007  
Date Data Arrived at EDR: 03/16/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 34

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 03/16/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Quarterly

## **CBS:** Chemical Bulk Storage Site Listing

These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

Date of Government Version: 03/06/2007  
Date Data Arrived at EDR: 03/16/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 34

Source: Department of Environmental Conservation  
Telephone: 518-402-9549  
Last EDR Contact: 03/16/2007  
Next Scheduled EDR Contact: 04/23/2007  
Data Release Frequency: Quarterly

## **RES DECL:** Restrictive Declarations Listing

A restrictive declaration is a covenant running with the land which binds the present and future owners of the property. As a condition of certain special permits, the City Planning Commission may require an applicant to sign and record a restrictive declaration that places specified conditions on the future use and development of the property. Certain restrictive declarations are indicated by a D on zoning maps.

Date of Government Version: 12/31/1992  
Date Data Arrived at EDR: 01/31/2007  
Date Made Active in Reports: 04/19/2007  
Number of Days to Update: 78

Source: NYC Department of City Planning  
Telephone: 212-720-3401  
Last EDR Contact: 04/17/2007  
Next Scheduled EDR Contact: 07/16/2007  
Data Release Frequency: No Update Planned

## **TRIBAL RECORDS**

### **INDIAN RESERV:** Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 02/06/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 339

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 02/08/2007  
Next Scheduled EDR Contact: 05/07/2007  
Data Release Frequency: Semi-Annually

### **INDIAN LUST R1:** Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006  
Date Data Arrived at EDR: 12/01/2006  
Date Made Active in Reports: 01/29/2007  
Number of Days to Update: 59

Source: EPA Region 1  
Telephone: 617-918-1313  
Last EDR Contact: 02/19/2007  
Next Scheduled EDR Contact: 05/21/2007  
Data Release Frequency: Varies

### **INDIAN LUST R6:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/04/2005  
Date Data Arrived at EDR: 01/21/2005  
Date Made Active in Reports: 02/28/2005  
Number of Days to Update: 38

Source: EPA Region 6  
Telephone: 214-665-6597  
Last EDR Contact: 02/19/2007  
Next Scheduled EDR Contact: 05/21/2007  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **INDIAN LUST R8:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/19/2007	Source: EPA Region 8
Date Data Arrived at EDR: 02/27/2007	Telephone: 303-312-6271
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 36	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Quarterly

## **INDIAN LUST R10:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 03/01/2007	Source: EPA Region 10
Date Data Arrived at EDR: 03/01/2007	Telephone: 206-553-2857
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 34	Next Scheduled EDR Contact: 02/21/2007
	Data Release Frequency: Quarterly

## **INDIAN LUST R9:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 12/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/19/2006	Telephone: 415-972-3372
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Quarterly

## **INDIAN LUST R7:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/06/2006	Source: EPA Region 7
Date Data Arrived at EDR: 10/04/2006	Telephone: 913-551-7003
Date Made Active in Reports: 11/08/2006	Last EDR Contact: 02/19/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Varies

## **INDIAN LUST R4:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Minnesota, Mississippi and North Carolina.

Date of Government Version: 08/24/2006	Source: EPA Region 4
Date Data Arrived at EDR: 09/11/2006	Telephone: 404-562-8677
Date Made Active in Reports: 11/08/2006	Last EDR Contact: 02/19/2007
Number of Days to Update: 58	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Semi-Annually

## **INDIAN UST R4:** Underground Storage Tanks on Indian Land

Date of Government Version: 08/24/2006	Source: EPA Region 4
Date Data Arrived at EDR: 09/11/2006	Telephone: 404-562-9424
Date Made Active in Reports: 11/08/2006	Last EDR Contact: 02/19/2007
Number of Days to Update: 58	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Semi-Annually

## **INDIAN UST R10:** Underground Storage Tanks on Indian Land

Date of Government Version: 03/01/2007	Source: EPA Region 10
Date Data Arrived at EDR: 03/01/2007	Telephone: 206-553-2857
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R5: Underground Storage Tanks on Indian Land

Date of Government Version: 12/02/2004	Source: EPA Region 5
Date Data Arrived at EDR: 12/29/2004	Telephone: 312-886-6136
Date Made Active in Reports: 02/04/2005	Last EDR Contact: 02/19/2007
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Varies

## INDIAN UST R8: Underground Storage Tanks on Indian Land

Date of Government Version: 02/19/2007	Source: EPA Region 8
Date Data Arrived at EDR: 02/27/2007	Telephone: 303-312-6137
Date Made Active in Reports: 04/04/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 36	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Quarterly

## INDIAN UST R6: Underground Storage Tanks on Indian Land

Date of Government Version: 01/11/2007	Source: EPA Region 6
Date Data Arrived at EDR: 01/12/2007	Telephone: 214-665-7591
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 17	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Semi-Annually

## INDIAN UST R1: Underground Storage Tanks on Indian Land

A listing of underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006	Source: EPA, Region 1
Date Data Arrived at EDR: 12/01/2006	Telephone: 617-918-1313
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 59	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Varies

## INDIAN UST R7: Underground Storage Tanks on Indian Land

Date of Government Version: 09/06/2006	Source: EPA Region 7
Date Data Arrived at EDR: 10/04/2006	Telephone: 913-551-7003
Date Made Active in Reports: 11/08/2006	Last EDR Contact: 02/19/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Varies

## INDIAN UST R9: Underground Storage Tanks on Indian Land

Date of Government Version: 12/19/2006	Source: EPA Region 9
Date Data Arrived at EDR: 12/19/2006	Telephone: 415-972-3368
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 02/19/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 05/21/2007
	Data Release Frequency: Quarterly

## EDR PROPRIETARY RECORDS

### **Manufactured Gas Plants:** EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## COUNTY RECORDS

### **CORTLAND COUNTY:**

#### **Cortland County Storage Tank Listing**

A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 01/08/2007  
Date Data Arrived at EDR: 01/16/2007  
Date Made Active in Reports: 02/07/2007  
Number of Days to Update: 22

Source: Cortland County Health Department  
Telephone: 607-753-5035  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: Quarterly

#### **Cortland County Storage Tank Listing**

A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 01/08/2007  
Date Data Arrived at EDR: 01/16/2007  
Date Made Active in Reports: 02/07/2007  
Number of Days to Update: 22

Source: Cortland County Health Department  
Telephone: 607-753-5035  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: Quarterly

### **NASSAU COUNTY:**

#### **Registered Tank Database**

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 05/21/2003  
Date Data Arrived at EDR: 05/27/2003  
Date Made Active in Reports: 06/09/2003  
Number of Days to Update: 13

Source: Nassau County Health Department  
Telephone: 516-571-3314  
Last EDR Contact: 01/30/2007  
Next Scheduled EDR Contact: 04/30/2007  
Data Release Frequency: No Update Planned

#### **Storage Tank Database**

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 01/04/2007  
Date Data Arrived at EDR: 02/07/2007  
Date Made Active in Reports: 03/26/2007  
Number of Days to Update: 47

Source: Nassau County Office of the Fire Marshal  
Telephone: 516-572-1000  
Last EDR Contact: 02/05/2007  
Next Scheduled EDR Contact: 05/07/2007  
Data Release Frequency: Varies

#### **Registered Tank Database**

A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 05/21/2003  
Date Data Arrived at EDR: 05/27/2003  
Date Made Active in Reports: 06/09/2003  
Number of Days to Update: 13

Source: Nassau County Health Department  
Telephone: 516-571-3314  
Last EDR Contact: 01/30/2007  
Next Scheduled EDR Contact: 04/30/2007  
Data Release Frequency: No Update Planned

#### **Storage Tank Database**

A listing of underground storage tank sites located in Nassau County.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/04/2007  
Date Data Arrived at EDR: 02/07/2007  
Date Made Active in Reports: 03/23/2007  
Number of Days to Update: 44

Source: Nassau County Office of the Fire Marshal  
Telephone: 516-572-1000  
Last EDR Contact: 02/05/2007  
Next Scheduled EDR Contact: 05/07/2007  
Data Release Frequency: Varies

## ROCKLAND COUNTY:

### Petroleum Bulk Storage Database

A listing of aboveground storage tank sites located in Rockland County.

Date of Government Version: 01/22/2007  
Date Data Arrived at EDR: 02/13/2007  
Date Made Active in Reports: 03/26/2007  
Number of Days to Update: 41

Source: Rockland County Health Department  
Telephone: 914-364-2605  
Last EDR Contact: 04/02/2007  
Next Scheduled EDR Contact: 07/02/2007  
Data Release Frequency: Quarterly

### Petroleum Bulk Storage Database

A listing of underground storage tank sites located in Rockland County.

Date of Government Version: 01/22/2007  
Date Data Arrived at EDR: 02/13/2007  
Date Made Active in Reports: 03/23/2007  
Number of Days to Update: 38

Source: Rockland County Health Department  
Telephone: 914-364-2605  
Last EDR Contact: 04/02/2007  
Next Scheduled EDR Contact: 07/02/2007  
Data Release Frequency: Quarterly

## SUFFOLK COUNTY:

### Storage Tank Database

A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 09/13/2006  
Date Data Arrived at EDR: 01/11/2007  
Date Made Active in Reports: 02/07/2007  
Number of Days to Update: 27

Source: Suffolk County Department of Health Services  
Telephone: 631-854-2521  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: Annually

### Storage Tank Database

A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 09/13/2006  
Date Data Arrived at EDR: 01/11/2007  
Date Made Active in Reports: 02/07/2007  
Number of Days to Update: 27

Source: Suffolk County Department of Health Services  
Telephone: 631-854-2521  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: Annually

## WESTCHESTER COUNTY:

### Listing of Storage Tanks

A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 05/05/2005  
Date Data Arrived at EDR: 05/31/2005  
Date Made Active in Reports: 06/30/2005  
Number of Days to Update: 30

Source: Westchester County Department of Health  
Telephone: 914-813-5161  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Listing of Storage Tanks

A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 05/05/2005  
Date Data Arrived at EDR: 05/31/2005  
Date Made Active in Reports: 06/30/2005  
Number of Days to Update: 30

Source: Westchester County Department of Health  
Telephone: 914-813-5161  
Last EDR Contact: 02/26/2007  
Next Scheduled EDR Contact: 05/28/2007  
Data Release Frequency: Varies

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### **CT MANIFEST:** Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2004  
Date Data Arrived at EDR: 02/17/2006  
Date Made Active in Reports: 04/07/2006  
Number of Days to Update: 49

Source: Department of Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 03/16/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Annually

### **NJ MANIFEST:** Manifest Information

Hazardous waste manifest information.

Date of Government Version: 01/01/2007  
Date Data Arrived at EDR: 01/04/2007  
Date Made Active in Reports: 02/13/2007  
Number of Days to Update: 40

Source: Department of Environmental Protection  
Telephone: N/A  
Last EDR Contact: 04/05/2007  
Next Scheduled EDR Contact: 07/02/2007  
Data Release Frequency: Annually

### **PA MANIFEST:** Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 03/17/2006  
Date Made Active in Reports: 06/06/2006  
Number of Days to Update: 81

Source: Department of Environmental Protection  
Telephone: N/A  
Last EDR Contact: 04/16/2007  
Next Scheduled EDR Contact: 06/11/2007  
Data Release Frequency: Annually

### **RI MANIFEST:** Manifest information

Hazardous waste manifest information

Date of Government Version: 04/11/2006  
Date Data Arrived at EDR: 10/31/2006  
Date Made Active in Reports: 12/18/2006  
Number of Days to Update: 48

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 03/19/2007  
Next Scheduled EDR Contact: 06/18/2007  
Data Release Frequency: Annually

### **VT MANIFEST:** Hazardous Waste Manifest Data

Hazardous waste manifest information.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 06/29/2006  
Date Made Active in Reports: 07/31/2006  
Number of Days to Update: 32

Source: Department of Environmental Conservation  
Telephone: 802-241-3443  
Last EDR Contact: 02/20/2007  
Next Scheduled EDR Contact: 05/14/2007  
Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **WI MANIFEST:** Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2005

Date Data Arrived at EDR: 03/17/2006

Date Made Active in Reports: 05/02/2006

Number of Days to Update: 46

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 04/09/2007

Next Scheduled EDR Contact: 07/09/2007

Data Release Frequency: Annually

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

## **Electric Power Transmission Line Data**

Source: PennWell Corporation

Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

## **AHA Hospitals:**

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

## **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

## **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

## **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

## **Private Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

## **Daycare Centers: Day Care Providers**

Source: Department of Health

Telephone: 212-676-2444

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

## **State Wetlands Data: Freshwater Wetlands**

Source: Department of Environmental Conservation

Telephone: 518-402-8961

## **Scanned Digital USGS 7.5' Topographic Map (DRG)**

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## **STREET AND ADDRESS INFORMATION**

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

INDUSTRIAL BUILDING  
544 UNION AVENUE  
BROOKLYN, NY 11211

### TARGET PROPERTY COORDINATES

Latitude (North):	40.71700 - 40° 43' 1.2"
Longitude (West):	73.952 - 73° 57' 7.2"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	588517.4
UTM Y (Meters):	4507659.0
Elevation:	16 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	40073-F8 BROOKLYN, NY
Most Recent Revision:	1995

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

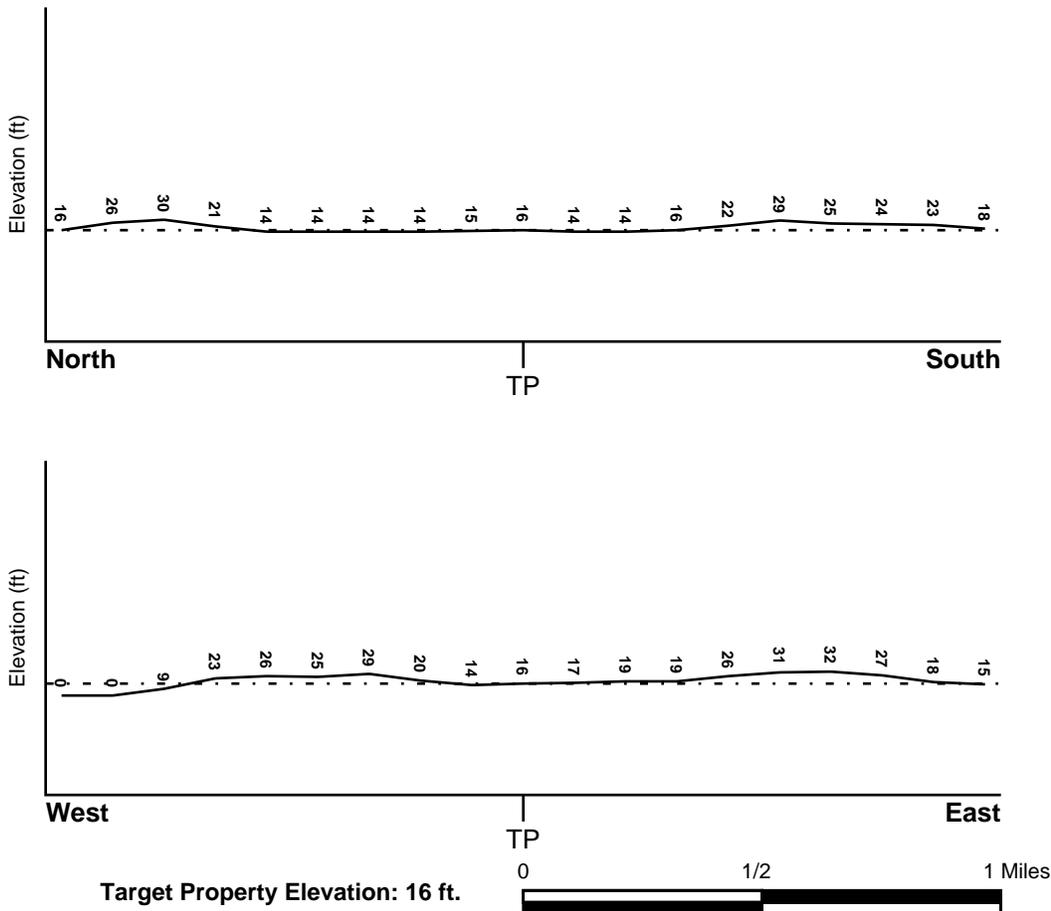
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Target Property County</u>	<u>FEMA Flood</u>
KINGS, NY	<u>Electronic Data</u>
	Not Available

Flood Plain Panel at Target Property: 3604970048B

Additional Panels in search area: 3604970047B  
3604970055B  
3604970056B

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic</u>
BROOKLYN	<u>Data Coverage</u>
	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### ***Site-Specific Hydrogeological Data\*:***

Search Radius:	1.25 miles
Status:	Not found

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION</u>	<u>GENERAL DIRECTION</u>
<u>FROM TP</u>	<u>GROUNDWATER FLOW</u>	
Not Reported		

\* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### ROCK STRATIGRAPHIC UNIT

Era: Mesozoic  
System: Cretaceous  
Series: Upper Cretaceous  
Code: uK (decoded above as Era, System & Series)

#### GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand  
silt loam  
sandy loam  
fine sandy loam

Surficial Soil Types: loamy sand  
silt loam  
sandy loam  
fine sandy loam

Shallow Soil Types: sandy loam

Deeper Soil Types: very gravelly - loamy sand  
unweathered bedrock  
stratified  
sandy loam

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

### FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
_____	_____	_____

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS2118072	1/8 - 1/4 Mile ESE
A3	USGS2118190	1/8 - 1/4 Mile South
A4	USGS2118183	1/8 - 1/4 Mile South
5	USGS2117978	1/4 - 1/2 Mile ENE
B6	USGS2117851	1/4 - 1/2 Mile NW
B7	USGS2117845	1/4 - 1/2 Mile NW
8	USGS2117852	1/4 - 1/2 Mile NW
C9	USGS2118055	1/4 - 1/2 Mile WSW
B10	USGS2117880	1/4 - 1/2 Mile NW
C11	USGS2118066	1/4 - 1/2 Mile West
12	USGS2118298	1/4 - 1/2 Mile SSW
13	USGS2118022	1/2 - 1 Mile ESE
14	USGS2118416	1/2 - 1 Mile SSW
15	USGS2118249	1/2 - 1 Mile SE
16	USGS2118108	1/2 - 1 Mile West
D17	USGS2118312	1/2 - 1 Mile SE
E18	USGS2117797	1/2 - 1 Mile NE
E19	USGS2117798	1/2 - 1 Mile NE
D20	USGS2118311	1/2 - 1 Mile SE
21	USGS2117728	1/2 - 1 Mile ENE
22	USGS2118401	1/2 - 1 Mile SSW
23	USGS2118356	1/2 - 1 Mile South
24	USGS2117862	1/2 - 1 Mile WNW
25	USGS2118278	1/2 - 1 Mile SW
F26	USGS2118415	1/2 - 1 Mile SE
27	USGS2118444	1/2 - 1 Mile SE
F28	USGS2118395	1/2 - 1 Mile SSE
29	USGS2118023	1/2 - 1 Mile West
30	USGS2118090	1/2 - 1 Mile East
G31	USGS2118426	1/2 - 1 Mile SE
32	USGS2118514	1/2 - 1 Mile SSW
G33	USGS2118414	1/2 - 1 Mile SE
34	USGS2118289	1/2 - 1 Mile ESE
35	USGS2118332	1/2 - 1 Mile WSW
H36	USGS2118660	1/2 - 1 Mile South
H37	USGS2118659	1/2 - 1 Mile South

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	NY0007257	1/8 - 1/4 Mile SSW

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

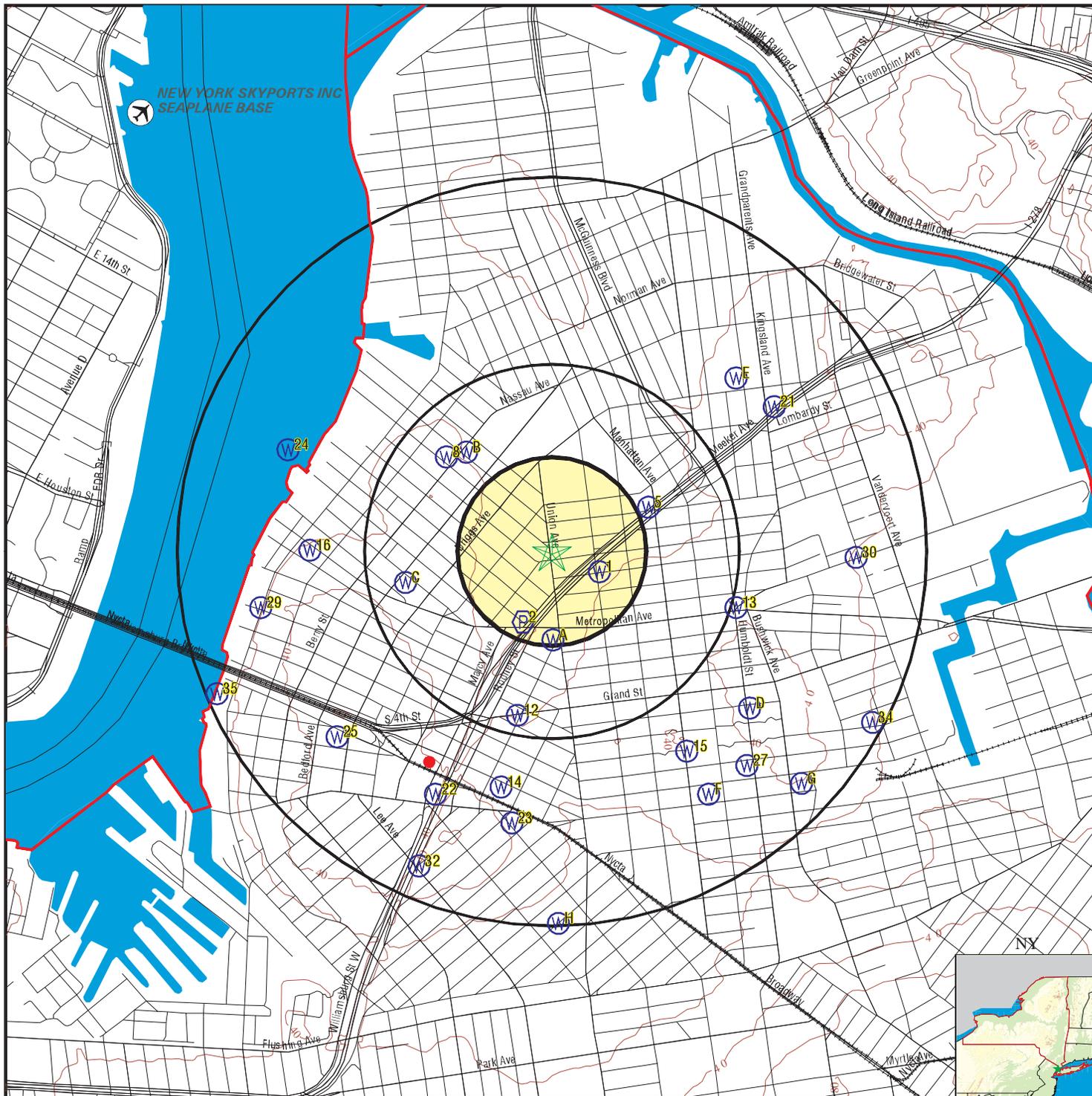
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

## OTHER STATE DATABASE INFORMATION

## STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
1/2 - 1 Mile SSW	

# PHYSICAL SETTING SOURCE MAP - 1908261.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



<p><b>SITE NAME:</b> Industrial Building  <b>ADDRESS:</b> 544 Union Avenue                  Brooklyn NY 11211  <b>LAT/LONG:</b> 40.7170 / 73.9520</p>	<p><b>CLIENT:</b> CA Rich Consultants, Inc.  <b>CONTACT:</b> Deborah Shapiro  <b>INQUIRY #:</b> 1908261.2s  <b>DATE:</b> April 20, 2007 6:29 pm</p>
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# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**1**  
**ESE**  
**1/8 - 1/4 Mile**  
**Higher**

**FED USGS      USGS2118072**

Agency cd:	USGS	Site no:	404258073570001
Site name:	K 691. 1		
Latitude:	404258		
Longitude:	0735700	Dec lat:	40.71621357
Dec lon:	-73.94958241	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1138	Map scale:	Not Reported
Altitude:	18.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	195.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**2**  
**SSW**  
**1/8 - 1/4 Mile**  
**Lower**

**FRDS PWS      NY0007257**

PWS ID:	NY0007257	PWS Status:	Active
Date Initiated:	Not Reported	Date Deactivated:	Not Reported
PWS Name:	MANSFIELD BUNG COLONY GALE ROAD, BOX 123 MONGAUP VALLEY, NY 12762		
Addressee / Facility:	System Owner/Responsible Party ROSENBERG MAYER C/O MAYER ROSENBERG 570 BEDFORD AVE BROOKLYN, NY 11211		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Facility Latitude: 40 42 51	Facility Longitude: 073 57 14
City Served: BETHEL (T)	
Treatment Class: Not Reported	Population: Not Reported

Violations information not reported.

**A3**  
**South**  
**1/8 - 1/4 Mile**  
**Lower**

**FED USGS      USGS2118190**

Agency cd:	USGS	Site no:	404249073570801
Site name:	K 673. 1		
Latitude:	404249		
Longitude:	0735708	Dec lat:	40.71371361
Dec lon:	-73.95180469	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1129	Map scale:	Not Reported
Altitude:	14.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	196.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**A4**  
**South**  
**1/8 - 1/4 Mile**  
**Lower**

**FED USGS      USGS2118183**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	404248073570901
Site name:	K 898. 1		
Latitude:	404248		
Longitude:	0735709	Dec lat:	40.71343584
Dec lon:	-73.95208248	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1220	Map scale:	Not Reported
Altitude:	7.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	46.	Hole depth:	74.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data begin date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data end date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**5**  
**ENE**  
**1/4 - 1/2 Mile**  
**Lower**

**FED USGS USGS2117978**

Agency cd:	USGS	Site no:	404307073565101
Site name:	K 690. 1		
Latitude:	404307		
Longitude:	0735651	Dec lat:	40.71871352
Dec lon:	-73.94708234	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1147	Map scale:	Not Reported
Altitude:	10.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	194.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**B6  
NW  
1/4 - 1/2 Mile  
Higher**

**FED USGS      USGS2117851**

Agency cd:	USGS	Site no:	404314073572301
Site name:	K 1112. 1		
Latitude:	404314		
Longitude:	0735723	Dec lat:	40.72065791
Dec lon:	-73.95597149	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1116	Map scale:	Not Reported
Altitude:	7.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	55.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**B7**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS2117845**

Agency cd:	USGS	Site no:	404313073572508
Site name:	K 463. 1		
Latitude:	404313		
Longitude:	0735725	Dec lat:	40.72038014
Dec lon:	-73.95652706	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1106	Map scale:	Not Reported
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	32.	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1937-11-08	Ground water data end date:	1939-11-18
Ground water data count:	106		

Ground-water levels, Number of Measurements: 106

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1939-11-18		3.22	1939-11-11		3.18
1939-11-04		3.26	1939-10-28		3.28
1939-10-25		3.27	1939-10-18		3.26
1939-10-11		3.39	1939-10-04		3.76
1939-09-23		3.83	1939-09-16		3.77
1939-09-08		3.75	1939-09-01		3.85
1939-08-25		4.13	1939-08-18		4.26
1939-08-11		4.39	1939-08-04		4.52
1939-07-28		4.57	1939-07-21		4.58
1939-07-14		4.59	1939-07-07		4.59
1939-06-30		4.56	1939-06-23		4.58
1939-06-16		4.60	1939-06-09		4.61
1939-06-02		4.58	1939-05-26		4.60
1939-05-19		4.61	1939-05-12		4.62
1939-05-05		4.62	1939-04-28		4.63

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1939-04-21		4.64	1939-04-15		4.64
1939-04-08		4.67	1939-03-31		4.72
1939-03-24		4.70	1939-03-17		4.69
1939-03-10		4.73	1939-03-03		4.76
1939-02-24		4.72	1939-02-17		4.73
1939-02-10		4.74	1939-02-03		4.76
1939-01-27		4.78	1939-01-20		4.81
1939-01-13		4.83	1939-01-06		4.85
1938-12-30		4.88	1938-12-23		4.91
1938-12-16		4.91	1938-12-09		4.94
1938-12-02		4.95	1938-11-25		5.03
1938-11-18		5.01	1938-11-11		5.04
1938-11-04		5.09	1938-10-28		5.20
1938-10-21		5.30	1938-10-14		5.97
1938-10-07		5.19	1938-09-30		5.24
1938-09-23		5.27	1938-09-16		4.91
1938-09-09		4.41	1938-09-02		4.41
1938-08-26		4.42	1938-08-19		4.42
1938-08-12		4.40	1938-08-05		4.41
1938-07-29		4.41	1938-07-22		4.40
1938-07-15		4.41	1938-07-08		4.40
1938-07-01		4.42	1938-06-25		4.42
1938-06-18		4.43	1938-06-11		4.43
1938-06-04		4.46	1938-05-28		4.48
1938-05-21		4.60	1938-05-14		4.78
1938-05-07		4.79	1938-04-30		4.81
1938-04-23		4.87	1938-04-16		4.88
1938-04-09		5.12	1938-04-02		5.05
1938-03-26		4.65	1938-03-19		4.63
1938-03-12		4.63	1938-03-05		4.66
1938-02-26		4.67	1938-02-19		4.68
1938-02-04		4.72	1938-01-28		4.72
1938-01-21		4.74	1938-01-14		4.77
1938-01-07		4.81	1937-12-31		4.81
1937-12-24		4.86	1937-12-18		4.88
1937-12-11		4.87	1937-12-04		4.80
1937-11-27		4.76	1937-11-20		4.73
1937-11-13		4.40	1937-11-08		4.40

**8  
NW  
1/4 - 1/2 Mile  
Higher**

**FED USGS USGS2117852**

Agency cd:	USGS	Site no:	404314073572801
Site name:	K 50. 1		
Latitude:	404314		
Longitude:	0735728	Dec lat:	40.72065791
Dec lon:	-73.95736042	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1106	Map scale:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	16.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	157.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**C9  
WSW  
1/4 - 1/2 Mile  
Higher**

**FED USGS      USGS2118055**

Agency cd:	USGS	Site no:	404256073573401
Site name:	K 1303. 1		
Latitude:	404256		
Longitude:	0735734	Dec lat:	40.71565801
Dec lon:	-73.95902713	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1198	Map scale:	Not Reported
Altitude:	16.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	90.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported  
 Water quality data end date: Not Reported  
 Ground water data begin date: Not Reported  
 Ground water data count: Not Reported

Water quality data begin date: Not Reported  
 Water quality data count: Not Reported  
 Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

**B10**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS2117880**

Agency cd:	USGS	Site no:	404317073572501
Site name:	K 49. 1		
Latitude:	404317		
Longitude:	0735725	Dec lat:	40.72149123
Dec lon:	-73.95652706	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1106	Map scale:	Not Reported
Altitude:	18.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	333.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data count:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**C11**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS2118066**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	404257073573701
Site name:	K 2262. 1		
Latitude:	404257		
Longitude:	0735737	Dec lat:	40.71593578
Dec lon:	-73.95986048	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1198	Map scale:	Not Reported
Altitude:	8.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	61.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**12**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS2118298**

Agency cd:	USGS	Site no:	404238073571501
Site name:	K 672. 1		
Latitude:	404238		
Longitude:	0735715	Dec lat:	40.71065812
Dec lon:	-73.95374919	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1221	Map scale:	Not Reported
Altitude:	20.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	170.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**13  
ESE  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS2118022**

Agency cd:	USGS	Site no:	404253073563501
Site name:	K 678. 1		
Latitude:	404253		
Longitude:	0735635	Dec lat:	40.71482472
Dec lon:	-73.94263777	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1169	Map scale:	Not Reported
Altitude:	39.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	221.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**14**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118416**

Agency cd:	USGS	Site no:	404228073571801
Site name:	K 670. 1		
Latitude:	404228		
Longitude:	0735718	Dec lat:	40.70788039
Dec lon:	-73.95458255	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1212	Map scale:	Not Reported
Altitude:	30.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	165.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**15**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118249**

Agency cd:	USGS	Site no:	404233073564401
Site name:	K 715. 1		
Latitude:	404233		
Longitude:	0735644	Dec lat:	40.70926927
Dec lon:	-73.94513783	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1252	Map scale:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	36.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	120.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**16  
West  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS2118108**

Agency cd:	USGS	Site no:	404301073575301
Site name:	K 2591. 1		
Latitude:	404301		
Longitude:	0735753	Dec lat:	40.71704686
Dec lon:	-73.96430506	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1178	Map scale:	Not Reported
Altitude:	2.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	GLACIAL AQUIFER,UPPER		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: 0  
 Water quality data end date: 1983-09-20  
 Ground water data begin date: 0000-00-00  
 Ground water data count: 0

Water quality data begin date: 1981-04-13  
 Water quality data count: 2  
 Ground water data end date: 0000-00-00

Ground-water levels, Number of Measurements: 0

**D17  
 SE  
 1/2 - 1 Mile  
 Higher**

**FED USGS      USGS2118312**

Agency cd:	USGS	Site no:	404239073563301
Site name:	K 724. 1		
Latitude:	404239		
Longitude:	0735633	Dec lat:	40.71093591
Dec lon:	-73.94208219	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1271	Map scale:	Not Reported
Altitude:	48.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	137.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Peak flow data begin date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data count:	Not Reported	Peak flow data end date:	Not Reported
Water quality data end date:	Not Reported	Water quality data begin date:	Not Reported
Ground water data begin date:	Not Reported	Water quality data count:	Not Reported
Ground water data count:	Not Reported	Ground water data end date:	Not Reported

Ground-water levels, Number of Measurements: 0

**E18  
 NE  
 1/2 - 1 Mile  
 Higher**

**FED USGS      USGS2117797**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	404325073563508
Site name:	K 3260. 1		
Latitude:	404325		
Longitude:	0735635	Dec lat:	40.72371343
Dec lon:	-73.94263778	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1164	Map scale:	Not Reported
Altitude:	28.7		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	GLACIAL AQUIFER,UPPER		
Well depth:	23.	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0		
Daily flow data end date:	0000-00-00	Daily flow data begin date:	0000-00-00
Daily flow data count:	0		
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0		
Water quality data begin date:	1983-07-12	Water quality data begin date:	1981-02-12
Water quality data end date:	1980-04-11	Water quality data count:	2
Ground water data begin date:	1980-04-11	Ground water data end date:	2000-10-24
Ground water data count:	80		

Ground-water levels, Number of Measurements: 80

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2000-10-24		12.89	2000-09-27		12.26
2000-08-24		12.89	2000-07-27		13.11
2000-06-28		13.58	2000-05-23		13.47
2000-04-27		13.00	2000-03-22		12.58
2000-02-29		12.01	1999-12-13		12.83
1999-11-23		12.54	1999-10-19		12.73
1999-09-23		12.52	1999-08-17		11.99
1999-07-20		12.49	1999-06-24		12.86
1999-05-18		13.16	1999-04-28		13.32
1999-03-23		12.97	1999-03-02		12.05
1999-01-27		11.50	1998-11-24		11.33
1998-09-29		11.65	1998-09-01		12.13
1998-07-28		12.61	1998-05-28		13.04
1998-04-29		12.48	1998-03-24		12.86
1998-02-26		11.94	1998-01-26		10.65
1997-12-29		11.32	1997-11-26		10.69
1997-10-29		10.78	1997-09-29		11.75
1997-03-24		11.56	1996-07-12		10.24
1995-09-29		10.00	1995-06-22		9.94
1995-01-03		10.61	1994-06-28		10.89
1993-11-22		9.93	1993-08-25		10.16
1993-07-22		10.33	1993-06-22		10.58

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1993-05-24		10.71	1993-04-28		11.06
1993-03-26		10.29	1993-01-19		9.89
1992-12-28		9.63	1992-11-20		9.96
1992-10-27		9.50	1992-09-18		9.70
1992-08-24		10.04	1992-07-16		11.74
1992-06-23		9.74	1992-06-15		8.22
1985-10-01		10.36	1985-05-21		10.43
1984-12-28		11.59	1984-10-05		11.26
1984-06-27		11.69	1984-03-15		11.43
1984-01-05		11.29	1983-09-29		10.77
1983-06-29		10.29	1983-03-25		10.29
1982-12-20		10.10	1982-10-06		10.29
1982-07-01		10.38	1982-03-24		10.04
1981-12-30		8.94	1981-09-22		9.59
1981-06-24		9.84	1981-03-18		9.89
1981-02-12		9.83	1980-12-22		10.02
1980-09-23		10.89	1980-06-24		11.27
1980-06-10		11.36	1980-04-11		10.86

**E19  
NE  
1/2 - 1 Mile  
Higher**

**FED USGS USGS2117798**

Agency cd:	USGS	Site no:	404325073563509
Site name:	K 3260. 2		
Latitude:	404325		
Longitude:	0735635	Dec lat:	40.72371343
Dec lon:	-73.94263778	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	20010716
Date inventoried:	20010716	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Unconfined single aquifer		
Aquifer:	GLACIAL AQUIFER,UPPER		
Well depth:	42.6	Hole depth:	45.0
Source of depth data:	owner		
Project number:	443600240		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	2001-08-15
Water quality data end date:	2003-08-01	Water quality data count:	2
Ground water data begin date:	2001-07-24	Ground water data end date:	2005-02-15
Ground water data count:	39		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, Number of Measurements: 39

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2005-02-15		10.95	2005-01-21		11.05
2004-12-15		10.95	2004-11-23		10.98
2004-10-21		11.29	2004-09-21		11.21
2004-08-25		11.08	2004-07-19		10.93
2004-06-16		10.97	2004-05-25		11.13
2004-04-29		11.05	2004-02-25		10.87
2003-12-18		11.04	2003-11-25		10.91
2003-10-29		11.09	2003-09-24		11.24
2003-08-25		11.57	2003-07-21		12.54
2003-06-25		11.55	2003-05-19		11.08
2003-04-28		10.70	2003-01-28		10.66
2002-12-27		10.48	2002-11-26		10.28
2002-10-21		10.03	2002-09-25		9.74
2002-08-27		9.53	2002-07-22		9.75
2002-06-18		9.75	2002-05-29		9.71
2002-04-24		9.50	2002-02-27		9.70
2002-01-28		9.71	2001-12-28		9.87
2001-11-15		10.10	2001-10-24		10.26
2001-09-26		10.31	2001-08-29		10.43
2001-07-24		10.66			

**D20  
SE  
1/2 - 1 Mile  
Higher**

**FED USGS USGS2118311**

Agency cd:	USGS	Site no:	404239073563201
Site name:	K 1283. 1		
Latitude:	404239		
Longitude:	0735632	Dec lat:	40.71093591
Dec lon:	-73.94180441	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1271	Map scale:	Not Reported
Altitude:	45.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	240.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Peak flow data begin date:	Not Reported	Daily flow data count:	Not Reported
		Peak flow data end date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported  
 Water quality data end date: Not Reported  
 Ground water data begin date: Not Reported  
 Ground water data count: Not Reported

Water quality data begin date: Not Reported  
 Water quality data count: Not Reported  
 Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

**21**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2117728**

Agency cd:	USGS	Site no:	404321073562801
Site name:	K 679. 1		
Latitude:	404321		
Longitude:	0735628	Dec lat:	40.72260234
Dec lon:	-73.94069327	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1175	Map scale:	Not Reported
Altitude:	35.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	218.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Peak flow data begin date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data count:	Not Reported	Peak flow data end date:	Not Reported
Water quality data end date:	Not Reported	Water quality data begin date:	Not Reported
Ground water data begin date:	Not Reported	Water quality data count:	Not Reported
Ground water data count:	Not Reported	Ground water data end date:	Not Reported

Ground-water levels, Number of Measurements: 0

**22**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118401**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	404227073573001
Site name:	K 67. 1		
Latitude:	404227		
Longitude:	0735730	Dec lat:	40.70760261
Dec lon:	-73.95791597	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1203	Map scale:	Not Reported
Altitude:	47.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	GLACIAL AQUIFER,UPPER		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0		
Daily flow data end date:	0000-00-00	Daily flow data begin date:	0000-00-00
Daily flow data count:	0		
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0		
Water quality data begin date:	0000-00-00		
Water quality data end date:	0000-00-00		
Water quality data count:	0		
Ground water data begin date:	1937-11-08		
Ground water data end date:	1975-10-07		
Ground water data count:	475		

Ground-water levels, Number of Measurements: 475

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1975-10-07		13.99	1975-06-30		14.09
1975-03-26		15.35	1974-12-19		9.86
1974-09-04		9.70	1974-06-26		9.64
1974-03-19		9.89	1974-01-09		8.60
1973-10-02		10.47	1973-09-25		11.70
1973-07-09		4.20	1973-04-03		4.51
1972-12-27		4.38	1972-10-02		5.00
1972-07-10		4.90	1972-03-28		4.71
1972-01-13		4.63	1971-09-23		4.81
1971-03-08		6.91	1970-11-02		7.01
1970-03-13		4.41	1969-11-12		4.06
1969-09-03		3.48	1969-04-22		3.00
1968-11-06		2.61	1968-04-22		2.52
1967-10-20		2.07	1967-03-28		1.72
1966-10-24		1.29	1966-05-03		1.12
1965-10-27		1.02	1965-09-14		0.85
1965-05-03		0.89	1964-10-02		1.10
1964-04-23		1.15	1963-10-19		0.89
1963-04-29		1.18	1962-11-23		1.03
1962-04-26		-0.25	1961-12-28		-0.96
1961-10-02		-2.51	1961-06-28		-4.80
1961-03-28		-6.02	1960-12-27		-5.64

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1960-09-28		-3.96	1960-07-05		-2.45
1960-03-31		-0.96	1960-01-14		-1.24
1959-10-07		-1.05	1959-07-16		-1.34
1959-03-18		-1.14	1958-04-16		-2.07
1958-01-10		-2.02	1957-09-24		-2.67
1957-03-27		-1.90	1956-12-18		-1.57
1956-11-29		-1.52	1956-10-25		-1.45
1956-10-02		-1.15	1956-08-02		-0.67
1956-07-03		-0.34	1956-06-05		-0.35
1956-05-15		-0.44	1956-03-05		-1.05
1956-02-07		-1.17	1955-12-22		-1.36
1955-11-15		-1.89	1955-10-07		-2.36
1955-08-25		-3.01	1955-07-26		-3.37
1955-06-23		-3.46	1955-05-25		-3.49
1955-04-26		-3.64	1955-03-28		-3.89
1955-02-21		-4.20	1955-01-25		-4.29
1954-12-27		-4.60	1954-12-02		-4.73
1954-08-25		-5.63	1954-07-29		-5.70
1954-06-29		-5.50	1954-05-27		-5.26
1954-04-28		-5.10	1954-03-30		-5.00
1954-02-25		-4.83	1954-01-28		-4.82
1953-12-23		-4.80	1953-12-02		-4.80
1953-10-28		-5.00	1953-10-02		-5.39
1953-08-28		-5.82	1953-08-03		-6.07
1953-06-24		-6.31	1953-05-25		-6.51
1953-04-27		-6.88	1953-03-24		-7.38
1953-02-27		-7.71	1953-02-05		-8.10
1952-12-23		-8.77	1952-12-05		-8.99
1952-11-03		-9.45	1952-09-22		-10.08
1952-08-25		-10.52	1952-07-23		-10.92
1952-06-24		-11.04	1952-05-27		-11.28
1952-04-29		-11.60	1952-03-24		-12.02
1952-02-20		-12.48	1952-01-29		-12.74
1951-12-20		-13.14	1951-11-28		-13.42
1951-11-02		-13.69	1951-09-26		-14.15
1951-08-28		-14.33	1951-07-26		-14.38
1951-06-28		-14.42	1951-05-29		-14.38
1951-05-02		-14.49	1951-03-27		-14.80
1951-02-26		-14.94	1951-01-30		-15.10
1950-12-20		-15.31	1950-11-28		-15.40
1950-10-31		-15.55	1950-09-27		-15.80
1950-08-29		-16.10	1950-07-27		-16.05
1950-06-29		-15.88	1950-06-05		-15.58
1950-04-27		-15.63	1950-03-29		-15.65
1950-03-01		-15.70	1950-01-26		-15.80
1949-12-28		-16.00	1949-11-28		-16.15
1949-10-31		-16.29	1949-09-28		-16.54
1949-08-31		-16.98	1949-07-28		-17.06
1949-06-30		-17.15	1949-06-01		-16.97
1949-04-28		-17.18	1949-04-05		-17.32
1949-02-21		-17.65	1949-01-27		-17.82
1948-12-28		-18.04	1948-12-09		-18.25
1948-11-04		-18.32	1948-10-04		-18.80
1948-08-30		-18.97	1948-07-26		-19.32
1948-06-30		-19.22	1948-06-01		-19.32

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1948-04-27		-19.68	1947-12-16		-20.05
1947-11-26		-20.13	1947-11-20		-20.14
1947-10-31		-20.30	1947-10-14		-20.34
1947-10-07		-20.41	1947-09-30		-20.48
1947-09-15		-20.91	1947-08-27		-20.84
1947-08-13		-20.80	1947-07-30		-20.80
1947-07-23		-20.80	1947-07-16		-20.68
1947-07-07		-20.57	1947-07-02		-20.53
1947-07-01		-20.50	1947-06-24		-20.47
1947-05-27		-20.30	1947-05-07		-20.17
1947-04-04		-20.10	1947-03-05		-20.00
1947-01-24		-19.86	1946-12-27		-19.83
1946-11-26		-19.75	1946-10-22		-19.90
1946-09-26		-20.14	1946-09-16		-20.10
1946-07-26		-19.90	1946-07-01		-19.69
1946-06-10		-19.50	1946-05-10		-19.42
1946-04-12		-19.44	1946-03-18		-19.46
1946-02-15		-19.58	1946-01-08		-19.55
1945-12-04		-19.64	1945-11-06		-19.64
1945-09-28		-19.70	1945-09-12		-19.84
1945-08-08		-19.73	1945-07-03		-19.53
1945-06-04		-19.17	1945-04-27		-19.30
1945-04-04		-19.40	1945-03-03		-19.35
1945-01-02		-19.38	1944-12-06		-19.77
1944-10-28		-19.29	1944-10-04		-19.39
1944-09-02		-19.57	1944-07-31		-19.52
1944-07-05		-19.24	1944-05-27		-19.17
1944-05-05		-19.16	1944-03-30		-19.01
1944-02-26		-18.94	1944-01-29		-18.87
1944-01-01		-18.97	1943-11-27		-18.99
1943-10-30		-18.98	1943-09-25		-19.12
1943-08-28		-19.18	1943-07-31		-19.22
1943-06-26		-19.19	1943-05-29		-19.20
1943-05-01		-19.25	1943-03-27		-19.28
1943-02-27		-19.27	1943-01-30		-19.27
1943-01-02		-19.30	1942-12-26		-19.26
1942-12-12		-19.15	1942-12-05		-19.15
1942-11-28		-19.14	1942-11-21		-19.13
1942-11-14		-19.11	1942-11-07		-19.13
1942-10-31		-19.13	1942-10-24		-19.15
1942-10-17		-19.16	1942-10-10		-19.16
1942-09-26		-19.17	1942-09-19		-19.18
1942-09-12		-19.18	1942-09-05		-19.19
1942-08-29		-19.22	1942-08-22		-19.25
1942-08-15		-19.39	1942-08-08		-19.31
1942-08-01		-19.34	1942-07-25		-19.38
1942-07-18		-19.42	1942-07-11		-19.48
1942-07-04		-19.55	1942-06-27		-19.62
1942-06-20		-19.71	1942-06-13		-19.80
1942-06-06		-19.88	1942-05-30		-19.93
1942-05-23		-19.95	1942-05-16		-19.99
1942-05-09		-20.04	1942-05-02		-20.08
1942-04-25		-20.11	1942-04-18		-20.14
1942-04-11		-20.15	1942-04-04		-20.16
1942-03-28		-20.21	1942-03-21		-20.24

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1942-03-14		-20.24	1942-03-07		-20.26
1942-02-28		-20.30	1942-02-21		-20.30
1942-02-14		-20.35	1942-02-07		-20.37
1942-01-31		-20.46	1942-01-24		-20.49
1942-01-17		-20.52	1942-01-10		-20.55
1942-01-03		-20.59	1941-12-27		-20.61
1941-12-20		-20.63	1941-12-13		-20.66
1941-12-06		-20.69	1941-11-29		-20.71
1941-11-22		-20.74	1941-11-15		-20.74
1941-11-08		-20.74	1941-11-01		-20.74
1941-10-25		-20.74	1941-10-18		-20.74
1941-10-11		-20.75	1941-10-04		-20.74
1941-09-27		-20.74	1941-09-20		-20.73
1941-09-13		-20.73	1941-09-06		-20.73
1941-08-30		-20.71	1941-08-23		-20.69
1941-08-16		-20.69	1941-08-09		-20.67
1941-08-02		-20.67	1941-07-26		-20.64
1941-07-19		-20.62	1941-07-12		-20.60
1941-07-05		-20.58	1941-06-28		-20.56
1941-06-21		-20.54	1941-06-14		-20.52
1941-06-07		-20.50	1941-05-31		-20.49
1941-05-24		-20.48	1941-05-17		-20.45
1941-05-10		-20.45	1941-05-03		-20.45
1941-04-26		-20.41	1941-04-19		-20.41
1941-04-12		-20.38	1941-04-05		-20.37
1941-03-29		-20.35	1941-03-22		-20.35
1941-03-15		-20.33	1941-03-08		-20.31
1941-03-01		-20.31	1941-02-22		-20.31
1941-02-15		-20.32	1941-02-08		-20.35
1941-02-01		-20.30	1941-01-25		-20.30
1941-01-18		-20.29	1941-01-11		-20.28
1941-01-04		-20.28	1940-12-28		-20.28
1940-12-21		-20.26	1940-12-14		-20.27
1940-12-07		-20.25	1940-11-30		-20.25
1940-11-23		-20.22	1940-11-16		-20.21
1940-11-09		-20.21	1940-11-02		-20.22
1940-10-26		-20.22	1940-10-19		-20.21
1940-10-12		-20.20	1940-10-05		-20.19
1940-09-28		-20.19	1940-09-21		-20.14
1940-09-14		-20.13	1940-09-07		-20.10
1940-08-31		-20.07	1940-08-24		-20.05
1940-08-17		-20.03	1940-08-10		-20.02
1940-08-03		-19.99	1940-07-27		-19.99
1940-07-20		-19.98	1940-07-13		-19.97
1940-07-06		-19.96	1940-06-29		-19.91
1940-06-22		-19.92	1940-06-15		-19.91
1940-06-08		-19.88	1940-06-01		-19.91
1940-05-25		-19.90	1940-05-18		-19.87
1940-05-11		-19.85	1940-05-04		-19.87
1940-04-27		-19.84	1940-04-20		-19.80
1940-04-13		-19.82	1940-04-06		-19.78
1940-03-30		-19.81	1940-03-23		-19.80
1940-03-16		-19.79	1940-03-09		-19.78
1940-03-02		-19.73	1940-02-24		-19.69
1940-02-17		-19.72	1940-02-10		-19.74

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1940-02-03		-19.73	1940-01-27		-19.71
1940-01-20		-19.71	1940-01-13		-19.71
1940-01-06		-19.72	1939-12-30		-19.72
1939-12-23		-19.74	1939-12-16		-19.70
1939-12-09		-19.67	1939-12-02		-19.66
1939-11-25		-19.67	1939-11-18		-19.65
1939-11-11		-19.66	1939-11-04		-19.67
1939-10-28		-19.63	1939-10-21		-19.62
1939-10-14		-19.54	1939-10-07		-19.63
1939-09-30		-19.57	1939-09-23		-19.63
1939-09-16		-19.47	1939-09-08		-19.43
1939-09-01		-19.34	1939-08-25		-19.29
1939-08-18		-19.23	1939-08-11		-19.10
1939-08-04		-19.08	1939-07-28		-19.13
1939-07-21		-19.00	1939-07-14		-18.86
1939-07-07		-18.85	1939-06-30		-18.65
1939-06-23		-18.65	1939-06-16		-18.63
1939-06-09		-18.61	1939-06-02		-18.63
1939-05-26		-18.63	1939-05-19		-18.62
1939-05-12		-18.65	1939-05-05		-18.63
1939-04-28		-18.64	1939-04-21		-18.64
1939-04-08		-18.63	1939-03-31		-18.73
1939-03-24		-18.73	1939-03-17		-18.73
1939-03-10		-18.73	1939-02-24		-18.75
1939-02-17		-18.70	1939-02-10		-18.72
1939-02-03		-18.78	1939-01-27		-18.82
1939-01-13		-18.85	1939-01-06		-18.90
1938-12-30		-18.90	1938-12-16		-18.90
1938-12-09		-18.89	1938-11-25		-18.93
1938-11-18		-18.89	1938-11-11		-18.90
1938-11-04		-18.89	1938-10-28		-18.88
1938-10-21		-18.85	1938-10-14		-18.86
1938-10-07		-18.86	1938-09-30		-18.85
1938-09-16		-18.91	1938-09-09		-18.87
1938-09-02		-18.90	1938-08-19		-18.83
1938-08-12		-18.83	1938-08-05		-18.78
1938-07-29		-18.76	1938-07-22		-18.75
1938-07-01		-18.71	1938-06-25		-18.69
1938-04-23		-18.57	1938-04-16		-18.55
1938-04-09		-18.51	1938-04-02		-18.51
1938-03-26		-18.49	1938-03-19		-18.55
1938-03-12		-18.58	1938-03-05		-18.60
1938-02-26		-18.65	1938-02-19		-18.64
1938-02-12		-18.67	1938-02-04		-18.65
1938-01-28		-18.66	1938-01-21		-18.64
1938-01-14		-18.67	1938-01-07		-18.66
1937-12-31		-18.68	1937-12-24		-18.66
1937-12-18		-18.56	1937-12-11		-18.63
1937-12-04		-18.62	1937-11-27		-18.61
1937-11-20		-18.56	1937-11-13		-18.60
1937-11-08		-18.60			

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**23**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118356**

Agency cd:	USGS	Site no:	404223073571601
Site name:	K 717. 1		
Latitude:	404223		
Longitude:	0735716	Dec lat:	40.70649153
Dec lon:	-73.95402697	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1213	Map scale:	Not Reported
Altitude:	45.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	202.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**24**  
**WNW**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS2117862**

Agency cd:	USGS	Site no:	404315073575701
Site name:	K 688. 1		
Latitude:	404315		
Longitude:	0735757	Dec lat:	40.72093567
Dec lon:	-73.9654162	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1166	Map scale:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	1		
Altitude datum:	Not Reported		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	111.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**25  
SW  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS2118278**

Agency cd:	USGS	Site no:	404236073574601
Site name:	K 1301. 1		
Latitude:	404235		
Longitude:	0735748	Dec lat:	40.70982478
Dec lon:	-73.96291612	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1272	Map scale:	Not Reported
Altitude:	52.5		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	GLACIAL AQUIFER,UPPER		
Well depth:	92.	Hole depth:	101.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: 0  
 Water quality data end date: 0000-00-00  
 Ground water data begin date: 1961-01-19  
 Ground water data count: 232

Water quality data begin date: 0000-00-00  
 Water quality data count: 0  
 Ground water data end date: 2005-02-15

Ground-water levels, Number of Measurements: 232

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2005-02-15		4.47	2004-11-23		4.03
2004-10-21		3.94	2004-09-21		2.83
2004-04-29		2.83	2003-12-18		3.89
2003-11-25		4.20	2003-10-29		4.08
2003-09-24		2.80	2003-08-25		3.00
2003-07-21		3.08	2003-05-19		3.62
2003-04-28		4.17	2003-02-27		4.37
2003-01-28		4.37	2002-12-27		4.42
2002-11-26		4.42	2002-10-21		4.21
2002-09-25		4.05	2002-08-30		3.99
2002-07-22		4.04	2002-06-18		3.93
2002-05-29		3.89	2002-03-22		4.18
2002-02-27		4.20	2002-01-28		4.20
2001-12-28		4.29	2001-10-24		4.10
2001-09-26		4.16	2001-08-29		4.09
2001-07-24		4.04	2001-05-24		4.03
2001-04-25		4.11	2001-02-22		4.19
2001-01-17		4.17	2000-11-28		4.27
2000-10-24		4.33	2000-09-27		4.09
2000-07-27		4.23	2000-06-28		4.10
2000-05-23		4.12	2000-03-22		4.07
2000-02-29		4.11	1999-12-13		4.27
1999-11-23		4.29	1999-10-19		4.24
1999-09-23		4.07	1999-08-17		3.87
1999-07-20		3.94	1999-06-24		3.92
1999-05-18		4.06	1999-04-28		4.14
1999-03-02		4.14	1999-01-27		4.08
1998-11-24		4.15	1998-07-28		4.15
1998-06-10		4.25	1998-04-29		4.48
1998-03-31		4.47	1997-11-05		4.32
1997-09-29		4.03	1997-07-23		4.01
1997-06-26		4.04	1997-05-29		3.97
1997-02-28		5.36	1997-01-24		5.42
1997-01-07		4.56	1996-09-19		4.14
1996-07-02		4.17	1996-03-13		4.40
1996-01-23		4.37	1995-11-28		3.70
1995-09-26		4.10	1995-07-19		3.99
1995-05-23		3.51	1995-03-14		4.24
1995-01-25		4.29	1994-12-13		4.31
1994-10-18		4.39	1994-09-21		4.04
1994-08-24		4.15	1994-07-27		4.17
1994-06-20		4.09	1994-05-17		4.56
1994-04-26		4.56	1994-03-25		4.57
1994-02-22		4.38	1994-02-02		4.43
1993-12-27		4.33	1993-11-18		4.40
1993-10-28		4.49	1993-09-15		4.06
1993-08-18		4.07	1993-07-15		4.08
1993-06-22		4.08	1993-05-20		4.11
1993-04-29		4.59	1993-01-26		4.46
1992-12-29		4.50	1992-11-24		4.38

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1992-10-28		4.35	1992-09-16		4.11
1992-08-25		4.06	1992-07-15		3.97
1992-06-23		3.87	1992-05-12		4.17
1992-04-14		4.16	1992-03-18		4.13
1992-02-19		4.24	1992-01-22		4.23
1991-12-18		4.35	1991-11-14		4.41
1991-10-16		4.55	1991-09-17		3.63
1991-08-15		4.34	1991-07-16		4.38
1991-06-12		3.67	1991-05-15		3.40
1991-04-15		4.39	1991-03-20		4.62
1991-02-21		4.44	1991-01-24		4.68
1990-12-10		2.99	1990-11-13		3.60
1990-10-10		3.23	1990-09-12		4.60
1990-08-14		4.61	1990-06-20		4.27
1990-05-25		4.20	1990-04-24		4.38
1990-04-04		4.45	1990-02-26		4.32
1990-01-24		4.46	1989-12-28		4.51
1989-11-21		3.87	1989-10-27		3.51
1989-09-29		2.44	1989-08-31		4.74
1989-07-25		4.68	1989-06-22		4.50
1989-05-22		4.31	1989-04-28		4.15
1989-03-29		0.54	1989-02-28		1.24
1989-01-17		2.37	1988-12-09		4.46
1988-11-16		4.39	1988-10-19		4.50
1988-09-14		4.67	1988-08-31		1.27
1988-07-22		4.21	1988-06-17		4.17
1988-06-01		4.42	1987-09-10		4.30
1987-03-10		2.95	1986-09-10		4.00
1986-06-13		2.74	1986-03-11		3.81
1985-12-03		4.38	1985-10-03		4.20
1985-05-21		4.05	1984-12-18		1.82
1984-10-05		2.37	1984-06-28		2.67
1984-03-16		4.91	1984-01-05		5.97
1983-09-29		5.09	1983-06-29		5.47
1983-03-25		5.33	1982-12-21		4.68
1982-10-06		4.37	1982-06-30		5.07
1982-04-02		4.60	1981-12-29		2.47
1981-09-23		4.72	1981-06-24		4.10
1981-03-20		4.97	1980-12-30		4.67
1980-09-23		4.59	1980-06-19		4.42
1980-03-13		4.55	1979-12-18		5.80
1979-09-17		4.09	1979-06-28		3.87
1979-03-26		4.95	1978-12-22		4.57
1978-10-02		6.08	1978-06-23		5.26
1978-04-04		5.37	1978-01-03		5.05
1977-09-23		3.77	1977-07-06		4.61
1977-03-28		4.47	1976-12-22		4.27
1976-09-23		4.48	1976-06-28		3.38
1976-03-23		4.18	1975-12-16		4.37
1975-10-07		4.60	1975-06-30		4.09
1975-03-26		4.40	1974-12-19		4.69
1974-09-04		3.20	1974-06-26		4.48
1974-03-19		4.40	1974-01-09		4.57
1973-09-24		4.09	1973-07-09		4.28
1973-04-03		4.47	1972-12-27		3.58

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1972-09-29		3.84	1972-07-10		3.58
1972-03-28		4.95	1972-01-13		4.84
1971-10-12		4.67	1969-09-03		3.29
1969-04-22		2.95	1968-11-06		2.77
1968-04-22		2.77	1967-10-20		1.64
1967-03-28		2.11	1966-10-24		1.72
1966-05-03		1.49	1965-10-28		1.65
1965-09-14		1.43	1965-05-03		1.69
1964-10-30		1.65	1964-04-23		1.61
1963-04-29		1.43	1962-04-26		0.67
1961-12-28		-0.62	1961-01-19		-7.72

**F26  
SE  
1/2 - 1 Mile  
Higher**

**FED USGS USGS2118415**

Agency cd:	USGS	Site no:	404228073563901
Site name:	K 2533. 1		
Latitude:	404228		
Longitude:	0735639	Dec lat:	40.70788041
Dec lon:	-73.9437489	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1262	Map scale:	Not Reported
Altitude:	30.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	92.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**27**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118444**

Agency cd:	USGS	Site no:	404231073563301
Site name:	K 426. 1		
Latitude:	404231		
Longitude:	0735633	Dec lat:	40.70871373
Dec lon:	-73.94208219	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1272	Map scale:	Not Reported
Altitude:	38.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	140.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**F28**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118395**

Agency cd:	USGS	Site no:	404226073564101
Site name:	K 637. 1		
Latitude:	404226		
Longitude:	0735641	Dec lat:	40.70732486
Dec lon:	-73.94430447	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1263	Map scale:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	35.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	212.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**29  
West  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS2118023**

Agency cd:	USGS	Site no:	404253073580201
Site name:	K 458. 1		
Latitude:	404253		
Longitude:	0735802	Dec lat:	40.71482468
Dec lon:	-73.96680512	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1169	Map scale:	Not Reported
Altitude:	5.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	1053.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported  
 Water quality data end date: Not Reported  
 Ground water data begin date: Not Reported  
 Ground water data count: Not Reported

Water quality data begin date: Not Reported  
 Water quality data count: Not Reported  
 Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

**30**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118090**

Agency cd:	USGS	Site no:	404300073561301
Site name:	K 677. 1		
Latitude:	404300		
Longitude:	0735613	Dec lat:	40.71676913
Dec lon:	-73.93652648	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1198	Map scale:	Not Reported
Altitude:	19.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	215.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Peak flow data begin date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data count:	Not Reported	Peak flow data end date:	Not Reported
Water quality data end date:	Not Reported	Water quality data begin date:	Not Reported
Ground water data begin date:	Not Reported	Water quality data count:	Not Reported
Ground water data count:	Not Reported	Ground water data end date:	Not Reported

Ground-water levels, Number of Measurements: 0

**G31**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118426**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	404229073562301
Site name:	K 1490. 1		
Latitude:	404229		
Longitude:	0735623	Dec lat:	40.70815819
Dec lon:	-73.93930433	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1282	Map scale:	Not Reported
Altitude:	35.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	135.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**32**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118514**

Agency cd:	USGS	Site no:	404217073573301
Site name:	K 666. 1		
Latitude:	404217		
Longitude:	0735733	Dec lat:	40.70482489
Dec lon:	-73.95874933	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1294	Map scale:	Not Reported
Altitude:	55.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	214.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**G33**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118414**

Agency cd:	USGS	Site no:	404228073562301
Site name:	K 37. 1		
Latitude:	404228		
Longitude:	0735623	Dec lat:	40.70788041
Dec lon:	-73.93930433	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1282	Map scale:	Not Reported
Altitude:	25.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	130.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**34**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2118289**

Agency cd:	USGS	Site no:	404237073561201
Site name:	K 889. 1		
Latitude:	404237		
Longitude:	0735610	Dec lat:	40.71038037
Dec lon:	-73.93569312	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1291	Map scale:	Not Reported
Altitude:	21.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	0.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	GLACIAL AQUIFER,UPPER		
Well depth:	74.	Hole depth:	74.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1945-06-04	Ground water data end date:	1985-10-01
Ground water data count:	265		

Ground-water levels, Number of Measurements: 265

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1985-10-01		3.53	1985-05-21		4.48
1984-12-18		4.95	1984-10-05		5.16
1984-06-27		5.47	1984-03-15		5.13
1984-01-05		5.76	1983-09-29		4.96
1983-06-29		4.59	1983-03-25		3.96
1982-12-21		3.69	1982-10-06		3.86
1982-06-30		3.96	1982-04-02		4.19
1981-12-29		4.01	1981-09-23		4.10
1981-06-24		4.28	1981-03-18		5.36
1980-12-30		3.96	1980-09-23		5.06
1980-06-24		5.14	1980-03-13		4.02
1979-12-18		4.92	1979-09-17		4.57
1979-06-28		4.07	1979-03-26		5.46
1978-12-22		5.11	1978-10-02		5.94
1978-06-23		3.93	1978-04-04		4.06

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1978-01-03		4.29	1977-09-22		3.81
1977-07-07		3.33	1977-03-29		2.60
1976-12-22		2.81	1976-09-23		3.25
1976-07-09		3.97	1976-06-28		3.21
1976-03-23		3.02	1975-12-16		3.17
1975-10-07		3.10	1975-06-30		2.80
1975-03-26		2.67	1974-12-19		1.99
1974-09-04		2.44	1974-06-26		2.58
1974-03-19		2.36	1974-01-09		2.26
1973-09-24		1.86	1973-07-02		2.22
1973-04-03		0.97	1972-12-27		1.70
1972-10-02		1.57	1972-07-10		1.94
1972-03-28		0.27	1972-01-13		0.44
1971-09-27		0.57	1971-03-08		1.08
1970-11-02		1.02	1970-03-13		1.52
1969-11-12		0.49	1969-09-05		0.24
1969-04-23		-0.34	1968-11-06		-3.34
1968-04-22		0.46	1967-10-20		-0.01
1967-03-28		-0.64	1966-10-24		-2.53
1966-05-03		-0.64	1965-10-28		-1.85
1965-09-14		-2.21	1964-10-30		-1.79
1964-04-27		-0.19	1963-11-05		-1.31
1963-04-29		-0.13	1962-12-04		-0.88
1962-04-26		-0.54	1961-12-28		-1.92
1961-10-02		-2.45	1961-03-28		-3.06
1960-12-27		-3.44	1960-09-28		-4.38
1960-07-05		-4.23	1960-03-31		-4.56
1960-01-14		-4.97	1959-10-07		-5.06
1959-07-17		-4.44	1959-03-18		-4.96
1958-01-10		-4.06	1957-09-24		-4.44
1957-06-27		-3.61	1957-03-27		-3.58
1956-12-18		-3.19	1956-11-29		-3.09
1956-10-25		-3.01	1956-10-02		-3.06
1956-08-02		-3.00	1956-07-11		-2.95
1956-06-05		-3.05	1956-05-15		-3.26
1956-03-05		-3.53	1956-02-03		-3.69
1955-12-22		-3.74	1955-11-15		-4.04
1955-10-07		-4.61	1955-08-25		-4.74
1955-07-27		-4.72	1955-06-23		-4.43
1955-04-26		-4.91	1955-03-29		-5.07
1955-02-25		-5.33	1955-01-25		-5.34
1954-12-27		-5.61	1954-06-29		-6.25
1954-05-27		-6.72	1954-04-28		-6.79
1954-03-30		-6.87	1954-02-25		-7.02
1954-01-28		-7.19	1953-12-23		-7.15
1953-12-02		-7.25	1953-10-02		-7.61
1953-08-03		-7.45	1953-06-23		-7.47
1953-05-25		-7.91	1953-04-27		-8.26
1953-03-24		-8.82	1953-02-27		-9.10
1953-02-05		-9.37	1952-12-24		-10.14
1952-12-05		-10.54	1952-11-03		-11.13
1952-08-25		-12.22	1952-07-25		-12.62
1952-06-24		-13.11	1952-05-27		-13.84
1952-04-29		-14.33	1952-03-24		-15.09
1952-02-20		-15.88	1952-01-29		-16.33

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1951-12-20		-16.98	1951-11-28		-17.37
1951-11-02		-17.86	1951-09-26		-18.29
1951-08-28		-18.53	1951-07-26		-18.97
1951-06-28		-19.39	1951-05-29		-19.79
1951-05-02		-20.22	1951-03-27		-20.97
1951-02-26		-21.64	1951-01-30		-22.36
1950-12-20		-24.01	1950-11-28		-24.60
1950-10-31		-24.76	1950-09-27		-24.78
1950-08-29		-24.63	1950-07-27		-24.48
1950-06-29		-24.52	1950-06-05		-24.63
1950-04-27		-24.97	1950-03-29		-24.90
1950-03-01		-25.44	1950-01-26		-25.69
1949-12-28		-25.78	1949-11-28		-25.76
1949-10-31		-25.53	1949-09-28		-25.59
1949-08-31		-25.62	1949-07-28		-25.72
1949-06-30		-25.89	1949-06-01		-26.02
1949-04-28		-26.14	1949-04-05		-26.39
1949-02-23		-27.08	1949-01-27		-27.47
1948-12-28		-27.87	1948-12-14		-28.03
1948-11-04		-28.60	1948-10-06		-28.94
1948-08-30		-29.46	1948-07-26		-30.22
1948-06-30		-30.77	1948-06-02		-31.35
1948-04-27		-32.12	1948-03-26		-32.84
1948-03-02		-33.43	1948-02-03		-34.37
1948-01-07		-35.55	1947-12-17		-35.93
1947-11-26		-36.76	1947-11-20		-36.87
1947-10-31		-37.15	1947-10-14		-37.22
1947-10-07		-37.17	1947-09-30		-37.13
1947-09-16		-37.00	1947-08-27		-36.56
1947-08-13		-36.15	1947-07-30		-35.58
1947-07-23		-35.29	1947-07-16		-35.21
1947-07-07		-35.95	1947-07-02		-36.46
1947-07-01		-36.32	1947-06-30		-36.69
1947-06-24		-37.12	1947-06-20		-37.16
1947-06-13		-37.06	1947-06-06		-36.95
1947-05-29		-36.78	1947-05-23		-36.63
1947-05-17		-36.47	1947-05-16		-36.41
1947-05-10		-35.93	1947-05-03		-35.89
1947-04-26		-35.43	1947-04-19		-35.17
1947-04-18		-35.09	1947-03-29		-33.64
1947-03-22		-33.32	1947-03-08		-34.08
1947-03-01		-35.65	1947-02-22		-36.06
1947-02-15		-36.93	1947-02-08		-37.58
1947-02-01		-38.31	1947-01-25		-39.01
1947-01-18		-37.73	1947-01-10		-37.61
1946-10-19		-31.90	1946-10-12		-27.83
1946-10-05		-20.51	1946-09-23		-36.25
1946-09-16		-37.75	1946-08-30		-38.35
1946-08-19		-38.17	1946-07-30		-37.69
1946-07-08		-37.25	1946-06-10		-36.63
1946-05-27		-36.17	1946-05-20		-35.97
1946-05-13		-35.55	1946-05-06		-35.32
1946-04-29		-35.07	1946-04-22		-35.31
1946-04-15		-35.44	1946-04-08		-35.56
1946-04-01		-35.67	1946-03-25		-35.66

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1946-03-18		-35.80	1946-03-11		-35.79
1946-03-04		-35.75	1946-02-25		-35.66
1946-02-18		-35.67	1946-02-11		-35.61
1946-01-08		-35.07	1945-12-03		-34.78
1945-11-06		-34.30	1945-09-28		-33.23
1945-09-12		-32.54	1945-08-08		-30.12
1945-07-23		-30.27	1945-07-03		-30.41
1945-06-04		-30.46			

**35**  
**WSW**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS USGS2118332**

Agency cd:	USGS	Site no:	404241073581001
Site name:	K 686. 1		
Latitude:	404241		
Longitude:	0735810	Dec lat:	40.71149141
Dec lon:	-73.96902741	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KD1251	Map scale:	Not Reported
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	1		
Altitude datum:	Not Reported		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	146.
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data count:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**H36**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS2118660**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	404209073570908
Site name:	K 65. 1		
Latitude:	404209		
Longitude:	0735709	Dec lat:	40.70260272
Dec lon:	-73.95208247	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1225	Map scale:	Not Reported
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	GLACIAL AQUIFER,UPPER		
Well depth:	59.	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0		
Daily flow data end date:	0000-00-00	Daily flow data begin date:	0000-00-00
Daily flow data count:	0		
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0		
Water quality data begin date:	0000-00-00		
Water quality data end date:	0000-00-00		
Water quality data count:	0		
Ground water data begin date:	1937-11-08		
Ground water data end date:	1968-11-06		
Ground water data count:	468		

Ground-water levels, Number of Measurements: 468

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1968-11-06		0.65	1967-10-20		0.51
1966-10-24		5.43	1966-05-03		-0.40
1965-10-27		-0.59	1965-09-14		-0.71
1965-05-03		6.73	1964-10-30		-1.63
1964-04-23		-0.90	1963-10-19		-1.07
1963-04-29		-0.68	1962-11-09		-0.71
1962-04-26		-0.70	1961-12-27		-1.75
1961-10-02		-2.95	1961-06-29		-3.94
1960-09-28		-2.66	1960-07-05		-3.44
1960-03-30		-3.13	1960-01-14		-2.56
1959-10-07		-3.82	1959-07-16		-3.40
1959-03-18		-2.75	1958-01-10		-4.35
1957-09-24		-4.66	1957-06-27		-4.47
1957-03-27		-4.08	1956-12-18		-3.97
1956-11-29		-3.93	1956-10-25		-3.90
1956-10-02		-3.73	1956-08-02		-3.44
1956-07-03		-3.89	1956-06-05		-3.79
1956-05-15		-3.39	1956-03-05		-3.44
1956-02-07		-3.93	1955-12-22		-4.25
1955-11-15		-4.60	1955-10-07		-5.48
1955-07-26		-5.49	1955-06-23		-5.20
1955-05-25		-5.22	1955-04-26		-5.09

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1955-03-29		-5.63	1955-02-21		-5.60
1955-01-25		-5.77	1954-12-27		-6.03
1954-12-02		-6.27	1954-10-28		-6.53
1954-10-05		-6.63	1954-08-25		-6.82
1954-07-29		-6.99	1954-06-29		-6.85
1954-05-27		-6.78	1954-04-28		-6.56
1954-03-30		-6.57	1954-02-25		-6.36
1954-01-28		-6.33	1953-12-23		-6.26
1953-12-02		-6.25	1953-10-28		-6.58
1953-10-02		-6.93	1953-08-28		-6.51
1953-08-03		-7.14	1953-06-24		-7.58
1953-05-25		-7.91	1953-04-27		-7.81
1953-02-27		-9.00	1953-02-05		-9.57
1952-12-18		-10.41	1952-11-03		-11.24
1952-09-22		-11.98	1952-08-25		-12.18
1952-07-23		-12.75	1952-06-24		-12.99
1952-05-27		-13.34	1952-04-29		-13.64
1952-03-24		-14.18	1952-02-20		-14.88
1952-01-29		-14.67	1951-12-20		-15.96
1951-11-28		-16.21	1951-11-02		-16.49
1951-09-26		-17.06	1951-08-28		-17.20
1951-07-26		-17.23	1951-06-28		-17.32
1951-05-29		-17.51	1951-05-02		-17.80
1951-03-27		-18.22	1951-02-26		-18.21
1951-01-30		-18.55	1950-12-20		-18.96
1950-11-28		-18.95	1950-10-31		-19.20
1950-09-27		-19.43	1950-08-29		-19.27
1950-07-27		-19.13	1950-06-29		-19.19
1950-06-05		-18.95	1950-04-27		-19.09
1950-03-29		-19.03	1950-03-01		-19.20
1950-01-26		-19.43	1949-12-28		-19.61
1949-11-28		-19.89	1949-10-31		-19.90
1949-09-28		-20.13	1949-08-31		-20.33
1949-07-28		-20.50	1949-06-30		-20.74
1949-06-01		-20.78	1949-04-28		-21.18
1949-04-05		-21.42	1949-02-21		-22.00
1949-01-27		-22.17	1948-12-28		-22.46
1948-12-09		-22.77	1948-11-04		-22.89
1948-10-04		-23.16	1948-08-30		-23.18
1948-07-23		-23.50	1948-06-30		-23.67
1948-06-02		-23.92	1948-04-27		-24.29
1948-03-26		-24.62	1948-03-02		-24.74
1948-02-03		-24.96	1948-01-07		-25.10
1947-12-16		-25.56	1947-11-26		-25.53
1947-11-20		-25.52	1947-10-31		-25.66
1947-10-14		-25.69	1947-10-07		-25.75
1947-09-30		-25.72	1947-09-15		-25.83
1947-08-27		-25.80	1947-08-13		-25.73
1947-07-30		-25.90	1947-07-23		-25.93
1947-07-16		-25.70	1947-07-07		-25.71
1947-07-02		-25.76	1947-07-01		-25.71
1947-06-30		-25.73	1947-06-24		-25.65
1947-05-27		-25.71	1947-05-07		-25.71
1947-04-04		-25.70	1947-03-05		-25.47
1947-01-24		-25.32	1946-12-27		-25.40

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1946-11-26		-25.26	1946-10-22		-25.27
1946-09-26		-25.19	1946-08-30		-25.13
1946-07-26		-24.90	1946-07-01		-24.69
1946-06-10		-24.57	1946-05-10		-24.52
1946-04-12		-24.62	1946-03-18		-24.66
1946-02-15		-24.86	1946-01-08		-25.12
1945-12-04		-25.27	1945-11-06		-25.40
1945-09-28		-25.27	1945-09-12		-25.19
1945-08-08		-25.10	1945-07-03		-25.01
1945-06-04		-24.81	1945-04-27		-24.78
1945-04-04		-24.87	1945-03-03		-24.74
1945-02-06		-24.85	1945-01-02		-25.06
1944-12-06		-25.06	1944-10-28		-25.12
1944-10-04		-25.19	1944-09-02		-25.23
1944-07-31		-25.14	1944-07-01		-24.97
1944-06-03		-24.70	1944-05-05		-24.81
1944-03-30		-24.56	1944-02-26		-24.76
1944-01-29		-24.66	1944-01-01		-24.80
1943-11-27		-25.11	1943-10-30		-25.40
1943-09-25		-25.48	1943-08-28		-25.44
1943-07-31		-25.53	1943-06-26		-25.58
1943-05-29		-25.61	1943-05-01		-25.66
1943-03-27		-25.68	1943-02-27		-25.78
1943-01-30		-25.88	1943-01-02		-25.73
1942-12-26		-25.91	1942-12-19		-26.15
1942-12-12		-26.01	1942-12-05		-26.14
1942-11-28		-26.03	1942-11-21		-26.07
1942-11-14		-26.08	1942-11-07		-26.02
1942-10-31		-25.92	1942-10-24		-26.02
1942-10-17		-25.89	1942-10-10		-25.94
1942-10-03		-25.91	1942-09-26		-25.90
1942-09-19		-25.80	1942-09-12		-25.77
1942-09-04		-25.79	1942-08-29		-25.71
1942-08-22		-25.58	1942-08-15		-25.60
1942-08-08		-25.52	1942-08-01		-25.69
1942-07-25		-25.78	1942-07-18		-25.66
1942-07-11		-25.73	1942-07-04		-25.93
1942-06-27		-25.99	1942-06-20		-26.02
1942-06-13		-26.08	1942-06-06		-26.13
1942-05-30		-26.14	1942-05-23		-26.17
1942-05-16		-26.25	1942-05-09		-26.33
1942-05-02		-26.36	1942-04-25		-26.40
1942-04-18		-26.37	1942-04-11		-26.36
1942-04-04		-26.46	1942-03-28		-26.49
1942-03-21		-26.54	1942-03-14		-26.51
1942-03-07		-26.73	1942-02-28		-26.60
1942-02-21		-26.57	1942-02-14		-26.58
1942-02-07		-26.47	1942-01-31		-26.61
1942-01-24		-26.72	1942-01-17		-26.85
1942-01-10		-26.65	1942-01-03		-26.85
1941-12-27		-26.75	1941-12-20		-26.90
1941-12-13		-26.85	1941-12-06		-26.97
1941-11-29		-27.04	1941-11-22		-26.97
1941-11-15		-27.04	1941-11-08		-27.11
1941-11-01		-26.98	1941-10-25		-27.03

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1941-10-18		-27.03	1941-10-11		-27.04
1941-10-04		-26.89	1941-09-27		-26.99
1941-09-20		-26.95	1941-09-13		-26.95
1941-09-06		-26.80	1941-08-30		-26.85
1941-08-23		-26.80	1941-08-16		-26.72
1941-08-09		-26.66	1941-08-02		-26.74
1941-07-26		-26.65	1941-07-19		-26.60
1941-07-12		-26.61	1941-07-05		-26.60
1941-06-28		-26.59	1941-06-21		-26.58
1941-06-14		-26.45	1941-06-07		-26.58
1941-05-31		-26.46	1941-05-24		-26.47
1941-05-17		-26.41	1941-05-10		-26.45
1941-05-03		-26.46	1941-04-26		-26.37
1941-04-19		-26.36	1941-04-12		-26.37
1941-04-05		-26.24	1941-03-29		-26.25
1941-03-22		-26.31	1941-03-15		-26.26
1941-03-08		-25.99	1941-03-01		-26.16
1941-02-22		-26.21	1941-02-15		-26.15
1941-02-08		-26.17	1941-02-01		-26.29
1941-01-25		-26.22	1941-01-18		-26.25
1941-01-11		-26.20	1941-01-04		-26.03
1940-12-28		-26.13	1940-12-21		-26.21
1940-12-14		-26.32	1940-12-07		-26.16
1940-11-30		-26.23	1940-11-23		-26.17
1940-11-16		-26.16	1940-11-09		-26.23
1940-11-02		-26.06	1940-10-26		-26.13
1940-10-19		-26.13	1940-10-12		-26.06
1940-10-05		-26.09	1940-09-28		-26.01
1940-09-21		-25.90	1940-09-14		-25.92
1940-09-07		-25.81	1940-08-31		-25.76
1940-08-24		-25.78	1940-08-17		-25.66
1940-08-10		-25.50	1940-08-03		-25.75
1940-07-27		-25.74	1940-07-20		-25.68
1940-07-13		-25.66	1940-07-06		-25.52
1940-06-29		-25.60	1940-06-22		-25.65
1940-06-15		-25.56	1940-06-08		-25.57
1940-05-29		-25.58	1940-05-25		-25.55
1940-05-18		-25.52	1940-05-11		-25.51
1940-05-04		-25.46	1940-04-27		-25.51
1940-04-20		-25.41	1940-04-13		-25.38
1940-04-06		-25.58	1940-03-30		-25.53
1940-03-23		-25.60	1940-03-16		-25.60
1940-03-09		-25.61	1940-03-02		-25.67
1940-02-24		-25.61	1940-02-17		-25.66
1940-02-10		-25.59	1940-02-03		-25.68
1940-01-27		-25.69	1940-01-20		-25.70
1940-01-13		-25.73	1940-01-06		-25.68
1939-12-30		-25.57	1939-12-23		-25.91
1939-12-16		-25.76	1939-12-09		-25.84
1939-12-02		-25.67	1939-11-25		-25.75
1939-11-18		-25.71	1939-11-11		-25.70
1939-11-04		-25.81	1939-10-28		-25.99
1939-10-21		-25.79	1939-10-14		-25.71
1939-10-07		-25.89	1939-09-30		-25.94
1939-09-23		-26.08	1939-09-15		-26.30

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1939-09-08		-26.63	1939-09-01		-27.89
1939-08-25		-28.34	1939-08-18		-28.25
1939-08-11		-28.20	1939-08-04		-28.12
1939-07-28		-28.02	1939-07-21		-27.94
1939-07-14		-27.67	1939-07-07		-27.59
1939-06-30		-27.30	1939-06-23		-27.00
1939-06-16		-26.52	1939-06-09		-25.65
1939-06-02		-24.41	1939-05-26		-24.46
1939-05-19		-24.42	1939-05-12		-24.51
1939-05-05		-24.44	1939-04-28		-24.49
1939-04-21		-24.52	1939-04-15		-24.35
1939-03-31		-24.41	1939-03-24		-24.40
1939-03-17		-24.51	1939-03-10		-24.49
1939-03-03		-24.49	1939-02-24		-24.36
1939-02-17		-24.45	1939-02-10		-24.43
1939-02-03		-24.44	1939-01-27		-24.64
1939-01-20		-24.68	1939-01-13		-24.65
1939-01-06		-24.55	1938-12-30		-24.63
1938-12-23		-24.81	1938-12-16		-24.86
1938-12-09		-24.78	1938-12-02		-24.91
1938-11-25		-24.86	1938-11-18		-24.86
1938-11-11		-24.76	1938-11-04		-24.86
1938-10-28		-24.86	1938-10-21		-24.76
1938-10-14		-24.70	1938-10-07		-24.75
1938-09-30		-24.45	1938-09-23		-24.66
1938-09-16		-24.93	1938-09-09		-24.85
1938-09-02		-24.84	1938-08-26		-24.81
1938-08-19		-24.81	1938-08-12		-24.78
1938-08-05		-24.60	1938-07-29		-24.64
1938-07-22		-24.70	1938-07-15		-24.64
1938-07-08		-24.60	1938-07-01		-24.59
1938-06-28		-24.52	1938-06-21		-24.46
1938-06-14		-24.51	1938-06-07		-24.36
1938-05-21		-24.44	1938-05-14		-24.42
1938-05-07		-24.40	1938-04-30		-24.39
1938-04-23		-24.48	1938-04-16		-24.52
1938-04-09		-24.01	1938-04-02		-24.39
1938-03-26		-24.23	1938-03-19		-24.41
1938-03-12		-24.31	1938-03-05		-24.20
1938-02-26		-24.48	1938-02-19		-24.52
1938-02-04		-24.61	1938-01-28		-24.74
1938-01-21		-24.66	1938-01-14		-24.71
1938-01-07		-24.48	1937-12-31		-24.66
1937-12-24		-24.76	1937-12-18		-24.65
1937-12-11		-24.86	1937-12-04		-24.84
1937-11-27		-24.88	1937-11-20		-24.89
1937-11-13		-25.12	1937-11-08		-24.94

H37  
South  
1/2 - 1 Mile  
Higher

FED USGS USGS2118659

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	404209073570601
Site name:	K 29. 1		
Latitude:	404209		
Longitude:	0735706	Dec lat:	40.70260272
Dec lon:	-73.95124911	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	047
Country:	US	Land net:	Not Reported
Location map:	KE1235	Map scale:	Not Reported
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Northern Long Island. New York. Area = 915 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	78.	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0		
Daily flow data end date:	0000-00-00	Daily flow data begin date:	0000-00-00
Daily flow data count:	0		
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0		
Water quality data begin date:	0000-00-00	Water quality data end date:	0000-00-00
Water quality data count:	0		
Ground water data begin date:	1937-11-08	Ground water data end date:	1939-03-24
Ground water data count:	66		

Ground-water levels, Number of Measurements: 66

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1939-03-24		-24.57	1939-03-12		-24.72
1939-03-10		-24.62	1939-03-03		-24.59
1939-02-24		-24.54	1939-02-17		-24.52
1939-02-10		-24.50	1939-02-03		-24.54
1939-01-27		-24.80	1939-01-20		-24.78
1939-01-13		-24.68	1939-01-06		-24.70
1938-12-30		-24.76	1938-12-23		-24.88
1938-12-16		-24.94	1938-12-02		-25.00
1938-11-25		-24.97	1938-11-18		-24.89
1938-11-11		-24.69	1938-11-04		-24.89
1938-10-28		-24.88	1938-10-21		-24.85
1938-10-14		-24.85	1938-10-07		-24.77
1938-09-30		-24.67	1938-09-16		-25.10
1938-09-09		-24.94	1938-09-02		-24.96
1938-08-26		-24.86	1938-08-19		-24.93
1938-08-12		-24.89	1938-08-05		-24.83
1938-07-22		-24.84	1938-07-15		-24.79
1938-07-08		-24.61	1938-07-01		-24.63
1938-06-11		-24.41	1938-06-04		-24.43
1938-05-28		-24.40	1938-05-21		-24.46
1938-05-07		-24.34	1938-04-30		-24.37
1938-04-23		-24.43	1938-04-16		-24.47

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1938-04-09		-23.90	1938-03-26		-24.07
1938-03-19		-24.32	1938-03-12		-24.18
1938-03-05		-24.09	1938-02-26		-24.48
1938-02-19		-24.59	1938-02-12		-24.44
1938-02-04		-24.76	1938-01-28		-24.88
1938-01-21		-24.73	1938-01-14		-24.82
1938-01-07		-24.65	1937-12-31		-24.78
1937-12-24		-24.75	1937-12-18		-24.63
1937-12-11		-24.90	1937-12-04		-24.89
1937-11-27		-24.89	1937-11-20		-24.88
1937-11-13		-24.63	1937-11-08		-24.81

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction \_\_\_\_\_ Database \_\_\_\_\_ EDR ID Number \_\_\_\_\_  
 Distance \_\_\_\_\_

**SSW**  
**1/2 - 1 Mile**

**OIL\_GAS**      **NYO1000022**

Api wellno:	31061236030000		
Cnty:	New York		
Hole:	23603	Sidetrck:	0
Completion:	0		
Well nm:	MPP - 5		
Coname:	New York City Dept. of Environmental Protection		
Opno:	2127		
Dt approv:	Not Reported	Dt spud:	Not Reported
Dt comp:	Not Reported		
Well typ:	Stratigraphic		
Dtd:	645		
WI status:	PA		
Town:	Manhattan	Field:	Not Applicable
Prodform:	Not Applicable		
Xloc:	-73.95824		
Yloc:	40.70885		
Confid:	Released		
Wellst:	Other Well Plugged		
Quad:	Jersey City	Quadsec:	C
Deepestfor:	None Specified	Elevation:	19
Dt mod:	Not Reported	Site id:	NYO1000022

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for KINGS County: 3

Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level  $\geq$  2 pCi/L and  $\leq$  4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for KINGS COUNTY, NY

Number of sites tested: 51

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.750 pCi/L	100%	0%	0%
Basement	1.370 pCi/L	88%	10%	2%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### **Scanned Digital USGS 7.5' Topographic Map (DRG)**

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

### **State Wetlands Data: Freshwater Wetlands**

Source: Department of Environmental Conservation

Telephone: 518-402-8961

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### **SSURGO: Soil Survey Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### **PWS:** Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF:** Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells:** USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### **New York Public Water Wells**

Source: New York Department of Health

Telephone: 518-458-6731

#### **Oil and Gas Well Database**

Department of Environmental Conservation

Telephone: 518-402-8056

These files contain records, in the database, of wells that have been drilled.

## OTHER STATE DATABASE INFORMATION

### RADON

#### **State Database: NY Radon**

Source: Department of Health

Telephone: 518-402-7556

Radon Test Results

#### **Area Radon Information**

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### **EPA Radon Zones**

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### **Airport Landing Facilities:** Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### **Epicenters:** World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STREET AND ADDRESS INFORMATION

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# **APPENDIX D**

## **Supplemental Information**

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**EDR**<sup>®</sup> Environmental  
Data Resources Inc

## **The EDR Aerial Photo Decade Package**

**Industrial Building  
544 Union Avenue  
Brooklyn, NY 11211**

**Inquiry Number: 1908261.5**

**April 23, 2007**

## **The Standard in Environmental Risk Information**

**440 Wheelers Farms Road  
Milford, Connecticut 06461**

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

# EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDRs professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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**Date EDR Searched Historical Sources:**

Aerial Photography April 23, 2007

**Target Property:**

544 Union Avenue

Brooklyn, NY 11211

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1954	Aerial Photograph. Scale: 1"=750'	Panel #: 2440073-F8/Flight Date: February 23, 1954	EDR
1966	Aerial Photograph. Scale: 1"=750'	Panel #: 2440073-F8/Flight Date: February 23, 1966	EDR
1975	Aerial Photograph. Scale: 1"=750'	Panel #: 2440073-F8/Flight Date: April 01, 1975	EDR
1984	Aerial Photograph. Scale: 1"=750'	Panel #: 2440073-F8/Flight Date: April 27, 1984	EDR
1994	Aerial Photograph. Scale: 1"=833'	Panel #: 2440073-F8/Flight Date: April 04, 1994	EDR



INQUIRY #: 1908261.5

YEAR: 1954

| = 750'





INQUIRY #: 1908261.5

YEAR: 1966

| = 750'



**INQUIRY #:** 1908261.5  
**YEAR:** 1975  
| = 750'





**INQUIRY #:** 1908261.5

**YEAR:** 1984

— = 750'





INQUIRY #: 1908261.5

YEAR: 1994

| = 833'



EDR Incorporated  
Map Services™



**EDR**® Environmental  
Data Resources Inc

# **EDR Historical Topographic Map Report**

**Industrial Building  
544 Union Avenue  
Brooklyn, NY 11211**

**Inquiry Number: 1908261.4**

**April 23, 2007**

## **The Standard in Environmental Risk Information**

**440 Wheelers Farms Rd  
Milford, Connecticut 06461**

### **Nationwide Customer Service**

**Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)**

# EDR Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

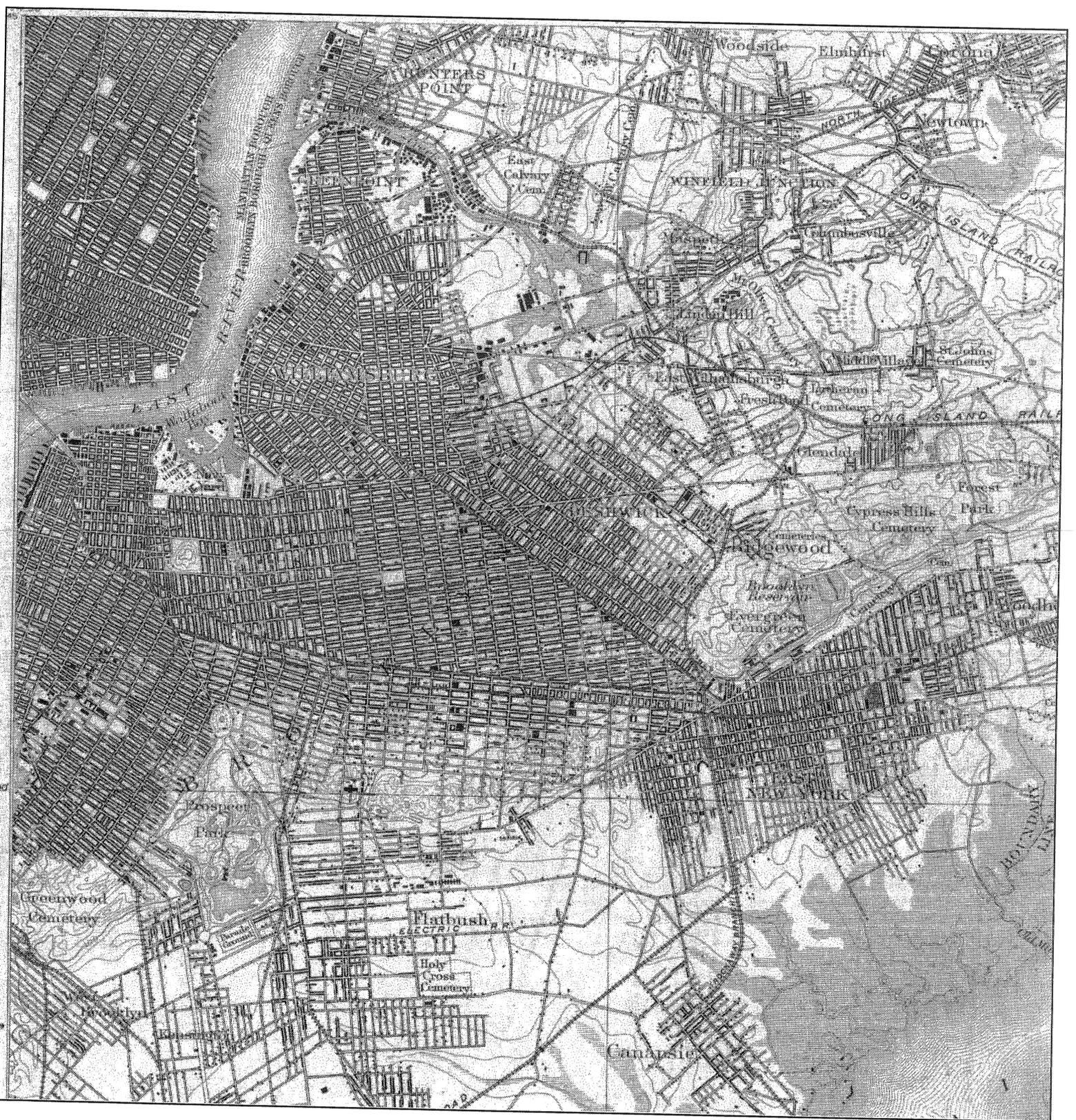
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# Historical Topographic Map



N ↑	TARGET QUAD NAME: BROOKLYN MAP YEAR: 1900	SITE NAME: Industrial Building ADDRESS: 544 Union Avenue Brooklyn, NY 11211	CLIENT: CA Rich Consultants, Inc. CONTACT: Deborah Shapiro INQUIRY#: 1908261.4
	SERIES: 15 SCALE: 1:62500	LAT/LONG: 40.717 / 73.952	RESEARCH DATE: 04/23/2007

# Historical Topographic Map



TARGET QUAD  
NAME: BROOKLYN  
MAP YEAR: 1947

SERIES: 7.5  
SCALE: 1:25000

SITE NAME: Industrial Building  
ADDRESS: 544 Union Avenue  
Brooklyn, NY 11211  
LAT/LONG: 40.717 / 73.952

CLIENT: CA Rich Consultants, Inc.  
CONTACT: Deborah Shapiro  
INQUIRY#: 1908261.4  
RESEARCH DATE: 04/23/2007

# Historical Topographic Map



	TARGET QUAD NAME: BROOKLYN MAP YEAR: 1956	SITE NAME: Industrial Building ADDRESS: 544 Union Avenue Brooklyn, NY 11211 LAT/LONG: 40.717 / 73.952	CLIENT: CA Rich Consultants, Inc. CONTACT: Deborah Shapiro INQUIRY#: 1908261.4 RESEARCH DATE: 04/23/2007
	SERIES: 7.5 SCALE: 1:24000		

# Historical Topographic Map



<p>N</p>	<p>TARGET QUAD NAME: BROOKLYN MAP YEAR: 1967</p>	<p>SITE NAME: Industrial Building ADDRESS: 544 Union Avenue Brooklyn, NY 11211 LAT/LONG: 40.717 / 73.952</p>	<p>CLIENT: CA Rich Consultants, Inc. CONTACT: Deborah Shapiro INQUIRY#: 1908261.4 RESEARCH DATE: 04/23/2007</p>
	<p>SERIES: 7.5 SCALE: 1:24000</p>		

# Historical Topographic Map

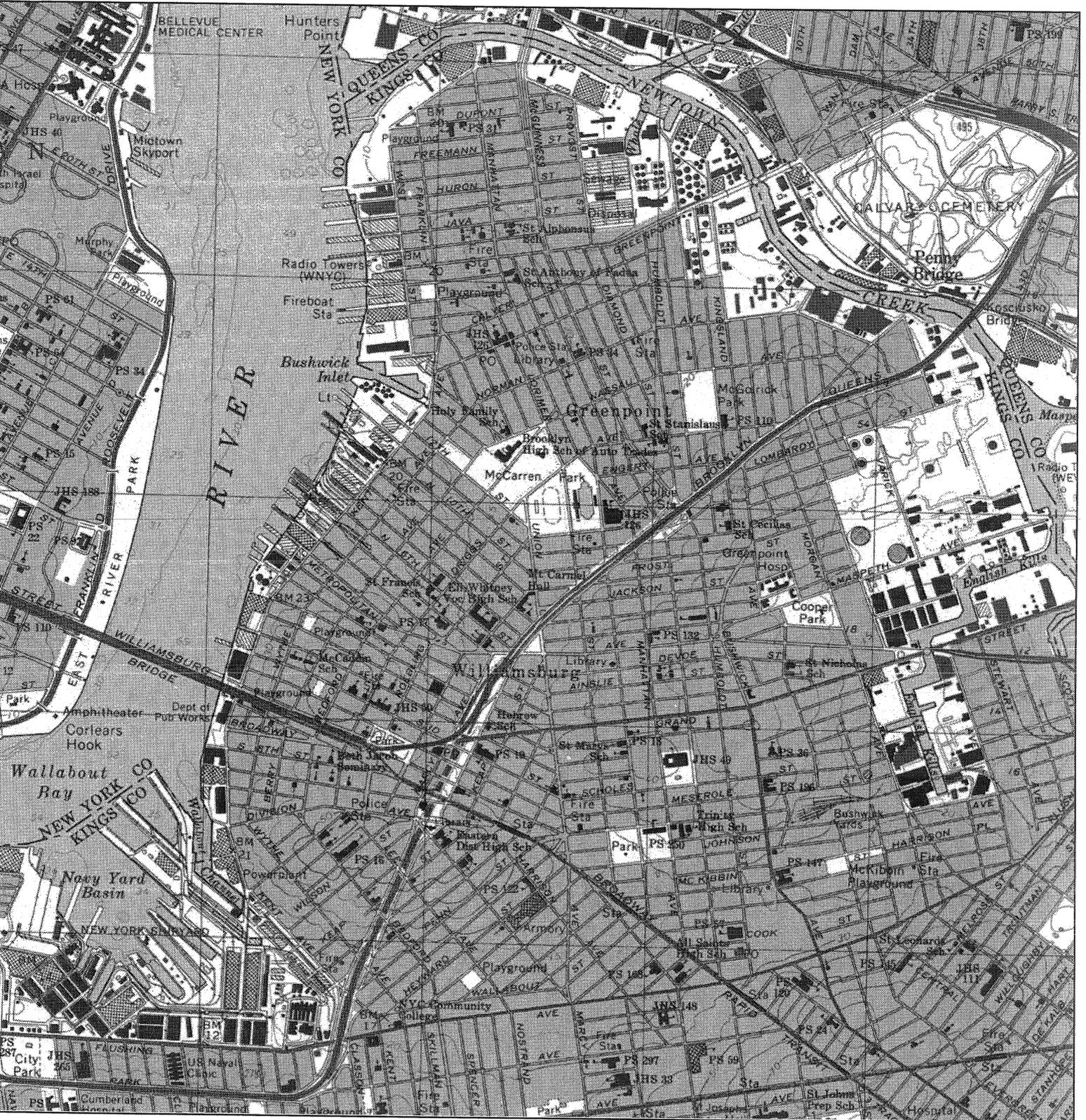


TARGET QUAD  
 NAME: BROOKLYN  
 MAP YEAR: 1979  
 PHOTOREVISED FROM: 1967  
 SERIES: 7.5  
 SCALE: 1:24000

SITE NAME: Industrial Building  
 ADDRESS: 544 Union Avenue  
 Brooklyn, NY 11211  
 LAT/LONG: 40.717 / 73.952

CLIENT: CA Rich Consultants, Inc.  
 CONTACT: Deborah Shapiro  
 INQUIRY#: 1908261.4  
 RESEARCH DATE: 04/23/2007

# Historical Topographic Map



	TARGET QUAD NAME: BROOKLYN MAP YEAR: 1995	SITE NAME: Industrial Building ADDRESS: 544 Union Avenue Brooklyn, NY 11211 LAT/LONG: 40.717 / 73.952	CLIENT: CA Rich Consultants, Inc. CONTACT: Deborah Shapiro INQUIRY#: 1908261.4 RESEARCH DATE: 04/23/2007
	SERIES: 7.5 SCALE: 1:24000		



"Linking Technology with Tradition"®

## Sanborn® Map Transmittal

**Ship To:** Deborah Shapiro  
CA Rich Consultants, Inc.  
17 Dupont Street  
Plainview, NY 11803

**Order Date:** 4/20/2007 **Completion Date:** 4/23/2007  
**Inquiry #:** 1908261.3s  
**P.O. #:** 544 Union Owner  
**Site Name:** Industrial Building

**Address:** 544 Union Avenue  
**City/State:** Brooklyn, NY 11211  
**Cross Streets:**

**Customer Project:** NA  
1019894MIL 516-576-8844

Based on client-supplied information, fire insurance maps for the following years were identified

1887 - 1 Map	1980 - 1 Map	1991 - 1 Map
1905 - 1 Map	1981 - 1 Map	1992 - 1 Map
1916 - 1 Map	1982 - 1 Map	1993 - 1 Map
1942 - 1 Map	1983 - 1 Map	1996 - 1 Map
1951 - 1 Map	1986 - 1 Map	
1965 - 1 Map	1987 - 1 Map	
1978 - 1 Map	1988 - 1 Map	
1979 - 1 Map	1989 - 1 Map	

**Limited Permission to Photocopy**

**Total Maps: 20**

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## USER'S GUIDE

This User's Guide provides guidelines for accessing Sanborn Map® images and for transferring them to your Word Processor.

### Reading Sanborn Maps

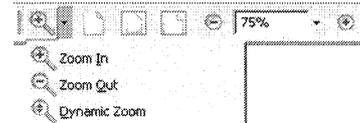
- Sanborn Maps document historical property use by displaying property information through words, abbreviations, and map symbols. The Sanborn Map Key provides information to help interpret the symbols and abbreviations used on Sanborn Maps. The Key is available from EDR's Web Site at: <http://www.edrnet.com/reports/samples/key.pdf>

### Organization of Electronic Sanborn Image File

- Sanborn Map Report, listing years of coverage
- User's Guide
- Oldest Sanborn Map Image
- Most recent Sanborn Map Image

### Navigating the Electronic Sanborn Image File

1. Open file on screen.
2. Identify TP (Target Property) on the most recent map.
3. Find TP on older printed images.
4. Using Acrobat® Reader®, zoom to 250% in order to view more clearly. (200-250% is the approximate equivalent scale of hardcopy Sanborn Maps.)
  - A. On the menu bar, click "View" and then "Zoom to..."
  - B. Or, use the magnifying tool and drag a box around the TP



### Printing a Sanborn Map From the Electronic File

- EDR recommends printing images at 300 dpi (300 dpi prints faster than 600 dpi)
- To print only the TP area, cut and paste from Acrobat to your word processor application.

#### Acrobat Versions 6 and 7

1. Go to the menu bar
2. Click the "Select Tool"
3. Draw a box around the area selected
4. "Right click" on your mouse
5. Select "Copy Image to Clipboard"
6. Go to Word Processor such as Microsoft Word, paste and print.



#### Acrobat Version 5

1. Go to the menu bar
2. Click the "Graphics Select Tool"
3. Draw a box around the area selected
4. Go to "Menu"
5. Highlight "Edit"
6. Highlight "Copy"
7. Go to Word Processor such as Microsoft Word, paste and print.



### Important Information about Email Delivery of Electronic Sanborn Map Images

- Images are grouped into one file, up to 2MB.
- In cases where in excess of 6-7 map years are available, the file size typically exceeds 2MB. In these cases, you will receive multiple files, labeled as "1 of 3", "2 of 3", etc. including all available map years.
- Due to file size limitations, certain ISPs, including AOL, may occasionally delay or decline to deliver files. Please contact your ISP to identify their specific file size limitations.

108

107

110

STREET

AVENUE

STREET

STREET

STREET

STREET

STREET

109

SKILLMAN

CONSELYEA

N. SECOND

DEVOE

AINSLIE

AVENUE

105

109

KEAP

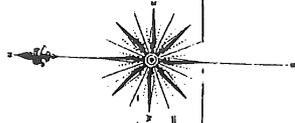
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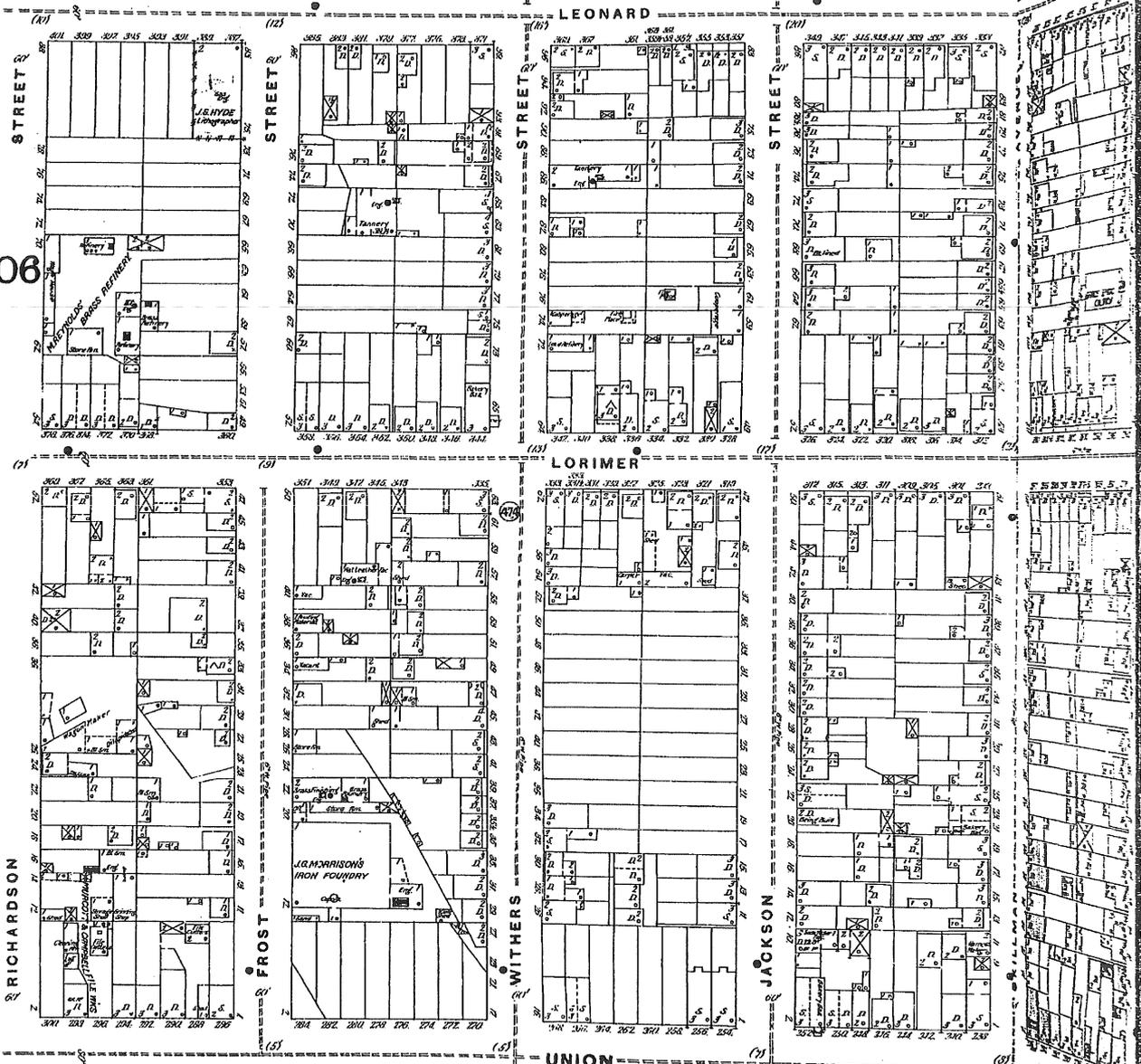
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107

106



106

105

N. 107th St.

N. 105th St.

N. 106th St.

St. Michael's

28

18

24

25

30

27

VE.

ST.

ST.

ST.

WITHERS

UNION

LORIMER

N. 102<sup>ND</sup> ST.

ST.

FROST

LEONARD

N. 112<sup>ND</sup> ST.

ST.

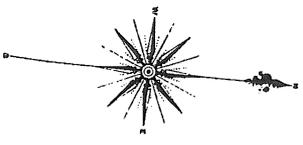
RICHARDSON

AVE.

ST.

ST.

BAYARD



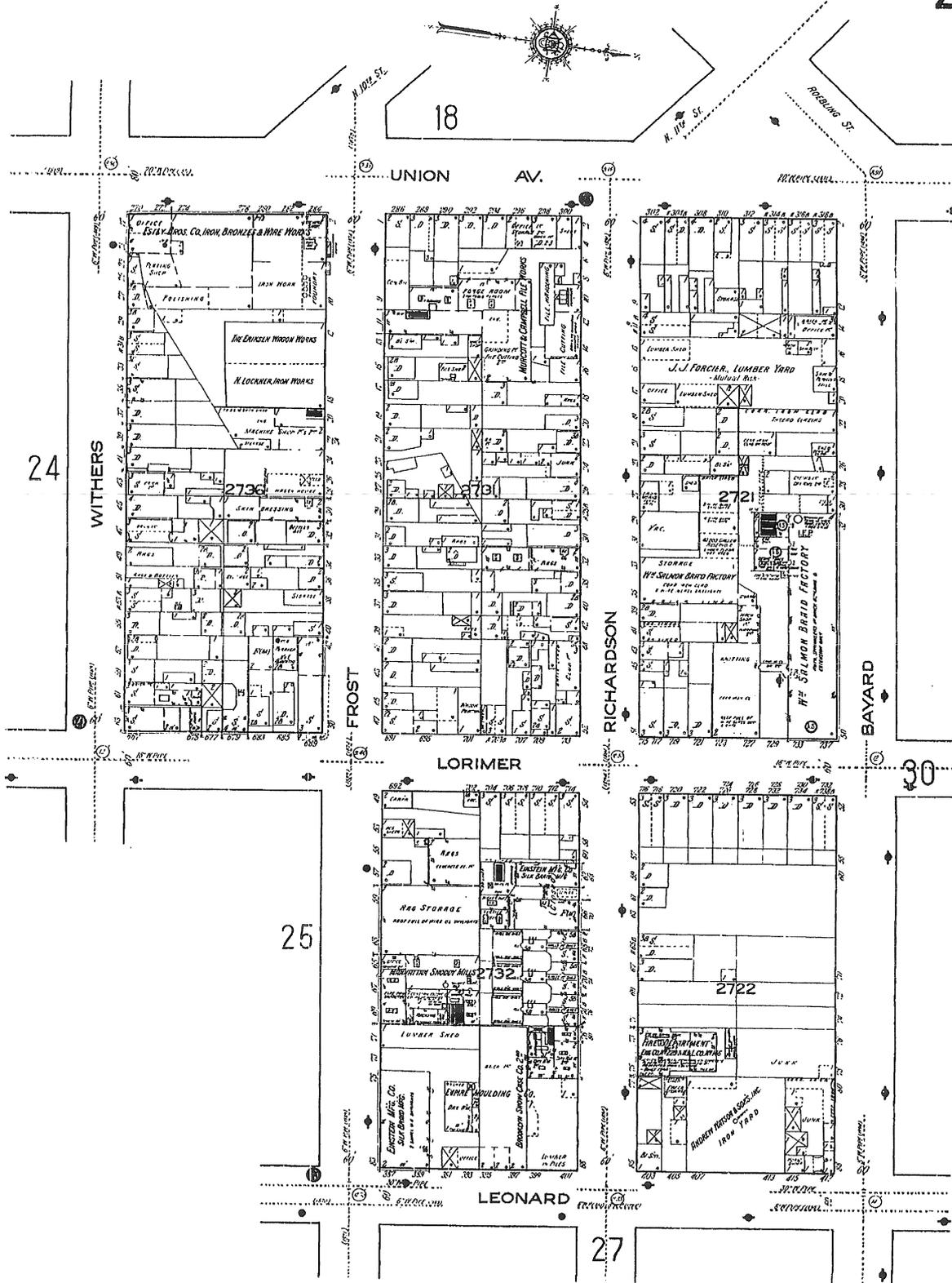
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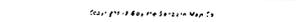
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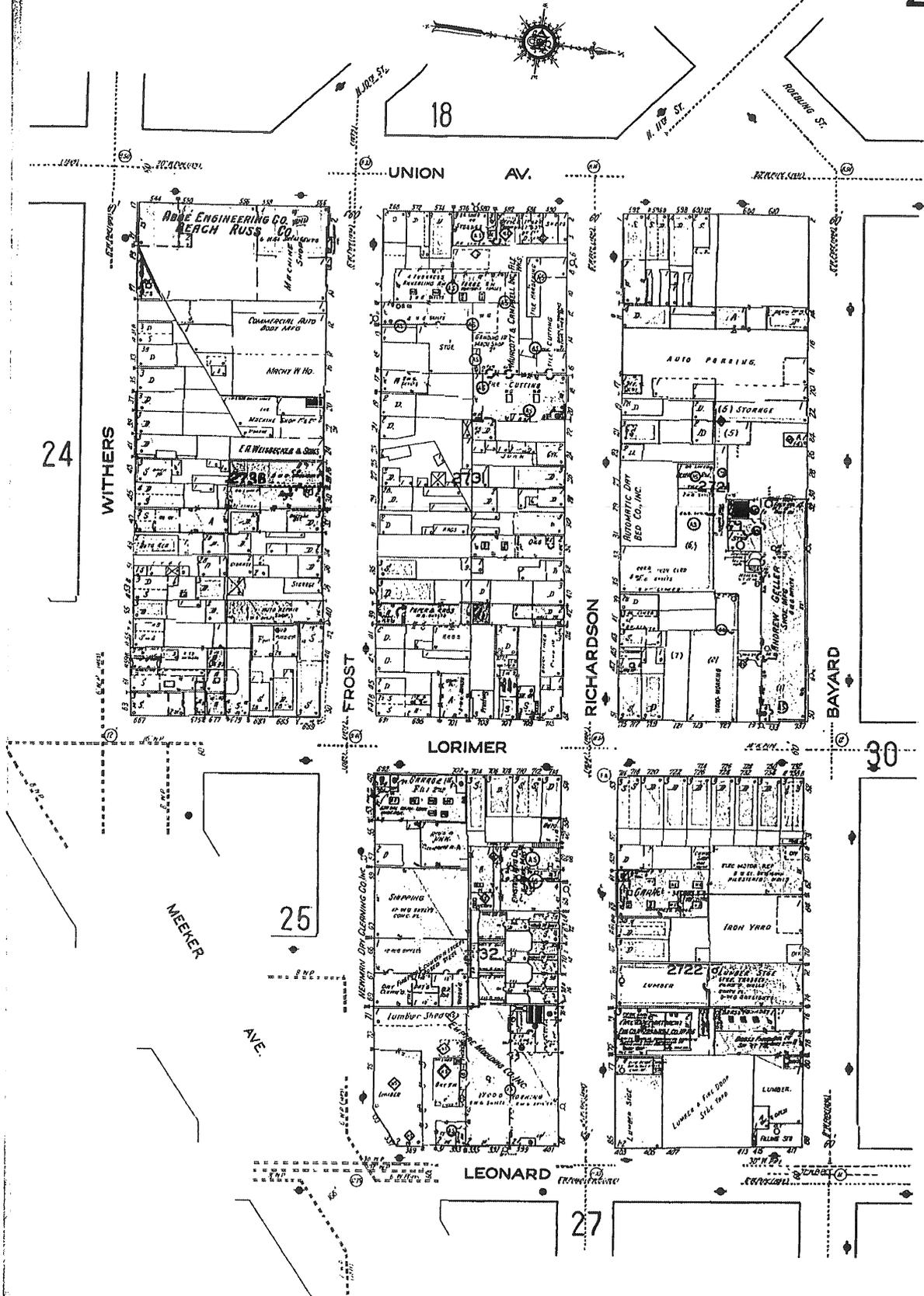
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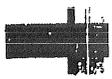
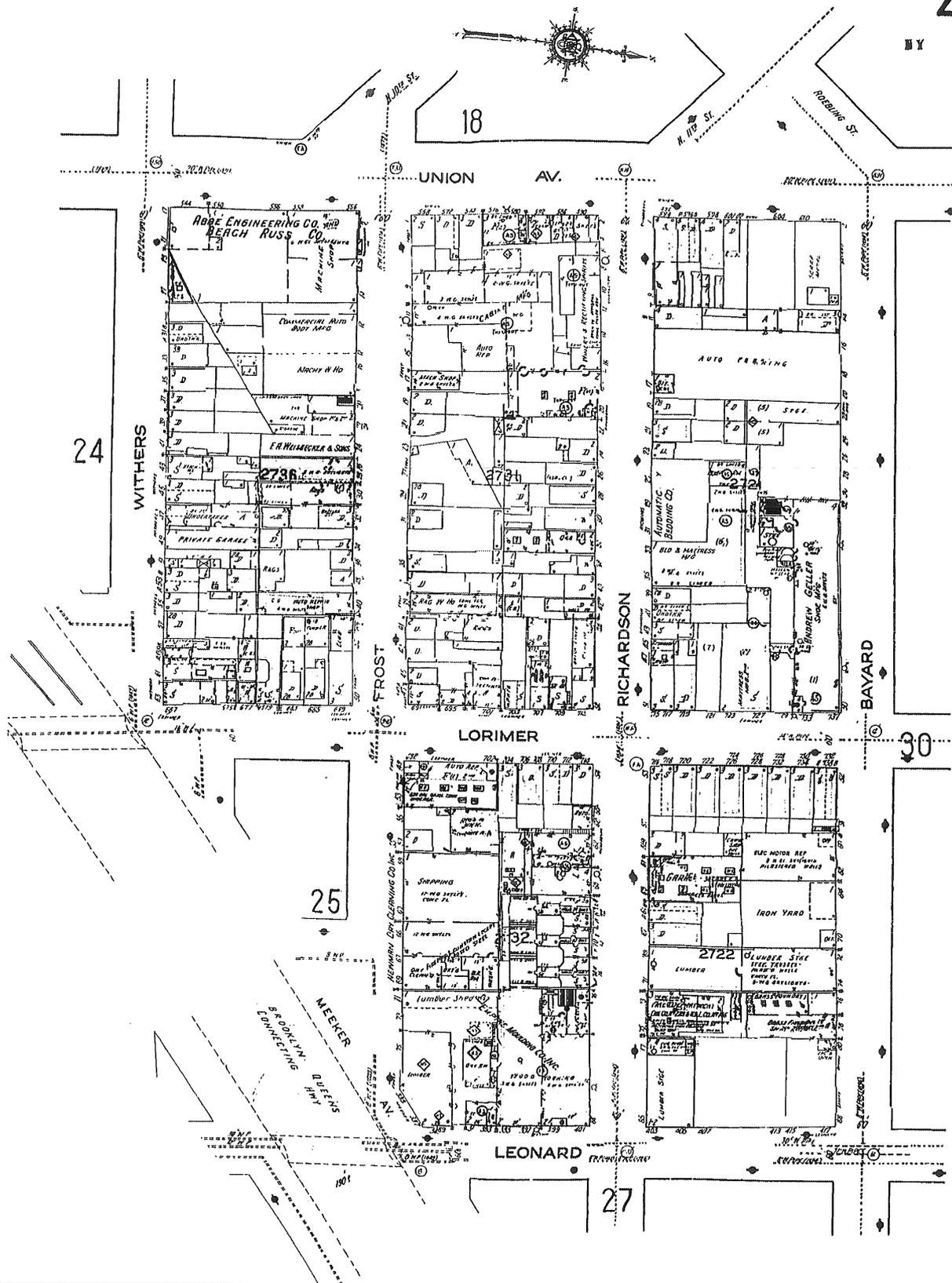
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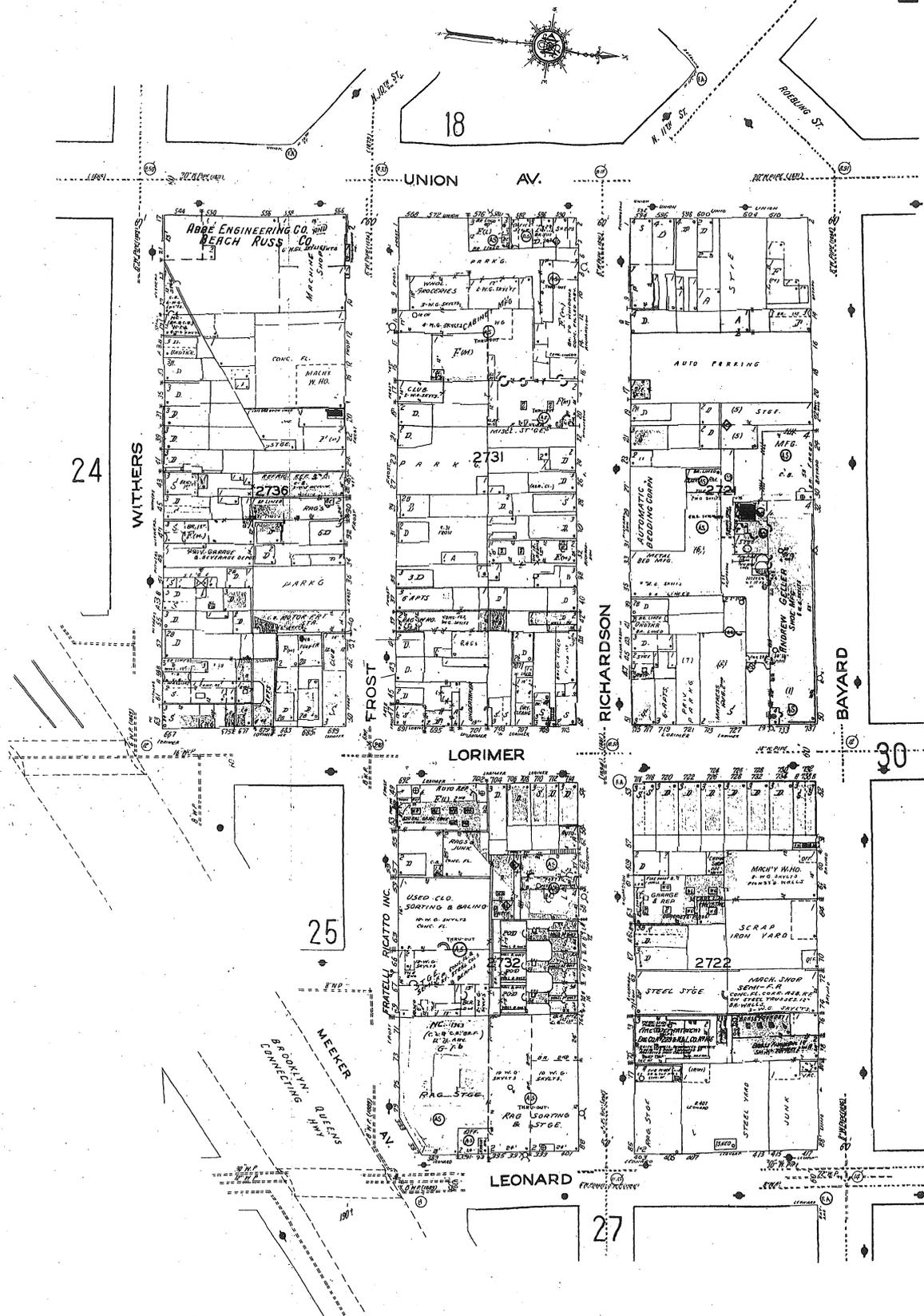


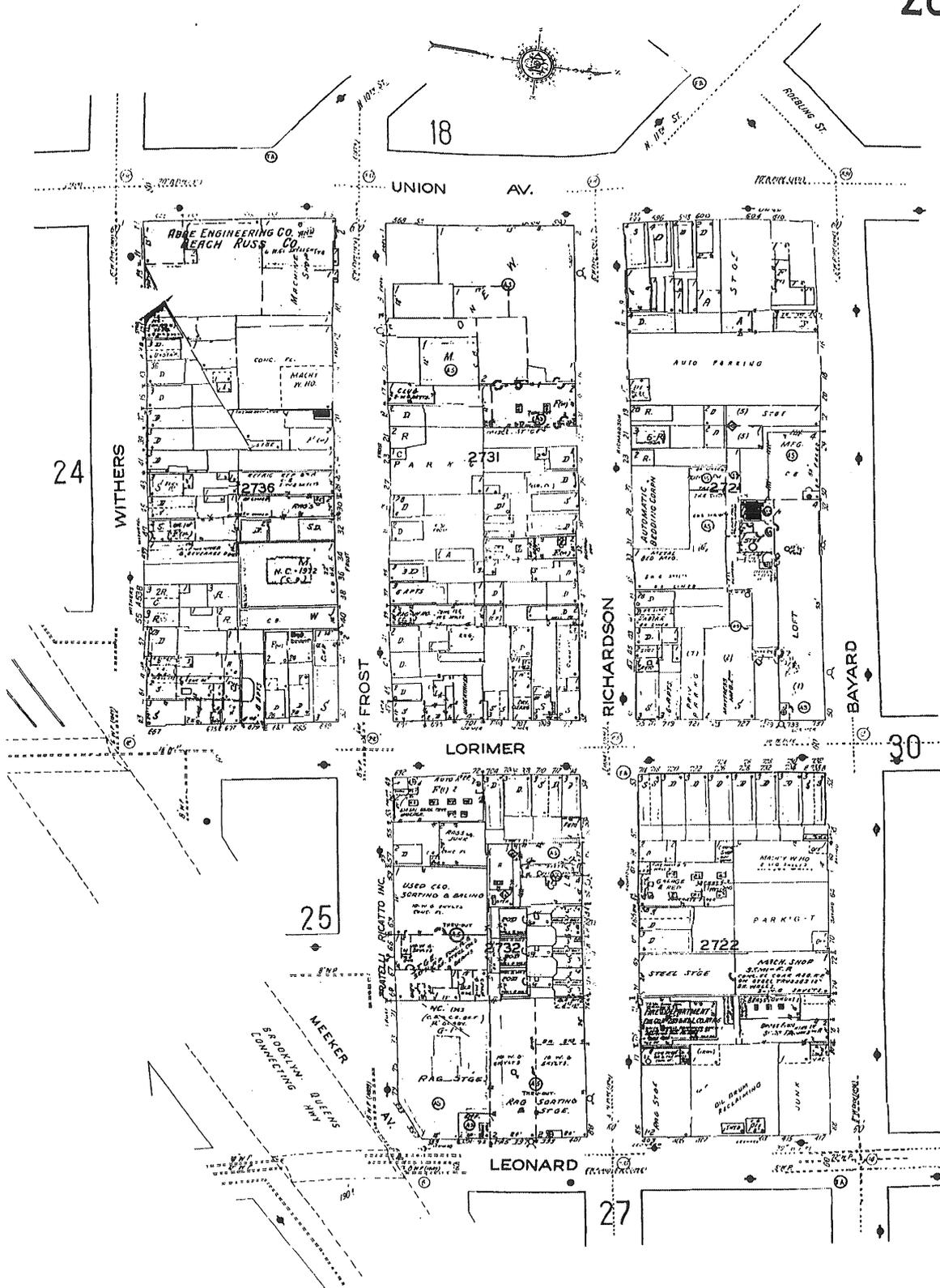
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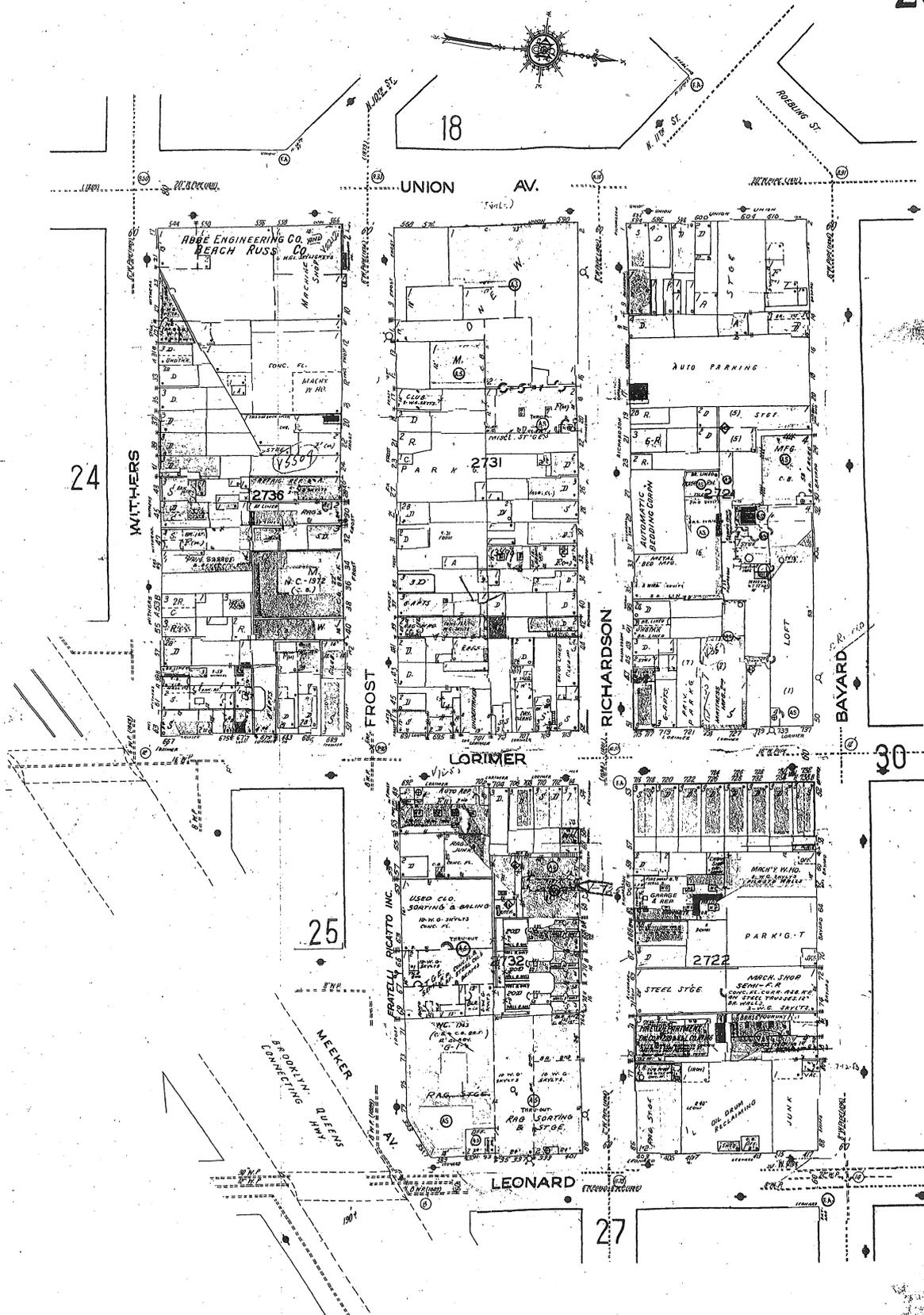
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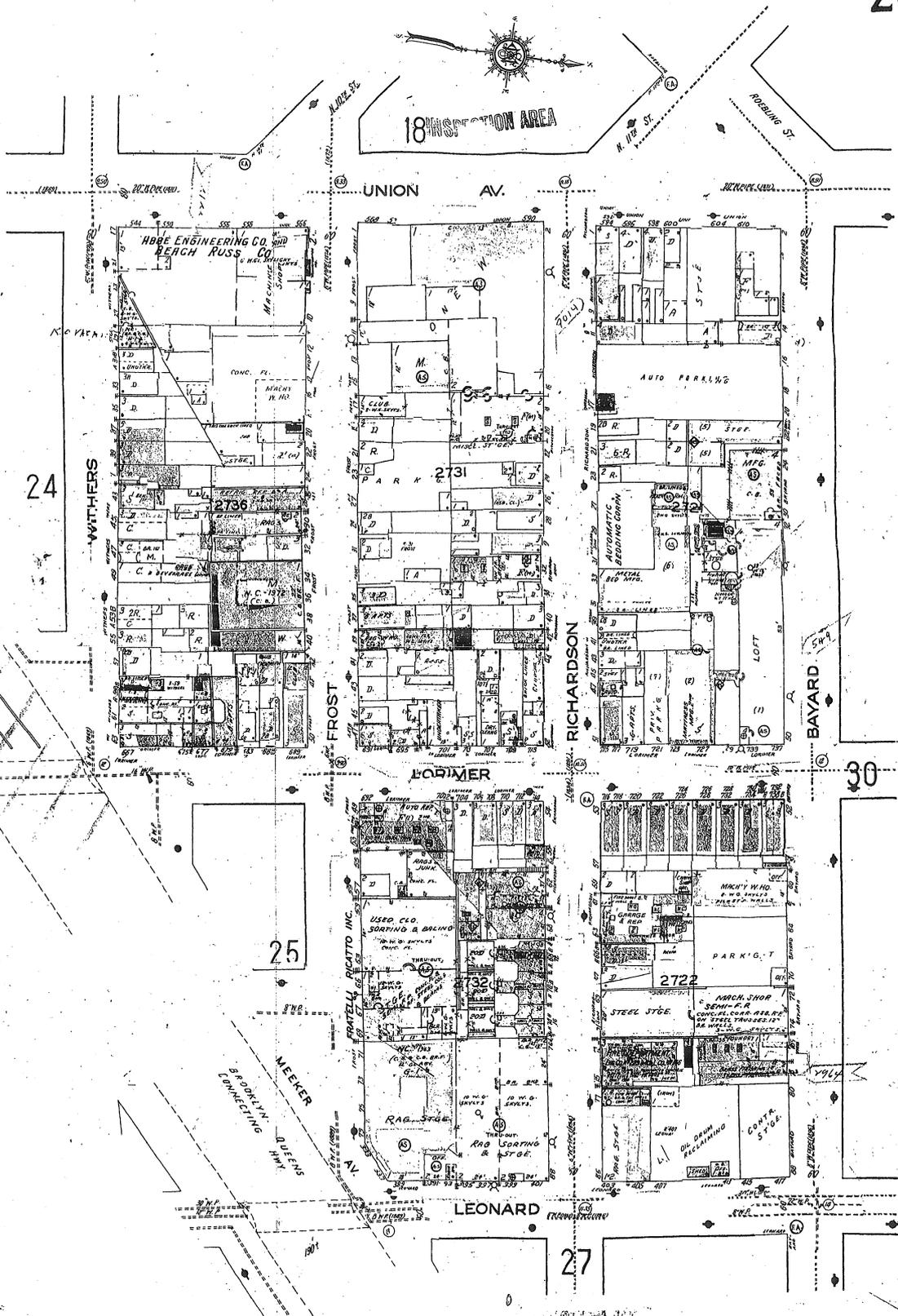








18 INSPECTION AREA



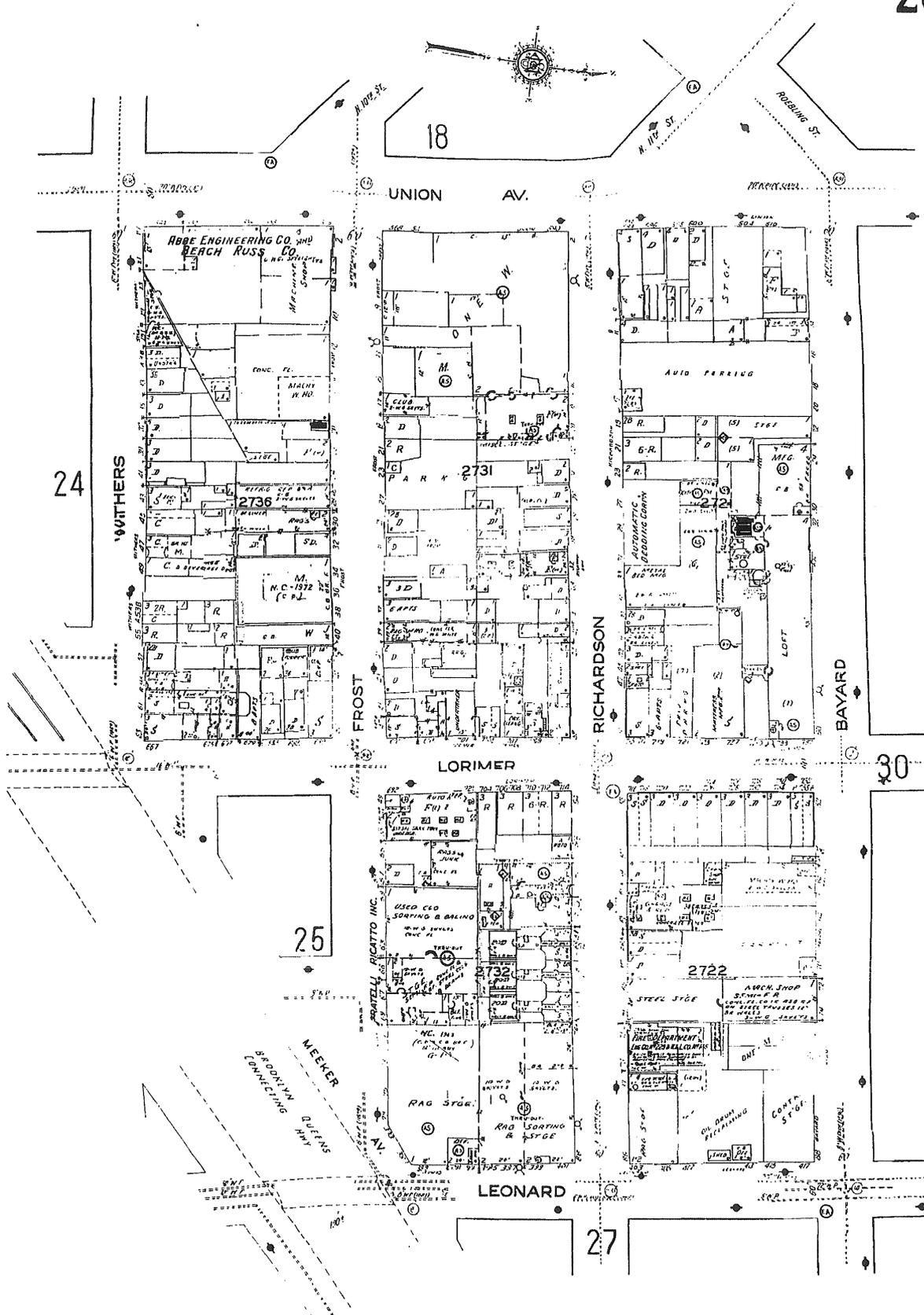
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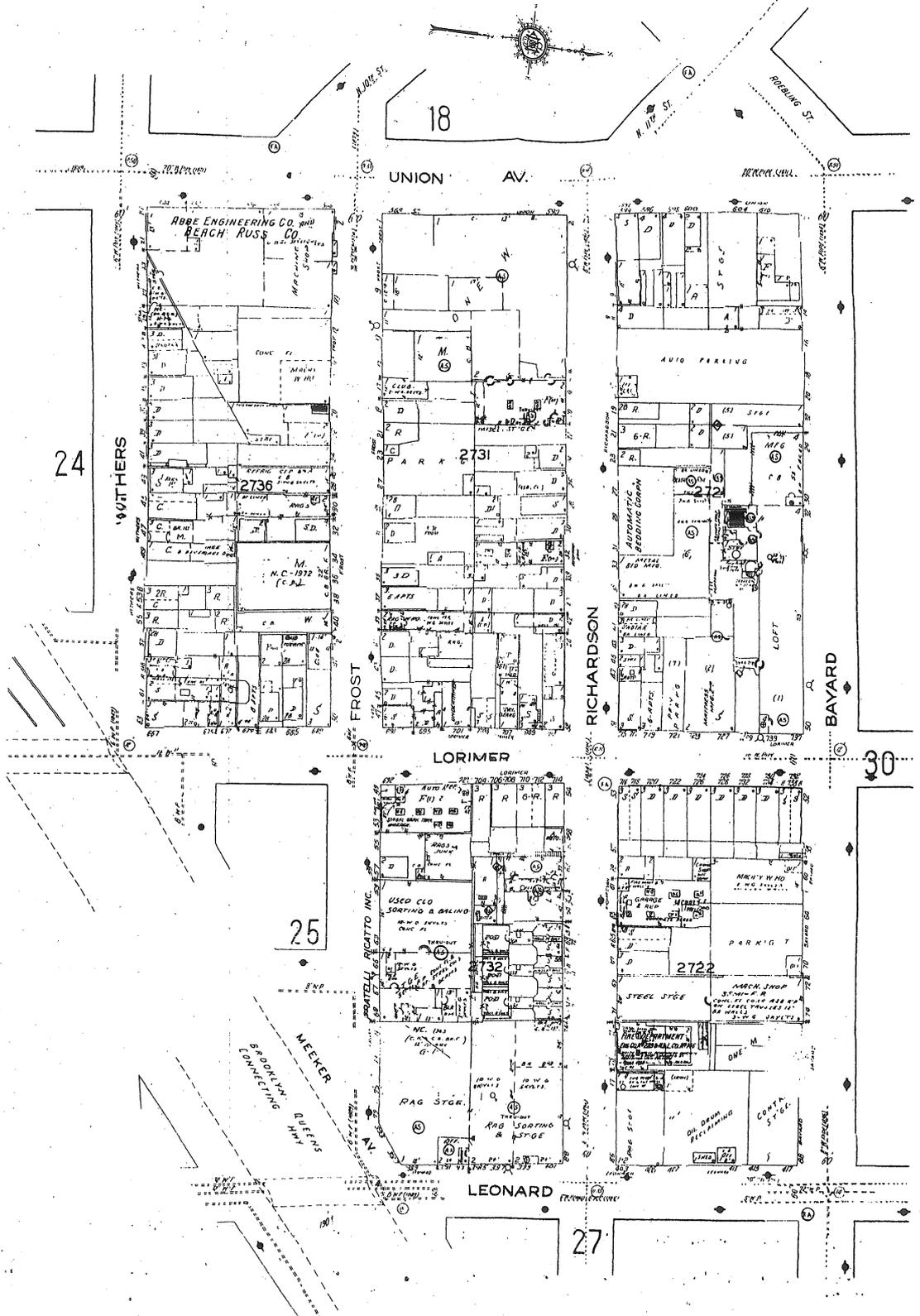
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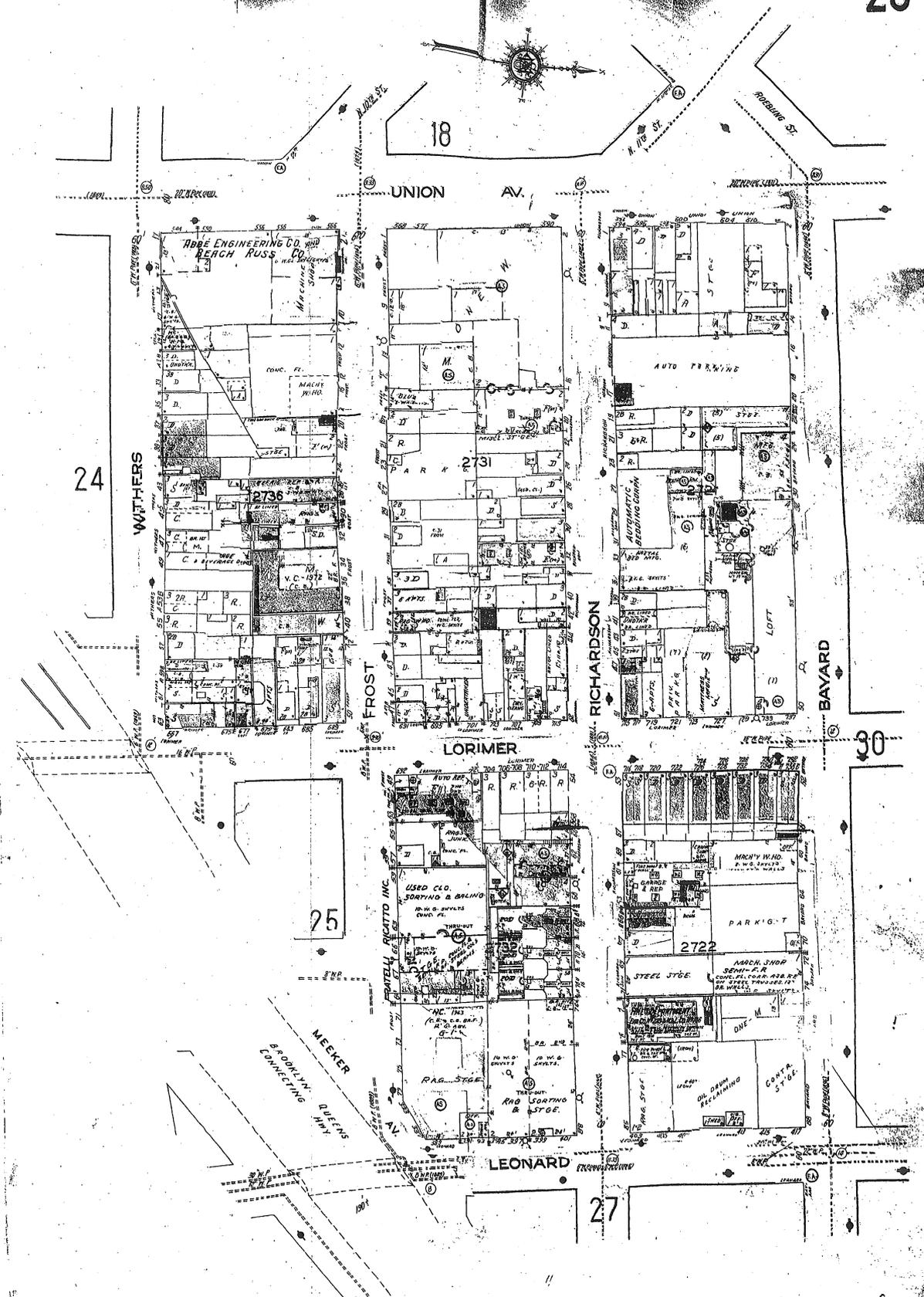
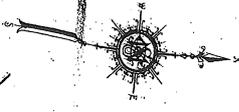
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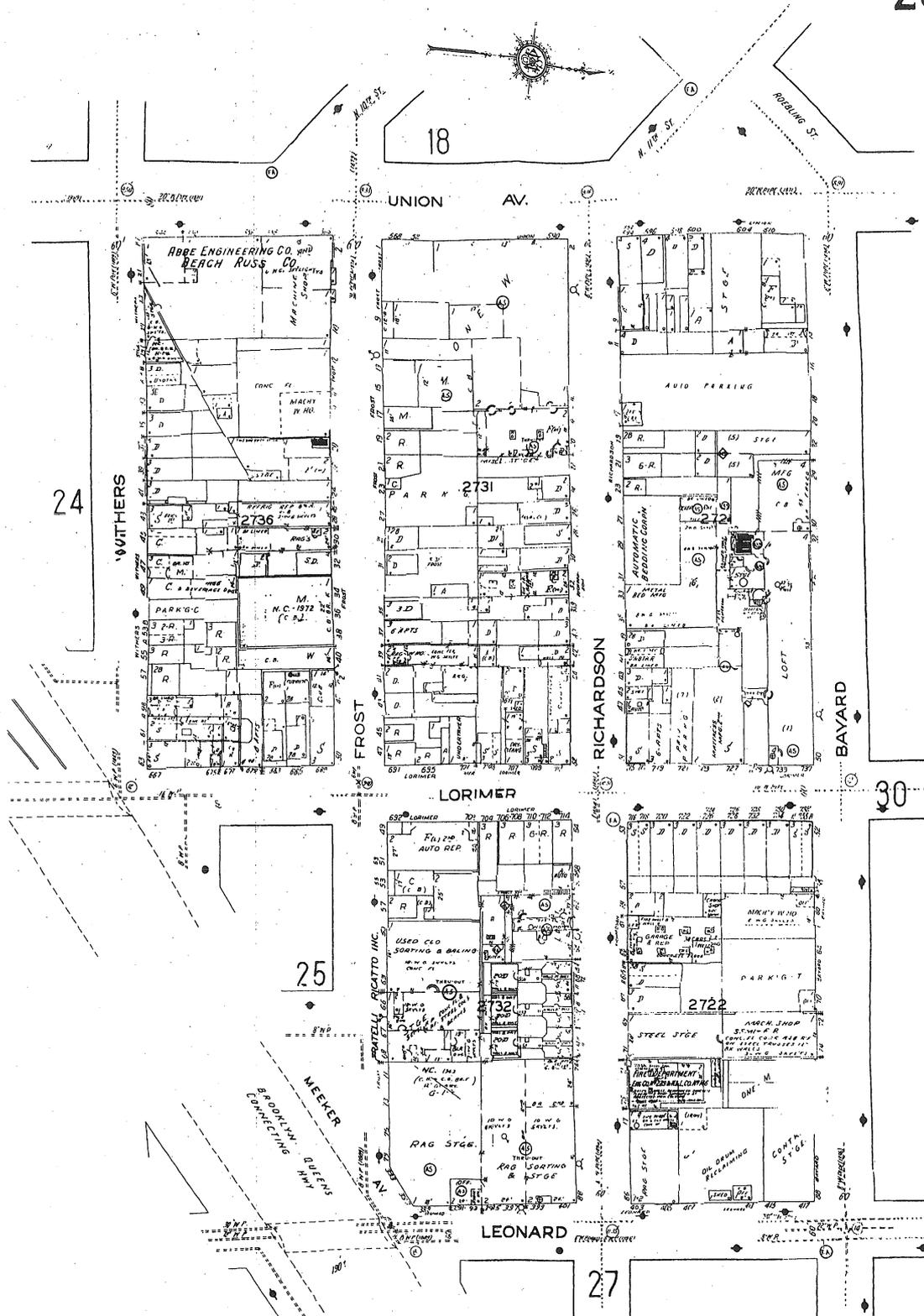
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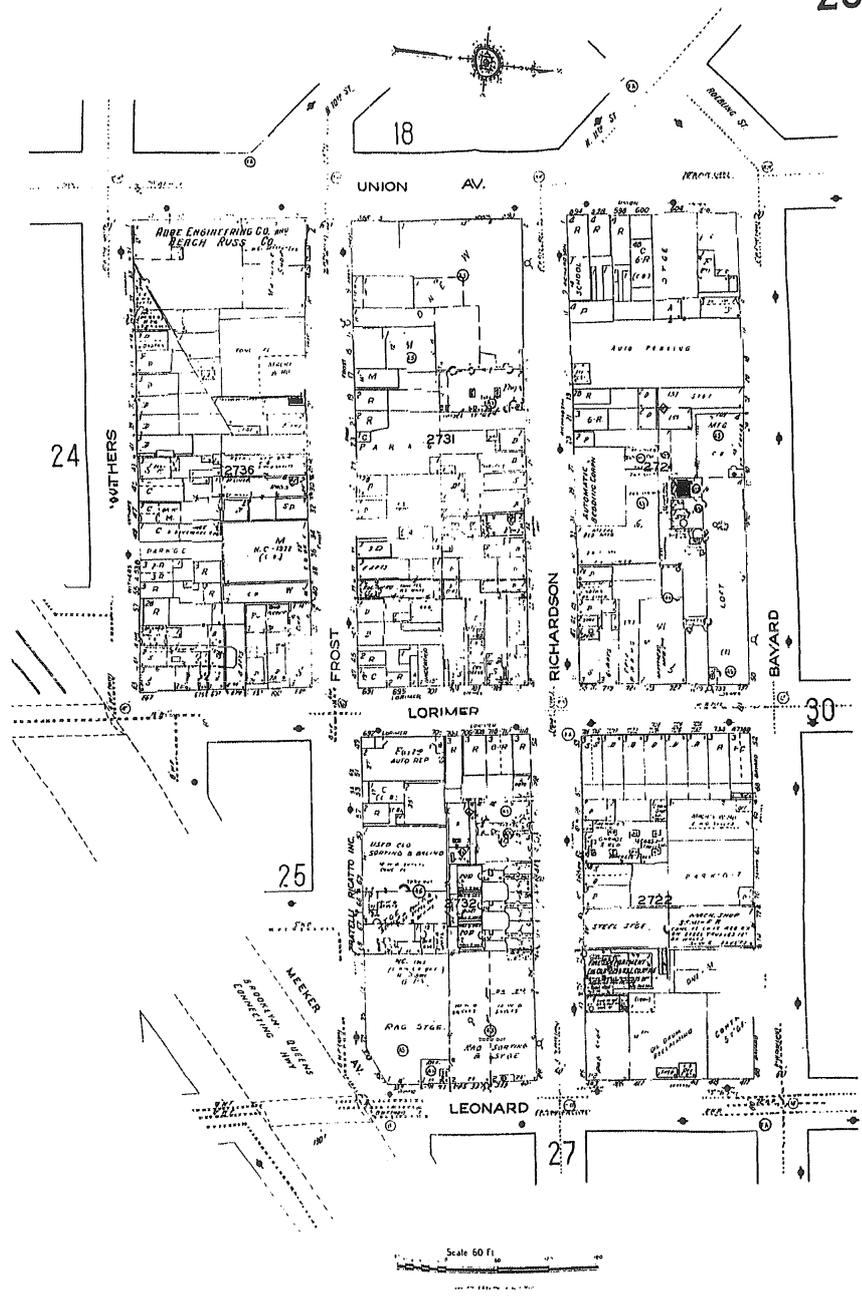






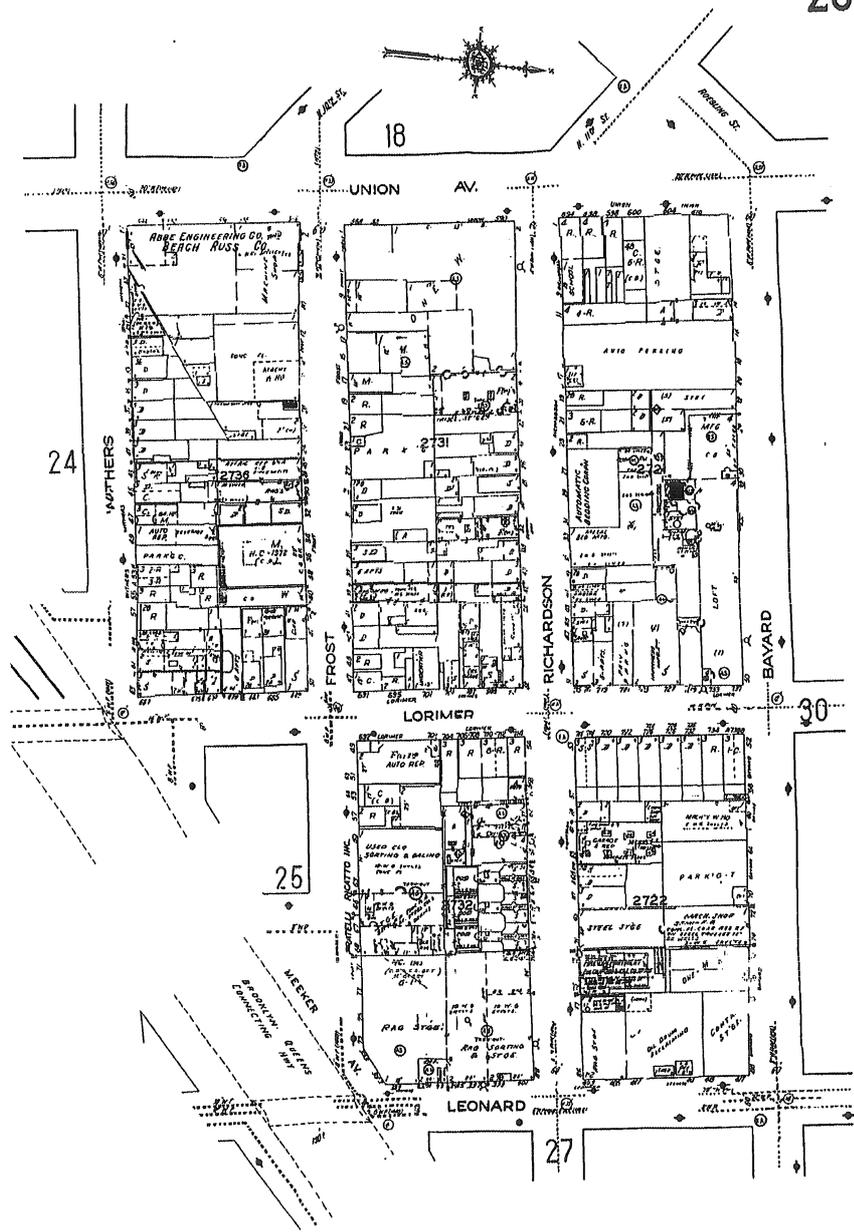






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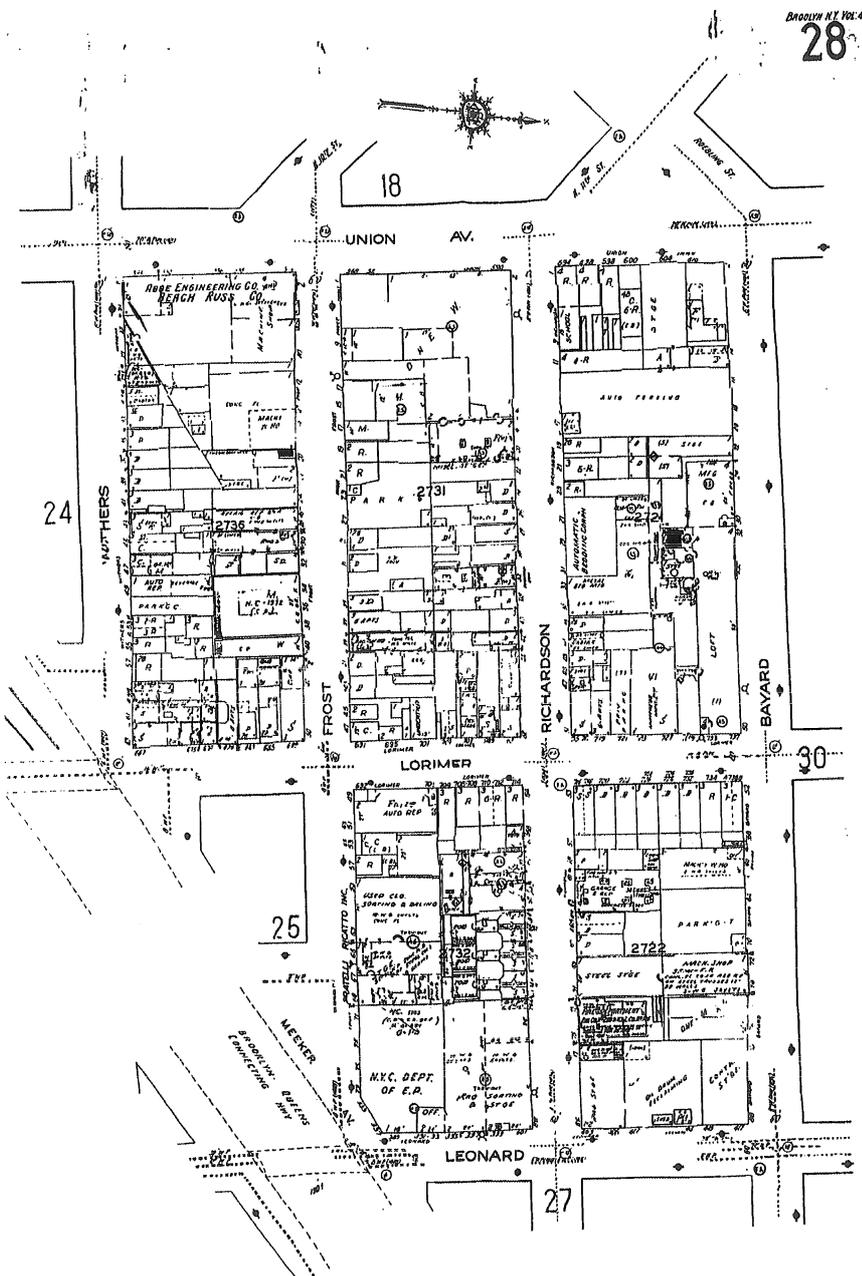
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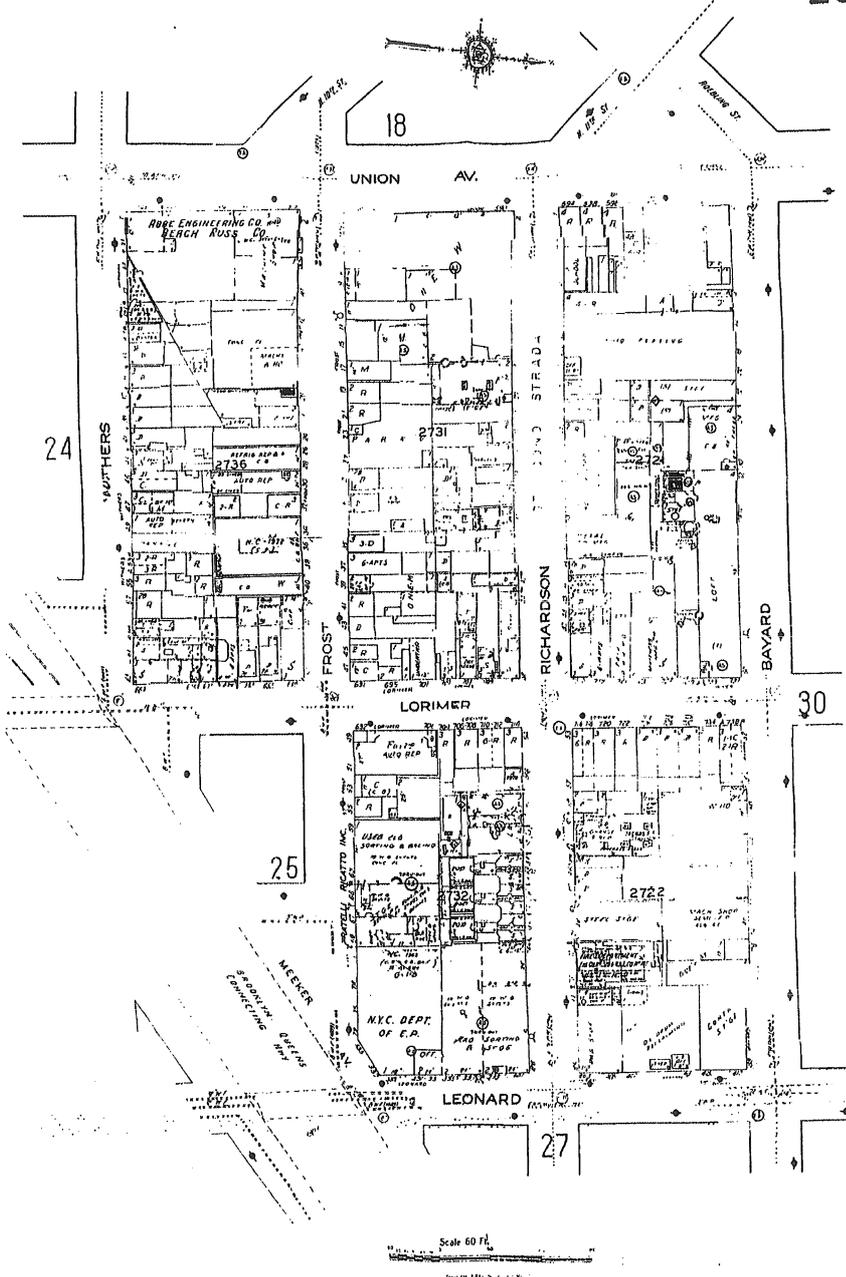


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# The EDR Environmental LienSearch™ Report

**INDUSTRIAL BUILDING  
KINGS COUNTY  
BROOKLYN, NY 11211**

**Project Number 01908261.7**

**May 3, 2007**



## **The Standard in Environmental Risk Information**

440 Wheelers Farm Road  
Milford, Connecticut 06461

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

## EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report includes results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers follows established procedures to:

- search for parcel information, legal description, and ownership based on client supplied address information;
- research indexes and title repositories;
- obtain a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument (title, parties involved, and description); and
- provide a copy of the deed.

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EDR Environmental LienSearch™ Report

### TARGET PROPERTY INFORMATION

#### ADDRESS

INDUSTRIAL BUILDING  
544 UNION AVENUE  
BROOKLYN, NY 11211

#### RESEARCH SOURCE

Sources: Kings County

#### DEED INFORMATION

Type of Deed:    WD     QCD     Other     DEED

Title is vested in:    544 Union Owner LLC

Title received from: Beach-Russ Company, a New York Corporation, as owner of Block 2736, Lot 1 and Block 2741, Lot 8 and ABBE Engineering Company, a New York Corporation, as owner of Block 2736, Lots 9 and 48

Deed Dated:            December 14, 2006  
Deed Recorded:        December 26, 2006  
Document No:          2006122100447001

#### LEGAL DESCRIPTION

Description: Legal attached as Exhibit "A"

Assessor's Parcel Number: Block 2736 Lot 1 and Block 2736 Lot 9 and Block 2736 Lot 48

#### ENVIRONMENTAL LIEN

Environmental Lien:    Found     Not Found

If yes:

1<sup>st</sup> Party:

2<sup>nd</sup> Party:

Dated:  
Recorded:  
Book:  
Page:  
Comments:

#### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

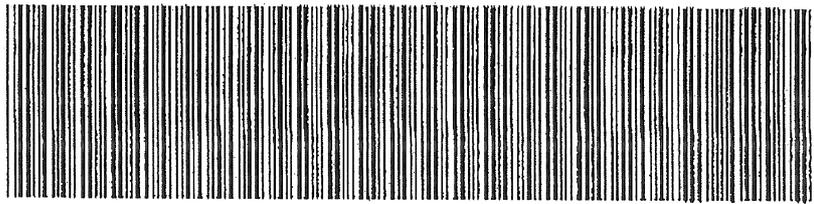
Other AUL's:            Found     Not Found

**EDR Environmental LienSearch™ Report**

**EXHIBIT A**

**NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2006122100447001001EA3D5

**RECORDING AND ENDORSEMENT COVER PAGE**

PAGE 1 OF 8

Document ID: 2006122100447001

Document Date: 12-14-2006

Preparation Date: 12-21-2006

Document Type: DEED

Document Page Count: 6

**PRESENTER:**

ROYAL ABSTRACT OF NEW YORK LLC  
AS AGENT FOR TITLE INSURANCE  
500 5TH AVENUE- SUITE 1540  
NEW YORK, NY 10110  
212-376-0900  
827371

**RETURN TO:**

STARK AMRON LINER LLP  
SEVEN PENN PLAZA  
SUITE 600  
NEW YORK, NY 10001

**PROPERTY DATA**

Borough	Block Lot	Unit	Address
BROOKLYN	2736 1	Entire Lot	544 UNION AVENUE

Property Type: COMMERCIAL REAL ESTATE

Borough	Block Lot	Unit	Address
BROOKLYN	2736 9	Entire Lot	18 FROST STREET

Property Type: COMMERCIAL REAL ESTATE

x Additional Properties on Continuation Page

**CROSS REFERENCE DATA**

CRFN \_\_\_\_\_ or Document ID \_\_\_\_\_ or Year \_\_\_\_\_ Reel \_\_\_\_\_ Page \_\_\_\_\_ or File Number \_\_\_\_\_

**PARTIES**

**GRANTOR/SELLER:**  
BEACII-RUSS COMPANY  
544 UNION AVENUE  
BROOKLYN, NY 11211

**GRANTEE/BUYER:**  
544 UNION OWNER LLC  
70 WEST 93RD STREET, SUITE 100  
NEW YORK, NY 10025

x Additional Parties Listed on Continuation Page

**FEEES AND TAXES**

<b>Mortgage</b>			<b>Filing Fee:</b>	
Mortgage Amount:	\$	0.00		\$ 165.00
Taxable Mortgage Amount:	\$	0.00	NYC Real Property Transfer Tax:	
Exemption:				\$ 344,400.00
<b>TAXES:</b> County (Basic):	\$	0.00	NYS Real Estate Transfer Tax:	
City (Additional):	\$	0.00		\$ 52,480.00
Spec (Additional):	\$	0.00		
TASF:	\$	0.00		
MTA:	\$	0.00		
NYCTA:	\$	0.00		
Additional MRT:	\$	0.00		
<b>TOTAL:</b>	\$	0.00		
Recording Fee:	\$	75.00		
Affidavit Fee:	\$	0.00		



**RECORDED OR FILED IN THE OFFICE  
OF THE CITY REGISTER OF THE  
CITY OF NEW YORK**

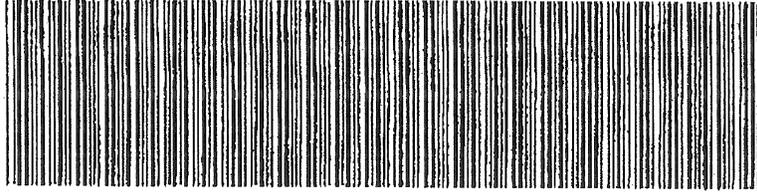
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City Register File No. (CRFN):  
2006000702320

*Janette M. Hill*

City Register Official Signature

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122100447001001CA155

**RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION) PAGE 2 OF 8**

Document ID: 2006122100447001

Document Date: 12-14-2006

Preparation Date: 12-21-2006

Document Type: DEED

**PROPERTY DATA**

Borough	Block Lot	Unit	Address
BROOKLYN	2736 48	Entire Lot	29 WITHERS STREET

Property Type: COMMERCIAL REAL ESTATE

Borough	Block Lot	Unit	Address
BROOKLYN	2741 8	Entire Lot	N/A UNION AVENUE

Property Type: COMMERCIAL REAL ESTATE

**PARTIES**

**GRANTOR/SELLER:**

ABBE ENGINEERING COMPANY  
544 UNION AVENUE  
BROOKLYN, NY 11211

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT-THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY

THIS INDENTURE, made the 14th day of December, 2006

BETWEEN

BEACH-RUSS COMPANY, a New York Corporation, as owner of Block 2736, Lot 1 and Block 2741, Lot 8, and ABBE ENGINEERING COMPANY, a New York Corporation, as owner of Block 2736, Lots 9 and 48, with offices at 844 Union Avenue, Brooklyn, New York 11211

party of the first part, and

544 UNION OWNER LLC, a New York limited liability company with offices at 70 West 93<sup>rd</sup> Street, Suite 100, New York, New York 10025

party of the second part,

WITNESSETH, that the party of the first part, in consideration of \$10.00 dollars paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the

Block:  
2736

Lots:  
1, 9 & 48

SEE ATTACHED

Block:  
2741

This transfer is being made in the regular course of business.

Lot:  
8

This conveyance has been made with the consent of the holders of at least two-thirds of the outstanding shares of the party of the first part entitled to vote thereon at a meeting duly called.

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

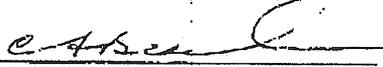
IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written

IN PRESENCE OF:

BEACH-RUSS COMPANY

By:   
C. A. BEACH

ABBE ENGINEERING COMPANY

By:   
C. A. BEACH

SCHEDULE A

Parcel A as to Block 2741 Lot 8

ALL THAT CERTAIN, plot, piece or parcel of land, with the building and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at a point formed by the intersection of the Southerly side of Withers Street with the easterly side of Union Avenue, and;

RUNNING THENCE southerly, along Union Avenue, twenty-five (25) feet;

THENCE easterly, parallel with Withers Street, One Hundred (100) feet;

THENCE northerly, parallel with Union Avenue, Twenty-Five (25) feet to the Withers Street and;

THENCE westerly, along Withers Street, One Hundred (100) feet to the point or place of BEGINNING.

For information only: Said premises are known as 544 Union Avenue a/k/a 16-24 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2741 Lot 8 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued page 2)

Parcel B as to Block 2736 Lot 1

ALL THAT CERTAIN plot, piece or parcel of land with the building and improvements thereon erected situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the easterly side of Union Avenue, with the southerly side of Frost Street;

THENCE southerly along the easterly side of Union Avenue to the corner formed by the intersection of the easterly side of Union Avenue two hundred (200) feet and the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street, forty-one (41) feet, six (6) inches to land now or late of John Skillman;

THENCE northeasterly along said land of John Skillman to a point where the same would be intersected by a line drawn parallel with Union Avenue, and distant one hundred (100) feet easterly from the easterly side thereof;

THENCE northerly along said line and parallel with Union Avenue, one hundred and sixty-nine (169) feet to the southerly side of Frost Street; and

THENCE westerly along the southerly side of Frost Street, one hundred (100) feet to the corner formed by the intersection of the southerly side of Frost Street and the easterly side of Union Avenue to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 17-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 4B as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 3)

Parcel B as to Block 2736 Lot 9

ALL THAT CERTAIN lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the southerly side of Frost Street, distant one hundred feet easterly from the corner formed by the intersection of the southerly side of Frost Street with the easterly side of Union Avenue;

RUNNING THENCE easterly along the southerly side of Frost Street one hundred five feet;

THENCE southerly parallel with Union Avenue, One hundred twelve feet, more or less to land now or formerly of John Skillman;

THENCE southwesterly along land now or formerly of John Skillman to a point, distant one hundred feet easterly from the easterly side of Union Avenue measured on a line parallel with Frost Street;

THENCE northerly parallel with Union Avenue One hundred sixty-nine feet more or less to the southerly side of Frost Street at the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

SCHEDULE A  
(continued - page 4)

Parcel B as to Block 2736 Lot 48

ALL THAT CERTAIN lot, piece or parcel of land together with the buildings and improvement therein erected, situate, lying and being in the Borough of Brooklyn County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the northerly side of Withers Street, distant 425 feet westerly from the northwesterly corner of Lorimer Street and Withers Street and;

RUNNING THENCE northerly parallel with Lorimer Street 41 feet 6 inches to land now or formerly of David Meserole;

THENCE southwesterly along said land of David Meserole 94 feet 8 inches to a point on the northerly side of Withers Street;

THENCE easterly along the northerly side of Withers Street 83 feet 6 inches to the point or place of BEGINNING.

For information only: Said premises are known as 544-566 Union Avenue a/k/a 12-14 Frost Street a/k/a 25-29 Withers Street, Brooklyn, NY, and designated as Section 9 Block 2736 Lots 1, 9 and 48 as shown on the Tax Map of the City of New York, County of Kings.

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE IN NEW YORK STATE**

State of New York, County of Nassau ss:

On the 14<sup>th</sup> day of December in the year 2006 before me, the undersigned, personally appeared

**C. A. BEACH**

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

*Cynthia Margaretten*  
\_\_\_\_\_  
(signature and office of individual taking acknowledgment)

**NOTARY PUBLIC SIGNATURE**

CYNTHIA MARGARETEN  
Notary Public, State of New York  
No. 01MA4884255  
Qualified in Nassau County  
Commission Expires January 28, 20 07

State of New York, County of ss:

On the \_\_\_ day of \_\_\_ in the year \_\_\_ before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

\_\_\_\_\_  
(signature and office of individual taking acknowledgment)

**TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE OUTSIDE NEW YORK STATE**

State (or District of Columbia, Territory, or Foreign Country) of ss:

On the \_\_\_ day of \_\_\_ in the year \_\_\_ before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before the undersigned in the

in  
(insert the City or other political subdivision)

(and insert the State or Country or other place the acknowledgment was taken)

\_\_\_\_\_  
(signature and office of individual taking acknowledgment)

**BARGAIN AND SALE DEED  
WITH COVENANT AGAINST GRANTOR'S ACTS**

Title No.

**Beach-Russ Company &  
Abbe Engineering Company  
TO  
544 Union Owner LLC**

**SECTION  
BLOCK 2736 & 2741  
LOT 1 & 2 48 & 9  
COUNTY OR TOWN KINGS  
STREET ADDRESS 544 UNION AVENUE**

STANDARD FORM OF NEW YORK BOARD OF TITLE UNDERWRITERS

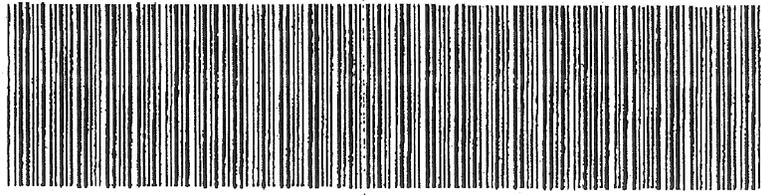
Royal Abstract of New York, LLC  
300 5th Avenue, Suite 1540  
New York, NY 10110

RETURN BY MAIL TO:

Stark, Amron, Lerner LLP  
Seven Penn Plaza, Suite 600  
New York, New York 10001

USE THIS SPACE FOR USE OF RECORDING OFFICE

NYC DEPARTMENT OF FINANCE  
OFFICE OF THE CITY REGISTER



2006122100447001001S6D54

**SUPPORTING DOCUMENT COVER PAGE**

**PAGE 1 OF 1**

Document ID: 2006122100447001

Document Date: 12-14-2006

Preparation Date: 12-21-2006

Document Type: DEED

**ASSOCIATED TAX FORM ID: 2006122100159**

**SUPPORTING DOCUMENTS SUBMITTED:**

RP - 5217 REAL PROPERTY TRANSFER REPORT

Page Count

3

FOR CITY USE ONLY

C1. County Code  C2. Date Deed Recorded  /  /   
 Month Day Year

C3. Book  OR C4. Page   
 C5. CRFN



REAL PROPERTY TRANSFER REPORT

STATE OF NEW YORK  
STATE BOARD OF REAL PROPERTY SERVICES

RP - 5217NYC

(Rev 11/2003)

PROPERTY INFORMATION

1. Property Location  544 UNION AVENUE BROOKLYN 11211  
 STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name  544 UNION OWNER LLC  
 LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address      
 Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
 LAST NAME / COMPANY FIRST NAME

4. Indicate the number of Assessment Roll parcels transferred on the deed  4 # of Parcels OR  Part of a Parcel

5. Deed Property Size  X  OR    
 FRONT FEET DEPTH ACRES

6. Seller Name  BEACH-RUSS COMPANY  
 LAST NAME / COMPANY FIRST NAME

7. Seller Name  ABBE ENGINEERING COMPANY  
 LAST NAME / COMPANY FIRST NAME

9. Check the box below which most accurately describes the use of the property at the time of sale:  
 A  One Family Residential C  Residential Vacant Land E  Commercial Apartment G  Entertainment / Amusement Community Service I  Industrial Public Service  
 B  2 or 3 Family Residential D  Non-Residential Vacant Land F  Apartment H  Community Service J  Public Service

4A. Planning Board Approval - N/A for NYC  
 4B. Agricultural District Notice - N/A for NYC

Check the boxes below as they apply:  
 6. Ownership Type is Condominium   
 7. New Construction on Vacant Land

SALE INFORMATION

10. Sale Contract Date  2 / 9 / 2005  
 Month Day Year

11. Date of Sale / Transfer  12 / 14 / 2006  
 Month Day Year

12. Full Sale Price \$  1,312,000.00  
 ( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations. Please round to the nearest whole dollar amount. )

13. Indicate the value of personal property included in the sale

14. Check one or more of these conditions as applicable to transfer:

A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale (Specify Below)  
 F  Sale of Fractional or Less than Fee Interest (Specify Below)  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price (Specify Below)  
 J  None

ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill

15. Building Class  F, 9 16. Total Assessed Value (of all parcels in transfer)

17. Borough, Block and Lot / Roll Identifier(s) ( If more than three, attach sheet with additional identifier(s) )  
 BROOKLYN 2736 1  BROOKLYN 2736 9  BROOKLYN 2736 48

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER

BUYER SIGNATURE  DATE

STREET NUMBER  STREET NAME (AFTER SALE)

CITY OR TOWN  STATE  ZIP CODE

BUYER'S ATTORNEY

LAST NAME  FIRST NAME

AREA CODE  TELEPHONE NUMBER

SELLER

SELLER SIGNATURE  DATE

2006122100159201

FOR CITY USE ONLY

C1. County Code \_\_\_\_\_ C2. Date Deed Recorded \_\_\_\_\_  
 Month / Day / Year

C3. Book OR \_\_\_\_\_ C4. Page \_\_\_\_\_

C5. CRFN \_\_\_\_\_



REAL PROPERTY TRANSFER REPORT

STATE OF NEW YORK  
STATE BOARD OF REAL PROPERTY SERVICES

RP - 5217NYC

(Rev 11/2002)

PROPERTY INFORMATION

1. Property Location: 544 UNION AVENUE BROOKLYN 11211  
 STREET NUMBER STREET NAME BOROUGH ZIP CODE

2. Buyer Name: 544 UNION OWNER LLC  
 LAST NAME / COMPANY FIRST NAME  
 LAST NAME / COMPANY FIRST NAME

3. Tax Billing Address: Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)  
 LAST NAME / COMPANY FIRST NAME  
 STREET NUMBER AND STREET NAME CITY OR TOWN STATE ZIP CODE

4. Indicate the number of Assessment Roll parcels transferred on the deed: 4 # of Parcels OR Part of a Parcel  
 4A. Planning Board Approval - N/A for NYC  
 4B. Agricultural District Notice - N/A for NYC  
 5. Deed Property Size: FRONT FEET X DEPTH OR ACRES  
 Check the boxes below as they apply:  
 6. Ownership Type is Condominium   
 7. New Construction on Vacant Land

6. Seller Name: BEACH-RUSS COMPANY  
 LAST NAME / COMPANY FIRST NAME  
 ABBE ENGINEERING COMPANY  
 LAST NAME / COMPANY FIRST NAME

9. Check the box below which most accurately describes the use of the property at the time of sale:  
 A  One Family Residential C  Residential Vacant Land E  Commercial G  Entertainment / Amusement I  Industrial  
 B  2 or 3 Family Residential D  Non-Residential Vacant Land F  Apartment H  Community Services J  Public Service

SALE INFORMATION

10. Sale Contract Date: 2 / 9 / 2005  
 Month / Day / Year

11. Date of Sale / Transfer: 12 / 14 / 2006  
 Month / Day / Year

12. Full Sale Price \$: 1,312,000.00  
 ( Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations. ) Please round to the nearest whole dollar amount.

13. Indicate the value of personal property included in the sale: \_\_\_\_\_

14. Check one or more of these conditions as applicable to transfer:  
 A  Sale Between Relatives or Former Relatives  
 B  Sale Between Related Companies or Partners in Business  
 C  One of the Buyers is also a Seller  
 D  Buyer or Seller is Government Agency or Lending Institution  
 E  Deed Type not Warranty or Bargain and Sale ( Specify Below )  
 F  Sale of Fractional or Less than Fee Interest ( Specify Below )  
 G  Significant Change in Property Between Taxable Status and Sale Dates  
 H  Sale of Business is Included in Sale Price  
 I  Other Unusual Factors Affecting Sale Price ( Specify Below )  
 J  None

ASSESSMENT INFORMATION - Dots should reflect the latest Final Assessment Roll and Tax Bill

15. Building Class: E 9 16. Total Assessed Value (of all parcels in transfer): 560880  
 17. Borough, Block and Lot / Roll Identifier(s) ( If more than three, attach sheet with additional Identifier(s) )  
 BROOKLYN 2736 1 BROOKLYN 2736 9 BROOKLYN 2736 48

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact hereon will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER: [Signature] 12/14/2006  
 BUYER'S ATTORNEY: LINER ROBERT  
 STREET NUMBER: 70 STREET NAME (AFTER SALE): WEST 93rd STREET  
 CITY OR TOWN: NEW YORK STATE: N.Y. ZIP CODE: 110025  
 AREA CODE: 212 TELEPHONE NUMBER: 354-0600  
 SELLER: [Signature] 12/14/06



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **1**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **544 UNION AVENUE** City NY State NY Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State NY Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.

- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:
- (9) Name of Owner:
- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **9**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone (Numbers only): Business Phone (Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

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 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
 (9) Name of Owner:

- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 83RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
 (9) Name of Owner:  
 (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2741** Lot: **8**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name Business: **544 UNION OWNER LLC**  
 or Individual:
- (Last Name) (First Name) (MI)
- Street **70 WEST 53RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
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- (5) if you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills:
- (6) Mailing Address: Street City State Zip
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) E-mail:  
 (9) Name of Owner:

- (10) Signature: \_\_\_\_\_  
 Name and Title of Person Signing for Owner, if applicable:  
 Date(mm/dd/yyyy): / /



The City of New York  
Department of Environmental Protection  
Bureau of Customer Services  
59-17 Junction Boulevard  
Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
Block: **2736** Lot: **48**
- (2) Account Number (if applicable):  
Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
Street **29 WITHERS STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
(please provide information on owner ONLY: do NOT give information on property manager or tenant):  
Owner's Name **Business: 544 UNION OWNER LLC**  
or Individual:  

	(Last Name)	(First Name)	(MI)	
Street <b>70 WEST 93RD STREET SUITE 100</b>		City <b>NEW YORK</b>	State <b>NY</b>	Zip <b>10025</b>
Home Phone(Numbers only):		Business Phone(Numbers only):		

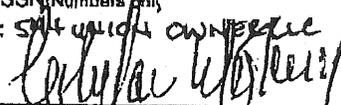
**Customer Billing Information:**

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.
- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
Name of Party to Receive Duplicate Copies of Bills: **244 St. 307**
- (6) Mailing Address: Street **190 West 107 St, Ste 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN (Numbers only): E-mail:
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
Name and Title of Person Signing for Owner, if applicable: **Manager**  
Date(mm/dd/yyyy): **12/14/2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

**Customer Registration Form for Water and Sewer Billing**

**Property and Owner Information:**

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: 2736 Lot: 9
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **18 FROST STREET** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone(Numbers only): Business Phone(Numbers only):

**Customer Billing Information:**

**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
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- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **SUE SU 307**
- (6) Mailing Address: Street **190 West 10th St, S# 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one):  
 Managing Agent  Mortgagee   
 Tenant  Other (please explain):

**Owner's Approval**

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers only) E-mail:
- (9) Name of Owner: **SUE UNION OWNER LLC**
- (10) Signature:   
 Name and Title of Person Signing for Owner, if applicable: **Manager**  
 Date(mm/dd/yyyy): **12 / 14 / 2006**



The City of New York  
Department of Environmental Protection  
Bureau of Customer Services  
59-17 Junction Boulevard  
Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
Block: **2736** Lot: **1**
- (2) Account Number (if applicable):  
Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
Street **544 UNION AVENUE** City **NY** State **NY** Zip **11211**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
(please provide information on owner ONLY; do NOT give information on property manager or tenant):  
Owner's Name Business: **544 UNION OWNER LLC**  
or Individual:  
(Last Name) (First Name) (MI)  
Street **70 WEST 83RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
Home Phone(Numbers only): Business Phone(Numbers only):

#### Customer Billing Information:

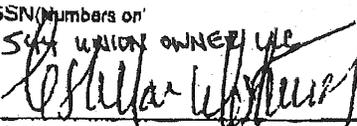
**PLEASE NOTE:**

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.

- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
Name of Party to Receive Duplicate Copies of Bills: **514 St. 307**
- (6) Mailing Address: Street **190 North 10<sup>th</sup> St., St. 307** City **Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN(Numbers on e-mail):
- (9) Name of Owner: **544 UNION OWNER LLC**
- (10) Signature:   
Name and Title of Person Signing for Owner, if applicable: **Manager of 544 UNION OWNER LLC**  
Date(mm/dd/yyyy): **12 / 14 / 2006**



The City of New York  
 Department of Environmental Protection  
 Bureau of Customer Services  
 59-17 Junction Boulevard  
 Flushing, NY 11373-5108

### Customer Registration Form for Water and Sewer Billing

#### Property and Owner Information:

- (1) Property receiving service is located in the Borough of **BROOKLYN**  
 Block: **2741** Lot: **8**
- (2) Account Number (if applicable):  
 Meter Number (if available—include the letter):
- (3) Street Address of Property Receiving Service:  
 Street **N/A UNION AVENUE** City **NY** State **NY** Zip **00000**
- (4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service:  
 (please provide information on owner ONLY; do NOT give information on property manager or tenant):  
 Owner's Name **Business: 544 UNION OWNER LLC**  
 or Individual:  
 (Last Name) (First Name) (MI)  
 Street **70 WEST 93RD STREET SUITE 100** City **NEW YORK** State **NY** Zip **10025**  
 Home Phone (Numbers only): Business Phone (Numbers only):

#### Customer Billing Information:

##### PLEASE NOTE:

- A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.
- B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.
- C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.

- (5) If you would like a duplicate copy of bills sent to another party, please check here  and fill out the following information:  
 Name of Party to Receive Duplicate Copies of Bills: **544 Ste 307**
- (6) Mailing Address: Street **190 North 10<sup>th</sup> St., Suite 307 City Brooklyn** State **NY** Zip **11211**
- (7) Relationship to Owner (check one): Managing Agent  Mortgagee   
 Tenant  Other (please explain):

#### Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

- (8) Owner's EIN or SSN (numbers) E-mail:

- (9) Name of Owner: **544 Union Owner LLC**

- (10) Signature:

Name and Title of Person Signing for Owner, if applicable: **Manager**

Date (mm/dd/yyyy): **12/14/2006**

---

# **APPENDIX E**

## **Local Directory**

---



**EDR®** Environmental  
Data Resources Inc

**The EDR-City Directory**  
*Abstract*

**Industrial Building**  
544 Union Avenue  
Brooklyn, NY 11211

**Inquiry Number: 1908261.6**

**Friday, April 20, 2007**

**The Standard in  
Environmental Risk  
Information**

440 Wheelers Farms Road  
Milford, Connecticut 06461

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

# EDR City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening report designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

***Thank you for your business.***

Please contact EDR at 1-800-352-0050  
with any questions or comments.

## **Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

## SUMMARY

- ***City Directories:***

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1928 through 2000. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

This report compiles information by geocoding the subject properties (that is, plotting the latitude and longitude for such subject properties and obtaining data concerning properties within 100.32 Feet of the subject properties). There is no warranty or guarantee that geocoding will report or list all properties within the specified radius of the subject properties and any such warranty or guarantee is expressly disclaimed. Accordingly, some properties within the aforementioned radius and the information concerning those properties may not be referenced in this report.

Date EDR Searched Historical Sources: April 20, 2007

**Target Property:**

544 Union Avenue  
Brooklyn, NY 11211

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Address Not Listed in Research Source	New York Telephone
1934	Address Not Listed in Research Source	R. L. Polk & Co.
1940	<b>**UNION AVE**</b> ABBE ENGNRNG CO PULVRZG MACHY (544) BEACH RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	NEW YORK TELEPHONE
1945	<b>**UNION AVE**</b> ABBE ENGNRNG CO PULVRZG MACHY (544) BEACH RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGERNG CORP (544)	NEW YORK TELEPHONE
1949	<b>**UNION AVE**</b> ABBE ENGNRNG CO PULVRZG MACHY (544) BEACH RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	NEW YORK TELEPHONE
1960	<b>**UNION AVE**</b> ABBE ENGNRNG CO PLVRZG MACHY (544) BEACH RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	New York Telephone
	<b>**UNION**</b> LOMBARDI ANGELINA (544)	New York Telephone
1965	<b>**UNION AVE**</b> ABBE ENGNRNO CO PULVRZG MACHY (544) BEACH RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	New York Telephone
1970	<b>**UNION AVE**</b> ABBE ENGNRNG CO PULVRZG MACHY (544) BEACH RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	New York Telephone
1973	<b>**UNION AVE**</b> ABBE ENGINEERING CO PULVERIZING MACHINERY (544) BEACH USS CO BLOWRS ROTARY PUMPS (544)	New York Telephone

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	(continued) PROVOST ENGNRNG CORP (544)	
1976	<b>**UNION AVE**</b> ABBE ENGINEERING CO PULVERIZING MACHINERY (544) BEACH-RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	New York Telephone
1980	<b>**UNION AVE**</b> ABBE ENGINEERING CO PULVERIZIGN MACHINERY (544)	New York Telephone
1985	<b>**UNION AVE**</b> ABBE ENGINEERING CO PULVERIZING MACHINERY (544) BEACH-RUSS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	NYNEX Information Resources Company
1992	<b>**UNION AVE**</b> ABBE ENGINEERING CO PULVERIZING MACHINERY (544) BEACH-USS CO BLOWRS ROTARY PUMPS (544) PROVOST ENGNRNG CORP (544)	NYNEX Informantion Resource Co.
1997	<b>**UNION AVE**</b> ABBE ENGINEERING CO PULVERIZING MACHINERY (544) BEACH BUSS CO INC (544) PROVOST ENGARNNG CORP (544)	NYNEX
2000	<b>**UNION AVE**</b> ABBE ENGRG CO (544) BEACH RUSS CO (544) PROVOST ENGNRNG (544)	Cole Information Services

## Adjoining Properties

### SURROUNDING

Multiple Addresses  
Brooklyn, NY 11211

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	<b>**UNION**</b> UNION COML BODY BLDRS CO (536) CERATO MARIA MRS R (542) LE COMTE & CO TIN CANS (543) NIGHTINGALE CABINET CO INC (543) DRISCOLL GEO F CO BLDG CONTRS (548) PREISER CHAS SASH & DOORS (552)	New York Telephone
1934	Address Not Listed in Research Source	R. L. Polk & Co.
1940	<b>**UNION AVE**</b> METRO KENT CO INC SCRAP IRON (537)	NEW YORK TELEPHONE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	<b>**UNION AVE**</b> ERVOLINO ALEXNDR STATNRY (542) TRI MORE A C INC (543)	NEW YORK TELEPHONE
1949	<b>**UNION AVE**</b> TRI MORE A C INC (543)	NEW YORK TELEPHONE
1960	<b>**UNION AVE**</b> CARBONE ELIAS (538) THIELO RICHD (538) CUTRONE VITO W (542) KATS CORNER (542) RAINONE SALVATORE R (542) TRI-MORE A C INC (543)	New York Telephone
	<b>**UNION**</b> MARCHITELLO BROS AUTO BODIES (536) UNION COML BODY CO (536) DIMEO GENNARO (542) K L & M ENTERPRISES INC (543) LORRAINE PAPER BOX CORP (543) SHAPIRO BEN SHOE CO INC (543) WELL MADE NOVELTY MFO CO INC (543) YORKTOWN PLASTICS INC (543) FENZA FRANK J (546) RUSSO MATTEO (546) SALISBURY SAML T L (547) BEDELL WOODWORKING CO INC (550) ROCCO ALI B (552) UNITED ARTISTIC ORNAMENTAL WROUGHT IRON (552)	New York Telephone
1965	<b>**UNION AVE**</b> AVERY GEO (538) CARBONE ELIAS (538) WAGNER DAVID (538) JD DISTRIBTRS INC MAIN OFC (542) WALDMANS VENDING MACH PRODS MAIN OFC (542) TRI MORE A C INC (543)	New York Telephone
1970	<b>**UNION AVE**</b> AVERY GEO (538) CARBONE ELIAS (538) KREDAK EMMA (538) COLUMBIA ASSN DEPT OF SANITATION INC (543) COLUMBIA ASSN DEPT OF SANTATN (543)	New York Telephone
1973	<b>**UNION AVE**</b> CARBONE ELIAS (538)	New York Telephone

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	(continued) KREDAK EMMA (538) MIRAGLIA HENRY (538) COLUMBIA ASSN DEPT OF SANITATION INC (543)	
1976	<b>**UNION AVE**</b> CARBONE ELIAS (538) MIRAGLIA M (538) COLUMBIA ASSN DEPT OF SANITATION INC (543) BRIDGE PACKERS (550)	New York Telephone
	<b>**UNION**</b> ROXY STYLE KNITWEAR INC (543) SHAPIRO BEN SHOE CO INC (543) YORKTOWN PLASTICS INC (543) CIRCLE KLOR-DE RUG CLEANERS (546) FENZA FRANK J (546) GENNARO IRON WORKS (552)	New York Telephone
1980	Address Not Listed in Research Source	New York Telephone
1985	<b>**UNION**</b> BOWEN ROBERT (543) DETRLEZ NICK (543) DOLBERG GARRICK (543) GERSON BARRY (543) GIBSON OFC FURNITURE INC (543) LOUVER M & PIERRE (543) NORSONS INDUSTRIES INC (543) PIAZZA C (543) SCHNEIDER ROBERT (543) YORKTOWN PLASTICS INC (543) CATANIA JOHN B (546) CIRCLE KLOR-DE RUG CLEANRS (546) FENZA FRANK J (546) BRIDGE PACKERS (550) GENNARO IRON WORKS (552)	NYNEX Information Resources Company
1992	<b>**UNION AVE**</b> METRO MACHINE WORKS INC (538)	NYNEX Informantion Resource Co.
	<b>**UNION**</b> COOPER KENNETH (543) HIRSCHBERG WENDY (543) INDIGO REALTY CORP (543) LEE CARY (543) LOUVER PIERRE (543) MALLINCKRODT CASEY (543)	NYNEX Informantion Resource Co.

**Year   Uses**

**Source**

1992 (continued)

- REVKIN ANDREW (543)
- ROTHFARB ED (543)
- SCHUGURENSKY PABLO (543)
- STUBER-STONE INC (543)
- CATANIA JOHN (546)
- CIRCLE KLOR-DE RUG CLEANERS (546)
- FENZA FRANK J (546)
- CUMMINS MICHAEL (550)
- ALVARADO IRON WORKS (552)

1997   **\*\*UNION AVE\*\***

NYNEX

- SAAB VOLVO REPAIR (538)
- SAAB VOLVO REPAIR (538)

2000   **\*\*UNION AVE\*\***

Cole Information Services

- SAAB VOLVO REPAIR (538)
- SCNTFC FR PRVNTN (538)
- 2B LESLEY KUSHNER (543)
- 2D CLAIRE WEISSBERG (543)
- 3C ALFONSE BORYSEWICZ (543)
- 3D ART ANIMAL (543)
- 3D ART BEAR (543)
- 3D CHNSTINE HIEBERT (543)
- 4C MEG BELICHICK (543)
- 4D MAUREEN CUMMINS (543)
- APARTMENTS (543)
- ART GLASS STD INC (543)
- B & H IN ARCH LTD (543)
- DAVID KONIGSBERG (543)
- DAVID OUTHWAITE (543)
- EAST FRAMES (543)
- ELIZABETH GATLIN (543)
- ERNEST PORCELLI (543)
- HOVEY BROCK (543)
- INDIGO REALTY CORP (543)
- J STOCKHOLDER (543)
- JONI STEMBAACH (543)
- LORRAINE WALSH (543)
- PORCELLI ERNEST (543)
- CATANIA JOHN (546)
- FRANK J FENZA (546)
- RSPES PLBG & HTG (548)
- MICHAEL CUMMINS (550)
- T SODERQUIST (550)
- A & J IRON WORKS (552)

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# **APPENDIX F**

## **Qualifications of Environmental Professionals**

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## **QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS**

### **Steven T. Sobstyl**

Steve Sobstyl is Senior Project Manager of CA Rich Consultants Inc. Mr. Sobstyl received his Bachelor of Arts, Environmental Science (Natural Resource Planning and Management) degree from SUNY at Plattsburgh, New York in 1988. Certifications include: Hazardous Waste Operations and Emergency Response-Supervisor OSHA Part 1910.120; and Health & Safety Operations at Hazardous Materials Sites 29 CFR 1910.120 New York. Steve has over eighteen years of experience in the environmental consulting field. Specifically, conducting Phase I and Phase II assessments of commercial and industrial properties in the tri-state area.

### **Deborah Shapiro**

Ms. Shapiro serves as a Project Environmental Scientist with CA Rich Consultants, Inc. Deborah received her Bachelor of Arts in Environmental Studies, from The American University, Washington, DC in 1998; and her Master of Science degree in Environmental Science from the same University in 2001. She has over seven (7) years experience in the environmental field and has performed field investigations and remedial activities at numerous sites in Long Island and New York City (NYC). Ms. Shapiro has assisted in the design and construction of remediation systems and is currently performing operations and maintenance of remediation systems on a regular basis. In addition, Ms. Shapiro conducts Phase I and Phase II Environmental Site Assessments of commercial and industrial properties, as well as other non-industrial properties to facilitate real estate property transfers, loan workouts, and refinances. Ms. Shapiro is also currently working with several developers of 'E' designated and other properties in NYC that need to comply with CEQR on obtaining the "Notice to Proceed" and "Notice of Satisfaction" documents.

# Appendix B

CUSTOMER #	CAR202 CAR202	JOB SITE	544 UNION OWNER LLC
CUSTOMER	LA RICH CONSULTANTS		544 UNION AVENUE
CONTACT	VICTORIA		BROOKLYN
PHONE	631-793-8821		NY 11211

DRIVER		EPA ID. #	NYR000014472	ZONE	
TRACTOR #		MANIFEST	001871245JJK	DATE RECEIVED	12/16/07
TRAILER #		NUMBER OF (CIRCLE ONE)	DRUMS/GALS/YARDS		
J & D TRUCKING INC.		IN		OUT	02

PULL     PICK-UP     PULL/REPLACE     PUMP TANK     OTHER  
 DELIVER     IN/WITH     DELIVER/WAIT & PULL     PUMP DRUMS

CLEAN EARTH TO PROVIDE	YES	NO	#	CLEAN EARTH TO PROVIDE	YES	NO	#	CLEAN EARTH TO PROVIDE	YES	NO	#
MANIFEST	Y			LINER		N		LIFT		N	
HAZ LABEL	Y			MT. DRUM		N		XTRA HOSE		N	
DOT LABEL	Y			OVERPACK		N		HELPER		N	

DEPARTED CENJ    ARRIVED AT CUST.    DEPARTED CUST.    ARRIVED AT CENJ  
 AM     AM     AM     AM  
 PM     PM     PM     PM  
 TIME    TIME    TIME    TIME

NO. AND TYPES CONT.	WASTE DESCRIPTION	APP. #	PRC. #	NO. AND TYPES CONT.	WASTE DESCRIPTION	APP. #	PRC. #
I	20.00 LEAD IMPACTED SOIL YD DOGS	1151		III			
II				IV			

COMMENTS: J&D DML

WASTE: J & D TRUCKING INC. TRANSPORTING FOR DEPT SCHEDULED DATE 12/06/07

THE UNDERSIGNED AGREES THAT THE ABOVE SERVICE INFORMATION IS CORRECT

CUSTOMER SIGNATURE \_\_\_\_\_ PRINTED NAME \_\_\_\_\_ DATE \_\_\_\_\_

NO. OF CONTAINERS	CONT. TYPE	PROPER D.O.T. SHIPPING NAME	WASTE TYPE	DISPOSAL SITE(S)	T <sub>R</sub> A	MANIFEST # (S)	DISPOSAL SITE(S)	T <sub>R</sub> A	MANIFEST # (S)
A	1	RE HAZARDOUS WASTE SOLID, H05 DOGS							
JOB 103301    FAP    APP 1151 COMPLETED ON: _____ BY: _____									
B									
COMPLETED ON: _____ BY: _____									
C									
COMPLETED ON: _____ BY: _____									
D									
COMPLETED ON: _____ BY: _____									

DATE COMPLETED: \_\_\_\_\_ OPERATIONS DEPARTMENT SIGNOFF: \_\_\_\_\_

CUSTOMER #	CAK202	JOB SITE	544 UNION OWNER LLC
CUSTOMER	CA RICH CONSULTANTS	544 UNION AVENUE	
CONTACT	VICTORIA	BROOKLYN	
PHONE	631-793-8821	NY 11211	
DRIVER		EPA ID. #	NYR000014472
		ZONE	

TRACTOR #	J & D TRUCKING INC.	TRAILER #		IN	OUT	15	MANIFEST	001571246JK	DATE RECEIVED	12/6/07
-----------	---------------------	-----------	--	----	-----	----	----------	-------------	---------------	---------

PULL     PICK-UP     PULL/REPLACE     PUMP TANK     OTHER  
 DELIVER     IN/WITH     DELIVER/WAIT & PULL     PUMP DRUMS

CLEAN EARTH TO PROVIDE    YES    NO    #     CLEAN EARTH TO PROVIDE    YES    NO    #     CLEAN EARTH TO PROVIDE    YES    NO    #

MANIFEST	Y	LINER	N	LIFT	N
HAZ LABEL	Y	MT. DRUM	N	XTRA HOSE	N
DOT LABEL	Y	OVERPACK	N	HELPER	N

DEPARTED CENJ	ARRIVED AT CUST.	DEPARTED CUST.	ARRIVED AT CENJ
TIME	TIME	TIME	TIME
<input type="checkbox"/> AM <input type="checkbox"/> PM			

PURCHASE ORDER # \_\_\_\_\_  
 C. O. D. AMOUNT \_\_\_\_\_ CHECK # \_\_\_\_\_

NO. AND TYPES CONT.	WASTE DESCRIPTION	APP.#	PRC.#	NO. AND TYPES CONT.	WASTE DESCRIPTION	APP.#	PRC.#
I	20.00 LEAD IMPACTED SOIL YD DOOR	1151		III			
II				IV			

**COMMENTS:** J&D DML  
**WASTE:** J & D TRUCKING INC. TRANSPORTING FOR CENJ  
 SCHEDULED DATE 12/06/07

THE UNDERSIGNED AGREES THAT THE ABOVE SERVICE INFORMATION IS CORRECT

CUSTOMER SIGNATURE \_\_\_\_\_ PRINTED NAME \_\_\_\_\_ DATE \_\_\_\_\_

NO. OF CONTAINERS	CONT. TYPE	PROPER D.O.T. SHIPPING NAME	WASTE TYPE	DISPOSAL SITE(S)	T <sub>RA</sub>	MANIFEST # (S)	DISPOSAL SITE(S)	T <sub>RA</sub>	MANIFEST # (S)
A	I	DT RD HAZARDOUS WASTE SOLID, NOS	DOOR						
JOB 103301    FAF    APP 1151 COMPLETED ON: _____ BY: _____									
B									
COMPLETED ON: _____ BY: _____									
C									
COMPLETED ON: _____ BY: _____									
D									
COMPLETED ON: _____ BY: _____									

DATE COMPLETED: \_\_\_\_\_ OPERATIONS DEPARTMENT SIGNOFF: \_\_\_\_\_

# Appendix C



**Phase II  
Environmental Site Assessment**

**544 Union Avenue  
Brooklyn, New York  
#07DEPTECH336K**

**July 12, 2007**

**Prepared For:**

**544 Union Owner LLC  
190 North 10<sup>th</sup> Street, Suite 306  
Brooklyn, New York 11211**

**Prepared by:**

**CA RICH CONSULTANTS, INC.  
17 Dupont Street  
Plainview, NY 11803**



July 12, 2007

New York City Department of  
Environmental Protection  
Bureau of Operations and  
Environmental Analysis  
59-17 Junction Blvd, 11th Floor  
Flushing, New York 11373-5108

Attn: John Wuthenow, Director Site Assessment

Re: Phase II Environmental Site Assessment  
544 Union Avenue  
Brooklyn, New York  
Block: 2736; Lots: 1, 9, and 48  
**#07DEPTECH336K**

Dear Mr. Wuthenow:

Enclosed please find the Phase II Environmental Site Assessment (ESA) for the above-referenced location prepared by CA Rich Consultants, Inc. (CA RICH). A Remedial Action Plan (RAP) and Construction Health & Safety Plan (CHSP) will be submitted to you in a few days.

If you have any questions pertaining to the report, please feel free to contact the undersigned.

Sincerely,

**CA RICH CONSULTANTS, INC.**

A handwritten signature in cursive script, appearing to read 'D. Shapiro'.

Deborah Shapiro  
Project Manager

Reviewed by:

A handwritten signature in cursive script, appearing to read 'Stephen Malinowski'.

Stephen Malinowski  
Senior Project Manager

Enclosure

cc: Brian Glicksman

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## **1.0 EXECUTIVE SUMMARY**

A Phase II Investigation was conducted by CA Rich Consultants, Inc. (CA RICH) of Plainview, New York on behalf of 544 Union Owner LLC, for the property located at 544 Union Avenue in Brooklyn, New York (hereinafter referred to as the "Property" or "Site"). The technical approach was based upon findings from the Phase I Environmental Site Assessment (ESA), and from New York City Department of Environmental Protection's (NYCDEP) approval of the Phase II Work Plan dated May 4, 2007.

The Phase II Investigation consisted of a limited GPR survey, obtaining subsurface soil samples from ten (10) separate soil borings that were advanced from the surface down to shallow groundwater throughout the Site, approximately 10 feet below grade, and the collection of three groundwater samples from three of the borings.

The lithology observed during the soil testing indicates that the Site is underlain by unconsolidated fill materials, commonly occurring in the New York City area. Analytical results from this Phase II soil testing indicate that the semivolatile organic chemical compounds (SVOCs), pesticide, and metals constituents that were detected above NYSDEC TAGM values occur at typical concentration ranges characteristic of "urban" fill. There are a few metal exceedences in the soil that are a few orders of magnitude above the guidance, but these few dispersed elevated detections are not indicative of either a petroleum spill or a release. Therefore, the contamination noted at the Site is not indicative of a spill or other liquid release.

The planned Proposal for Property redevelopment will involve the limited excavation of on-site soil/fill earth materials for pile foundation purposes. Therefore, it is recommended that additional subsurface soil samples be collected to properly characterize the soil for off-site waste disposal purposes at an approved permitted disposal facility, as needed. In addition, it is further recommended that any material that is to be disturbed or excavated be properly handled and disposed of based upon the results of the waste characterization analysis. It is also recommended that a subsequent Remedial Action Plan (RAP) and a site-specific Construction Health & Safety Plan be submitted to NYCDEP for approval.

## **2.0 INTRODUCTION**

The following Report was prepared by CA Rich Consultants, Inc. ("CA RICH") of Plainview, New York, on behalf of 544 Union Owner LLC. This Report documents soil and groundwater testing activities recently completed by CA RICH at 544 Union Avenue in Brooklyn, New York (hereinafter referred to as the "Property" or "Site"). The technical approach for this investigation was based upon findings from the Phase I Environmental Site Assessment (ESA), and from New York City Department of Environmental Protection's (NYCDEP) approval of the Phase II Work Plan dated May 4, 2007.

## **3.0 BACKGROUND & PURPOSE**

The subject Property is improved with a one-story vacant industrial building on three contiguous lots totaling 35,692.57 square feet. The Property is located along the eastern side of Union Avenue between Frost Street and Withers Street (see Figure 1 Site Plan). The Tax Map designation for the Property is Block: 2736; Lots: 1, 9, and 48.

The Property is located in a mixed-use industrial/residential/commercial section of Brooklyn, New York and is designated Little 'E' Restricted: Hazmat. The surrounding area consists mostly of warehouses and multi-story residences. The area is serviced with municipal sewer and water.

The scope of Phase II testing is based upon the Phase I ESA findings and NYCDEP's approval of CA RICH's recommended Phase II dated May 29, 2007.

## **4.0 SITE HISTORY**

In May 2007, CA Rich Consultants, Inc. conducted a Phase I ESA of the subject Property. The May 2007 Phase I Report identified the following "Recognized Environmental Concerns (RECs)" and additional issue associated with the property: 1) numerous oil stains, a white residue/powder, and sumps/pits were observed throughout the building and, 2) the subject property is 'E' designated HAZMAT. Based on these findings a Phase II investigation was recommended to determine if the residue is hazardous and if the surface and subsurface soils have been impacted by the former site usage.

On May 4, 2007, CA RICH submitted the following requisite information to the NYCDEP for its review and approval: a Phase II Investigation Work Plan and associated Health and Safety Plan (HASP), the May 2007 Phase I Environmental Site Assessment (ESA) conducted by CA RICH; the proposed architectural site plans; and, a written description of the proposed redevelopment project.

On May 29, 2007, NYCDEP issued their approval letter on the Phase II Investigation Work Plan and associated HASP along with a comment that a GPR survey should be conducted across the entire Site. CA RICH conversed with Vlada Smorgunov of NYCDEP via e-mail on May 30, 2007 about limiting the scope of the GPR survey. At that time, NYCDEP agreed that the GPR survey could be limited to the proposed boring locations instead of Site-wide.

## **5.0 SCOPE OF WORK**

- ◆ A GPR survey was conducted over all proposed sampling locations;
- ◆ Ten (10) soil borings were advanced on-site utilizing a Geoprobe™ from the surface down to shallow groundwater throughout the Site, approximately 10 feet below grade; and,
- ◆ A total of 20 soil and three groundwater samples were collected and analyzed for the following parameters: Volatile Organic Compounds (VOCs) via EPA Method 8260, Semivolatile Organic Compounds (SVOCs) via EPA Method 8270, Pesticides via EPA Method 8081, PCBs via EPA Method 8082, and TAL Metals (filtered and unfiltered for groundwater).

According to the Phase II Work Plan, “a sample of the residue/powder will be obtained using properly decontaminated hand tools and placed on ice until delivered to a NYS-certified laboratory for analysis of hazardous waste characteristics.” However, an asbestos abatement was performed at the Site in June and the residue/powder was disposed of along with the asbestos tile it was on. Since the residue/powder is no longer present, CA RICH was unable to collect a sample.

All test locations are illustrated on Figure 2, and the analytical results are summarized on Tables 1 through 6. Copies of the original laboratory analytical report and soil boring logs are included as appendices.

## **6.0 FINDINGS**

### **6.1 GPR Survey**

To determine if any USTs or other subsurface structures were present beneath the proposed sampling locations, a GPR Survey was conducted around the proposed sampling locations on June 26, 2007. Naeva Geophysics (Naeva) conducted the GPR survey using a Software Noggin Smart Cart Ground Penetrating Radar. No suspect anomalies were identified during the GPR survey.

### **6.2 Soil Sampling**

On June 26, 2007, ten (10) continuous soil borings were advanced utilizing a Geoprobe™ from the surface down to shallow groundwater across the Site, approximately 10 feet below grade. Victoria Whelan of CA RICH was present on-site to oversee all of the soil boring activities. In addition, the borings were logged and characterized as to the shallow fill 'lithology', and the soil/fill samples produced from the test drilling were screened with a Photoionization Detector (PID).

The soil/fill sample from the 0-2 feet below grade interval and the sample containing the highest PID reading or the deepest soil/fill sample collected just above groundwater were collected for further chemical analyses. The soil/fill samples were chemically analyzed by American Analytical Laboratories (a State-Certified laboratory) of Farmingdale, NY subcontracted to CA RICH. The classes of chemical compounds or chemical constituents specified for analyses were Volatile Organic Compounds (VOCs) via EPA Method 8260, Semivolatile Organic Compounds (SVOCs) via EPA Method 8270, Pesticides via EPA Method 8081, PCBs via EPA Method 8082, and TAL Metals.

Overall, the subsurface soils and fill materials generally consisted of three inches of concrete at the surface followed by loose fill materials containing asphalt and brick fragments, which was in turn underlain by sand and gravels deposited upon a thick organic layer. Groundwater was encountered at approximately 10 feet below grade. No petroleum odors or staining was observed in any of these same earth fill materials. The PID readings of the soils ranged from 0 ppm (measured at multiple depths) to 12.5 ppm (measured in boring SB-9 at 8 feet). Soil boring logs are enclosed as Appendix A.

The laboratory analytical results were then compared to their applicable NYSDEC TAGM guidance values (Ref. 1) and are summarized on Tables 1 through 4. The results indicated the following:

- VOCs – Several low level detections below applicable TAGM values. Acetone and Methylene Chloride were detected above TAGM; however, these compounds are common laboratory contaminants and are not perceived to be representative of Site conditions;
- SVOCs – Several detections slightly above TAGM values in soil samples SB-1 (0-2 feet), SB-1 (8-10 feet), SB-2 (2 feet), SB-3 (0-2 feet), SB-4 (1-2 feet), SB-4 (10 feet), SB-5 (1-2 feet), SB-5 (8 feet), SB-6 (0-2 feet), SB-6 (10 feet), SB-7 (0-2 feet), SB-7 (9-10 feet); SB-8 (2 feet), SB-8 (10 feet), SB-9 (0-2), SB-9 (8-10), and SB-10 (3 feet);
- Metals – Several detections above TAGM in one or more samples (Arsenic, Barium, Cadmium, Calcium, Copper, Lead, Magnesium, Mercury, Selenium, and Zinc);
- PCBs – No detections; and,
- Pesticides – 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Endosulfan Sulfate, Aldrin, Endrin, and gamma-BHC were detected in several soil samples significantly below NYSDEC TAGM. Gamma-BHC was detected slightly above TAGM in one sample SB-9 (0-2 feet).

The soil boring locations are depicted on the attached Sample Location Map (Figure 2) and a copy of the laboratory analytical results are enclosed as Appendix B.

### **6.3 Groundwater Quality**

On June 26, 2007, three (3) groundwater quality samples were collected from soil borings SB-2, SB-6, and SB-10 via the Geoprobe™, identified as GW-1, GW-2 and GW-3. The depth to water at these borings was measured at approximately 10 feet below grade. Based on regional hydrogeology, groundwater is assumed to be flowing in a westerly direction. The samples were analyzed for VOCs via EPA Method 8260, SVOCs via EPA Method 8270, Pesticides via EPA Method 8081, PCBs via EPA Method 8082, and filtered and unfiltered TAL Metals.

Groundwater test results were compared to applicable NYSDEC TOGS groundwater standards or guidance values (Ref. 2) and are summarized on Tables 5 and 6. The results indicate the following:

- VOCs – Several detections slightly above TAGM in one or more samples (1,1,1-Trichloroethane, 1,1-Dichloroethane, Chloroethane, and Methylene Chloride, which was detected in the laboratory method blank);
- SVOCs – Several detections significantly below NYSDEC TAGM;
- Metals – Several detections above TAGM in one or more samples (Arsenic, Barium, Cadmium, Calcium, Copper, Lead, Mercury, Selenium, and Zinc);
- PCBs – No detections; and,
- Pesticides – No detections.

The location of the groundwater samples are depicted on the attached Sample Location Map (Fig. 2) and a copy of the laboratory analytical results are enclosed as Appendix B.

## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

This Phase II Environmental Investigation was performed in accordance with customary practice and generally accepted protocols within the environmental consulting industry. At the time of this study, and based upon the limitations inherent to the kind of information that can be generated by the specific data that was acquired, we provide the following conclusions and recommendations:

- The subsurface soils at the Site were investigated at ten (10) separate locations resulting in the chemical analysis of a total of 20 soil samples from beneath the Site. The lithology observed during the soil testing indicates that the Site is underlain by construction fill material, which is common in the New York City area. In addition, an organic layer was encountered and ranged from 7-9 feet below grade.

- The soil sample test results indicate that certain metals such as Arsenic, Barium, Cadmium, Calcium, Copper, Lead, Magnesium, Mercury, Selenium, and Zinc are present beneath the Site at levels above NYSDEC TAGM values or Eastern USA Background at one or more locations. In addition, levels of several SVOCs were detected above NYSDEC TAGM values in several soil samples. The typical SVOC constituents found benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, and chrysene, are commonly associated with byproducts of combustion found in construction fill throughout Brooklyn and Queens. Furthermore, the presence of select metals, SVOCs and one pesticide (at location SB-9) detected above NYSDEC TAGM values are typically characteristic of “urban” fill and are not considered indicative of any discrete spill or release. In addition, while there are a few metal exceedences in the soil that are a few orders of magnitude above the guidance, these few dispersed elevated detections are not indicative of either a petroleum spill or a release.
- The proposed Property redevelopment will involve the limited excavation and off-site removal of on-site unconsolidated soil/fill earth materials down to approximate 50-60 foot depths for pile foundation purposes. Therefore, it is recommended that additional soil samples be collected to properly characterize the soil for waste disposal purposes at an approved off-site waste disposal facility. In addition, it is recommended that any material that is to be disturbed or excavated be properly handled and disposed of based upon the results of a waste characterization analysis.
- The uppermost groundwater underlying the Site occurs at approximately 10-feet below grade and is assumed to flow in the westerly direction. It was sampled from three separate on-site temporary sampling points drilled beneath the surface. Chemical analyses of these three samples did reveal that the chlorinated solvents 1,1,1-Trichloroethene and 1,1-dichloroethene are dissolved in the groundwater at concentrations slightly above NYSDEC TOG levels in the upgradient sample location GW-2. In addition, Chloroethane- a chemical that was historically mainly produced for the production of tetraethyl lead, which is a gasoline additive was found at 1,600 ppb at upgradient location GW-2. The downgradient sample GW-1 contained only 13 ppb of chloroethane. 1,1,1-Trichloroethene and 1,1-dichloroethene were not detected in sample GW-1.

In summary, the VOCs detected appear to be attributable to a regional off-site source. The groundwater beneath the Site is not used for potable drinking water purposes. The presence of VOCs in the groundwater will not pose a threat to future building residents because a vapor barrier is planned for installation beneath the new building.

- Based upon the results of the Phase II investigation, CA RICH recommends that a site-specific Remedial Action Plan (RAP) and Construction Health & Safety Plan be prepared and submitted to NYCDEP.

## **8.0 INVESTIGATION LIMITATIONS**

CA RICH CONSULTANTS, INC. (CA RICH) performed the environmental work described herein in accordance with an approved limited scope of work and generally accepted protocols utilized within the environmental consulting profession. There were no intentional deviations or deletions from standard procedures in the performance of this work. The approved scope of work, as jointly agreed upon, was limited to the review of selected readily available and reasonably accessible documents/reports made available to CA RICH, and our evaluation of specific areas on the Site utilizing approved specific methods of investigation. As such, our findings and conclusions are limited to only those areas and media as described and studied herein.

CA RICH cannot warrant site-wide conditions because there may remain unknown or hidden conditions that could not be revealed during the limited testing conducted. Also, the undersigned cannot be held responsible for innocent or intentional misrepresentations or inaccurate information furnished to CA RICH regarding the environmental integrity of the area that may pose any potential for further environmental risk given a proposed redevelopment plan. However, we do acknowledge that to the best of our belief, the information we have supplied is true, complete and correct, and that facts or figures that may have an adverse effect upon the validity of the findings, conclusions and/or any recommendation(s) provided in this report have not purposely been omitted.

Should future testing/remediation activities reveal additional areas of environmental concern, then the findings and conclusions of this investigation and any further agency review may be subject to additional information needs and revision. In addition, CA RICH subcontracted State-Certified American Analytical Laboratories, Inc. of Farmingdale, NY as an independent entity to chemically analyze the environmental samples collected by CA RICH as part of this investigation.

CA RICH has no interest other than professional in this assignment and neither its performance, nor compensation for same, is contingent upon the findings or conclusions represented herein.

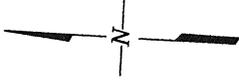
## 9.0 REFERENCES

- 1) New York State Department of Environmental Conservation, Jan. 24, 1994; Division Technical & Administrative Guidance Memorandum (TAGM): Determination of Soil Cleanup Objectives & Cleanup Levels.
- 2) New York State Department of Environmental Conservation, June 1998; Division of Water Technical and Operation Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.
- 3) CA RICH, May 4, 2007; Phase II Investigation Work Plan.

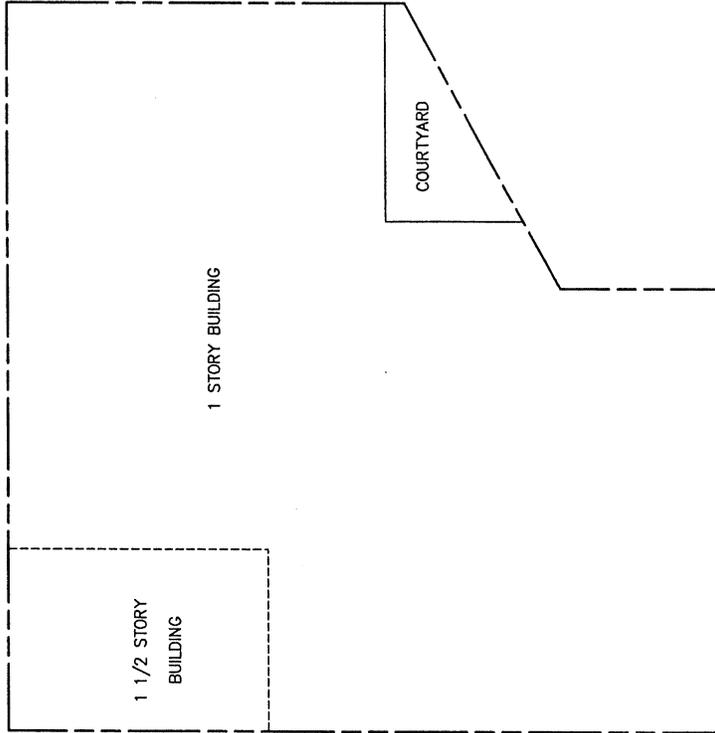
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## FIGURES

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**FROST STREET**

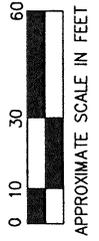


**UNION AVENUE**

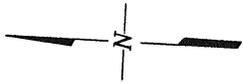
**WITHERS STREET**

Legend

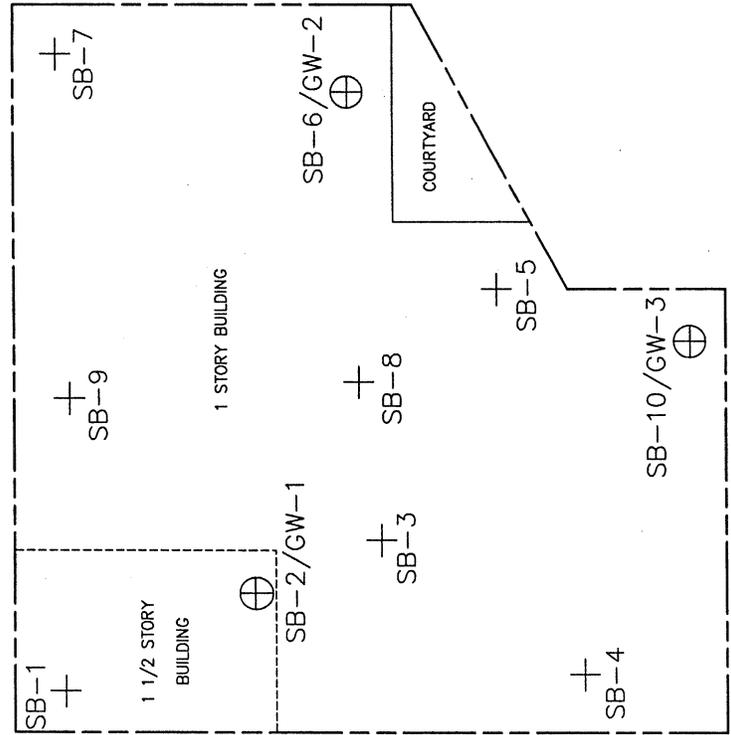
----- Property Boundary



<b>CA RICH CONSULTANTS, INC.</b> Certified Ground-Water and Environmental Specialists 17 Dupont Street, Plainview, New York 11803	
<b>TITLE</b>	<b>SITE PLAN</b>
<b>DATE</b>	7/12/07
<b>SCALE</b>	AS SHOWN
<b>DESIGNER</b>	D.S.
<b>DRAWING NO.</b>	2007-11
<b>APPR. BY:</b>	S.T.M.



**FROST STREET**



**UNION AVENUE**

**WITHERS STREET**

Legend

- Property Boundary
- + Soil Boring Location
- ⊕ Soil and Groundwater Boring Location



<b>CA RICH CONSULTANTS, INC.</b> Certified Ground-Water and Environmental Specialists 17 Dupont Street, Plainview, New York 11803		DATE: 7/07/07
TITLE: SAMPLE LOCATION MAP		SCALE: AS SHOWN
2	544 UNION AVE BROOKLYN, NEW YORK	DRAWN BY: D.S.
DRAWING NO.: 2007-11		APPR. BY: S.T.M.

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## **TABLES**

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**TABLE 1 (pg. 1 of 2)**  
**Summary of VOC Analytical Detections for**  
**Soil Boring Samples**  
**544 Union Avenue**  
**Brooklyn, New York**

Sample ID	SB-1 [0-2ft]	SB-1 [8-10ft]	SB-2 [2ft]	SB-2 [7ft]	SB-3 [0-2ft]	SB-3 [5ft]	SB-4 [1-2ft]	SB-4 [10ft]	SB-5 [1-2ft]	SB-5 [8ft]	SB-6 [0-2ft]	SB-6 [10ft]	NYSDEC
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	TAGM*
Date Sampled	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	
Volatile Organics													
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
1,1,1-Trichloroethane	ND	ND	11	ND	7.5	ND	11	7	11	12	15	ND	800
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	5.3 J	ND	ND	ND	ND	ND	NVG
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	9.2	6.4	10	19	51	ND	200
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	1.3 J	1.3 J	ND	ND	2.5 J	ND	400
Acetone	ND	41	23	41	51	91	18	ND	30	ND	ND	110	200
Carbon disulfide	ND	ND	ND	ND	ND	1.2 J	ND	ND	ND	ND	ND	ND	120
Chloroethane	6.4 J	10	8.9	ND	22	10	10	13	7.2	17	16	27	1900
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	2.7 J	ND	ND	ND	2.0 J	ND	NVG
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,300
Methylene chloride	18 B	16 B	12 B	13 B	14 B	13 B	15 B	12 B	14 B	13 B	13 B	14 B	300
Tetrachloroethene	ND	ND	ND	ND	ND	ND	3.9 J	ND	ND	ND	6.1 J	ND	1400
Toluene	ND	ND	ND	ND	1.1 J	ND	ND	ND	ND	ND	ND	ND	1,500
Trichloroethene	5.4 J	ND	1.2 J	ND	15	ND	38	ND	ND	ND	47	ND	700

**Notes:**

All concentrations are reported in micrograms per kilogram ( µg/kg) or parts per billion.

ND= Indicates the compound was analyzed for but not detected.

\*\*Methylene Chloride was not detected in the method blank; however, the levels detected are consistent with common laboratory contaminant levels.

Box indicates that value is above NYSDEC TAGM Soil Cleanup Objectives.

NVG = No given Value

\* NYSDEC Technical and Administrative Guidance  
Memorandum: Determination of Soil Cleanup  
Objectives and Cleanup Levels; January 24, 1994.

TABLE 1 (pg. 2 of 2)

Summary of VOC Analytical Detections for  
Soil Boring Samples  
544 Union Avenue  
Brooklyn, New York

Sample ID	SB-7 [2ft]	SB-7 [9-10ft]	SB-8 [2ft]	SB-8 [10ft]	SB-9 [0-2ft]	SB-9 [8-10ft]	SB-10 [3ft]	SB-10 [10ft]	NYSDEC
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	TAGM*
Date Sampled	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	
Volatiles Organics									
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	NVG
1,1-Dichloroethane	ND	1.4 J	10	ND	ND	ND	ND	ND	NVG
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	400
Acetone	42	220	ND	100	20	2,900	ND	ND	200
Carbon disulfide	ND	3.9 J	1.8 J	1.8 J	ND	ND	ND	ND	120
Chloroethane	ND	27	6.2	1,000	6.6	ND	ND	ND	1900
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	NVG
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	NVG
Methylene chloride	41 B	29 B	26 B	34 B	29 B	4,900	8.3 B	18 B	300
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1400
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	1,500
Trichloroethene	5.4 J	ND	1.5 J	ND	ND	ND	ND	ND	700
n-Butylbenzene	ND	ND	ND	ND	ND	230 J	ND	ND	NVG
p-Diethylbenzene	ND	ND	ND	ND	ND	520 J	ND	ND	NVG
Chlorodifluoromethane	ND	5.6 J	ND	ND	ND	230 J	ND	ND	NVG
1,1,1-Trichloroethane	ND	ND	4.2 J	ND	ND	520 J	ND	ND	800

Notes:  
All concentrations are reported in micrograms per kilogram (µg/kg) or parts per billion.  
ND= Indicates the compound was analyzed for but not detected.  
NVG = No given Value  
Box indicates that value is above NYSDEC TAGM Soil Cleanup Objectives.

\*NYSDEC Technical and Administrative Guidance  
Memorandum: Determination of Soil Cleanup  
Objectives and Cleanup Levels; January 24, 1994.

**TABLE 2 (pg. 1 of 2)**  
**Summary of SVOC Analytical Detections for**  
**Soil Boring Samples**  
**544 Union Avenue**  
**New York, New York**

Sample ID	SB-1 [0-2ft]	SB-1 [8-10ft]	SB-2 [2ft]	SB-2 [7ft]	SB-3 [0-2ft]	SB-3 [5ft]	SB-4 [1-2ft]	SB-4 [10ft]	SB-5 [1-2ft]	SB-5 [8ft]	SB-6 [0-2ft]	SB-6 [10ft]	NYSDEC
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	TAGM*
Date Sampled	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	
<b>Semi-volatile Organics</b>													
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
2-Methylnaphthalene	ND	ND	100 J	ND	150	ND	ND	ND	220	ND	ND	ND	900
3+4-Methylphenol	ND	ND	ND	ND	1,700	ND	ND	ND	ND	ND	ND	100 J	100
Acenaphthene	ND	210	340	ND	610	ND	ND	ND	690	ND	410	140 J	41,000
Anthracene	240	460	530	ND	1,200	ND	ND	ND	920	120 J	720	330	50,000
Benzo(a)anthracene	1,100	920	920	ND	2,200	ND	200	130 J	2,000	470	1,900	1,200	224
Benzo(a)pyrene	1,000	760	770	ND	2,100	ND	180	110 J	1,800	360	1,600	1,100	61
Benzo(b)fluoranthene	980	750	610	ND	1,900	ND	230	130 J	1,700	400	1,700	990	1,100
Benzo(g,h,i)perylene	810	460	470	ND	1,600	ND	140 J	ND	1,200	290	950	810	50,000
Benzo(k)fluoranthene	620	560	640	ND	1,500	ND	120 J	ND	1,300	350	1,200	810	1,100
Carbazole	ND	190	270	ND	530	ND	ND	ND	340	ND	330	190	NGV
Chrysene	1,200	1,100	920	ND	2,300	ND	250	150	2,000	550	2,000	1,300	400
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	310	ND	280	250	14
Dibenzofuran	ND	150 J	250	ND	400	ND	ND	ND	440	ND	200	110 J	6,200
Fluoranthene	1,800	1,600	1,500	140 J	5,300	120 J	380	210	4,100	790	3,900	2,000	50,000
Fluorene	ND	280	320	ND	450	ND	ND	ND	540	ND	330	110 J	50,000
Indeno(1,2,3-c,d)pyrene	670	460	480	ND	1,400	ND	120 J	ND	1,200	ND	1,100	730	3,200
Naphthalene	ND	120 J	130 J	ND	340	ND	ND	ND	320	ND	ND	ND	13,000
Phenanthrene	1,300	1,800	2,100	120 J	5,300	ND	260	140	4,300	660	3,400	1,700	50,000
Phenol	ND	ND	ND	ND	130 J	ND	ND	ND	ND	ND	ND	ND	30
Pyrene	2,300	1,900	1,900	210	4,800	110 J	390	230	3,800	870	3,800	2,600	50,000
2,4-Dimethylphenol	ND	ND	ND	ND	410	ND	ND	ND	ND	ND	ND	ND	200
2,6-Dinitrotouene	ND	ND	ND	ND	ND	ND	ND	770	ND	ND	ND	ND	1,000

Notes:  
All concentrations are reported in micrograms per kilogram (µg/kg) or parts per billion.  
ND= Indicates the compound was analyzed for but not detected.  
NGV= No Given Value  
J = Analyte detected below quantitation limits  
Box indicates that value is above NYSDEC TAGM Soil Cleanup Objectives.

\* NYSDEC Technical and Administrative Guidance  
Memorandum: Determination of Soil Cleanup  
Objectives and Cleanup Levels; January 24, 1994.

TABLE 2 (pg. 2 of 2)

Summary of SVOC Analytical Detections for  
Soil Boring Samples  
544 Union Avenue  
New York, New York

Sample ID	SB-7 [2ft]	SB-7 [9-10ft]	SB-8 [2ft]	SB-8 [10ft]	SB-9 [0-2ft]	SB-9 [8-10ft]	SB-10 [3ft]	SB-10 [10ft]	NYSDEC
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	TAGM*
Date Sampled	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007
Semi-volatile Organics									
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
2-Methylnaphthalene	ND	140 J	ND	ND	630	2,500	ND	ND	900
3+4-Methylphenol	ND	680	ND	ND	ND	ND	ND	ND	100
Acenaphthene	ND	290	ND	ND	1,400	ND	100 J	ND	41,000
Anthracene	200	680	280	ND	3,200	620	160	ND	50,000
Benzo(a)anthracene	1,200	2,300	1,400	160	4,900	220	350	ND	224
Benzo(a)pyrene	1,200	2,000	1,000	110 J	3,700	ND	280	ND	61
Benzo(b)fluoranthene	1,100	2,200	900	ND	3,700	ND	290	ND	1,100
Benzo(g,h,i)perylene	710	1,300	480	ND	1,900	ND	ND	ND	50,000
Benzo(k)fluoranthene	860	1,500	900	ND	2,500	ND	160	ND	1,100
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	540	ND	ND	ND	NVG
Butyl Benzyl phthalate	ND	ND	ND	160	ND	ND	ND	ND	NVG
Carbazole	ND	320	ND	ND	950	ND	ND	ND	NVG
Chrysene	1,300	2,400	1,300	160	4,700	250	370	ND	400
Dibenzo(a,h)anthracene	ND	310	ND	ND	490	ND	ND	ND	14
Dibenzofuran	ND	280	ND	ND	980	ND	ND	ND	6,200
Fluoranthene	2,000	5,000	2,400	320	11,000	660	800	ND	50,000
Fluorene	ND	300	ND	ND	1,300	1500	ND	ND	50,000
Indeno(1,2,3-c,d)pyrene	670	1,300	510	ND	2,000	ND	ND	ND	3,200
Naphthalene	ND	320	ND	ND	760	ND	120 J	ND	13,000
Phenanthrene	1,000	3,600	1,100	220	16,000	2,000	780	ND	50,000
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	30
Pyrene	1,900	4,700	2,300	270	11,000	900	650	ND	50,000

Notes:

All concentrations are reported in micrograms per kilogram (µg/kg) or parts per billion.

ND= Indicates the compound was analyzed for but not detected.

NGV= No Given Value

J = Analyte detected below quantitation limits

Box indicates that value is above NYSDEC TAGM Soil Cleanup Objectives.

\* NYSDEC Technical and Administrative Guidance

Memorandum: Determination of Soil Cleanup

Objectives and Cleanup Levels; January 24, 1994.

**TABLE 3 (pg. 1 of 2)**  
**Summary of Metals Analytical Detections for**  
**Soil Boring Samples**  
**544 Union Avenue**  
**Brooklyn, New York**

Sample ID Matrix Date Sampled	SB-1 [0-2ft] Soil 6/26/2007	SB-1 [8-10ft] Soil 6/26/2007	SB-2 [2ft] Soil 6/26/2007	SB-2 [7ft] Soil 6/26/2007	SB-3 [0-2ft] Soil 6/26/2007	SB-3 [5ft] Soil 6/26/2007	SB-4 [1-2ft] Soil 6/26/2007	SB-4 [10ft] Soil 6/26/2007	SB-5 [1-2ft] Soil 6/26/2007	SB-5 [8ft] Soil 6/26/2007	SB-6 [0-2ft] Soil 6/26/2007	SB-6 [10ft] Soil 6/26/2007	EASTERN USA BACKGROUND	NYSDEC TAGM*
<b>Metals</b>														
<b>Units</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	6,020	3,160	9,010	6,010	4,380	10,400	10,200	5,040	5,570	5,510	8,020	5,160	33,000	SB
Antimony	ND	6.65	ND	ND	0.674	ND	ND	4.64	ND	ND	5.15	0.296 J	N/A	SB
Arsenic	8.46	1.71	8.88	3.93	22.8	5.33	5.98	3.50	6.01	13.8	10.3	8.15	3.0 - 12 (NYS)	7.5
Barium	60.7	218	166	78.3	112	95.7	88.5	31.8	51.7	374	678	236	15 - 600	300
Cadmium	0.480	2.27	0.539	ND	0.675	ND	0.248	ND	0.353	1.06	0.419	0.282	0.1 - 1	1.0
Calcium	2,100	4,550	2,580	1,950	8,450	2470	5,970	5,900	1,750	9,380	16,900	12,300	130 - 35,000	SB
Chromium	7.68	8.24	14.2	14.0	13.5	16.4	14.6	7.78	12.9	13.1	12.6	22.1	1.5 - 40	10
Copper	47.5	154	72.2	28.4	1,160	33.3	60.4	103	75.9	180	175	47.3	1.0 - 50	25
Iron	16,400	3,710	19,700	38,400	30,600	13,900	13,800	3,920	37,400	5,620	13,600	4,860	2,000 - 550,000	2,000
Lead	93.7	27,600	283	126	455	127	269	488	148	4,510	2,860	501	200 - 500	200-500
Magnesium	891	402	1,130	1,420	764	1,690	1,370	1,040	739	465	3,600	1,490	100 - 5,000	SB
Manganese	198	81.2	333	274	305	261	194	119	613	116	160	148	50 - 5,000	SB
Mercury	0.555	2.99	1.39	0.394	0.912	6.97	12.4	0.357	0.476	3.99	2.02	3.76	0.001 - 0.2	0.1
Nickel	10.8	6.60	15.1	11.4	23.4	12.6	11.5	6.65	29.4	11.6	11.5	13.0	0.5 - 25	13
Potassium	788	627	1,370	978	1,130	1,520	1,460	880	1,090	1,120	2,690	1,160	8,500 - 43,000 (NYS)	SB
Selenium	0.626	ND	ND	ND	ND	ND	ND	ND	ND	3.95	0.375 J	0.616	0.1 - 3.9	2 or SB
Silver	ND	23.4	0.267 J	ND	0.978	ND	0.179 J	ND	0.289 J	0.449 J	1.55	0.473 J	N/A	SB
Sodium	217	521	327	224	472	306	486	248	245	641	713	533	6,000 - 8,000	SB
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.234 J	ND	N/A	SB
Vanadium	15.7	4.82	25.4	22.9	24.8	24.9	25.7	13.5	34.1	20.7	18.8	18.2	1 - 300	150
Zinc	196	140	193	63.6	222	66.0	136	81.5	112	567	255	175	9 - 50	20

Notes: \*NYSDEC Technical and Administrative Guidance  
mg/kg= milligrams per kilograms or parts per million Memorandum: Determination of Soil Cleanup  
ND= Indicates the compound was analyzed for but not detected. Objectives and Cleanup Levels; January 24, 1994.  
SB= Site Background  
N/A= Not Available  
Box indicates that value is above NYSDEC TAGM Soil Cleanup Objectives or Eastern USA Background (whichever is higher)

**TABLE 3 (pg. 2 of 2)**  
**Summary of Metals Analytical Detections for**  
**Soil Boring Samples**  
**544 Union Avenue**  
**Brooklyn, New York**

Sample ID Matrix Date Sampled	SB-7 [2ft] Soil 6/26/2007	SB-7 [9-10ft] Soil 6/26/2007	SB-8 [2ft] Soil 6/26/2007	SB-8 [10ft] Soil 6/26/2007	SB-9 [0-2ft] Soil 6/26/2007	SB-9 [8-10ft] Soil 6/26/2007	SB-10 [3ft] Soil 6/26/2007	SB-10 [10ft] Soil 6/26/2007	EASTERN USA BACKGROUND	NYSDEC TAGM*
<b>Metals</b>										
<b>Units</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	7,550	3,550	5,040	9,780	5,900	9,900	7,390	8,040	33,000	SB
Antimony	1.57	ND	ND	ND	0.734	ND	ND	0.607	N/A	SB
Arsenic	10.4	70.0	9.98	19.9	8.76	3.81	3.76	2.17	3.0 -12 (NYS)	7.5
Barium	172	168	155	467	225	91.5	60.7	46.8	15 - 600	300
Cadmium	1.26	1.05	0.374	0.383	0.978	ND	2.17	ND	0.1 - 1	1.0
Calcium	11,400	9,210	55,800	5,500	3,030	2,920	27,500	8,930	130 - 35,000	SB
Chromium	26.9	10.8	12.3	19.4	10.7	14.1	9.36	12.8	1.5 - 40	10
Copper	342	122	57.2	137	82.0	29.1	56.4	120	1.0 - 50	25
Iron	20,000	15,200	4,640	13,300	31,500	15,600	12600	13,200	2,000 - 550,000	2,000
Lead	484	623	422	844	377	222	43.4	52.3	200 - 500	200-500
Magnesium	1,280	726	757	1,400	1,240	1,500	6,470	1,340	100 - 5,000	SB
Manganese	248	167	134	191	288	224	429	116	50 - 5,000	SB
Mercury	4.77	4.08	3.34	23.8	1.73	0.468	1.04	7.86	0.001 - 0.2	0.1
Nickel	15.1	9.9	8.76	10.6	17.9	10.7	10.9	9.99	0.5 - 25	13
Potassium	1,580	824	1860	1,330	1220	1,380	1,540	1,500	8,500 - 43,000 (NYS)	SB
Selenium	ND	ND	1.16	0.844	ND	ND	ND	ND	0.1 - 3.9	2 or SB
Silver	0.442 J	0.227 J	0.186 J	0.612	0.197 J	ND	0.124 J	ND	N/A	SB
Sodium	469	405	1,630	375	371	303	279	350	6,000 - 8,000	SB
Vanadium	26.7	15.3	15.6	24.2	27.0	27.4	16.1	23.9	1 - 300	150
Zinc	435	238	162	185	499	51.9	543	187	9 - 50	20

*Notes:*

mg/kg= milligrams per kilograms or parts per million

ND= Indicates the compound was analyzed for but not detected.

SB= Site Background

N/A= Not Available

Box indicates that value is above NYSDEC TAGM Soil Cleanup Objectives or Eastern USA Background (whichever is higher)

\*NYSDEC Technical and Administrative Guidance  
Memorandum: Determination of Soil Cleanup  
Objectives and Cleanup Levels; January 24, 1994.

TABLE 4 (pg. 1of 2)

Summary of PCB and Pesticide Analytical Detections for  
Soil Boring Samples  
544 Union Avenue  
Brooklyn, New York

Sample ID	SB-1 [0-2ft]	SB-1 [8-10t]	SB-2 [2ft]	SB-2 [7ft]	SB-3 [0-2ft]	SB-3 [5ft]	SB-4 [1-2ft]	SB-4 [10ft]	SB-5 [1-2ft]	SB-5 [8ft]	SB-6 [0-2ft]	SB-6 [10ft]	NYSDEC
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	TAGM*
Date Sampled	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	
<b>PCBs</b>													
<b>Units</b>	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
<b>Pesticides</b>													
<b>Units</b>	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA

Notes:

ND - Indicates the compound was analyzed for but not detected.

NA- Inot Applicable

All concentrations are reported in micrograms per kilogram (ug/kg) or parts per billion.

\* NYSDEC Technical and Administrative Guidance

Memorandum: Determination of Soil Cleanup

Objectives and Cleanup Levels; January 24, 1994.

TABLE 4 (pg. 2 of 2)

Summary of PCB and Pesticide Analytical Detections for  
Soil Boring Samples  
544 Union Avenue  
Brooklyn, New York

Sample ID	SB-7 [2ft]	SB-7 [9-10ft]	SB-8 [2ft]	SB-8 [10ft]	SB-9 [0-2ft]	SB-9 [8-10ft]	SB-10 [3ft]	SB-10 [10ft]	NYSDEC
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	TAGM*
Date Sampled	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	
PCBs									
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
	ND	ND	ND	ND	ND	ND	ND	ND	NA
Pesticides									
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
4,4'-DDD	ND	21	25	ND	23	ND	ND	1.0 J	2,900
4,4'-DDE	ND	0.58 J	ND	ND	ND	ND	ND	ND	2,100
4,4'-DDT	ND	2.4 J	ND	ND	ND	ND	ND	ND	2,100
Aldrin	ND	3.5 J	ND	ND	ND	ND	ND	ND	41
Endosulfan sulfate	ND	ND	ND	ND	ND	1.7 J	ND	ND	1,000
Endrin	ND	ND	ND	ND	17	ND	ND	ND	100
gamma-BHC	ND	37	6.3	0.26 J	110	ND	ND	ND	60

Notes:

NA-Not Applicable

ND - Indicates the compound was analyzed for but not detected.

All concentrations are reported in micrograms per kilogram (ug/kg) or parts per billion.

\* NYSDEC Technical and Administrative Guidance

Memorandum: Determination of Soil Cleanup

Objectives and Cleanup Levels; January 24, 1994.

TABLE 5

Summary of Metals (Filtered and Unfiltered) Analytical Detections for  
Groundwater Samples  
544 Union Avenue  
Brooklyn, New York

Sample ID Matrix Date Sampled	GW-1 Groundwater 6/26/2007	GW-2 Groundwater 6/26/2007	GW-3 Groundwater 6/26/2007	NYSDEC TOGS*
<b>Metals (Unfiltered)</b>				
Units	ug/L	ug/L	ug/L	ug/L
Aluminum	30.5	246	153	100
Antimony	ND	0.446	ND	3
Arsenic	0.0586	0.358	0.0968	25
Barium	0.660	6.94	1.16	1,000
Cadmium	ND	0.0140	ND	5
Calcium	143	466	155	NGV
Chromium	0.126	2.17	0.533	50
Copper	0.192	6.11	0.845	200
Iron	54.7	1,250	162	300
Lead	1.15	9.23	0.814	25
Magnesium	30.7	119	47.5	35,000
Manganese	1.03	31.0	3.11	300
Nickel	0.103	1.31	0.291	100
Potassium	54.3	154	68.3	NGV
Silver	ND	0.0112 J	ND	50
Sodium	81.5	80.3	94.7	20,000
Vanadium	0.0676	1.62	0.344	NGV
Zinc	1.52	5.76	2.34	2,000
<b>Metals (Filtered)</b>				
Units	ug/L	ug/L	ug/L	ug/L
Aluminum	0.338	26.6	0.151	100
Arsenic	ND	0.0454	ND	25
Barium	0.278	2.53	0.311	1,000
Calcium	146	370	115	NGV
Chromium	0.0102 J	0.234	0.00652 J	50
Copper	0.00206 J	ND	0.00790 J	200
Iron	0.393	272	0.171	300
Lead	0.0119 J	0.467	ND	25
Magnesium	31.6	35.1	31.2	35,000
Manganese	0.371	17.3	0.583	300
Nickel	0.00852 J	0.297	0.0270	100
Potassium	61.9	54.2	56.7	NGV
Sodium	93.0	48.7	99.4	20,000
Vanadium	ND	0.174	ND	NGV
Zinc	0.0289	1.56	0.0724	2,000

## Notes:

All concentrations are reported in micrograms per liter (µg/L) or parts per billion.

ND= Indicates the compound was analyzed for but not detected.

NGV= No Given Value

\*NYSDEC Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values, June 1998.

Box indicates that value is above NYSDEC TOGS.

**TABLE 6**

**Summary of VOC, SVOC, PCB, and Pesticide Analytical Detections for  
Groundwater Samples  
544 Union Avenue  
Brooklyn, New York**

Sample ID Matrix Date Sampled	GW-1 Groundwater 6/26/2007	GW-2 Groundwater 6/26/2007	GW-3 Groundwater 6/26/2007	NYSDEC TOGS*
<b>Volatile Organic Compounds</b>				
<b>Units</b>	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	5.9	ND	5
1,1-Dichloroethane	ND	44	ND	5
1,1-Dichloroethene	ND	2.5	ND	5
Chloroethane	13	1,600	ND	5
cis-1,2-Dichloroethene	ND	2.4	ND	5
Methylene Chloride	16 B	16 B	20 B	5
Toluene	ND	1.4	ND	5
<b>Semi-Volatile Organic Compounds</b>				
<b>Units</b>	ug/L	ug/L	ug/L	ug/L
2,4-Dimethylphenol	0.99 J	ND	3.3 J	50
2-Methylnaphthalene	ND	ND	0.98 J	NGV
Benzoic acid	43	1.0 J	ND	NGV
Diethyl phthalate	1.2 J	5.9	ND	50
Flouranthene	1.4 J	ND	ND	50
Naphthalene	ND	ND	3.1 J	10
Phenanthrene	1.3 J	ND	ND	50
<b>PCBs</b>	ND	ND	ND	N/A
<b>Pesticides</b>	ND	ND	ND	N/A

*Notes:*

*All concentrations are reported in micrograms per liter (ug/L) or parts per billion.*

*ND = Indicates the compound was analyzed for but not detected.*

*B = Analyte detected in the associated Method Blank*

*NGV = No Given Value*

*N/A = Not Applicable*

*Box indicates that value is above NYSDEC TOGS.*

*\*NYSDEC Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values, June 1998.*

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**APPENDIX A**  
**Soil Boring Logs**

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# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-1

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: <b>6/26/2007</b>	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment: <b>Geoprobe</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	
					Cleared to 5ft. via hand auger	
	Full	0.2	n/a	Concrete 2-3 inches		
1	Full	0.2	n/a	Medium Brown, dry dark sand Tightly packed	SB-1 (0-2 ft.) at 9:30 am	
	Full	0.2	n/a		Sample taken from hand auger	
2	Full	0.2	n/a			
	Full	2.7	n/a	Medium grain. Black/brown sand, small pebbles		
3	Full	2.7	n/a			
	Full	2.7	n/a			
4	Full	2.7	n/a			
	0.0	2.7	n/a			
5	0.0	2.7	n/a			
	NA	X	n/a			
6	NA	X	n/a			
	NA	X	n/a			
7	NA	X	n/a			
	Full	2	n/a	Light brown sand		
8	Full	2	n/a	mixed with black organic matter (wood)	SB-1 (8-10ft.) at 9:45 am	
	Full	3	n/a			
9	Full	3	n/a	Dark black sand, tightly packed organic matter with wood fragments		
	Full	3	n/a			
10	Full	3	n/a		Groundwater encountered @10'	

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-2

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: <b>6/26/2007</b>	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment: <b>Geoprobe</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	
					Cleared to 5ft. via hand auger	
1		0.0	n/a	n/a	Concrete 2-3 inches	
					No recovery	
2		0.0	n/a	n/a		
						SB-2 (2 ft.) at 10:35 am
3		Full	1.8	n/a	Brown medium grain with small black lenses, no odor	Sample taken from hand auger
4		Full	5.7	n/a	Light brown, tan sands with small pebbles	
5		Full	3	n/a	Light brown, fine grain even sediment	
6		Full	2.1	n/a		
7		0.0	n/a	n/a		
8		0.0	n/a	n/a		
9		Full	1	n/a	Gray, fine grains, tightly packed	
						SB-2 (7 ft.) at 11:00 am
10		Full	0.8	n/a		
10		Full	0.8	n/a	Dark black, tightly packed organic matter with wood fragments	
						GW-1 at 6:00 pm
		Full	0.4	n/a		Groundwater encountered @10'

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-3

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: 6/26/2007	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment: <b>Geoprobe</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	
					Cleared to 5ft. via hand auger	
1		0.0	n/a	n/a	Concrete 2-3 inches	
		0.0	n/a	n/a	No recovery	
2		Full	0.4	n/a	Brown, medium grain, loose pack sand	
		Full	0.4	n/a		SB-3 (0-2 ft.) at 11:45 am
3		Full	0.3	n/a	Dark brown medium grain sand	Sample taken from hand auger
		Full	0.3	n/a		
4		Full	0.6	n/a	Tan tight pack sand, to a fine clay	
		Full	0.6	n/a		
5		Full	1.2	n/a	Dark black, medium grain	
		Full	1.2	n/a		SB-3 (5 ft.) at 12:00 pm
6		0.0	n/a	n/a		
		0.0	n/a	n/a		
7		0.0	n/a	n/a		
		0.0	n/a	n/a	Black, fine grain, tight pack sand	
8		Full	0.4	n/a		
		Full	0.4	n/a	Grey fine grain clay with small sand grains, tightly packed	
9		Full	0.4	n/a		
		Full	0.4	n/a		
10		Full	0.4	n/a		Groundwater encountered @10'

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-4

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>		Date: <b>6/26/2007</b>
Drilling Company <b>Land, Air, Water Environmental Services</b>	Foreman <b>Eric</b>	Sampling equipment: <b>Macrocore (5')</b>
Drilling Equipment <b>Geoprobe Sampling</b>		Geologist(s) <b>Victoria Whelan</b>

DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	Cleared to 5ft. via hand auger
		0.0	n/a	n/a	Concrete 2-3 inches	
1		0.0	n/a	n/a	No recovery	
		Full	0.1	n/a	Brown, medium grain, loose pack sand with asphalt and brick	
2		Full	0.1	n/a		SB-4 (1-2 ft.) at 1:20 pm
		Full	0.1	n/a		Sample taken from hand auger
3		Full	0.1	n/a		
		Full	0.1	n/a	Brown, fine grain tight 3 in. clay layer	
4		Full	0.1	n/a	Brown, medium grain	
		Full	n/a	n/a		
5		Full	n/a	n/a		
		0.0	n/a	n/a		
6		0.0	n/a	n/a		
		Full	0	n/a	Brown, medium grain, porous sand	
7		Full	0	n/a		
		Full	0	n/a		
8		Full	0	n/a		
		Full	0	n/a		
9		Full	0	n/a		
		Full	0	n/a		
10		Full	0	n/a	Organic layer is on the tip of the probe	Groundwater encountered @10' SB-4 (10 ft.) at 1:35 pm

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Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-5

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: 6/26/2007	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment <b>Geoprobe Sampling</b>			Geologist(s) <b>Victoria Whelan</b>			
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts		
	LOCATION:				SURFACE DESCRIPTION:	
0					Cleared to 5ft. via hand auger	
		0.0	n/a	n/a	Concrete 2-3 inches	
1		0.0	n/a	n/a	No recovery	
		Full	0	n/a	Brown, medium grain, loose pack sand with asphalt and brick	
2		Full	0	n/a	SB-5 (1-2 ft.) at 1:50 pm	
		Full	0	n/a	Brown sand to clay, tightly packed fine grain	
3		Full	0	n/a		
		Full	0	n/a		
4		Full	0	n/a	Brown, medium grain	
		Full	0	n/a		
5		Full	n/a	n/a		
		0.0	n/a	n/a		
6		0.0	n/a	n/a		
		Full	n/a	n/a		
7		Full	n/a	n/a		
		Full	0.1	n/a	Brown, medium grain, porous sand	
8		Full	0.1	n/a		
		Full	0.1	n/a	SB-5 (8 ft.) at 2:00 pm	
9		Full	0.1	n/a		
		Full	0	n/a		
10		Full	0	n/a	Groundwater encountered @10'	

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-6

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: <b>6/26/2007</b>	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment: <b>Geoprobe Sampling</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	
						Cleared to 5ft. via hand auger
		0.0	n/a	n/a	Concrete 2-3 inches	
1		0.0	n/a	n/a	Brown, medium grain, loose pack sand with asphalt and brick	
		Full	0	n/a		
2		Full	0	n/a		SB-6 (0-2 ft.) at 2:30 pm
		Full	0.1	n/a		Sample taken from hand auger
3		Full	0.1	n/a		
		Full	0.1	n/a		
4		Full	0.1	n/a		
		Full	0.1	n/a		
5		Full	0.1	n/a		
		0.0	n/a	n/a		
6		0.0	n/a	n/a		
		0.0	n/a	n/a		
7		0.0	n/a	n/a		
		0.0	n/a	n/a		
8		0.0	n/a	n/a		
		Full	0.1	n/a	Brown, medium grain, porous sand	
9		Full	0.1	n/a		
		Full	0.1	n/a		SB-6 (10 ft.) at 2:45 pm
10		Full	0.1	n/a		GW-2 at 2:45 pm Groundwater encountered @10'

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-7

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: 6/26/2007	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment: <b>Geoprobe Sampling</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	
						Cleared to 5ft. via hand auger
1	0.0	n/a	n/a		Concrete 2-3 inches	
	0.0	n/a	n/a			
2	Full	0	n/a		Brown, medium grain, loose pack sediment with asphalt and brick	
	Full	0	n/a			SB-7 (2 ft.) at 3:15 pm
3	Full	0	n/a			Sample taken from hand auger during pre-clear
	Full	0	n/a			
4	Full	0	n/a		Black/brown sediment, small pebbles, medium grain.	
	Full	0	n/a			
5	Full	0	n/a			
	Full	0	n/a			
6	Full	0	n/a			
	Full	0	n/a			
7	Full	0	n/a			
	Full	0	n/a			
8	Full	0	n/a			
	Full	0	n/a		Dark black, tightly packed organic matter with wood fragments	
9	Full	0	n/a			
	Full	0	n/a			SB-7 (9-10 ft.) at 3:30 pm
10	Full	0	n/a			Groundwater encountered @10'

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-8

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: <b>6/26/2007</b>	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment: <b>Geoprobe</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (teet)	FID/PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	Cleared to 5ft. via hand auger
		0.0	n/a	n/a	Concrete 2-3 inches	
1		0.0	n/a	n/a		
		0.0	0	n/a		
2		Full	0	n/a	Brown, medium grain, loose pack sediment with asphalt and brick	SB-8 (2 ft.) at 3:40 pm
		Full	0.1	n/a		Sample taken from hand auger during pre-clear
3		Full	0.1	n/a		
		Full	0.1	n/a		
4		Full	0.1	n/a	Brown sediment, small pebbles, medium grain	
		Full	0	n/a		
5		Full	0	n/a		
		Full	0	n/a		
6		Full	0	n/a		
		Full	0	n/a		
7		Full	0	n/a	Dark black, tightly packed organic matter with wood fragments	
		Full	0	n/a		
8		Full	0	n/a		
		Full	0	n/a		
9		Full	0	n/a		
		Full	0	n/a		
10		Full	0	n/a		SB-8 (10 ft.) at 3:45 pm Groundwater encountered @10'

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-9

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: <b>6/26/2007</b>	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment <b>Geoprobe</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	
		Full	0.1	n/a	Concrete 2-3 inches	Cleared to 5ft. via hand auger
1		Full	0.1	n/a	Brown, medium grain, loose pack sediment with asphalt and brick	
		Full	0.1	n/a		
2		Full	0.1	n/a		SB-9 (0-2 ft.) at 4:00 pm
		Full	0.1	n/a		Sample taken from hand auger
3		Full	0.1	n/a		
		Full	0.1	n/a		
4		Full	0.1	n/a	Brown, medium grain sand, small pebbles	
		Full	0.1	n/a		
5		Full	0.1	n/a		
		Full	0.1	n/a		
6		Full	0.1	n/a		
		Full	0.1	n/a		
7		Full	0.1	n/a		
		Full	12.5	n/a	Light gray, fine grain sand/clay, petroleum odor	
8		Full	12.5	n/a		
		Full	10	n/a		
9		Full	10	n/a		
		Full	8.5	n/a		SB-9 (8-10 ft.) at 4:10 pm
10		Full	8.5	n/a		Groundwater encountered @10'

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

# CA RICH Consultants, Inc.

17 Dupont Street, Plainview, New York 11803

Boring Number

SB-10

## BORING LOG

Project Name & Location <b>544 Union Avenue, Brooklyn, NY</b>					Date: <b>6/26/2007</b>	
Drilling Company <b>Land, Air, Water Environmental Services</b>			Foreman <b>Eric</b>		Sampling equipment: <b>Macrocore (5')</b>	
Drilling Equipment: <b>Geoprobe</b>					Geologist(s) <b>Victoria Whelan</b>	
DEPTH (ft below grade)	SAMPLES				SOIL DESCRIPTION	Sample ID
	Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts		
0	LOCATION:				SURFACE DESCRIPTION:	Cleared to 5ft. via hand auger
		Full	0.1	n/a	Concrete 2-3 inches	
1		Full	0.1	n/a	Brown, medium grain, loose pack sediment with asphalt and brick	
		Full	0.1	n/a		
2		Full	0.1	n/a		SB-10 (3 ft.) at 4:30 pm Sample taken from hand auger
		Full	0	n/a		
3		Full	0	n/a		
		Full	0	n/a		
4		Full	0	n/a	Brown, medium grain sand, small pebbles	
		Full	0.1	n/a		
5		Full	0.1	n/a		
		Full	0.1	n/a		
6		Full	0.1	n/a		
		Full	10	n/a	Gradation to Light gray, fine grain sand to clay, petroleum odor	
7		Full	10	n/a		
		Full	1	n/a		
8		Full	1	n/a		
		Full	1	n/a		
9		Full	1	n/a		SB-10 (10 ft.) at 4:45 pm
		Full	1	n/a		GW-3 at 5:00 pm
10		Full	1	n/a		Groundwater encountered @10'

Page 1 of 1

Signature: Victoria Whelan

Date: 7/3/2007

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**APPENDIX B**  
**Laboratory Analytical Report**

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Thursday, July 05, 2007

Victoria Whelan  
CA Rich Consultants Inc.  
17 Dupont Street  
Plainview, NY 11803

TEL: (516) 576-8844  
FAX (516) 576-0093

RE: 544 Union Ave. Brooklyn, N.Y.

Order No.: 0706264

Dear Victoria Whelan:

American Analytical Laboratories, LLC. received 12 sample(s) on 6/28/2007 for the analyses presented in the following report.

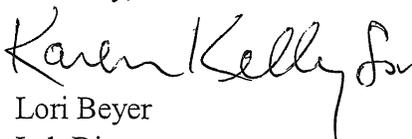
Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The limits provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at [lbeyer@american-analytical.com](mailto:lbeyer@american-analytical.com).

Sincerely,



Lori Beyer  
Lab Director

CLIENT: CA Rich Consultants Inc.  
Project: 544 Union Ave. Brooklyn, N.Y.  
Lab Order: 0706264

**Work Order Sample Summary**

---

Lab Sample ID	Client Sample ID	Tag Number	Date Collected	Date Received
0706264-01A	SB-1 [0-2ft]		6/26/2007 9:30:00 AM	6/28/2007
0706264-02A	SB-1 [8-10t]		6/26/2007 9:45:00 AM	6/28/2007
0706264-03A	SB-2 [2ft]		6/26/2007 10:35:00 AM	6/28/2007
0706264-04A	SB-2 [7ft]		6/26/2007 11:00:00 AM	6/28/2007
0706264-05A	SB-3 [0-2ft]		6/26/2007 11:45:00 AM	6/28/2007
0706264-06A	SB-3 [5ft]		6/26/2007 12:00:00 PM	6/28/2007
0706264-07A	SB-4 [1-2ft]		6/26/2007 1:20:00 PM	6/28/2007
0706264-08A	SB-4 [10ft]		6/26/2007 1:35:00 PM	6/28/2007
0706264-09A	SB-5 [1-2ft]		6/26/2007 1:50:00 PM	6/28/2007
0706264-10A	SB-5 [8ft]		6/26/2007 2:00:00 PM	6/28/2007
0706264-11A	SB-6 [0-2ft]		6/26/2007 2:30:00 PM	6/28/2007
0706264-12A	SB-6 [10ft]		6/26/2007 2:45:00 PM	6/28/2007

TAG # / COC \_\_\_\_\_

# CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS CA Rian Inc 17 Dupont St. Plainville NJ		CONTACT: Victoria Wheeler		SAMPLER (SIGNATURE) 		SAMPLE(S) SEALED	YES / NO
PROJECT LOCATION: 844 Union Ave Brooklyn, NY		SAMPLER NAME (PRINT) Victoria Wheeler		CORRECT CONTAINER(S)		YES / NO	
LABORATORY ID #	MATRIX	# CONTAINERS	SAMPLING DATE/TIME	SAMPLE # - LOCATION	FOR METHANOL PRESERVED SAMPLES (VOLATILE VIAL #)		
0706264-01A	S	2	6/26/07 9:30	SB-1 (0-2ft)			
-02A	S	2	6/26/07 9:45	SB-1 (8-10ft)			
-03A	S	2	6/26/07 10:05	SB-2 (0ft)			
-04A	S	2	6/26 11:00	SB-2 (7ft)			
-05A	S	2	6/26 11:40	SB-3 (0-2ft)			
-06A	S	2	6/26 12:00	SB-3 (5ft)			
-07A	S	2	6/26 12:20	SB-4 (1-2ft)			
-08A	S	2	6/26 1:35	SB-4 (10ft)			
-09A	S	2	6/26 1:50	SB-5 (1-2ft)			
-10A	S	2	6/26 2:00	SB-5 (8ft)			
-11A	S	2	6/26 2:30	SB-6 (0-2ft)			
-12A	S	2	6/26 2:45	SB-6 (10ft)			

RELINQUISHED BY (SIGNATURE) 		DATE 6/28/07	TIME 12:45	PRINTED NAME C. Wheeler
RECEIVED BY LAB (SIGNATURE) 		DATE	TIME	PRINTED NAME
RECEIVED BY (SIGNATURE)		DATE	TIME	PRINTED NAME

COOLER TEMPERATURE:

MATRIX S=SOIL; L=LIQUID; SL=SLUDGE; A=AIR; W=WIPE; P=PAINT CHIPS; B=BULK MATERIAL  
TYPE G=GRAB; C=COMPOSITE, SS=SPLIT SPOON

TURNAROUND REQUIRED: Cash per Car

NORMAL  STAT  BY / /

COMMENTS / INSTRUCTIONS

**AMERICAN ANALYTICAL LABORATORIES, LLC**

**56 TOLEDO STREET**

**FARMINGDALE, NEW YORK 11735**

**TELEPHONE: (631) 454-6100      FAX: (631) 454-8027**

**DATA REPORTING QUALIFIERS**

For reporting results, the following "Results Qualifiers" are used:

<b>Value</b>	If the result is greater than or equal to the detection limit, report the value
<b>U</b>	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
<b>J</b>	Indicates an estimated value. The flag is used: <ol style="list-style-type: none"><li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li><li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3ug/L was calculated report as 3J. This flag is used when similar situations arise on any organic parameter i.e. Pesticide, PCBs and others.</li></ol>
<b>B</b>	Indicates the analyte was found in the blank as well as the sample report "10B".
<b>E</b>	Indicates the analytes concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	This flag is used for Pesticide / PCB target analyte when there is >25% difference for detected concentrations between the two GC Columns. The higher of the two values is reported on Form I and flagged with a "P".
<b>N</b>	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
<b>H</b>	Indicates sample was received and/or analyzed outside of The method allowable holding time

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-1 [0-2ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 9:30:00 AM
<b>Lab ID:</b>	0706264-01A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	0.555	0.0114		mg/Kg-dry	1	7/2/2007 1:39:04 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	94		µg/Kg-dry	1	6/30/2007 3:13:00 PM
Aroclor 1221	U	94		µg/Kg-dry	1	6/30/2007 3:13:00 PM
Aroclor 1232	U	94		µg/Kg-dry	1	6/30/2007 3:13:00 PM
Aroclor 1242	U	94		µg/Kg-dry	1	6/30/2007 3:13:00 PM
Aroclor 1248	U	94		µg/Kg-dry	1	6/30/2007 3:13:00 PM
Aroclor 1254	U	94		µg/Kg-dry	1	6/30/2007 3:13:00 PM
Aroclor 1260	U	94		µg/Kg-dry	1	6/30/2007 3:13:00 PM
Surr: TCX	63.5	26-136		%REC	1	6/30/2007 3:13:00 PM
Surr: DCB	91.4	20-133		%REC	1	6/30/2007 3:13:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
4,4'-DDE	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
4,4'-DDT	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Aldrin	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
alpha-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
beta-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Chlordane	U	18		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Chlorobenzilate	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
DBCP	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
delta-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Dieldrin	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Endosulfan I	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Endosulfan II	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Endosulfan sulfate	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Endrin	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Endrin aldehyde	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Endrin ketone	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
gamma-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Heptachlor	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Heptachlor epoxide	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Hexachlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Hexachlorocyclopentadiene	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Methoxychlor	U	5.8		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Toxaphene	U	56		µg/Kg-dry	1	6/30/2007 2:06:00 PM
Surr: DCB	45.3	31-133		%REC	1	6/30/2007 2:06:00 PM
Surr: TCX	63.1	32-132		%REC	1	6/30/2007 2:06:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-01A

**Client Sample ID:** SB-1 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 9:30:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
Percent Moisture	14.8	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	6020	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Antimony	U	0.504		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Arsenic	8.46	0.504		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Barium	60.7	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Beryllium	U	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Cadmium	0.480	0.202		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Calcium	2100	0.504		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Chromium	7.68	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Cobalt	U	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Copper	47.5	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Iron	16400	4.04		mg/Kg-dry	10	7/3/2007 3:14:56 PM
Lead	93.7	0.303		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Magnesium	891	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Manganese	198	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Nickel	10.8	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Potassium	788	2.02		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Selenium	0.626	0.504		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Silver	U	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Sodium	217	1.21		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Thallium	U	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Vanadium	15.7	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
Zinc	196	0.404		mg/Kg-dry	1	7/3/2007 2:38:14 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
1,2-Dichlorobenzene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
1,3-Dichlorobenzene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
1,4-Dichlorobenzene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2,4,5-Trichlorophenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2,4,6-Trichlorophenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2,4-Dichlorophenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2,4-Dimethylphenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2,4-Dinitrophenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2,4-Dinitrotoluene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2,6-Dinitrotoluene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2-Chloronaphthalene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2-Chlorophenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-1 [0-2ft]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 9:30:00 AM
<b>Lab ID:</b> 0706264-01A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: RN</b>
2-Methylnaphthalene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2-Methylphenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2-Nitroaniline	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
2-Nitrophenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
3,3'-Dichlorobenzidine	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
3+4-Methylphenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
3-Nitroaniline	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
4,6-Dinitro-2-methylphenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
4-Bromophenyl phenyl ether	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
4-Chloro-3-methylphenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
4-Chloroaniline	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
4-Chlorophenyl phenyl ether	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
4-Nitroaniline	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
4-Nitrophenol	U	170		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Acenaphthene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Acenaphthylene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Aniline	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Anthracene	240	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Azobenzene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzidine	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzo(a)anthracene	1100	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzo(a)pyrene	1000	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzo(b)fluoranthene	980	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzo(g,h,i)perylene	810	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzo(k)fluoranthene	620	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzoic acid	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Benzyl alcohol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Bis(2-chloroethoxy)methane	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Bis(2-chloroethyl)ether	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Bis(2-chloroisopropyl)ether	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Bis(2-ethylhexyl)phthalate	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Butyl benzyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Carbazole	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Chrysene	1200	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Dibenzo(a,h)anthracene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Dibenzofuran	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Diethyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Dimethyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Di-n-butyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-01A

**Client Sample ID:** SB-1 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 9:30:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Fluoranthene	1800	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Fluorene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Hexachlorobenzene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Hexachlorobutadiene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Hexachlorocyclopentadiene	U	170		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Hexachloroethane	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Indeno(1,2,3-c,d)pyrene	670	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Isophorone	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Naphthalene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Nitrobenzene	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
N-Nitrosodimethylamine	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
N-Nitrosodi-n-propylamine	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
N-Nitrosodiphenylamine	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Pentachlorophenol	U	170		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Phenanthrene	1300	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Phenol	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Pyrene	2300	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Pyridine	U	140		µg/Kg-dry	1	6/29/2007 8:28:00 PM
Surr: 2,4,6-Tribromophenol	76.0	22-124		%REC	1	6/29/2007 8:28:00 PM
Surr: 2-Fluorobiphenyl	88.1	27-119		%REC	1	6/29/2007 8:28:00 PM
Surr: 2-Fluorophenol	103	21-123		%REC	1	6/29/2007 8:28:00 PM
Surr: 4-Terphenyl-d14	99.9	28-126		%REC	1	6/29/2007 8:28:00 PM
Surr: Nitrobenzene-d5	86.3	21-118		%REC	1	6/29/2007 8:28:00 PM
Surr: Phenol-d6	103	18-129		%REC	1	6/29/2007 8:28:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,1,1-Trichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,1,2,2-Tetrachloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,1,2-Trichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,1-Dichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,1-Dichloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,1-Dichloropropene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2,3-Trichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2,3-Trichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2,4,5-Tetramethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2,4-Trichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2,4-Trimethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-01A

Client Sample ID: SB-1 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 9:30:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2-Dibromoethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2-Dichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2-Dichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,2-Dichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,3,5-Trimethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,3-Dichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,3-dichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
1,4-Dichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
2,2-Dichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
2-Butanone	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
2-Chloroethyl vinyl ether	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
2-Chlorotoluene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
2-Hexanone	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
2-Propanol	U	68		µg/Kg-dry	1	6/29/2007 3:25:00 PM
4-Chlorotoluene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
4-Isopropyltoluene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
4-Methyl-2-pentanone	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Acetone	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Acrolein	U	34		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Acrylonitrile	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Benzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Bromobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Bromochloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Bromodichloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Bromoform	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Bromomethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Carbon disulfide	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Carbon tetrachloride	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Chlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Chlorodifluoromethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Chloroethane	6.4	6.8	J	µg/Kg-dry	1	6/29/2007 3:25:00 PM
Chloroform	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Chloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
cis-1,2-Dichloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
cis-1,3-Dichloropropene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Dibromochloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Dibromomethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Dichlorodifluoromethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-01A

Client Sample ID: SB-1 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 9:30:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Ethanol	U	34		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Ethyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Ethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Freon-114	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Hexachlorobutadiene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Isopropyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Isopropylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
m,p-Xylene	U	14		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Methyl tert-butyl ether	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Methylene chloride	18	6.8	B	µg/Kg-dry	1	6/29/2007 3:25:00 PM
n-Amyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Naphthalene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
n-Butyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
n-Butylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
n-Propyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
n-Propylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
o-Xylene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
p-Diethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
p-Ethyltoluene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
sec-Butylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Styrene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
t-Butyl alcohol	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
tert-Butylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Tetrachloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Toluene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
trans-1,2-Dichloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
trans-1,3-Dichloropropene	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Trichloroethene	5.4	6.8	J	µg/Kg-dry	1	6/29/2007 3:25:00 PM
Trichlorofluoromethane	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Vinyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Vinyl chloride	U	6.8		µg/Kg-dry	1	6/29/2007 3:25:00 PM
Surr: 4-Bromofluorobenzene	90.9	61-133		%REC	1	6/29/2007 3:25:00 PM
Surr: Dibromofluoromethane	102	61-139		%REC	1	6/29/2007 3:25:00 PM
Surr: Toluene-d8	98.0	57-131		%REC	1	6/29/2007 3:25:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-02A

Client Sample ID: SB-1 [8-10t]  
 Tag Number:  
 Collection Date: 6/26/2007 9:45:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: JP
Mercury	2.99	0.132		mg/Kg-dry	10	7/2/2007 2:55:18 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>		<b>SW8082A</b>		<b>SW3550</b>		Analyst: KF
Aroclor 1016	U	110		µg/Kg-dry	1	6/30/2007 3:30:00 PM
Aroclor 1221	U	110		µg/Kg-dry	1	6/30/2007 3:30:00 PM
Aroclor 1232	U	110		µg/Kg-dry	1	6/30/2007 3:30:00 PM
Aroclor 1242	U	110		µg/Kg-dry	1	6/30/2007 3:30:00 PM
Aroclor 1248	U	110		µg/Kg-dry	1	6/30/2007 3:30:00 PM
Aroclor 1254	U	110		µg/Kg-dry	1	6/30/2007 3:30:00 PM
Aroclor 1260	U	110		µg/Kg-dry	1	6/30/2007 3:30:00 PM
Surr: TCX	91.4	26-136		%REC	1	6/30/2007 3:30:00 PM
Surr: DCB	101	20-133		%REC	1	6/30/2007 3:30:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>		<b>SW8081B</b>		<b>SW3550</b>		Analyst: AR
4,4'-DDD	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
4,4'-DDE	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
4,4'-DDT	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Aldrin	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
alpha-BHC	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
beta-BHC	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Chlordane	U	21		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Chlorobenzilate	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
DBCP	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
delta-BHC	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Dieldrin	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Endosulfan I	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Endosulfan II	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Endosulfan sulfate	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Endrin	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Endrin aldehyde	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Endrin ketone	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
gamma-BHC	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Heptachlor	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Heptachlor epoxide	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Hexachlorobenzene	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Hexachlorocyclopentadiene	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Methoxychlor	U	7.0		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Toxaphene	U	67		µg/Kg-dry	1	6/30/2007 2:57:00 PM
Surr: DCB	18.9	31-133	S	%REC	1	6/30/2007 2:57:00 PM
Surr: TCX	62.6	32-132		%REC	1	6/30/2007 2:57:00 PM

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-1 [8-10t]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 9:45:00 AM
<b>Lab ID:</b> 0706264-02A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>		<b>D2216</b>		Analyst: CM		
Percent Moisture	28.5	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>		<b>SW6010B</b>	<b>SW3050A</b>	Analyst: JP		
Aluminum	3160	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Antimony	6.65	0.691		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Arsenic	1.71	0.691		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Barium	218	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Beryllium	U	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Cadmium	2.27	0.276		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Calcium	4550	0.691		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Chromium	8.24	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Cobalt	U	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Copper	154	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Iron	3710	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Lead	27600	0.415		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Magnesium	402	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Manganese	81.2	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Nickel	6.60	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Potassium	627	2.76		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Selenium	U	0.691		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Silver	23.4	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Sodium	521	1.66		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Thallium	U	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Vanadium	4.82	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
Zinc	140	0.553		mg/Kg-dry	1	7/3/2007 2:40:52 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>	<b>SW3550A</b>	Analyst: RN		
1,2,4-Trichlorobenzene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
1,2-Dichlorobenzene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
1,3-Dichlorobenzene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
1,4-Dichlorobenzene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2,4,5-Trichlorophenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2,4,6-Trichlorophenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2,4-Dichlorophenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2,4-Dimethylphenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2,4-Dinitrophenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2,4-Dinitrotoluene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2,6-Dinitrotoluene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2-Chloronaphthalene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2-Chlorophenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-02A

**Client Sample ID:** SB-1 [8-10t]  
**Tag Number:**  
**Collection Date:** 6/26/2007 9:45:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
2-Methylnaphthalene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2-Methylphenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2-Nitroaniline	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
2-Nitrophenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
3,3'-Dichlorobenzidine	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
3+4-Methylphenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
3-Nitroaniline	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
4,6-Dinitro-2-methylphenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
4-Bromophenyl phenyl ether	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
4-Chloro-3-methylphenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
4-Chloroaniline	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
4-Chlorophenyl phenyl ether	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
4-Nitroaniline	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
4-Nitrophenol	U	210		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Acenaphthene	210	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Acenaphthylene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Aniline	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Anthracene	460	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Azobenzene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzidine	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzo(a)anthracene	920	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzo(a)pyrene	760	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzo(b)fluoranthene	750	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzo(g,h,i)perylene	460	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzo(k)fluoranthene	560	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzoic acid	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Benzyl alcohol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Bis(2-chloroethoxy)methane	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Bis(2-chloroethyl)ether	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Bis(2-chloroisopropyl)ether	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Bis(2-ethylhexyl)phthalate	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Butyl benzyl phthalate	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Carbazole	190	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Chrysene	1100	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Dibenzo(a,h)anthracene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Dibenzofuran	150	170	J	µg/Kg-dry	1	6/29/2007 8:53:00 PM
Diethyl phthalate	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Dimethyl phthalate	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Di-n-butyl phthalate	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM

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	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-02A

**Client Sample ID:** SB-1 [8-10t]  
**Tag Number:**  
**Collection Date:** 6/26/2007 9:45:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: RN</b>
Di-n-octyl phthalate	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Fluoranthene	1600	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Fluorene	280	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Hexachlorobenzene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Hexachlorobutadiene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Hexachlorocyclopentadiene	U	210		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Hexachloroethane	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Indeno(1,2,3-c,d)pyrene	460	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Isophorone	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Naphthalene	120	170	J	µg/Kg-dry	1	6/29/2007 8:53:00 PM
Nitrobenzene	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
N-Nitrosodimethylamine	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
N-Nitrosodi-n-propylamine	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
N-Nitrosodiphenylamine	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Pentachlorophenol	U	210		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Phenanthrene	1800	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Phenol	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Pyrene	1900	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Pyridine	U	170		µg/Kg-dry	1	6/29/2007 8:53:00 PM
Surr: 2,4,6-Tribromophenol	65.9	22-124		%REC	1	6/29/2007 8:53:00 PM
Surr: 2-Fluorobiphenyl	69.3	27-119		%REC	1	6/29/2007 8:53:00 PM
Surr: 2-Fluorophenol	79.6	21-123		%REC	1	6/29/2007 8:53:00 PM
Surr: 4-Terphenyl-d14	77.9	28-126		%REC	1	6/29/2007 8:53:00 PM
Surr: Nitrobenzene-d5	67.8	21-118		%REC	1	6/29/2007 8:53:00 PM
Surr: Phenol-d6	80.3	18-129		%REC	1	6/29/2007 8:53:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				<b>Analyst: MB</b>
1,1,1,2-Tetrachloroethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,1,1-Trichloroethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,1,2,2-Tetrachloroethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,1,2-Trichloroethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,1-Dichloroethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,1-Dichloroethene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,1-Dichloropropene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2,3-Trichlorobenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2,3-Trichloropropane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2,4,5-Tetramethylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2,4-Trichlorobenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2,4-Trimethylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-02A

**Client Sample ID:** SB-1 [8-10t]  
**Tag Number:**  
**Collection Date:** 6/26/2007 9:45:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
1,2-Dibromo-3-chloropropane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2-Dibromoethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2-Dichlorobenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2-Dichloroethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,2-Dichloropropane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,3,5-Trimethylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,3-Dichlorobenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,3-dichloropropane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
1,4-Dichlorobenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
2,2-Dichloropropane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
2-Butanone	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
2-Chloroethyl vinyl ether	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
2-Chlorotoluene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
2-Hexanone	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
2-Propanol	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
4-Chlorotoluene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
4-Isopropyltoluene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
4-Methyl-2-pentanone	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Acetone	41	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Acrolein	U	39		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Acrylonitrile	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Benzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Bromobenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Bromochloromethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Bromodichloromethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Bromoform	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Bromomethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Carbon disulfide	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Carbon tetrachloride	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Chlorobenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Chlorodifluoromethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Chloroethane	10	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Chloroform	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Chloromethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
cis-1,2-Dichloroethene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
cis-1,3-Dichloropropene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Dibromochloromethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Dibromomethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Dichlorodifluoromethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-02A

Client Sample ID: SB-1 [8-10t]  
 Tag Number:  
 Collection Date: 6/26/2007 9:45:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Ethanol	U	39		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Ethyl acetate	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Ethylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Freon-114	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Hexachlorobutadiene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Isopropyl acetate	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Isopropylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
m,p-Xylene	U	16		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Methyl tert-butyl ether	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Methylene chloride	16	7.8	B	µg/Kg-dry	1	6/29/2007 4:02:00 PM
n-Amyl acetate	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Naphthalene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
n-Butyl acetate	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
n-Butylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
n-Propyl acetate	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
n-Propylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
o-Xylene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
p-Diethylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
p-Ethyltoluene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
sec-Butylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Styrene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
t-Butyl alcohol	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
tert-Butylbenzene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Tetrachloroethene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Toluene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
trans-1,2-Dichloroethene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
trans-1,3-Dichloropropene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Trichloroethene	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Trichlorofluoromethane	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Vinyl acetate	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Vinyl chloride	U	7.8		µg/Kg-dry	1	6/29/2007 4:02:00 PM
Surr: 4-Bromofluorobenzene	91.1	61-133		%REC	1	6/29/2007 4:02:00 PM
Surr: Dibromofluoromethane	110	61-139		%REC	1	6/29/2007 4:02:00 PM
Surr: Toluene-d8	96.0	57-131		%REC	1	6/29/2007 4:02:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detecte	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-03A

**Client Sample ID:** SB-2 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 10:35:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>				<b>SW7471B</b>		<b>SW7471B</b>
Mercury	1.39	0.0562		mg/Kg-dry	5	Analyst: JP 7/2/2007 3:31:05 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>				<b>SW8082A</b>		<b>SW3550</b>
Aroclor 1016	U	100		µg/Kg-dry	1	Analyst: KF 6/30/2007 3:46:00 PM
Aroclor 1221	U	100		µg/Kg-dry	1	6/30/2007 3:46:00 PM
Aroclor 1232	U	100		µg/Kg-dry	1	6/30/2007 3:46:00 PM
Aroclor 1242	U	100		µg/Kg-dry	1	6/30/2007 3:46:00 PM
Aroclor 1248	U	100		µg/Kg-dry	1	6/30/2007 3:46:00 PM
Aroclor 1254	U	100		µg/Kg-dry	1	6/30/2007 3:46:00 PM
Aroclor 1260	U	100		µg/Kg-dry	1	6/30/2007 3:46:00 PM
Surr: TCX	81.1	26-136		%REC	1	6/30/2007 3:46:00 PM
Surr: DCB	108	20-133		%REC	1	6/30/2007 3:46:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>				<b>SW8081B</b>		<b>SW3550</b>
4,4'-DDD	U	6.2		µg/Kg-dry	1	Analyst: AR 6/30/2007 3:14:00 PM
4,4'-DDE	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
4,4'-DDT	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Aldrin	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
alpha-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
beta-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Chlordane	U	19		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Chlorobenzilate	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
DBCP	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
delta-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Dieldrin	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Endosulfan I	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Endosulfan II	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Endosulfan sulfate	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Endrin	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Endrin aldehyde	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Endrin ketone	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
gamma-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Heptachlor	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Heptachlor epoxide	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Hexachlorobenzene	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Hexachlorocyclopentadiene	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Methoxychlor	U	6.2		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Toxaphene	U	60		µg/Kg-dry	1	6/30/2007 3:14:00 PM
Surr: DCB	87.8	31-133		%REC	1	6/30/2007 3:14:00 PM
Surr: TCX	96.9	32-132		%REC	1	6/30/2007 3:14:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detecte	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-03A

**Client Sample ID:** SB-2 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 10:35:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	19.8	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
		<b>SW6010B</b>				Analyst: <b>JP</b>
Aluminum	9010	4.76		mg/Kg-dry	10	7/3/2007 3:17:58 PM
Antimony	U	0.595		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Arsenic	8.88	0.595		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Barium	166	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Beryllium	U	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Cadmium	0.539	0.238		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Calcium	2580	0.595		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Chromium	14.2	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Cobalt	U	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Copper	72.2	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Iron	19700	4.76		mg/Kg-dry	10	7/3/2007 3:17:58 PM
Lead	283	0.357		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Magnesium	1130	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Manganese	333	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Nickel	15.1	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Potassium	1370	2.38		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Selenium	U	0.595		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Silver	0.267	0.476	J	mg/Kg-dry	1	7/3/2007 2:43:26 PM
Sodium	327	1.43		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Thallium	U	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Vanadium	25.4	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
Zinc	193	0.476		mg/Kg-dry	1	7/3/2007 2:43:26 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>				Analyst: <b>RN</b>
		<b>SW3550A</b>				
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2-Chlorophenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-03A

Client Sample ID: SB-2 [2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 10:35:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
2-Methylnaphthalene	100	150	J	µg/Kg-dry	1	6/29/2007 9:19:00 PM
2-Methylphenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2-Nitroaniline	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
2-Nitrophenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
3+4-Methylphenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
3-Nitroaniline	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
4-Chloroaniline	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
4-Nitroaniline	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
4-Nitrophenol	U	180		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Acenaphthene	340	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Acenaphthylene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Aniline	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Anthracene	530	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Azobenzene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzidine	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzo(a)anthracene	920	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzo(a)pyrene	770	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzo(b)fluoranthene	610	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzo(g,h,i)perylene	470	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzo(k)fluoranthene	640	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzoic acid	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Benzyl alcohol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Butyl benzyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Carbazole	270	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Chrysene	920	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Dibenzo(a,h)anthracene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Dibenzofuran	250	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Diethyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Dimethyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-2 [2ft]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 10:35:00 AM
<b>Lab ID:</b> 0706264-03A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>	<b>Analyst: RN</b>	
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Fluoranthene	1500	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Fluorene	320	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Hexachlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Hexachlorocyclopentadiene	U	180		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Hexachloroethane	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Indeno(1,2,3-c,d)pyrene	480	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Isophorone	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Naphthalene	130	150	J	µg/Kg-dry	1	6/29/2007 9:19:00 PM
Nitrobenzene	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Pentachlorophenol	U	180		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Phenanthrene	2100	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Phenol	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Pyrene	1900	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Pyridine	U	150		µg/Kg-dry	1	6/29/2007 9:19:00 PM
Surr: 2,4,6-Tribromophenol	63.8	22-124		%REC	1	6/29/2007 9:19:00 PM
Surr: 2-Fluorobiphenyl	78.1	27-119		%REC	1	6/29/2007 9:19:00 PM
Surr: 2-Fluorophenol	85.9	21-123		%REC	1	6/29/2007 9:19:00 PM
Surr: 4-Terphenyl-d14	89.5	28-126		%REC	1	6/29/2007 9:19:00 PM
Surr: Nitrobenzene-d5	73.8	21-118		%REC	1	6/29/2007 9:19:00 PM
Surr: Phenol-d6	87.3	18-129		%REC	1	6/29/2007 9:19:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>			<b>Analyst: MB</b>	
1,1,1,2-Tetrachloroethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,1,1-Trichloroethane	11	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,1,2,2-Tetrachloroethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,1,2-Trichloroethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,1-Dichloroethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,1-Dichloroethene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,1-Dichloropropene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2,3-Trichlorobenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2,3-Trichloropropane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2,4,5-Tetramethylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2,4-Trichlorobenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2,4-Trimethylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-03A

Client Sample ID: SB-2 [2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 10:35:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2-Dibromoethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2-Dichlorobenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2-Dichloroethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,2-Dichloropropane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,3,5-Trimethylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,3-Dichlorobenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,3-dichloropropane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
1,4-Dichlorobenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
2,2-Dichloropropane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
2-Butanone	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
2-Chloroethyl vinyl ether	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
2-Chlorotoluene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
2-Hexanone	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
2-Propanol	U	60		µg/Kg-dry	1	6/29/2007 4:39:00 PM
4-Chlorotoluene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
4-Isopropyltoluene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
4-Methyl-2-pentanone	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Acetone	23	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Acrolein	U	30		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Acrylonitrile	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Benzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Bromobenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Bromochloromethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Bromodichloromethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Bromoform	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Bromomethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Carbon disulfide	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Carbon tetrachloride	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Chlorobenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Chlorodifluoromethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Chloroethane	8.9	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Chloroform	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Chloromethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
cis-1,2-Dichloroethene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
cis-1,3-Dichloropropene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Dibromochloromethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Dibromomethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Dichlorodifluoromethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-03A

Client Sample ID: SB-2 [2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 10:35:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Ethanol	U	30		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Ethyl acetate	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Ethylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Freon-114	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Hexachlorobutadiene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Isopropyl acetate	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Isopropylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
m,p-Xylene	U	12		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Methyl tert-butyl ether	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Methylene chloride	12	6.0	B	µg/Kg-dry	1	6/29/2007 4:39:00 PM
n-Amyl acetate	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Naphthalene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
n-Butyl acetate	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
n-Butylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
n-Propyl acetate	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
n-Propylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
o-Xylene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
p-Diethylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
p-Ethyltoluene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
sec-Butylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Styrene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
t-Butyl alcohol	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
tert-Butylbenzene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Tetrachloroethene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Toluene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
trans-1,2-Dichloroethene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
trans-1,3-Dichloropropene	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Trichloroethene	1.2	6.0	J	µg/Kg-dry	1	6/29/2007 4:39:00 PM
Trichlorofluoromethane	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Vinyl acetate	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Vinyl chloride	U	6.0		µg/Kg-dry	1	6/29/2007 4:39:00 PM
Surr: 4-Bromofluorobenzene	91.3	61-133		%REC	1	6/29/2007 4:39:00 PM
Surr: Dibromofluoromethane	114	61-139		%REC	1	6/29/2007 4:39:00 PM
Surr: Toluene-d8	97.7	57-131		%REC	1	6/29/2007 4:39:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detecte	X	Value exceeds Maximum Contaminant Level

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-2 [7ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 11:00:00 AM
<b>Lab ID:</b>	0706264-04A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	0.394	0.0122		mg/Kg-dry	1	7/2/2007 1:47:02 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	99		µg/Kg-dry	1	6/30/2007 4:03:00 PM
Aroclor 1221	U	99		µg/Kg-dry	1	6/30/2007 4:03:00 PM
Aroclor 1232	U	99		µg/Kg-dry	1	6/30/2007 4:03:00 PM
Aroclor 1242	U	99		µg/Kg-dry	1	6/30/2007 4:03:00 PM
Aroclor 1248	U	99		µg/Kg-dry	1	6/30/2007 4:03:00 PM
Aroclor 1254	U	99		µg/Kg-dry	1	6/30/2007 4:03:00 PM
Aroclor 1260	U	99		µg/Kg-dry	1	6/30/2007 4:03:00 PM
Surr: TCX	80.9	26-136		%REC	1	6/30/2007 4:03:00 PM
Surr: DCB	94.6	20-133		%REC	1	6/30/2007 4:03:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
4,4'-DDE	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
4,4'-DDT	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Aldrin	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
alpha-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
beta-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Chlordane	U	18		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Chlorobenzilate	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
DBCP	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
delta-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Dieldrin	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Endosulfan I	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Endosulfan II	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Endosulfan sulfate	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Endrin	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Endrin aldehyde	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Endrin ketone	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
gamma-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Heptachlor	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Heptachlor epoxide	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Hexachlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Hexachlorocyclopentadiene	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Methoxychlor	U	6.1		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Toxaphene	U	59		µg/Kg-dry	1	6/30/2007 3:31:00 PM
Surr: DCB	84.1	31-133		%REC	1	6/30/2007 3:31:00 PM
Surr: TCX	103	32-132		%REC	1	6/30/2007 3:31:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-2 [7ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 11:00:00 AM
<b>Lab ID:</b>	0706264-04A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>CM</b>
Percent Moisture	18.9	0		wt%	1	6/29/2007

TARGET ANALYTE LIST METALS		<b>SW6010B</b>	<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	6010	4.60	mg/Kg-dry	10	7/3/2007 3:20:56 PM
Antimony	U	0.575	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Arsenic	3.93	0.575	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Barium	78.3	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Beryllium	U	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Cadmium	U	0.230	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Calcium	1950	0.575	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Chromium	14.0	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Cobalt	U	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Copper	28.4	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Iron	38400	4.60	mg/Kg-dry	10	7/3/2007 3:20:56 PM
Lead	126	0.345	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Magnesium	1420	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Manganese	274	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Nickel	11.4	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Potassium	978	2.30	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Selenium	U	0.575	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Silver	U	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Sodium	224	1.38	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Thallium	U	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Vanadium	22.9	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM
Zinc	63.6	0.460	mg/Kg-dry	1	7/3/2007 2:46:19 PM

SEMIVOLATILE SW-846 METHOD 8270		<b>SW8270D</b>	<b>SW3550A</b>		Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
1,2-Dichlorobenzene	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
1,3-Dichlorobenzene	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
1,4-Dichlorobenzene	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2,4,5-Trichlorophenol	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2,4,6-Trichlorophenol	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2,4-Dichlorophenol	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2,4-Dimethylphenol	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2,4-Dinitrophenol	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2,4-Dinitrotoluene	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2,6-Dinitrotoluene	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2-Chloronaphthalene	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM
2-Chlorophenol	U	140	µg/Kg-dry	1	6/29/2007 9:44:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-04A

**Client Sample ID:** SB-2 [7ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 11:00:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: RN</b>
2-Methylnaphthalene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
2-Methylphenol	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
2-Nitroaniline	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
2-Nitrophenol	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
3,3'-Dichlorobenzidine	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
3+4-Methylphenol	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
3-Nitroaniline	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
4,6-Dinitro-2-methylphenol	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
4-Bromophenyl phenyl ether	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
4-Chloro-3-methylphenol	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
4-Chloroaniline	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
4-Chlorophenyl phenyl ether	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
4-Nitroaniline	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
4-Nitrophenol	U	180		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Acenaphthene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Acenaphthylene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Aniline	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Anthracene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Azobenzene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzidine	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzo(a)anthracene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzo(a)pyrene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzo(b)fluoranthene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzo(g,h,i)perylene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzo(k)fluoranthene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzoic acid	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Benzyl alcohol	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Bis(2-chloroethoxy)methane	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Bis(2-chloroethyl)ether	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Bis(2-chloroisopropyl)ether	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Bis(2-ethylhexyl)phthalate	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Butyl benzyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Carbazole	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Chrysene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Dibenzo(a,h)anthracene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Dibenzofuran	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Diethyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Dimethyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Di-n-butyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-2 [7ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 11:00:00 AM
<b>Lab ID:</b>	0706264-04A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Fluoranthene	140	140	J	µg/Kg-dry	1	6/29/2007 9:44:00 PM
Fluorene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Hexachlorobenzene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Hexachlorobutadiene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Hexachlorocyclopentadiene	U	180		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Hexachloroethane	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Indeno(1,2,3-c,d)pyrene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Isophorone	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Naphthalene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Nitrobenzene	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
N-Nitrosodimethylamine	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
N-Nitrosodi-n-propylamine	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
N-Nitrosodiphenylamine	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Pentachlorophenol	U	180		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Phenanthrene	120	140	J	µg/Kg-dry	1	6/29/2007 9:44:00 PM
Phenol	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Pyrene	210	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Pyridine	U	140		µg/Kg-dry	1	6/29/2007 9:44:00 PM
Surr: 2,4,6-Tribromophenol	62.0	22-124		%REC	1	6/29/2007 9:44:00 PM
Surr: 2-Fluorobiphenyl	71.1	27-119		%REC	1	6/29/2007 9:44:00 PM
Surr: 2-Fluorophenol	60.0	21-123		%REC	1	6/29/2007 9:44:00 PM
Surr: 4-Terphenyl-d14	83.3	28-126		%REC	1	6/29/2007 9:44:00 PM
Surr: Nitrobenzene-d5	67.6	21-118		%REC	1	6/29/2007 9:44:00 PM
Surr: Phenol-d6	69.9	18-129		%REC	1	6/29/2007 9:44:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,1,1-Trichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,1,2,2-Tetrachloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,1,2-Trichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,1-Dichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,1-Dichloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,1-Dichloropropene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2,3-Trichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2,3-Trichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2,4,5-Tetramethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2,4-Trichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2,4-Trimethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-2 [7ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 11:00:00 AM
<b>Lab ID:</b>	0706264-04A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2-Dibromoethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2-Dichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2-Dichloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,2-Dichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,3,5-Trimethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,3-Dichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,3-dichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
1,4-Dichlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
2,2-Dichloropropane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
2-Butanone	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
2-Chloroethyl vinyl ether	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
2-Chlorotoluene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
2-Hexanone	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
2-Propanol	U	68		µg/Kg-dry	1	6/29/2007 5:16:00 PM
4-Chlorotoluene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
4-Isopropyltoluene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
4-Methyl-2-pentanone	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Acetone	41	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Acrolein	U	34		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Acrylonitrile	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Benzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Bromobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Bromochloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Bromodichloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Bromoform	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Bromomethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Carbon disulfide	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Carbon tetrachloride	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Chlorobenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Chlorodifluoromethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Chloroethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Chloroform	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Chloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
cis-1,2-Dichloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
cis-1,3-Dichloropropene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Dibromochloromethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Dibromomethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Dichlorodifluoromethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM

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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-04A

Client Sample ID: SB-2 [7ft]  
 Tag Number:  
 Collection Date: 6/26/2007 11:00:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
Diisopropyl ether	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Ethanol	U	34		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Ethyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Ethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Freon-114	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Hexachlorobutadiene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Isopropyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Isopropylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
m,p-Xylene	U	14		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Methyl tert-butyl ether	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Methylene chloride	13	6.8	B	µg/Kg-dry	1	6/29/2007 5:16:00 PM
n-Amyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Naphthalene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
n-Butyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
n-Butylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
n-Propyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
n-Propylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
o-Xylene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
p-Diethylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
p-Ethyltoluene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
sec-Butylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Styrene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
t-Butyl alcohol	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
tert-Butylbenzene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Tetrachloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Toluene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
trans-1,2-Dichloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
trans-1,3-Dichloropropene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Trichloroethene	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Trichlorofluoromethane	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Vinyl acetate	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Vinyl chloride	U	6.8		µg/Kg-dry	1	6/29/2007 5:16:00 PM
Surr: 4-Bromofluorobenzene	90.8	61-133		%REC	1	6/29/2007 5:16:00 PM
Surr: Dibromofluoromethane	112	61-139		%REC	1	6/29/2007 5:16:00 PM
Surr: Toluene-d8	97.4	57-131		%REC	1	6/29/2007 5:16:00 PM

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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-05A

**Client Sample ID:** SB-3 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 11:45:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>SW7471B</b>		<b>SW7471B</b>		<b>Analyst: JP</b>
Mercury	0.912	0.0504		mg/Kg-dry	5	7/2/2007 2:57:27 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>		<b>SW8082A</b>		<b>SW3550</b>		<b>Analyst: KF</b>
Aroclor 1016	U	88		µg/Kg-dry	1	6/30/2007 4:19:00 PM
Aroclor 1221	U	88		µg/Kg-dry	1	6/30/2007 4:19:00 PM
Aroclor 1232	U	88		µg/Kg-dry	1	6/30/2007 4:19:00 PM
Aroclor 1242	U	88		µg/Kg-dry	1	6/30/2007 4:19:00 PM
Aroclor 1248	U	88		µg/Kg-dry	1	6/30/2007 4:19:00 PM
Aroclor 1254	U	88		µg/Kg-dry	1	6/30/2007 4:19:00 PM
Aroclor 1260	U	88		µg/Kg-dry	1	6/30/2007 4:19:00 PM
Surr: TCX	116	26-136		%REC	1	6/30/2007 4:19:00 PM
Surr: DCB	115	20-133		%REC	1	6/30/2007 4:19:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>		<b>SW8081B</b>		<b>SW3550</b>		<b>Analyst: AR</b>
4,4'-DDD	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
4,4'-DDE	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
4,4'-DDT	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Aldrin	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
alpha-BHC	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
beta-BHC	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Chlordane	U	16		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Chlorobenzilate	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
DBCP	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
delta-BHC	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Dieldrin	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Endosulfan I	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Endosulfan II	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Endosulfan sulfate	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Endrin	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Endrin aldehyde	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Endrin ketone	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
gamma-BHC	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Heptachlor	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Heptachlor epoxide	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Hexachlorobenzene	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Hexachlorocyclopentadiene	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Methoxychlor	U	5.5		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Toxaphene	U	53		µg/Kg-dry	1	6/30/2007 3:48:00 PM
Surr: DCB	45.4	31-133		%REC	1	6/30/2007 3:48:00 PM
Surr: TCX	91.3	32-132		%REC	1	6/30/2007 3:48:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-3 [0-2ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 11:45:00 AM
<b>Lab ID:</b>	0706264-05A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
Percent Moisture	8.97	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	4380	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Antimony	0.674	0.474		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Arsenic	22.8	0.474		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Barium	112	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Beryllium	U	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Cadmium	0.675	0.189		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Calcium	8450	0.474		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Chromium	13.5	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Cobalt	U	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Copper	1160	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Iron	30600	3.79		mg/Kg-dry	10	7/3/2007 3:22:51 PM
Lead	455	0.284		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Magnesium	764	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Manganese	305	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Nickel	23.4	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Potassium	1130	1.89		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Selenium	U	0.474		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Silver	0.978	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Sodium	472	1.14		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Thallium	U	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Vanadium	24.8	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
Zinc	222	0.379		mg/Kg-dry	1	7/3/2007 2:56:51 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
1,2-Dichlorobenzene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
1,3-Dichlorobenzene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
1,4-Dichlorobenzene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2,4,5-Trichlorophenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2,4,6-Trichlorophenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2,4-Dichlorophenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2,4-Dimethylphenol	410	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2,4-Dinitrophenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2,4-Dinitrotoluene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2,6-Dinitrotoluene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2-Chloronaphthalene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2-Chlorophenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-05A

**Client Sample ID:** SB-3 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 11:45:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: RN</b>
2-Methylnaphthalene	150	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2-Methylphenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2-Nitroaniline	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
2-Nitrophenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
3,3'-Dichlorobenzidine	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
3+4-Methylphenol	1700	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
3-Nitroaniline	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
4,6-Dinitro-2-methylphenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
4-Bromophenyl phenyl ether	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
4-Chloro-3-methylphenol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
4-Chloroaniline	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
4-Chlorophenyl phenyl ether	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
4-Nitroaniline	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
4-Nitrophenol	U	160		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Acenaphthene	610	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Acenaphthylene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Aniline	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Anthracene	1200	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Azobenzene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzidine	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzo(a)anthracene	2200	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzo(a)pyrene	2100	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzo(b)fluoranthene	1900	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzo(g,h,i)perylene	1600	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzo(k)fluoranthene	1500	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzoic acid	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Benzyl alcohol	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Bis(2-chloroethoxy)methane	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Bis(2-chloroethyl)ether	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Bis(2-chloroisopropyl)ether	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Bis(2-ethylhexyl)phthalate	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Butyl benzyl phthalate	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Carbazole	530	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Chrysene	2300	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Dibenzo(a,h)anthracene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Dibenzofuran	400	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Diethyl phthalate	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Dimethyl phthalate	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Di-n-butyl phthalate	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-05A

Client Sample ID: SB-3 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 11:45:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
Di-n-octyl phthalate	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Fluoranthene	5300	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Fluorene	450	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Hexachlorobenzene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Hexachlorobutadiene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Hexachlorocyclopentadiene	U	160		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Hexachloroethane	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Indeno(1,2,3-c,d)pyrene	1400	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Isophorone	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Naphthalene	340	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Nitrobenzene	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
N-Nitrosodimethylamine	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
N-Nitrosodi-n-propylamine	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
N-Nitrosodiphenylamine	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Pentachlorophenol	U	160		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Phenanthrene	5300	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Phenol	130	130	J	µg/Kg-dry	1	7/3/2007 9:49:00 AM
Pyrene	4800	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Pyridine	U	130		µg/Kg-dry	1	7/3/2007 9:49:00 AM
Surr: 2,4,6-Tribromophenol	35.9	22-124		%REC	1	7/3/2007 9:49:00 AM
Surr: 2-Fluorobiphenyl	66.4	27-119		%REC	1	7/3/2007 9:49:00 AM
Surr: 2-Fluorophenol	81.7	21-123		%REC	1	7/3/2007 9:49:00 AM
Surr: 4-Terphenyl-d14	69.3	28-126		%REC	1	7/3/2007 9:49:00 AM
Surr: Nitrobenzene-d5	58.9	21-118		%REC	1	7/3/2007 9:49:00 AM
Surr: Phenol-d6	75.6	18-129		%REC	1	7/3/2007 9:49:00 AM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: MB
1,1,1,2-Tetrachloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,1,1-Trichloroethane	7.5	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,1,2,2-Tetrachloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,1,2-Trichloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,1-Dichloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,1-Dichloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,1-Dichloropropene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2,3-Trichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2,3-Trichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2,4,5-Tetramethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2,4-Trichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2,4-Trimethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-05A

Client Sample ID: SB-3 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 11:45:00 AM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: MB</b>		
1,2-Dibromo-3-chloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2-Dibromoethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2-Dichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2-Dichloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,2-Dichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,3,5-Trimethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,3-Dichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,3-dichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
1,4-Dichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
2,2-Dichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
2-Butanone	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
2-Chloroethyl vinyl ether	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
2-Chlorotoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
2-Hexanone	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
2-Propanol	U	59		µg/Kg-dry	1	6/29/2007 5:53:00 PM
4-Chlorotoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
4-Isopropyltoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
4-Methyl-2-pentanone	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Acetone	51	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Acrolein	U	30		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Acrylonitrile	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Benzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Bromobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Bromochloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Bromodichloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Bromoform	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Bromomethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Carbon disulfide	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Carbon tetrachloride	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Chlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Chlorodifluoromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Chloroethane	22	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Chloroform	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Chloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
cis-1,2-Dichloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
cis-1,3-Dichloropropene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Dibromochloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Dibromomethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Dichlorodifluoromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-3 [0-2ft]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 11:45:00 AM
<b>Lab ID:</b> 0706264-05A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>						
		<b>SW8260B</b>				Analyst: <b>MB</b>
Diisopropyl ether	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Ethanol	U	30		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Ethyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Ethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Freon-114	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Hexachlorobutadiene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Isopropyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Isopropylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
m,p-Xylene	U	12		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Methyl tert-butyl ether	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Methylene chloride	14	5.9	B	µg/Kg-dry	1	6/29/2007 5:53:00 PM
n-Amyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Naphthalene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
n-Butyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
n-Butylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
n-Propyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
n-Propylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
o-Xylene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
p-Diethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
p-Ethyltoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
sec-Butylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Styrene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
t-Butyl alcohol	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
tert-Butylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Tetrachloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Toluene	1.1	5.9	J	µg/Kg-dry	1	6/29/2007 5:53:00 PM
trans-1,2-Dichloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
trans-1,3-Dichloropropene	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Trichloroethene	15	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Trichlorofluoromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Vinyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Vinyl chloride	U	5.9		µg/Kg-dry	1	6/29/2007 5:53:00 PM
Surr: 4-Bromofluorobenzene	90.6	61-133		%REC	1	6/29/2007 5:53:00 PM
Surr: Dibromofluoromethane	113	61-139		%REC	1	6/29/2007 5:53:00 PM
Surr: Toluene-d8	96.2	57-131		%REC	1	6/29/2007 5:53:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-3 [5ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 12:00:00 PM
<b>Lab ID:</b>	0706264-06A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: <b>JP</b>
Mercury	6.97	0.235		mg/Kg-dry	20	7/2/2007 2:59:36 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
		<b>SW8082A</b>		<b>SW3550</b>		Analyst: <b>KF</b>
Aroclor 1016	U	100		µg/Kg-dry	1	6/30/2007 4:36:00 PM
Aroclor 1221	U	100		µg/Kg-dry	1	6/30/2007 4:36:00 PM
Aroclor 1232	U	100		µg/Kg-dry	1	6/30/2007 4:36:00 PM
Aroclor 1242	U	100		µg/Kg-dry	1	6/30/2007 4:36:00 PM
Aroclor 1248	U	100		µg/Kg-dry	1	6/30/2007 4:36:00 PM
Aroclor 1254	U	100		µg/Kg-dry	1	6/30/2007 4:36:00 PM
Aroclor 1260	U	100		µg/Kg-dry	1	6/30/2007 4:36:00 PM
Surr: TCX	94.4	26-136		%REC	1	6/30/2007 4:36:00 PM
Surr: DCB	92.4	20-133		%REC	1	6/30/2007 4:36:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
		<b>SW8081B</b>		<b>SW3550</b>		Analyst: <b>AR</b>
4,4'-DDD	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
4,4'-DDE	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
4,4'-DDT	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Aldrin	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
alpha-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
beta-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Chlordane	U	19		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Chlorobenzilate	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
DBCP	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
delta-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Dieldrin	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Endosulfan I	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Endosulfan II	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Endosulfan sulfate	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Endrin	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Endrin aldehyde	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Endrin ketone	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
gamma-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Heptachlor	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Heptachlor epoxide	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Hexachlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Hexachlorocyclopentadiene	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Methoxychlor	U	6.4		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Toxaphene	U	62		µg/Kg-dry	1	6/30/2007 4:06:00 PM
Surr: DCB	100	31-133		%REC	1	6/30/2007 4:06:00 PM
Surr: TCX	94.4	32-132		%REC	1	6/30/2007 4:06:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-3 [5ft]  
 Lab Order: 0706264 Tag Number:  
 Project: 544 Union Ave. Brooklyn, N.Y. Collection Date: 6/26/2007 12:00:00 PM  
 Lab ID: 0706264-06A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: CM
Percent Moisture	22.0	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: JP
Aluminum	10400	4.91		mg/Kg-dry	10	7/3/2007 3:40:26 PM
Antimony	U	0.614		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Arsenic	5.33	0.614		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Barium	95.7	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Beryllium	U	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Cadmium	U	0.246		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Calcium	2470	0.614		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Chromium	16.4	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Cobalt	U	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Copper	33.3	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Iron	13900	4.91		mg/Kg-dry	10	7/3/2007 3:40:26 PM
Lead	127	0.368		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Magnesium	1690	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Manganese	261	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Nickel	12.6	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Potassium	1520	2.46		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Selenium	U	0.614		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Silver	U	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Sodium	306	1.47		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Thallium	U	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Vanadium	24.9	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
Zinc	66.0	0.491		mg/Kg-dry	1	7/3/2007 2:58:48 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2-Chlorophenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-06A

**Client Sample ID:** SB-3 [5ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 12:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: RN</b>
2-Methylnaphthalene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2-Methylphenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
2-Nitrophenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
3+4-Methylphenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
3-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
4-Chloroaniline	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
4-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
4-Nitrophenol	U	190		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Acenaphthene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Acenaphthylene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Aniline	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Anthracene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Azobenzene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzidine	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzo(a)anthracene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzo(a)pyrene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzo(b)fluoranthene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzo(g,h,i)perylene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzo(k)fluoranthene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzoic acid	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Benzyl alcohol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Butyl benzyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Carbazole	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Chrysene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Dibenzo(a,h)anthracene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Dibenzofuran	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Diethyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Dimethyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-06A

**Client Sample ID:** SB-3 [5ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 12:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Fluoranthene	120	150	J	µg/Kg-dry	1	7/3/2007 11:54:00 AM
Fluorene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Hexachlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Hexachlorocyclopentadiene	U	190		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Hexachloroethane	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Indeno(1,2,3-c,d)pyrene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Isophorone	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Naphthalene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Nitrobenzene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Pentachlorophenol	U	190		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Phenanthrene	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Phenol	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Pyrene	110	150	J	µg/Kg-dry	1	7/3/2007 11:54:00 AM
Pyridine	U	150		µg/Kg-dry	1	7/3/2007 11:54:00 AM
Surr: 2,4,6-Tribromophenol	53.4	22-124		%REC	1	7/3/2007 11:54:00 AM
Surr: 2-Fluorobiphenyl	56.8	27-119		%REC	1	7/3/2007 11:54:00 AM
Surr: 2-Fluorophenol	71.7	21-123		%REC	1	7/3/2007 11:54:00 AM
Surr: 4-Terphenyl-d14	59.1	28-126		%REC	1	7/3/2007 11:54:00 AM
Surr: Nitrobenzene-d5	52.2	21-118		%REC	1	7/3/2007 11:54:00 AM
Surr: Phenol-d6	66.6	18-129		%REC	1	7/3/2007 11:54:00 AM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,1,1-Trichloroethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,1,2,2-Tetrachloroethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,1,2-Trichloroethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,1-Dichloroethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,1-Dichloroethene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,1-Dichloropropene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2,3-Trichlorobenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2,3-Trichloropropane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2,4,5-Tetramethylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2,4-Trichlorobenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2,4-Trimethylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-3 [5ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 12:00:00 PM
<b>Lab ID:</b>	0706264-06A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: MB</b>		
1,2-Dibromo-3-chloropropane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2-Dibromoethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2-Dichlorobenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2-Dichloroethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,2-Dichloropropane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,3,5-Trimethylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,3-Dichlorobenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,3-dichloropropane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
1,4-Dichlorobenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
2,2-Dichloropropane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
2-Butanone	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
2-Chloroethyl vinyl ether	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
2-Chlorotoluene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
2-Hexanone	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
2-Propanol	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
4-Chlorotoluene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
4-Isopropyltoluene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
4-Methyl-2-pentanone	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Acetone	91	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Acrolein	U	28		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Acrylonitrile	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Benzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Bromobenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Bromochloromethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Bromodichloromethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Bromoform	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Bromomethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Carbon disulfide	1.2	5.7	J	µg/Kg-dry	1	6/29/2007 6:30:00 PM
Carbon tetrachloride	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Chlorobenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Chlorodifluoromethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Chloroethane	10	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Chloroform	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Chloromethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
cis-1,2-Dichloroethene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
cis-1,3-Dichloropropene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Dibromochloromethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Dibromomethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Dichlorodifluoromethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-06A

Client Sample ID: SB-3 [5ft]  
 Tag Number:  
 Collection Date: 6/26/2007 12:00:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
Diisopropyl ether	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Ethanol	U	28		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Ethyl acetate	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Ethylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Freon-114	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Hexachlorobutadiene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Isopropyl acetate	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Isopropylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
m,p-Xylene	U	11		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Methyl tert-butyl ether	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Methylene chloride	13	5.7	B	µg/Kg-dry	1	6/29/2007 6:30:00 PM
n-Amyl acetate	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Naphthalene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
n-Butyl acetate	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
n-Butylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
n-Propyl acetate	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
n-Propylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
o-Xylene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
p-Diethylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
p-Ethyltoluene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
sec-Butylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Styrene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
t-Butyl alcohol	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
tert-Butylbenzene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Tetrachloroethene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Toluene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
trans-1,2-Dichloroethene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
trans-1,3-Dichloropropene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Trichloroethene	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Trichlorofluoromethane	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Vinyl acetate	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Vinyl chloride	U	5.7		µg/Kg-dry	1	6/29/2007 6:30:00 PM
Surr: 4-Bromofluorobenzene	92.0	61-133		%REC	1	6/29/2007 6:30:00 PM
Surr: Dibromofluoromethane	109	61-139		%REC	1	6/29/2007 6:30:00 PM
Surr: Toluene-d8	95.9	57-131		%REC	1	6/29/2007 6:30:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-4 [1-2ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 1:20:00 PM
<b>Lab ID:</b>	0706264-07A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	12.4	0.307		mg/Kg-dry	25	7/2/2007 3:37:35 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	99		µg/Kg-dry	1	6/30/2007 4:53:00 PM
Aroclor 1221	U	99		µg/Kg-dry	1	6/30/2007 4:53:00 PM
Aroclor 1232	U	99		µg/Kg-dry	1	6/30/2007 4:53:00 PM
Aroclor 1242	U	99		µg/Kg-dry	1	6/30/2007 4:53:00 PM
Aroclor 1248	U	99		µg/Kg-dry	1	6/30/2007 4:53:00 PM
Aroclor 1254	U	99		µg/Kg-dry	1	6/30/2007 4:53:00 PM
Aroclor 1260	U	99		µg/Kg-dry	1	6/30/2007 4:53:00 PM
Surr: TCX	69.7	26-136		%REC	1	6/30/2007 4:53:00 PM
Surr: DCB	72.6	20-133		%REC	1	6/30/2007 4:53:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
4,4'-DDE	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
4,4'-DDT	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Aldrin	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
alpha-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
beta-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Chlordane	U	19		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Chlorobenzilate	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
DBCP	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
delta-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Dieldrin	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Endosulfan I	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Endosulfan II	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Endosulfan sulfate	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Endrin	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Endrin aldehyde	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Endrin ketone	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
gamma-BHC	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Heptachlor	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Heptachlor epoxide	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Hexachlorobenzene	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Hexachlorocyclopentadiene	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Methoxychlor	U	6.2		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Toxaphene	U	60		µg/Kg-dry	1	6/30/2007 4:23:00 PM
Surr: DCB	70.7	31-133		%REC	1	6/30/2007 4:23:00 PM
Surr: TCX	73.7	32-132		%REC	1	6/30/2007 4:23:00 PM

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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-07A

**Client Sample ID:** SB-4 [1-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 1:20:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>CM</b>
Percent Moisture	19.4	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	10200	4.68		mg/Kg-dry	10	7/3/2007 3:42:33 PM
Antimony	U	0.585		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Arsenic	5.98	0.585		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Barium	88.5	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Beryllium	U	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Cadmium	0.248	0.234		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Calcium	5970	0.585		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Chromium	14.6	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Cobalt	U	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Copper	60.4	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Iron	13800	4.68		mg/Kg-dry	10	7/3/2007 3:42:33 PM
Lead	269	0.351		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Magnesium	1370	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Manganese	194	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Nickel	11.5	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Potassium	1460	2.34		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Selenium	U	0.585		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Silver	0.179	0.468	J	mg/Kg-dry	1	7/3/2007 3:00:47 PM
Sodium	486	1.40		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Thallium	U	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Vanadium	25.7	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
Zinc	136	0.468		mg/Kg-dry	1	7/3/2007 3:00:47 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2-Chlorophenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM

**Qualifiers:**  
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 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-4 [1-2ft]  
 Lab Order: 0706264 Tag Number:  
 Project: 544 Union Ave. Brooklyn, N.Y. Collection Date: 6/26/2007 1:20:00 PM  
 Lab ID: 0706264-07A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
2-Methylnaphthalene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2-Methylphenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
2-Nitrophenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
3+4-Methylphenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
3-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
4-Chloroaniline	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
4-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
4-Nitrophenol	U	180		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Acenaphthene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Acenaphthylene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Aniline	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Anthracene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Azobenzene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzidine	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzo(a)anthracene	200	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzo(a)pyrene	180	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzo(b)fluoranthene	230	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzo(g,h,i)perylene	140	150	J	µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzo(k)fluoranthene	120	150	J	µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzoic acid	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Benzyl alcohol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Butyl benzyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Carbazole	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Chrysene	250	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Dibenzo(a,h)anthracene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Dibenzofuran	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Diethyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Dimethyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-4 [1-2ft]  
 Lab Order: 0706264 Tag Number:  
 Project: 544 Union Ave. Brooklyn, N.Y. Collection Date: 6/26/2007 1:20:00 PM  
 Lab ID: 0706264-07A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Fluoranthene	380	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Fluorene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Hexachlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Hexachlorocyclopentadiene	U	180		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Hexachloroethane	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Indeno(1,2,3-c,d)pyrene	120	150	J	µg/Kg-dry	1	7/3/2007 12:19:00 PM
Isophorone	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Naphthalene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Nitrobenzene	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Pentachlorophenol	U	180		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Phenanthrene	260	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Phenol	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Pyrene	390	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Pyridine	U	150		µg/Kg-dry	1	7/3/2007 12:19:00 PM
Surr: 2,4,6-Tribromophenol	50.3	22-124		%REC	1	7/3/2007 12:19:00 PM
Surr: 2-Fluorobiphenyl	74.3	27-119		%REC	1	7/3/2007 12:19:00 PM
Surr: 2-Fluorophenol	79.8	21-123		%REC	1	7/3/2007 12:19:00 PM
Surr: 4-Terphenyl-d14	73.0	28-126		%REC	1	7/3/2007 12:19:00 PM
Surr: Nitrobenzene-d5	70.7	21-118		%REC	1	7/3/2007 12:19:00 PM
Surr: Phenol-d6	83.3	18-129		%REC	1	7/3/2007 12:19:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,1,1-Trichloroethane	11	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,1,2,2-Tetrachloroethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,1,2-Trichloroethane	5.3	6.3	J	µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,1-Dichloroethane	9.2	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,1-Dichloroethene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,1-Dichloropropene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2,3-Trichlorobenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2,3-Trichloropropane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2,4,5-Tetramethylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2,4-Trichlorobenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2,4-Trimethylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.

Client Sample ID: SB-4 [1-2ft]

Lab Order: 0706264

Tag Number:

Project: 544 Union Ave. Brooklyn, N.Y.

Collection Date: 6/26/2007 1:20:00 PM

Lab ID: 0706264-07A

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
1,2-Dibromo-3-chloropropane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2-Dibromoethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2-Dichlorobenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2-Dichloroethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,2-Dichloropropane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,3,5-Trimethylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,3-Dichlorobenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,3-dichloropropane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
1,4-Dichlorobenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
2,2-Dichloropropane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
2-Butanone	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
2-Chloroethyl vinyl ether	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
2-Chlorotoluene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
2-Hexanone	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
2-Propanol	U	63		µg/Kg-dry	1	6/29/2007 7:07:00 PM
4-Chlorotoluene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
4-Isopropyltoluene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
4-Methyl-2-pentanone	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Acetone	18	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Acrolein	U	32		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Acrylonitrile	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Benzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Bromobenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Bromochloromethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Bromodichloromethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Bromoform	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Bromomethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Carbon disulfide	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Carbon tetrachloride	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Chlorobenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Chlorodifluoromethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Chloroethane	10	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Chloroform	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Chloromethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
cis-1,2-Dichloroethene	2.7	6.3	J	µg/Kg-dry	1	6/29/2007 7:07:00 PM
cis-1,3-Dichloropropene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Dibromochloromethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Dibromomethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Dichlorodifluoromethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM

Qualifiers:			
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-4 [1-2ft]  
 Lab Order: 0706264 Tag Number:  
 Project: 544 Union Ave. Brooklyn, N.Y. Collection Date: 6/26/2007 1:20:00 PM  
 Lab ID: 0706264-07A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Ethanol	U	32		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Ethyl acetate	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Ethylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Freon-114	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Hexachlorobutadiene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Isopropyl acetate	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Isopropylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
m,p-Xylene	U	13		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Methyl tert-butyl ether	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Methylene chloride	15	6.3	B	µg/Kg-dry	1	6/29/2007 7:07:00 PM
n-Amyl acetate	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Naphthalene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
n-Butyl acetate	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
n-Butylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
n-Propyl acetate	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
n-Propylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
o-Xylene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
p-Diethylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
p-Ethyltoluene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
sec-Butylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Styrene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
t-Butyl alcohol	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
tert-Butylbenzene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Tetrachloroethene	3.9	6.3	J	µg/Kg-dry	1	6/29/2007 7:07:00 PM
Toluene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
trans-1,2-Dichloroethene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
trans-1,3-Dichloropropene	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Trichloroethene	38	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Trichlorofluoromethane	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Vinyl acetate	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Vinyl chloride	U	6.3		µg/Kg-dry	1	6/29/2007 7:07:00 PM
Surr: 4-Bromofluorobenzene	93.0	61-133		%REC	1	6/29/2007 7:07:00 PM
Surr: Dibromofluoromethane	110	61-139		%REC	1	6/29/2007 7:07:00 PM
Surr: Toluene-d8	99.4	57-131		%REC	1	6/29/2007 7:07:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-4 [10ft]  
 Lab Order: 0706264 Tag Number:  
 Project: 544 Union Ave. Brooklyn, N.Y. Collection Date: 6/26/2007 1:35:00 PM  
 Lab ID: 0706264-08A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: <b>JP</b>
Mercury	0.357	0.0100		mg/Kg-dry	1	7/2/2007 2:04:49 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>		<b>SW8082A</b>		<b>SW3550</b>		Analyst: <b>KF</b>
Aroclor 1016	U	94		µg/Kg-dry	1	6/30/2007 5:09:00 PM
Aroclor 1221	U	94		µg/Kg-dry	1	6/30/2007 5:09:00 PM
Aroclor 1232	U	94		µg/Kg-dry	1	6/30/2007 5:09:00 PM
Aroclor 1242	U	94		µg/Kg-dry	1	6/30/2007 5:09:00 PM
Aroclor 1248	U	94		µg/Kg-dry	1	6/30/2007 5:09:00 PM
Aroclor 1254	U	94		µg/Kg-dry	1	6/30/2007 5:09:00 PM
Aroclor 1260	U	94		µg/Kg-dry	1	6/30/2007 5:09:00 PM
Surr: TCX	56.5	26-136		%REC	1	6/30/2007 5:09:00 PM
Surr: DCB	15.7	20-133	S	%REC	1	6/30/2007 5:09:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>		<b>SW8081B</b>		<b>SW3550</b>		Analyst: <b>AR</b>
4,4'-DDD	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
4,4'-DDE	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
4,4'-DDT	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Aldrin	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
alpha-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
beta-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Chlordane	U	18		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Chlorobenzilate	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
DBCP	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
delta-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Dieldrin	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Endosulfan I	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Endosulfan II	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Endosulfan sulfate	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Endrin	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Endrin aldehyde	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Endrin ketone	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
gamma-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Heptachlor	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Heptachlor epoxide	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Hexachlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Hexachlorocyclopentadiene	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Methoxychlor	U	5.8		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Toxaphene	U	56		µg/Kg-dry	1	6/30/2007 4:40:00 PM
Surr: DCB	44.0	31-133		%REC	1	6/30/2007 4:40:00 PM
Surr: TCX	51.9	32-132		%REC	1	6/30/2007 4:40:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-4 [10ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 1:35:00 PM
<b>Lab ID:</b>	0706264-08A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	14.6	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	5040	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Antimony	4.64	0.544		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Arsenic	3.50	0.544		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Barium	31.8	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Beryllium	U	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Cadmium	U	0.218		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Calcium	5900	0.544		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Chromium	7.78	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Cobalt	U	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Copper	103	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Iron	3920	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Lead	488	0.327		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Magnesium	1040	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Manganese	119	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Nickel	6.65	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Potassium	880	2.18		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Selenium	U	0.544		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Silver	U	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Sodium	248	1.31		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Thallium	U	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Vanadium	13.5	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
Zinc	81.5	0.435		mg/Kg-dry	1	7/3/2007 3:03:04 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
1,2-Dichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
1,3-Dichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
1,4-Dichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2,4,5-Trichlorophenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2,4,6-Trichlorophenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2,4-Dichlorophenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2,4-Dimethylphenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2,4-Dinitrophenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2,4-Dinitrotoluene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2,6-Dinitrotoluene	770	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2-Chloronaphthalene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2-Chlorophenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-4 [10ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 1:35:00 PM
<b>Lab ID:</b>	0706264-08A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
2-Methylnaphthalene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2-Methylphenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2-Nitroaniline	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
2-Nitrophenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
3,3'-Dichlorobenzidine	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
3+4-Methylphenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
3-Nitroaniline	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
4,6-Dinitro-2-methylphenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
4-Bromophenyl phenyl ether	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
4-Chloro-3-methylphenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
4-Chloroaniline	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
4-Chlorophenyl phenyl ether	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
4-Nitroaniline	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
4-Nitrophenol	U	170		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Acenaphthene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Acenaphthylene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Aniline	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Anthracene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Azobenzene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzidine	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzo(a)anthracene	130	140	J	µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzo(a)pyrene	110	140	J	µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzo(b)fluoranthene	130	140	J	µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzo(g,h,i)perylene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzo(k)fluoranthene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzoic acid	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Benzyl alcohol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Bis(2-chloroethoxy)methane	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Bis(2-chloroethyl)ether	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Bis(2-chloroisopropyl)ether	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Bis(2-ethylhexyl)phthalate	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Butyl benzyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Carbazole	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Chrysene	150	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Dibenzo(a,h)anthracene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Dibenzofuran	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Diethyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Dimethyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Di-n-butyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-4 [10ft]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 1:35:00 PM
<b>Lab ID:</b> 0706264-08A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Fluoranthene	210	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Fluorene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Hexachlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Hexachlorobutadiene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Hexachlorocyclopentadiene	U	170		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Hexachloroethane	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Indeno(1,2,3-c,d)pyrene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Isophorone	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Naphthalene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Nitrobenzene	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
N-Nitrosodimethylamine	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
N-Nitrosodi-n-propylamine	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
N-Nitrosodiphenylamine	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Pentachlorophenol	U	170		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Phenanthrene	140	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Phenol	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Pyrene	230	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Pyridine	U	140		µg/Kg-dry	1	7/3/2007 12:44:00 PM
Surr: 2,4,6-Tribromophenol	71.6	22-124		%REC	1	7/3/2007 12:44:00 PM
Surr: 2-Fluorobiphenyl	82.5	27-119		%REC	1	7/3/2007 12:44:00 PM
Surr: 2-Fluorophenol	94.1	21-123		%REC	1	7/3/2007 12:44:00 PM
Surr: 4-Terphenyl-d14	103	28-126		%REC	1	7/3/2007 12:44:00 PM
Surr: Nitrobenzene-d5	78.1	21-118		%REC	1	7/3/2007 12:44:00 PM
Surr: Phenol-d6	100	18-129		%REC	1	7/3/2007 12:44:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,1,1-Trichloroethane	7.1	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,1,2,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,1,2-Trichloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,1-Dichloroethane	6.4	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,1-Dichloroethene	1.3	6.1	J	µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,1-Dichloropropene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2,3-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2,3-Trichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2,4,5-Tetramethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2,4-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2,4-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-08A

**Client Sample ID:** SB-4 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 1:35:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>						
		<b>SW8260B</b>				<b>Analyst: MB</b>
1,2-Dibromo-3-chloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2-Dibromoethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2-Dichloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,3,5-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,3-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,3-dichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
1,4-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
2,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
2-Butanone	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
2-Chloroethyl vinyl ether	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
2-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
2-Hexanone	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
2-Propanol	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
4-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
4-Isopropyltoluene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
4-Methyl-2-pentanone	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Acetone	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Acrolein	U	30		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Acrylonitrile	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Benzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Bromobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Bromochloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Bromodichloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Bromoform	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Bromomethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Carbon disulfide	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Carbon tetrachloride	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Chlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Chlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Chloroethane	13	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Chloroform	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Chloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
cis-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
cis-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Dibromochloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Dibromomethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Dichlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-08A

**Client Sample ID:** SB-4 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 1:35:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: MB</b>		
Diisopropyl ether	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Ethanol	U	30		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Ethyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Ethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Freon-114	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Hexachlorobutadiene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Isopropyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Isopropylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
m,p-Xylene	U	12		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Methyl tert-butyl ether	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Methylene chloride	12	6.1	B	µg/Kg-dry	1	6/30/2007 12:03:00 AM
n-Amyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Naphthalene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
n-Butyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
n-Butylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
n-Propyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
n-Propylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
o-Xylene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
p-Diethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
p-Ethyltoluene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
sec-Butylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Styrene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
t-Butyl alcohol	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
tert-Butylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Tetrachloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Toluene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
trans-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
trans-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Trichloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Trichlorofluoromethane	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Vinyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Vinyl chloride	U	6.1		µg/Kg-dry	1	6/30/2007 12:03:00 AM
Surr: 4-Bromofluorobenzene	91.7	61-133		%REC	1	6/30/2007 12:03:00 AM
Surr: Dibromofluoromethane	113	61-139		%REC	1	6/30/2007 12:03:00 AM
Surr: Toluene-d8	97.8	57-131		%REC	1	6/30/2007 12:03:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-5 [1-2ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 1:50:00 PM
<b>Lab ID:</b>	0706264-09A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: <b>JP</b>
Mercury	0.476	0.0105		mg/Kg-dry	1	7/2/2007 2:06:57 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
		<b>SW8082A</b>		<b>SW3550</b>		Analyst: <b>KF</b>
Aroclor 1016	U	93		µg/Kg-dry	1	6/30/2007 5:26:00 PM
Aroclor 1221	U	93		µg/Kg-dry	1	6/30/2007 5:26:00 PM
Aroclor 1232	U	93		µg/Kg-dry	1	6/30/2007 5:26:00 PM
Aroclor 1242	U	93		µg/Kg-dry	1	6/30/2007 5:26:00 PM
Aroclor 1248	U	93		µg/Kg-dry	1	6/30/2007 5:26:00 PM
Aroclor 1254	U	93		µg/Kg-dry	1	6/30/2007 5:26:00 PM
Aroclor 1260	U	93		µg/Kg-dry	1	6/30/2007 5:26:00 PM
Surr: TCX	77.2	26-136		%REC	1	6/30/2007 5:26:00 PM
Surr: DCB	60.1	20-133		%REC	1	6/30/2007 5:26:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
		<b>SW8081B</b>		<b>SW3550</b>		Analyst: <b>AR</b>
4,4'-DDD	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
4,4'-DDE	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
4,4'-DDT	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Aldrin	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
alpha-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
beta-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Chlordane	U	18		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Chlorobenzilate	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
DBCP	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
delta-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Dieldrin	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Endosulfan I	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Endosulfan II	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Endosulfan sulfate	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Endrin	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Endrin aldehyde	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Endrin ketone	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
gamma-BHC	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Heptachlor	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Heptachlor epoxide	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Hexachlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Hexachlorocyclopentadiene	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Methoxychlor	U	5.8		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Toxaphene	U	56		µg/Kg-dry	1	6/30/2007 4:57:00 PM
Surr: DCB	46.3	31-133		%REC	1	6/30/2007 4:57:00 PM
Surr: TCX	59.4	32-132		%REC	1	6/30/2007 4:57:00 PM

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-5 [1-2ft]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 1:50:00 PM
<b>Lab ID:</b> 0706264-09A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	14.4	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	5570	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Antimony	U	0.564		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Arsenic	6.01	0.564		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Barium	51.7	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Beryllium	U	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Cadmium	0.353	0.226		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Calcium	1750	0.564		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Chromium	12.9	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Cobalt	U	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Copper	75.9	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Iron	37400	4.51		mg/Kg-dry	10	7/3/2007 3:44:51 PM
Lead	148	0.338		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Magnesium	739	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Manganese	613	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Nickel	29.4	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Potassium	1090	2.26		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Selenium	U	0.564		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Silver	0.289	0.451	J	mg/Kg-dry	1	7/3/2007 3:05:02 PM
Sodium	245	1.35		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Thallium	U	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Vanadium	34.1	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
Zinc	112	0.451		mg/Kg-dry	1	7/3/2007 3:05:02 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
1,2-Dichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
1,3-Dichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
1,4-Dichlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2,4,5-Trichlorophenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2,4,6-Trichlorophenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2,4-Dichlorophenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2,4-Dimethylphenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2,4-Dinitrophenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2,4-Dinitrotoluene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2,6-Dinitrotoluene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2-Chloronaphthalene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2-Chlorophenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-09A

**Client Sample ID:** SB-5 [1-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 1:50:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
2-Methylnaphthalene	220	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2-Methylphenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2-Nitroaniline	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
2-Nitrophenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
3,3'-Dichlorobenzidine	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
3+4-Methylphenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
3-Nitroaniline	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
4,6-Dinitro-2-methylphenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
4-Bromophenyl phenyl ether	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
4-Chloro-3-methylphenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
4-Chloroaniline	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
4-Chlorophenyl phenyl ether	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
4-Nitroaniline	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
4-Nitrophenol	U	170		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Acenaphthene	690	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Acenaphthylene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Aniline	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Anthracene	920	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Azobenzene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzidine	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzo(a)anthracene	2000	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzo(a)pyrene	1800	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzo(b)fluoranthene	1700	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzo(g,h,i)perylene	1200	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzo(k)fluoranthene	1300	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzoic acid	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Benzyl alcohol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Bis(2-chloroethoxy)methane	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Bis(2-chloroethyl)ether	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Bis(2-chloroisopropyl)ether	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Bis(2-ethylhexyl)phthalate	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Butyl benzyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Carbazole	340	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Chrysene	2000	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Dibenzo(a,h)anthracene	310	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Dibenzofuran	440	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Diethyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Dimethyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Di-n-butyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-09A

**Client Sample ID:** SB-5 [1-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 1:50:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Fluoranthene	4100	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Fluorene	540	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Hexachlorobenzene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Hexachlorobutadiene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Hexachlorocyclopentadiene	U	170		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Hexachloroethane	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Indeno(1,2,3-c,d)pyrene	1200	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Isophorone	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Naphthalene	320	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Nitrobenzene	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
N-Nitrosodimethylamine	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
N-Nitrosodi-n-propylamine	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
N-Nitrosodiphenylamine	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Pentachlorophenol	U	170		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Phenanthrene	4300	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Phenol	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Pyrene	3800	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Pyridine	U	140		µg/Kg-dry	1	7/3/2007 1:09:00 PM
Surr: 2,4,6-Tribromophenol	78.8	22-124		%REC	1	7/3/2007 1:09:00 PM
Surr: 2-Fluorobiphenyl	81.0	27-119		%REC	1	7/3/2007 1:09:00 PM
Surr: 2-Fluorophenol	104	21-123		%REC	1	7/3/2007 1:09:00 PM
Surr: 4-Terphenyl-d14	87.5	28-126		%REC	1	7/3/2007 1:09:00 PM
Surr: Nitrobenzene-d5	79.8	21-118		%REC	1	7/3/2007 1:09:00 PM
Surr: Phenol-d6	106	18-129		%REC	1	7/3/2007 1:09:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,1,1-Trichloroethane	11	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,1,2,2-Tetrachloroethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,1,2-Trichloroethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,1-Dichloroethane	10	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,1-Dichloroethene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,1-Dichloropropene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2,3-Trichlorobenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2,3-Trichloropropane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2,4,5-Tetramethylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2,4-Trichlorobenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2,4-Trimethylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-5 [1-2ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 1:50:00 PM
<b>Lab ID:</b>	0706264-09A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
1,2-Dibromo-3-chloropropane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2-Dibromoethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2-Dichlorobenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2-Dichloroethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,2-Dichloropropane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,3,5-Trimethylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,3-Dichlorobenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,3-dichloropropane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
1,4-Dichlorobenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
2,2-Dichloropropane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
2-Butanone	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
2-Chloroethyl vinyl ether	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
2-Chlorotoluene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
2-Hexanone	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
2-Propanol	U	63		µg/Kg-dry	1	6/30/2007 12:40:00 AM
4-Chlorotoluene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
4-Isopropyltoluene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
4-Methyl-2-pentanone	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Acetone	30	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Acrolein	U	32		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Acrylonitrile	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Benzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Bromobenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Bromochloromethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Bromodichloromethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Bromoform	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Bromomethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Carbon disulfide	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Carbon tetrachloride	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Chlorobenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Chlorodifluoromethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Chloroethane	7.2	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Chloroform	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Chloromethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
cis-1,2-Dichloroethene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
cis-1,3-Dichloropropene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Dibromochloromethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Dibromomethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Dichlorodifluoromethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-09A

**Client Sample ID:** SB-5 [1-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 1:50:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Ethanol	U	32		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Ethyl acetate	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Ethylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Freon-114	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Hexachlorobutadiene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Isopropyl acetate	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Isopropylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
m,p-Xylene	U	13		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Methyl tert-butyl ether	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Methylene chloride	14	6.3	B	µg/Kg-dry	1	6/30/2007 12:40:00 AM
n-Amyl acetate	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Naphthalene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
n-Butyl acetate	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
n-Butylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
n-Propyl acetate	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
n-Propylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
o-Xylene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
p-Diethylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
p-Ethyltoluene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
sec-Butylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Styrene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
t-Butyl alcohol	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
tert-Butylbenzene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Tetrachloroethene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Toluene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
trans-1,2-Dichloroethene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
trans-1,3-Dichloropropene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Trichloroethene	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Trichlorofluoromethane	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Vinyl acetate	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Vinyl chloride	U	6.3		µg/Kg-dry	1	6/30/2007 12:40:00 AM
Surr: 4-Bromofluorobenzene	92.0	61-133		%REC	1	6/30/2007 12:40:00 AM
Surr: Dibromofluoromethane	115	61-139		%REC	1	6/30/2007 12:40:00 AM
Surr: Toluene-d8	97.6	57-131		%REC	1	6/30/2007 12:40:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detecte	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-5 [8ft]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 2:00:00 PM
<b>Lab ID:</b> 0706264-10A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: <b>JP</b>
Mercury	3.99	0.137		mg/Kg-dry	10	7/2/2007 3:08:14 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>		<b>SW8082A</b>		<b>SW3550</b>		Analyst: <b>KF</b>
Aroclor 1016	U	120		µg/Kg-dry	1	6/30/2007 5:42:00 PM
Aroclor 1221	U	120		µg/Kg-dry	1	6/30/2007 5:42:00 PM
Aroclor 1232	U	120		µg/Kg-dry	1	6/30/2007 5:42:00 PM
Aroclor 1242	U	120		µg/Kg-dry	1	6/30/2007 5:42:00 PM
Aroclor 1248	U	120		µg/Kg-dry	1	6/30/2007 5:42:00 PM
Aroclor 1254	U	120		µg/Kg-dry	1	6/30/2007 5:42:00 PM
Aroclor 1260	U	120		µg/Kg-dry	1	6/30/2007 5:42:00 PM
Surr: TCX	67.4	26-136		%REC	1	6/30/2007 5:42:00 PM
Surr: DCB	58.9	20-133		%REC	1	6/30/2007 5:42:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>		<b>SW8081B</b>		<b>SW3550</b>		Analyst: <b>AR</b>
4,4'-DDD	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
4,4'-DDE	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
4,4'-DDT	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Aldrin	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
alpha-BHC	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
beta-BHC	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Chlordane	U	23		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Chlorobenzilate	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
DBCP	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
delta-BHC	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Dieldrin	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Endosulfan I	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Endosulfan II	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Endosulfan sulfate	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Endrin	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Endrin aldehyde	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Endrin ketone	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
gamma-BHC	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Heptachlor	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Heptachlor epoxide	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Hexachlorobenzene	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Hexachlorocyclopentadiene	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Methoxychlor	U	7.5		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Toxaphene	U	73		µg/Kg-dry	1	6/30/2007 5:14:00 PM
Surr: DCB	40.3	31-133		%REC	1	6/30/2007 5:14:00 PM
Surr: TCX	61.6	32-132		%REC	1	6/30/2007 5:14:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-10A

**Client Sample ID:** SB-5 [8ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>CM</b>
Percent Moisture	33.9	0		wt%	1	6/29/2007

<b>TARGET ANALYTE LIST METALS</b>		<b>SW6010B</b>	<b>SW3050A</b>			Analyst: <b>JP</b>
Aluminum	5510	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Antimony	U	0.721		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Arsenic	13.8	0.721		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Barium	374	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Beryllium	U	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Cadmium	1.06	0.289		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Calcium	9380	0.721		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Chromium	13.1	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Cobalt	U	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Copper	180	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Iron	5620	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Lead	4510	0.433		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Magnesium	465	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Manganese	116	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Nickel	11.6	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Potassium	1120	2.89		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Selenium	3.95	0.721		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Silver	0.449	0.577	J	mg/Kg-dry	1	7/3/2007 3:07:20 PM
Sodium	641	1.73		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Thallium	U	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Vanadium	20.7	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM
Zinc	567	0.577		mg/Kg-dry	1	7/3/2007 3:07:20 PM

<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>	<b>SW3550A</b>			Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
1,2-Dichlorobenzene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
1,3-Dichlorobenzene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
1,4-Dichlorobenzene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2,4,5-Trichlorophenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2,4,6-Trichlorophenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2,4-Dichlorophenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2,4-Dimethylphenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2,4-Dinitrophenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2,4-Dinitrotoluene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2,6-Dinitrotoluene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2-Chloronaphthalene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2-Chlorophenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-10A

Client Sample ID: SB-5 [8ft]  
 Tag Number:  
 Collection Date: 6/26/2007 2:00:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SÉMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
2-Methylnaphthalene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2-Methylphenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2-Nitroaniline	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
2-Nitrophenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
3,3'-Dichlorobenzidine	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
3+4-Methylphenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
3-Nitroaniline	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
4,6-Dinitro-2-methylphenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
4-Bromophenyl phenyl ether	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
4-Chloro-3-methylphenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
4-Chloroaniline	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
4-Chlorophenyl phenyl ether	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
4-Nitroaniline	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
4-Nitrophenol	U	230		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Acenaphthene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Acenaphthylene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Aniline	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Anthracene	120	180	J	µg/Kg-dry	1	7/3/2007 1:34:00 PM
Azobenzene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzidine	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzo(a)anthracene	470	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzo(a)pyrene	360	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzo(b)fluoranthene	400	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzo(g,h,i)perylene	290	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzo(k)fluoranthene	350	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzoic acid	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Benzyl alcohol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Bis(2-chloroethoxy)methane	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Bis(2-chloroethyl)ether	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Bis(2-chloroisopropyl)ether	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Bis(2-ethylhexyl)phthalate	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Butyl benzyl phthalate	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Carbazole	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Chrysene	550	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Dibenzo(a,h)anthracene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Dibenzofuran	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Diethyl phthalate	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Dimethyl phthalate	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Di-n-butyl phthalate	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-5 [8ft]  
 Lab Order: 0706264 Tag Number:  
 Project: 544 Union Ave. Brooklyn, N.Y. Collection Date: 6/26/2007 2:00:00 PM  
 Lab ID: 0706264-10A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
Di-n-octyl phthalate	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Fluoranthene	790	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Fluorene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Hexachlorobenzene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Hexachlorobutadiene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Hexachlorocyclopentadiene	U	230		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Hexachloroethane	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Indeno(1,2,3-c,d)pyrene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Isophorone	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Naphthalene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Nitrobenzene	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
N-Nitrosodimethylamine	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
N-Nitrosodi-n-propylamine	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
N-Nitrosodiphenylamine	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Pentachlorophenol	U	230		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Phenanthrene	660	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Phenol	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Pyrene	870	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Pyridine	U	180		µg/Kg-dry	1	7/3/2007 1:34:00 PM
Surr: 2,4,6-Tribromophenol	82.4	22-124		%REC	1	7/3/2007 1:34:00 PM
Surr: 2-Fluorobiphenyl	82.1	27-119		%REC	1	7/3/2007 1:34:00 PM
Surr: 2-Fluorophenol	104	21-123		%REC	1	7/3/2007 1:34:00 PM
Surr: 4-Terphenyl-d14	97.5	28-126		%REC	1	7/3/2007 1:34:00 PM
Surr: Nitrobenzene-d5	80.9	21-118		%REC	1	7/3/2007 1:34:00 PM
Surr: Phenol-d6	106	18-129		%REC	1	7/3/2007 1:34:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: MB
1,1,1,2-Tetrachloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,1,1-Trichloroethane	12	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,1,2,2-Tetrachloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,1,2-Trichloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,1-Dichloroethane	19	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,1-Dichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,1-Dichloropropene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2,3-Trichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2,3-Trichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2,4,5-Tetramethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2,4-Trichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2,4-Trimethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-10A

Client Sample ID: SB-5 [8ft]  
 Tag Number:  
 Collection Date: 6/26/2007 2:00:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>						
		<b>SW8260B</b>				Analyst: MB
1,2-Dibromo-3-chloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2-Dibromoethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2-Dichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2-Dichloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,2-Dichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,3,5-Trimethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,3-Dichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,3-dichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
1,4-Dichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
2,2-Dichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
2-Butanone	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
2-Chloroethyl vinyl ether	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
2-Chlorotoluene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
2-Hexanone	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
2-Propanol	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
4-Chlorotoluene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
4-Isopropyltoluene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
4-Methyl-2-pentanone	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Acetone	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Acrolein	U	38		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Acrylonitrile	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Benzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Bromobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Bromochloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Bromodichloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Bromoform	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Bromomethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Carbon disulfide	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Carbon tetrachloride	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Chlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Chlorodifluoromethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Chloroethane	17	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Chloroform	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Chloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
cis-1,2-Dichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
cis-1,3-Dichloropropene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Dibromochloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Dibromomethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Dichlorodifluoromethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-10A

Client Sample ID: SB-5 [8ft]  
 Tag Number:  
 Collection Date: 6/26/2007 2:00:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Ethanol	U	38		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Ethyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Ethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Freon-114	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Hexachlorobutadiene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Isopropyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Isopropylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
m,p-Xylene	U	15		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Methyl tert-butyl ether	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Methylene chloride	13	7.6	B	µg/Kg-dry	1	6/30/2007 1:18:00 AM
n-Amyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Naphthalene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
n-Butyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
n-Butylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
n-Propyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
n-Propylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
o-Xylene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
p-Diethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
p-Ethyltoluene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
sec-Butylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Styrene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
t-Butyl alcohol	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
tert-Butylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Tetrachloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Toluene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
trans-1,2-Dichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
trans-1,3-Dichloropropene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Trichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Trichlorofluoromethane	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Vinyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Vinyl chloride	U	7.6		µg/Kg-dry	1	6/30/2007 1:18:00 AM
Surr: 4-Bromofluorobenzene	91.7	61-133		%REC	1	6/30/2007 1:18:00 AM
Surr: Dibromofluoromethane	113	61-139		%REC	1	6/30/2007 1:18:00 AM
Surr: Toluene-d8	97.2	57-131		%REC	1	6/30/2007 1:18:00 AM

Qualifiers:			
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-11A

**Client Sample ID:** SB-6 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:30:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	2.02	0.116		mg/Kg-dry	10	7/2/2007 3:10:23 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	98		µg/Kg-dry	1	6/30/2007 5:59:00 PM
Aroclor 1221	U	98		µg/Kg-dry	1	6/30/2007 5:59:00 PM
Aroclor 1232	U	98		µg/Kg-dry	1	6/30/2007 5:59:00 PM
Aroclor 1242	U	98		µg/Kg-dry	1	6/30/2007 5:59:00 PM
Aroclor 1248	U	98		µg/Kg-dry	1	6/30/2007 5:59:00 PM
Aroclor 1254	U	98		µg/Kg-dry	1	6/30/2007 5:59:00 PM
Aroclor 1260	U	98		µg/Kg-dry	1	6/30/2007 5:59:00 PM
Surr: TCX	39.8	26-136		%REC	1	6/30/2007 5:59:00 PM
Surr: DCB	44.1	20-133		%REC	1	6/30/2007 5:59:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
4,4'-DDE	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
4,4'-DDT	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Aldrin	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
alpha-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
beta-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Chlordane	U	18		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Chlorobenzilate	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
DBCP	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
delta-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Dieldrin	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Endosulfan I	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Endosulfan II	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Endosulfan sulfate	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Endrin	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Endrin aldehyde	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Endrin ketone	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
gamma-BHC	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Heptachlor	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Heptachlor epoxide	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Hexachlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Hexachlorocyclopentadiene	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Methoxychlor	U	6.1		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Toxaphene	U	59		µg/Kg-dry	1	6/30/2007 5:31:00 PM
Surr: DCB	79.0	31-133		%REC	1	6/30/2007 5:31:00 PM
Surr: TCX	61.9	32-132		%REC	1	6/30/2007 5:31:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-6 [0-2ft]  
 Lab Order: 0706264 Tag Number:  
 Project: 544 Union Ave. Brooklyn, N.Y. Collection Date: 6/26/2007 2:30:00 PM  
 Lab ID: 0706264-11A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	18.4	D2216 0		wt%	1	Analyst: CM 6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		SW6010B		SW3050A		Analyst: JP
Aluminum	8020	4.63		mg/Kg-dry	10	7/3/2007 3:47:14 PM
Antimony	5.15	0.578		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Arsenic	10.3	0.578		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Barium	678	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Beryllium	U	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Cadmium	0.419	0.231		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Calcium	16900	5.78		mg/Kg-dry	10	7/3/2007 3:47:14 PM
Chromium	12.6	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Cobalt	U	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Copper	175	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Iron	13600	4.63		mg/Kg-dry	10	7/3/2007 3:47:14 PM
Lead	2860	0.347		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Magnesium	3600	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Manganese	160	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Nickel	11.5	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Potassium	2690	2.31		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Selenium	0.375	0.578	J	mg/Kg-dry	1	7/3/2007 3:09:39 PM
Silver	1.55	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Sodium	713	1.39		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Thallium	0.234	0.463	J	mg/Kg-dry	1	7/3/2007 3:09:39 PM
Vanadium	18.8	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
Zinc	255	0.463		mg/Kg-dry	1	7/3/2007 3:09:39 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		SW8270D		SW3550A		Analyst: RN
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2-Chlorophenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-11A

Client Sample ID: SB-6 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 2:30:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: RN
2-Methylnaphthalene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2-Methylphenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
2-Nitrophenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
3+4-Methylphenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
3-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
4-Chloroaniline	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
4-Nitroaniline	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
4-Nitrophenol	U	180		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Acenaphthene	410	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Acenaphthylene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Aniline	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Anthracene	720	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Azobenzene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzidine	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzo(a)anthracene	1900	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzo(a)pyrene	1600	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzo(b)fluoranthene	1700	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzo(g,h,i)perylene	950	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzo(k)fluoranthene	1200	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzoic acid	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Benzyl alcohol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Butyl benzyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Carbazole	330	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Chrysene	2000	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Dibenzo(a,h)anthracene	280	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Dibenzofuran	200	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Diethyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Dimethyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-11A

**Client Sample ID:** SB-6 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:30:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Fluoranthene	3900	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Fluorene	330	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Hexachlorobenzene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Hexachlorocyclopentadiene	U	180		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Hexachloroethane	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Indeno(1,2,3-c,d)pyrene	1100	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Isophorone	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Naphthalene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Nitrobenzene	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Pentachlorophenol	U	180		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Phenanthrene	3400	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Phenol	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Pyrene	3800	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Pyridine	U	150		µg/Kg-dry	1	7/3/2007 1:59:00 PM
Surr: 2,4,6-Tribromophenol	86.3	22-124		%REC	1	7/3/2007 1:59:00 PM
Surr: 2-Fluorobiphenyl	94.5	27-119		%REC	1	7/3/2007 1:59:00 PM
Surr: 2-Fluorophenol	36.6	21-123		%REC	1	7/3/2007 1:59:00 PM
Surr: 4-Terphenyl-d14	101	28-126		%REC	1	7/3/2007 1:59:00 PM
Surr: Nitrobenzene-d5	75.6	21-118		%REC	1	7/3/2007 1:59:00 PM
Surr: Phenol-d6	50.9	18-129		%REC	1	7/3/2007 1:59:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,1,1-Trichloroethane	15	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,1,2,2-Tetrachloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,1,2-Trichloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,1-Dichloroethane	51	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,1-Dichloroethene	2.5	6.4	J	µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,1-Dichloropropene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2,3-Trichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2,3-Trichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2,4,5-Tetramethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2,4-Trichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2,4-Trimethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-11A

Client Sample ID: SB-6 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 2:30:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2-Dibromoethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2-Dichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2-Dichloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,2-Dichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,3,5-Trimethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,3-Dichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,3-dichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
1,4-Dichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
2,2-Dichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
2-Butanone	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
2-Chloroethyl vinyl ether	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
2-Chlorotoluene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
2-Hexanone	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
2-Propanol	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
4-Chlorotoluene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
4-Isopropyltoluene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
4-Methyl-2-pentanone	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Acetone	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Acrolein	U	32		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Acrylonitrile	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Benzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Bromobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Bromochloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Bromodichloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Bromoform	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Bromomethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Carbon disulfide	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Carbon tetrachloride	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Chlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Chlorodifluoromethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Chloroethane	16	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Chloroform	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Chloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
cis-1,2-Dichloroethene	2.0	6.4	J	µg/Kg-dry	1	6/30/2007 1:54:00 AM
cis-1,3-Dichloropropene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Dibromochloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Dibromomethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Dichlorodifluoromethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-11A

Client Sample ID: SB-6 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 2:30:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Ethanol	U	32		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Ethyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Ethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Freon-114	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Hexachlorobutadiene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Isopropyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Isopropylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
m,p-Xylene	U	13		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Methyl tert-butyl ether	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Methylene chloride	13	6.4	B	µg/Kg-dry	1	6/30/2007 1:54:00 AM
n-Amyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Naphthalene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
n-Butyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
n-Butylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
n-Propyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
n-Propylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
o-Xylene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
p-Diethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
p-Ethyltoluene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
sec-Butylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Styrene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
t-Butyl alcohol	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
tert-Butylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Tetrachloroethene	6.1	6.4	J	µg/Kg-dry	1	6/30/2007 1:54:00 AM
Toluene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
trans-1,2-Dichloroethene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
trans-1,3-Dichloropropene	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Trichloroethene	47	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Trichlorofluoromethane	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Vinyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Vinyl chloride	U	6.4		µg/Kg-dry	1	6/30/2007 1:54:00 AM
Surr: 4-Bromofluorobenzene	90.2	61-133		%REC	1	6/30/2007 1:54:00 AM
Surr: Dibromofluoromethane	113	61-139		%REC	1	6/30/2007 1:54:00 AM
Surr: Toluene-d8	99.6	57-131		%REC	1	6/30/2007 1:54:00 AM

Qualifiers:			
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-12A

**Client Sample ID:** SB-6 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:45:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	3.76	0.124		mg/Kg-dry	10	7/2/2007 3:12:32 PM
		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: JP
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	100		µg/Kg-dry	1	6/30/2007 6:15:00 PM
Aroclor 1221	U	100		µg/Kg-dry	1	6/30/2007 6:15:00 PM
Aroclor 1232	U	100		µg/Kg-dry	1	6/30/2007 6:15:00 PM
Aroclor 1242	U	100		µg/Kg-dry	1	6/30/2007 6:15:00 PM
Aroclor 1248	U	100		µg/Kg-dry	1	6/30/2007 6:15:00 PM
Aroclor 1254	U	100		µg/Kg-dry	1	6/30/2007 6:15:00 PM
Aroclor 1260	U	100		µg/Kg-dry	1	6/30/2007 6:15:00 PM
Surr: TCX	61.0	26-136		%REC	1	6/30/2007 6:15:00 PM
Surr: DCB	13.2	20-133	S	%REC	1	6/30/2007 6:15:00 PM
		<b>SW8082A</b>		<b>SW3550</b>		Analyst: KF
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
4,4'-DDE	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
4,4'-DDT	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Aldrin	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
alpha-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
beta-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Chlordane	U	19		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Chlorobenzilate	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
DBCP	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
delta-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Dieldrin	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Endosulfan I	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Endosulfan II	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Endosulfan sulfate	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Endrin	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Endrin aldehyde	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Endrin ketone	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
gamma-BHC	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Heptachlor	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Heptachlor epoxide	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Hexachlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Hexachlorocyclopentadiene	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Methoxychlor	U	6.4		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Toxaphene	U	62		µg/Kg-dry	1	6/30/2007 5:48:00 PM
Surr: DCB	29.9	31-133	S	%REC	1	6/30/2007 5:48:00 PM
Surr: TCX	49.8	32-132		%REC	1	6/30/2007 5:48:00 PM
		<b>SW8081B</b>		<b>SW3550</b>		Analyst: AR

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-6 [10ft]
<b>Lab Order:</b> 0706264	<b>Tag Number:</b>
<b>Project:</b> 544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 2:45:00 PM
<b>Lab ID:</b> 0706264-12A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	22.3	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	5160	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Antimony	0.296	0.602	J	mg/Kg-dry	1	7/3/2007 3:11:53 PM
Arsenic	8.15	0.602		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Barium	236	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Beryllium	U	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Cadmium	0.282	0.241		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Calcium	12300	0.602		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Chromium	22.1	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Cobalt	U	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Copper	47.3	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Iron	4860	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Lead	501	0.361		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Magnesium	1490	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Manganese	148	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Nickel	13.0	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Potassium	1160	2.41		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Selenium	0.616	0.602		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Silver	0.473	0.482	J	mg/Kg-dry	1	7/3/2007 3:11:53 PM
Sodium	533	1.45		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Thallium	U	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Vanadium	18.2	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
Zinc	175	0.482		mg/Kg-dry	1	7/3/2007 3:11:53 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2-Chlorophenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-12A

**Client Sample ID:** SB-6 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:45:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: RN</b>
2-Methylnaphthalene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2-Methylphenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2-Nitroaniline	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
2-Nitrophenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
3+4-Methylphenol	100	150	J	µg/Kg-dry	1	6/29/2007 7:11:00 PM
3-Nitroaniline	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
4-Chloroaniline	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
4-Nitroaniline	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
4-Nitrophenol	U	190		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Acenaphthene	140	150	J	µg/Kg-dry	1	6/29/2007 7:11:00 PM
Acenaphthylene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Aniline	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Anthracene	330	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Azobenzene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzidine	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzo(a)anthracene	1200	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzo(a)pyrene	1100	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzo(b)fluoranthene	990	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzo(g,h,i)perylene	810	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzo(k)fluoranthene	810	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzoic acid	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Benzyl alcohol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Butyl benzyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Carbazole	190	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Chrysene	1300	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Dibenzo(a,h)anthracene	250	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Dibenzofuran	110	150	J	µg/Kg-dry	1	6/29/2007 7:11:00 PM
Diethyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Dimethyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-6 [10ft]
<b>Lab Order:</b>	0706264	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Ave. Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 2:45:00 PM
<b>Lab ID:</b>	0706264-12A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>RN</b>
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Fluoranthene	2000	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Fluorene	110	150	J	µg/Kg-dry	1	6/29/2007 7:11:00 PM
Hexachlorobenzene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Hexachlorocyclopentadiene	U	190		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Hexachloroethane	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Indeno(1,2,3-c,d)pyrene	730	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Isophorone	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Naphthalene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Nitrobenzene	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Pentachlorophenol	U	190		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Phenanthrene	1700	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Phenol	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Pyrene	2600	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Pyridine	U	150		µg/Kg-dry	1	6/29/2007 7:11:00 PM
Surr: 2,4,6-Tribromophenol	57.7	22-124		%REC	1	6/29/2007 7:11:00 PM
Surr: 2-Fluorobiphenyl	64.6	27-119		%REC	1	6/29/2007 7:11:00 PM
Surr: 2-Fluorophenol	32.4	21-123		%REC	1	6/29/2007 7:11:00 PM
Surr: 4-Terphenyl-d14	69.3	28-126		%REC	1	6/29/2007 7:11:00 PM
Surr: Nitrobenzene-d5	54.6	21-118		%REC	1	6/29/2007 7:11:00 PM
Surr: Phenol-d6	42.6	18-129		%REC	1	6/29/2007 7:11:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,1,1-Trichloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,1,2,2-Tetrachloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,1,2-Trichloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,1-Dichloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,1-Dichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,1-Dichloropropene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2,3-Trichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2,3-Trichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2,4,5-Tetramethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2,4-Trichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2,4-Trimethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706264  
**Project:** 544 Union Ave. Brooklyn, N.Y.  
**Lab ID:** 0706264-12A

**Client Sample ID:** SB-6 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:45:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2-Dibromoethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2-Dichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2-Dichloroethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,2-Dichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,3,5-Trimethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,3-Dichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,3-dichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
1,4-Dichlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
2,2-Dichloropropane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
2-Butanone	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
2-Chloroethyl vinyl ether	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
2-Chlorotoluene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
2-Hexanone	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
2-Propanol	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
4-Chlorotoluene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
4-Isopropyltoluene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
4-Methyl-2-pentanone	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Acetone	110	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Acrolein	U	38		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Acrylonitrile	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Benzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Bromobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Bromochloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Bromodichloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Bromoform	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Bromomethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Carbon disulfide	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Carbon tetrachloride	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Chlorobenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Chlorodifluoromethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Chloroethane	27	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Chloroform	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Chloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
cis-1,2-Dichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
cis-1,3-Dichloropropene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Dibromochloromethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Dibromomethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Dichlorodifluoromethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM

Qualifiers:			
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706264  
 Project: 544 Union Ave. Brooklyn, N.Y.  
 Lab ID: 0706264-12A

Client Sample ID: SB-6 [10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 2:45:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
Diisopropyl ether	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Ethanol	U	38		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Ethyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Ethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Freon-114	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Hexachlorobutadiene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Isopropyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Isopropylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
m,p-Xylene	U	15		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Methyl tert-butyl ether	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Methylene chloride	14	7.6	B	µg/Kg-dry	1	6/30/2007 2:32:00 AM
n-Amyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Naphthalene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
n-Butyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
n-Butylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
n-Propyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
n-Propylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
o-Xylene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
p-Diethylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
p-Ethyltoluene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
sec-Butylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Styrene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
t-Butyl alcohol	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
tert-Butylbenzene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Tetrachloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Toluene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
trans-1,2-Dichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
trans-1,3-Dichloropropene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Trichloroethene	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Trichlorofluoromethane	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Vinyl acetate	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Vinyl chloride	U	7.6		µg/Kg-dry	1	6/30/2007 2:32:00 AM
Surr: 4-Bromofluorobenzene	90.5	61-133		%REC	1	6/30/2007 2:32:00 AM
Surr: Dibromofluoromethane	115	61-139		%REC	1	6/30/2007 2:32:00 AM
Surr: Toluene-d8	97.3	57-131		%REC	1	6/30/2007 2:32:00 AM

Qualifiers:			
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

Thursday, July 05, 2007

Victoria Whelan  
CA Rich Consultants Inc.  
17 Dupont Street  
Plainview, NY 11803  
TEL: (516) 576-8844  
FAX (516) 576-0093

RE: 544 Union Avenue Brooklyn, N.Y.

Order No.: 0706266

Dear Victoria Whelan:

American Analytical Laboratories, LLC. received 12 sample(s) on 6/28/2007 for the analyses presented in the following report.

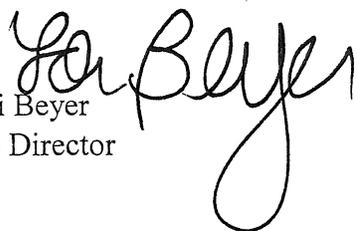
Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The limits provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at [lbeyer@american-analytical.com](mailto:lbeyer@american-analytical.com).

Sincerely,

  
Lori Beyer  
Lab Director

CLIENT: CA Rich Consultants Inc.  
Project: 544 Union Avenue Brooklyn, N.Y.  
Lab Order: 0706266

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Tag Number	Date Collected	Date Received
0706266-01A	SB-7 [2ft]		6/26/2007 3:15:00 PM	6/28/2007
0706266-02A	SB-7 [9-10ft]		6/26/2007 3:30:00 PM	6/28/2007
0706266-03A	SB-8 [2ft]		6/26/2007 3:40:00 PM	6/28/2007
0706266-04A	SB-8 [10ft]		6/26/2007 3:45:00 PM	6/28/2007
0706266-05A	SB-9 [0-2ft]		6/26/2007 4:00:00 PM	6/28/2007
0706266-06A	SB-9 [8-10ft]		6/26/2007 4:10:00 PM	6/28/2007
0706266-07A	SB-10 [3ft]		6/26/2007 4:30:00 PM	6/28/2007
0706266-08A	SB-10 [10ft]		6/26/2007 4:45:00 PM	6/28/2007
0706266-09A	GW-2		6/26/2007 2:45:00 PM	6/28/2007
0706266-09B	GW-2		6/26/2007 2:45:00 PM	6/28/2007
0706266-10A	GW-3		6/26/2007 5:00:00 PM	6/28/2007
0706266-10B	GW-3		6/26/2007 5:00:00 PM	6/28/2007
0706266-11A	GW-1		6/26/2007 6:00:00 PM	6/28/2007
0706266-11B	GW-1		6/26/2007 6:00:00 PM	6/28/2007
0706266-12A	WD		6/26/2007 6:15:00 PM	6/28/2007
0706266-12B	WD		6/26/2007 6:15:00 PM	6/28/2007



56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735  
 (631) 454-6100 • FAX (631) 454-8027

NYSDOH 11418  
 CTDOH PH-0205  
 NJDEP NY050  
 PADEP 68-573

TAG # / COC

# CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS GA Lion Inc 17 Depot St. Plainville NJ		CONTACT: K. Whelan		SAMPLER (SIGNATURE) <i>[Signature]</i>		SAMPLE(S) SEALED	YES / NO
PROJECT LOCATION: 544 Union Avenue, Brooklyn, NY		SAMPLER NAME (PRINT) Victoria Whelan		CORRECT CONTAINER(S)		CORRECT CONTAINER(S)	YES / NO
LABORATORY ID #	MATRIX	# CONTAINERS	SAMPLING DATE/TIME	SAMPLE # - LOCATION	ANALYSIS REQUIRED	FOR METHANOL PRESERVED SAMPLES (VOLATILE VIAL #)	
0706866-01A	S	2	6/26 3:15	SB-7 (2ft)	✓		
-02A	S	2	6/26 3:30	SB-7 (9-10ft)	✓		
-03A	S	2	6/26 3:40	SB-8 (2ft)	✓		
-04A	S	2	6/26 3:45	SB-8 (10ft)	✓		
-05A	S	2	6/26 4:00	SB-9 (0-2ft)	✓		
-06A	S	2	6/26 4:10	SB-9 (8-10ft)	✓		
-07A	S	2	6/26 4:30	SB-10 (3ft)	✓		
-08A	S	2	6/26 4:45	SB-10 (10ft)	✓		
-09AB	L	5	6/26 2:15	6W-2	XX XX X		
-10AA	L	5	6/26 5:00	6W-3	XX XX X		
-11AA	L	5	6/26 6:00	6W-1	XX XX X		
-12AA	S	3	6/26 6:15	WD	See attached sheet		

RELINQUISHED BY (SIGNATURE) <i>[Signature]</i>		DATE 6/26/07	TIME	PRINTED NAME
RELINQUISHED BY (SIGNATURE) <i>[Signature]</i>		DATE 6/28/07	TIME 12:45	PRINTED NAME C. Dunn

COOLER TEMPERATURE:

TURNAROUND REQUIRED: Wash per day

NORMAL  STAT  BY / /

RECEIVED BY LAB (SIGNATURE)  
*[Signature]*

RECEIVED BY LAB (SIGNATURE)  
*[Signature]*

COMMENTS / INSTRUCTIONS

American Analytical Laboratories, LLC.  
 56 Toledo Street  
 Farmingdale, NY 11735-

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

TEL: 6314546100

FAX: 6314548027

2198  
 6-7872

Subcontractor:

Enviroscience Consultants, Inc.  
 2150 Smithtown Avenue  
 Ronkonkoma, New York 11779

TEL: (631) 580-3191  
 FAX: (631) 580-3195  
 Acct #:

28-Jun-07

Sample ID	Matrix	Date Collected	Bottle Type	N99027402	Requested Tests		
					% ASB	% FIBER	% MATRIX
0706266-12A	Soil	6/26/2007 6:15:00 PM	8OZ GU	1	37.4%	38.3%	SILICATES + OPALVES ORGANICS + CARBOHYDRATES
					ND	24.2%	

General Comments:

Please Analyze For Asbestos By PLM.  
 Results Due 7/5/07  
 Thank you.

Relinquished by:	Date/Time	Relinquished by:	Date/Time
<i>[Signature]</i>		<i>[Signature]</i>	7/10/07
Relinquished by:		Received by:	

**AMERICAN ANALYTICAL LABORATORIES, LLC**

56 TOLEDO STREET

FARMINGDALE, NEW YORK 11735

TELEPHONE: (631) 454-6100 FAX: (631) 454-8027

**DATA REPORTING QUALIFIERS**

For reporting results, the following "Results Qualifiers" are used:

<b>Value</b>	If the result is greater than or equal to the detection limit, report the value
<b>U</b>	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
<b>J</b>	Indicates an estimated value. The flag is used: <ol style="list-style-type: none"><li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li><li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3ug/L was calculated report as 3J. This flag is used when similar situations arise on any organic parameter i.e. Pesticide, PCBs and others.</li></ol>
<b>B</b>	Indicates the analyte was found in the blank as well as the sample report "10B".
<b>E</b>	Indicates the analytes concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	This flag is used for Pesticide / PCB target analyte when there is >25% difference for detected concentrations between the two GC Columns. The higher of the two values is reported on Form I and flagged with a "P".
<b>N</b>	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
<b>H</b>	Indicates sample was received and/or analyzed outside of The method allowable holding time

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-01A

**Client Sample ID:** SB-7 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	4.77	0.151		mg/Kg-dry	10	7/2/2007 3:14:47 PM
						Analyst: JP
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	120		µg/Kg-dry	1	7/2/2007 2:48:00 PM
Aroclor 1221	U	120		µg/Kg-dry	1	7/2/2007 2:48:00 PM
Aroclor 1232	U	120		µg/Kg-dry	1	7/2/2007 2:48:00 PM
Aroclor 1242	U	120		µg/Kg-dry	1	7/2/2007 2:48:00 PM
Aroclor 1248	U	120		µg/Kg-dry	1	7/2/2007 2:48:00 PM
Aroclor 1254	U	120		µg/Kg-dry	1	7/2/2007 2:48:00 PM
Aroclor 1260	U	120		µg/Kg-dry	1	7/2/2007 2:48:00 PM
Surr: TCX	57.7	26-136		%REC	1	7/2/2007 2:48:00 PM
Surr: DCB	31.1	20-133		%REC	1	7/2/2007 2:48:00 PM
						Analyst: KF
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
4,4'-DDE	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
4,4'-DDT	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Aldrin	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
alpha-BHC	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
beta-BHC	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Chlordane	U	22		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Chlorobenzilate	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
DBCP	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
delta-BHC	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Dieldrin	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Endosulfan I	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Endosulfan II	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Endosulfan sulfate	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Endrin	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Endrin aldehyde	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Endrin ketone	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
gamma-BHC	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Heptachlor	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Heptachlor epoxide	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Hexachlorobenzene	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Hexachlorocyclopentadiene	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Methoxychlor	U	7.4		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Toxaphene	U	72		µg/Kg-dry	1	7/3/2007 2:13:00 PM
Surr: DCB	98.5	31-133		%REC	1	7/3/2007 2:13:00 PM
Surr: TCX	102	32-132		%REC	1	7/3/2007 2:13:00 PM
						Analyst: MMR

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-01A

**Client Sample ID:** SB-7 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	35.0	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
		<b>SW6010B</b>				Analyst: <b>JP</b>
Aluminum	7550	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Antimony	1.57	0.687		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Arsenic	10.4	0.687		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Barium	172	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Beryllium	U	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Cadmium	1.26	0.275		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Calcium	11400	0.687		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Chromium	26.9	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Cobalt	U	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Copper	342	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Iron	20000	5.50		mg/Kg-dry	10	7/3/2007 4:17:32 PM
Lead	484	0.412		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Magnesium	1280	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Manganese	248	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Nickel	15.1	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Potassium	1580	2.75		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Selenium	U	0.687		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Silver	0.442	0.550	J	mg/Kg-dry	1	7/3/2007 3:49:30 PM
Sodium	469	1.65		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Thallium	U	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Vanadium	26.7	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
Zinc	435	0.550		mg/Kg-dry	1	7/3/2007 3:49:30 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>				Analyst: <b>PT</b>
		<b>SW3550A</b>				
1,2,4-Trichlorobenzene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
1,2-Dichlorobenzene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
1,3-Dichlorobenzene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
1,4-Dichlorobenzene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2,4,5-Trichlorophenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2,4,6-Trichlorophenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2,4-Dichlorophenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2,4-Dimethylphenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2,4-Dinitrophenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2,4-Dinitrotoluene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2,6-Dinitrotoluene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2-Chloronaphthalene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2-Chlorophenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits  
X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-01A

**Client Sample ID:** SB-7 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
2-Methylnaphthalene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2-Methylphenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2-Nitroaniline	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
2-Nitrophenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
3,3'-Dichlorobenzidine	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
3+4-Methylphenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
3-Nitroaniline	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
4,6-Dinitro-2-methylphenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
4-Bromophenyl phenyl ether	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
4-Chloro-3-methylphenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
4-Chloroaniline	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
4-Chlorophenyl phenyl ether	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
4-Nitroaniline	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
4-Nitrophenol	U	220		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Acenaphthene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Acenaphthylene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Aniline	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Anthracene	200	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Azobenzene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzidine	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzo(a)anthracene	1200	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzo(a)pyrene	1200	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzo(b)fluoranthene	1100	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzo(g,h,i)perylene	710	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzo(k)fluoranthene	860	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzoic acid	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Benzyl alcohol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Bis(2-chloroethoxy)methane	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Bis(2-chloroethyl)ether	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Bis(2-chloroisopropyl)ether	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Bis(2-ethylhexyl)phthalate	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Butyl benzyl phthalate	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Carbazole	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Chrysene	1300	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Dibenzo(a,h)anthracene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Dibenzofuran	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Diethyl phthalate	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Dimethyl phthalate	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Di-n-butyl phthalate	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N. Y.  
 Lab ID: 0706266-01A

Client Sample ID: SB-7 [2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 3:15:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>	<b>SW3550A</b>		Analyst: <b>PT</b>
Di-n-octyl phthalate	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Fluoranthene	2000	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Fluorene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Hexachlorobenzene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Hexachlorobutadiene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Hexachlorocyclopentadiene	U	220		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Hexachloroethane	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Indeno(1,2,3-c,d)pyrene	670	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Isophorone	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Naphthalene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Nitrobenzene	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
N-Nitrosodimethylamine	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
N-Nitrosodi-n-propylamine	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
N-Nitrosodiphenylamine	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Pentachlorophenol	U	220		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Phenanthrene	1000	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Phenol	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Pyrene	1900	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Pyridine	U	180		µg/Kg-dry	1	7/2/2007 10:39:00 AM
Surr: 2,4,6-Tribromophenol	57.3	22-124		%REC	1	7/2/2007 10:39:00 AM
Surr: 2-Fluorobiphenyl	54.1	27-119		%REC	1	7/2/2007 10:39:00 AM
Surr: 2-Fluorophenol	55.1	21-123		%REC	1	7/2/2007 10:39:00 AM
Surr: 4-Terphenyl-d14	64.2	28-126		%REC	1	7/2/2007 10:39:00 AM
Surr: Nitrobenzene-d5	51.9	21-118		%REC	1	7/2/2007 10:39:00 AM
Surr: Phenol-d6	60.1	18-129		%REC	1	7/2/2007 10:39:00 AM
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260B</b>			Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,1,1-Trichloroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,1,2,2-Tetrachloroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,1,2-Trichloroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,1-Dichloroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,1-Dichloroethene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,1-Dichloropropene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2,3-Trichlorobenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2,3-Trichloropropane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2,4,5-Tetramethylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2,4-Trichlorobenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2,4-Trimethylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-7 [2ft]
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 3:15:00 PM
<b>Lab ID:</b>	0706266-01A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2-Dibromoethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2-Dichlorobenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2-Dichloroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,2-Dichloropropane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,3,5-Trimethylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,3-Dichlorobenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,3-dichloropropane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
1,4-Dichlorobenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
2,2-Dichloropropane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
2-Butanone	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
2-Chloroethyl vinyl ether	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
2-Chlorotoluene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
2-Hexanone	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
2-Propanol	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
4-Chlorotoluene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
4-Isopropyltoluene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
4-Methyl-2-pentanone	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Acetone	42	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Acrolein	U	38		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Acrylonitrile	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Benzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Bromobenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Bromochloromethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Bromodichloromethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Bromoform	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Bromomethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Carbon disulfide	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Carbon tetrachloride	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Chlorobenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Chlorodifluoromethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Chloroethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Chloroform	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Chloromethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
cis-1,2-Dichloroethene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
cis-1,3-Dichloropropene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Dibromochloromethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Dibromomethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Dichlorodifluoromethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-7 [2ft]
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 3:15:00 PM
<b>Lab ID:</b>	0706266-01A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
Diisopropyl ether	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Ethanol	U	38		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Ethyl acetate	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Ethylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Freon-114	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Hexachlorobutadiene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Isopropyl acetate	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Isopropylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
m,p-Xylene	U	15		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Methyl tert-butyl ether	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Methylene chloride	41	7.7	B	µg/Kg-dry	1	6/30/2007 6:15:00 AM
n-Amyl acetate	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Naphthalene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
n-Butyl acetate	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
n-Butylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
n-Propyl acetate	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
n-Propylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
o-Xylene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
p-Diethylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
p-Ethyltoluene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
sec-Butylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Styrene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
t-Butyl alcohol	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
tert-Butylbenzene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Tetrachloroethene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Toluene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
trans-1,2-Dichloroethene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
trans-1,3-Dichloropropene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Trichloroethene	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Trichlorofluoromethane	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Vinyl acetate	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Vinyl chloride	U	7.7		µg/Kg-dry	1	6/30/2007 6:15:00 AM
Surr: 4-Bromofluorobenzene	91.5	61-133		%REC	1	6/30/2007 6:15:00 AM
Surr: Dibromofluoromethane	114	61-139		%REC	1	6/30/2007 6:15:00 AM
Surr: Toluene-d8	96.8	57-131		%REC	1	6/30/2007 6:15:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-02A

Client Sample ID: SB-7 [9-10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 3:30:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
		<b>SW7471B</b>	<b>SW7471B</b>			Analyst: JP
Mercury	4.08	0.127		mg/Kg-dry	10	7/2/2007 3:16:57 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
		<b>SW8082A</b>	<b>SW3550</b>			Analyst: KF
Aroclor 1016	U	100		µg/Kg-dry	1	7/2/2007 3:38:00 PM
Aroclor 1221	U	100		µg/Kg-dry	1	7/2/2007 3:38:00 PM
Aroclor 1232	U	100		µg/Kg-dry	1	7/2/2007 3:38:00 PM
Aroclor 1242	U	100		µg/Kg-dry	1	7/2/2007 3:38:00 PM
Aroclor 1248	U	100		µg/Kg-dry	1	7/2/2007 3:38:00 PM
Aroclor 1254	U	100		µg/Kg-dry	1	7/2/2007 3:38:00 PM
Aroclor 1260	U	100		µg/Kg-dry	1	7/2/2007 3:38:00 PM
Surr: TCX	72.8	26-136		%REC	1	7/2/2007 3:38:00 PM
Surr: DCB	90.8	20-133		%REC	1	7/2/2007 3:38:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
		<b>SW8081B</b>	<b>SW3550</b>			Analyst: MMR
4,4'-DDD	21	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
4,4'-DDE	0.58	6.3	J	µg/Kg-dry	1	7/3/2007 2:30:00 PM
4,4'-DDT	2.4	6.3	J	µg/Kg-dry	1	7/3/2007 2:30:00 PM
Aldrin	3.5	6.3	J	µg/Kg-dry	1	7/3/2007 2:30:00 PM
alpha-BHC	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
beta-BHC	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Chlordane	U	19		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Chlorobenzilate	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
DBCP	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
delta-BHC	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Dieldrin	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Endosulfan I	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Endosulfan II	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Endosulfan sulfate	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Endrin	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Endrin aldehyde	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Endrin ketone	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
gamma-BHC	37	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Heptachlor	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Heptachlor epoxide	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Hexachlorobenzene	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Hexachlorocyclopentadiene	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Methoxychlor	U	6.3		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Toxaphene	U	61		µg/Kg-dry	1	7/3/2007 2:30:00 PM
Surr: DCB	101	31-133		%REC	1	7/3/2007 2:30:00 PM
Surr: TCX	94.7	32-132		%REC	1	7/3/2007 2:30:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-02A

Client Sample ID: SB-7 [9-10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 3:30:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: CM
Percent Moisture	23.3	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: JP
Aluminum	3550	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Antimony	U	0.634		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Arsenic	70.0	0.634		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Barium	168	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Beryllium	U	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Cadmium	1.05	0.254		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Calcium	9210	0.634		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Chromium	10.8	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Cobalt	U	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Copper	122	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Iron	15200	5.07		mg/Kg-dry	10	7/3/2007 4:19:24 PM
Lead	623	0.381		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Magnesium	726	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Manganese	167	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Nickel	9.90	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Potassium	824	2.54		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Selenium	U	0.634		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Silver	0.227	0.507	J	mg/Kg-dry	1	7/3/2007 3:51:41 PM
Sodium	405	1.52		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Thallium	U	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Vanadium	15.3	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
Zinc	238	0.507		mg/Kg-dry	1	7/3/2007 3:51:41 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2-Chlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.

Client Sample ID: SB-7 [9-10ft]

Lab Order: 0706266

Tag Number:

Project: 544 Union Avenue Brooklyn, N.Y.

Collection Date: 6/26/2007 3:30:00 PM

Lab ID: 0706266-02A

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
2-Methylnaphthalene	140	150	J	µg/Kg-dry	1	7/2/2007 11:04:00 AM
2-Methylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
2-Nitrophenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
3+4-Methylphenol	680	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
3-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
4-Chloroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
4-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
4-Nitrophenol	U	190		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Acenaphthene	290	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Acenaphthylene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Aniline	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Anthracene	680	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Azobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzidine	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzo(a)anthracene	2300	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzo(a)pyrene	2000	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzo(b)fluoranthene	2200	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzo(g,h,i)perylene	1300	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzo(k)fluoranthene	1500	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzoic acid	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Benzyl alcohol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Butyl benzyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Carbazole	320	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Chrysene	2400	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Dibenzo(a,h)anthracene	310	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Dibenzofuran	280	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Diethyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Dimethyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-7 [9-10ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 3:30:00 PM  
 Lab ID: 0706266-02A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>	<b>SW3550A</b>	Analyst: PT		
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Fluoranthene	5000	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Fluorene	300	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Hexachlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Hexachlorocyclopentadiene	U	190		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Hexachloroethane	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Indeno(1,2,3-c,d)pyrene	1300	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Isophorone	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Naphthalene	320	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Nitrobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Pentachlorophenol	U	190		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Phenanthrene	3600	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Phenol	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Pyrene	4700	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Pyridine	U	150		µg/Kg-dry	1	7/2/2007 11:04:00 AM
Surr: 2,4,6-Tribromophenol	45.0	22-124		%REC	1	7/2/2007 11:04:00 AM
Surr: 2-Fluorobiphenyl	42.3	27-119		%REC	1	7/2/2007 11:04:00 AM
Surr: 2-Fluorophenol	49.2	21-123		%REC	1	7/2/2007 11:04:00 AM
Surr: 4-Terphenyl-d14	45.2	28-126		%REC	1	7/2/2007 11:04:00 AM
Surr: Nitrobenzene-d5	39.9	21-118		%REC	1	7/2/2007 11:04:00 AM
Surr: Phenol-d6	50.3	18-129		%REC	1	7/2/2007 11:04:00 AM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,1,1,2-Tetrachloroethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,1,1-Trichloroethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,1,2,2-Tetrachloroethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,1,2-Trichloroethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,1-Dichloroethane	1.4	6.5	J	µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,1-Dichloroethene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,1-Dichloropropene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2,3-Trichlorobenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2,3-Trichloropropane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2,4,5-Tetramethylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2,4-Trichlorobenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2,4-Trimethylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-7 [9-10ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 3:30:00 PM  
 Lab ID: 0706266-02A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2-Dibromoethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2-Dichlorobenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2-Dichloroethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,2-Dichloropropane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,3,5-Trimethylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,3-Dichlorobenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,3-dichloropropane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
1,4-Dichlorobenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
2,2-Dichloropropane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
2-Butanone	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
2-Chloroethyl vinyl ether	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
2-Chlorotoluene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
2-Hexanone	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
2-Propanol	U	65		µg/Kg-dry	1	6/30/2007 6:52:00 AM
4-Chlorotoluene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
4-Isopropyltoluene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
4-Methyl-2-pentanone	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Acetone	220	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Acrolein	U	33		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Acrylonitrile	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Benzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Bromobenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Bromochloromethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Bromodichloromethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Bromoform	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Bromomethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Carbon disulfide	3.9	6.5	J	µg/Kg-dry	1	6/30/2007 6:52:00 AM
Carbon tetrachloride	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Chlorobenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Chlorodifluoromethane	5.6	6.5	J	µg/Kg-dry	1	6/30/2007 6:52:00 AM
Chloroethane	27	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Chloroform	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Chloromethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
cis-1,2-Dichloroethene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
cis-1,3-Dichloropropene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Dibromochloromethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Dibromomethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Dichlorodifluoromethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-02A

Client Sample ID: SB-7 [9-10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 3:30:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Ethanol	U	33		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Ethyl acetate	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Ethylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Freon-114	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Hexachlorobutadiene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Isopropyl acetate	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Isopropylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
m,p-Xylene	U	13		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Methyl tert-butyl ether	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Methylene chloride	29	6.5	B	µg/Kg-dry	1	6/30/2007 6:52:00 AM
n-Amyl acetate	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Naphthalene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
n-Butyl acetate	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
n-Butylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
n-Propyl acetate	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
n-Propylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
o-Xylene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
p-Diethylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
p-Ethyltoluene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
sec-Butylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Styrene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
t-Butyl alcohol	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
tert-Butylbenzene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Tetrachloroethene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Toluene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
trans-1,2-Dichloroethene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
trans-1,3-Dichloropropene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Trichloroethene	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Trichlorofluoromethane	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Vinyl acetate	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Vinyl chloride	U	6.5		µg/Kg-dry	1	6/30/2007 6:52:00 AM
Surr: 4-Bromofluorobenzene	86.5	61-133		%REC	1	6/30/2007 6:52:00 AM
Surr: Dibromofluoromethane	112	61-139		%REC	1	6/30/2007 6:52:00 AM
Surr: Toluene-d8	98.3	57-131		%REC	1	6/30/2007 6:52:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-8 [2ft]
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 3:40:00 PM
<b>Lab ID:</b>	0706266-03A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: JP
Mercury	3.34	0.121		mg/Kg-dry	10	7/2/2007 3:19:08 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>		<b>SW8082A</b>		<b>SW3550</b>		Analyst: KF
Aroclor 1016	U	94		µg/Kg-dry	1	7/2/2007 3:54:00 PM
Aroclor 1221	U	94		µg/Kg-dry	1	7/2/2007 3:54:00 PM
Aroclor 1232	U	94		µg/Kg-dry	1	7/2/2007 3:54:00 PM
Aroclor 1242	U	94		µg/Kg-dry	1	7/2/2007 3:54:00 PM
Aroclor 1248	U	94		µg/Kg-dry	1	7/2/2007 3:54:00 PM
Aroclor 1254	U	94		µg/Kg-dry	1	7/2/2007 3:54:00 PM
Aroclor 1260	U	94		µg/Kg-dry	1	7/2/2007 3:54:00 PM
Surr: TCX	63.4	26-136		%REC	1	7/2/2007 3:54:00 PM
Surr: DCB	25.7	20-133		%REC	1	7/2/2007 3:54:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>		<b>SW8081B</b>		<b>SW3550</b>		Analyst: MMR
4,4'-DDD	25	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
4,4'-DDE	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
4,4'-DDT	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Aldrin	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
alpha-BHC	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
beta-BHC	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Chlordane	U	18		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Chlorobenzilate	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
DBCP	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
delta-BHC	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Dieldrin	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Endosulfan I	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Endosulfan II	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Endosulfan sulfate	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Endrin	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Endrin aldehyde	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Endrin ketone	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
gamma-BHC	6.3	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Heptachlor	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Heptachlor epoxide	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Hexachlorobenzene	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Hexachlorocyclopentadiene	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Methoxychlor	U	5.8		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Toxaphene	U	56		µg/Kg-dry	1	7/3/2007 2:48:00 PM
Surr: DCB	115	31-133		%REC	1	7/3/2007 2:48:00 PM
Surr: TCX	106	32-132		%REC	1	7/3/2007 2:48:00 PM

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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-03A

**Client Sample ID:** SB-8 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:40:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: CM
Percent Moisture	18.1	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: JP
Aluminum	5040	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Antimony	U	0.608		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Arsenic	9.98	0.608		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Barium	155	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Beryllium	U	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Cadmium	0.374	0.243		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Calcium	55800	6.08		mg/Kg-dry	10	7/3/2007 4:21:17 PM
Chromium	12.3	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Cobalt	U	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Copper	57.2	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Iron	4640	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Lead	422	0.365		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Magnesium	757	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Manganese	134	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Nickel	8.76	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Potassium	1860	2.43		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Selenium	1.16	0.608		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Silver	0.186	0.486	J	mg/Kg-dry	1	7/3/2007 3:53:40 PM
Sodium	1630	1.46		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Thallium	U	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Vanadium	15.6	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
Zinc	162	0.486		mg/Kg-dry	1	7/3/2007 3:53:40 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
1,2,4-Trichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
1,2-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
1,3-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
1,4-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2,4,5-Trichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2,4,6-Trichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2,4-Dichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2,4-Dimethylphenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2,4-Dinitrophenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2,4-Dinitrotoluene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2,6-Dinitrotoluene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2-Chloronaphthalene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2-Chlorophenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-03A

**Client Sample ID:** SB-8 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:40:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: PT</b>
2-Methylnaphthalene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2-Methylphenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
2-Nitrophenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
3,3'-Dichlorobenzidine	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
3+4-Methylphenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
3-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
4,6-Dinitro-2-methylphenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
4-Bromophenyl phenyl ether	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
4-Chloro-3-methylphenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
4-Chloroaniline	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
4-Chlorophenyl phenyl ether	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
4-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
4-Nitrophenol	U	180		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Acenaphthene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Acenaphthylene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Aniline	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Anthracene	280	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Azobenzene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzidine	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzo(a)anthracene	1400	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzo(a)pyrene	1000	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzo(b)fluoranthene	900	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzo(g,h,i)perylene	480	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzo(k)fluoranthene	900	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzoic acid	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Benzyl alcohol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Bis(2-chloroethoxy)methane	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Bis(2-chloroethyl)ether	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Bis(2-chloroisopropyl)ether	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Bis(2-ethylhexyl)phthalate	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Butyl benzyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Carbazole	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Chrysene	1300	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Dibenzo(a,h)anthracene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Dibenzofuran	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Diethyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Dimethyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Di-n-butyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM

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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-03A

**Client Sample ID:** SB-8 [2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:40:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>PT</b>
Di-n-octyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Fluoranthene	2400	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Fluorene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Hexachlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Hexachlorobutadiene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Hexachlorocyclopentadiene	U	180		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Hexachloroethane	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Indeno(1,2,3-c,d)pyrene	510	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Isophorone	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Naphthalene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Nitrobenzene	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
N-Nitrosodimethylamine	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
N-Nitrosodi-n-propylamine	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
N-Nitrosodiphenylamine	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Pentachlorophenol	U	180		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Phenanthrene	1100	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Phenol	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Pyrene	2300	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Pyridine	U	140		µg/Kg-dry	1	7/2/2007 11:29:00 AM
Surr: 2,4,6-Tribromophenol	55.3	22-124		%REC	1	7/2/2007 11:29:00 AM
Surr: 2-Fluorobiphenyl	51.0	27-119		%REC	1	7/2/2007 11:29:00 AM
Surr: 2-Fluorophenol	54.8	21-123		%REC	1	7/2/2007 11:29:00 AM
Surr: 4-Terphenyl-d14	58.7	28-126		%REC	1	7/2/2007 11:29:00 AM
Surr: Nitrobenzene-d5	48.2	21-118		%REC	1	7/2/2007 11:29:00 AM
Surr: Phenol-d6	55.5	18-129		%REC	1	7/2/2007 11:29:00 AM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,1,1-Trichloroethane	4.2	6.1	J	µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,1,2,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,1,2-Trichloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,1-Dichloroethane	10	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,1-Dichloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,1-Dichloropropene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2,3-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2,3-Trichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2,4,5-Tetramethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2,4-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2,4-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-03A

Client Sample ID: SB-8 [2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 3:40:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: MB</b>		
1,2-Dibromo-3-chloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2-Dibromoethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2-Dichloroethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,3,5-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,3-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,3-dichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
1,4-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
2,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
2-Butanone	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
2-Chloroethyl vinyl ether	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
2-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
2-Hexanone	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
2-Propanol	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
4-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
4-Isopropyltoluene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
4-Methyl-2-pentanone	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Acetone	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Acrolein	U	31		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Acrylonitrile	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Benzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Bromobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Bromochloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Bromodichloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Bromoform	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Bromomethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Carbon disulfide	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Carbon tetrachloride	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Chlorobenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Chlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Chloroethane	6.2	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Chloroform	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Chloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
cis-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
cis-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Dibromochloromethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Dibromomethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Dichlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-03A

Client Sample ID: SB-8 [2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 3:40:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Ethanol	U	31		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Ethyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Ethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Freon-114	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Hexachlorobutadiene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Isopropyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Isopropylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
m,p-Xylene	U	12		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Methyl tert-butyl ether	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Methylene chloride	26	6.1	B	µg/Kg-dry	1	6/30/2007 7:29:00 AM
n-Amyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Naphthalene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
n-Butyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
n-Butylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
n-Propyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
n-Propylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
o-Xylene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
p-Diethylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
p-Ethyltoluene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
sec-Butylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Styrene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
t-Butyl alcohol	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
tert-Butylbenzene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Tetrachloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Toluene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
trans-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
trans-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Trichloroethene	1.5	6.1	J	µg/Kg-dry	1	6/30/2007 7:29:00 AM
Trichlorofluoromethane	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Vinyl acetate	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Vinyl chloride	U	6.1		µg/Kg-dry	1	6/30/2007 7:29:00 AM
Surr: 4-Bromofluorobenzene	90.3	61-133		%REC	1	6/30/2007 7:29:00 AM
Surr: Dibromofluoromethane	114	61-139		%REC	1	6/30/2007 7:29:00 AM
Surr: Toluene-d8	97.9	57-131		%REC	1	6/30/2007 7:29:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-8 [10ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 3:45:00 PM  
 Lab ID: 0706266-04A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	23.8	1.21		mg/Kg-dry	100	7/2/2007 3:21:17 PM
		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: JP
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	100		µg/Kg-dry	1	7/2/2007 4:11:00 PM
Aroclor 1221	U	100		µg/Kg-dry	1	7/2/2007 4:11:00 PM
Aroclor 1232	U	100		µg/Kg-dry	1	7/2/2007 4:11:00 PM
Aroclor 1242	U	100		µg/Kg-dry	1	7/2/2007 4:11:00 PM
Aroclor 1248	U	100		µg/Kg-dry	1	7/2/2007 4:11:00 PM
Aroclor 1254	U	100		µg/Kg-dry	1	7/2/2007 4:11:00 PM
Aroclor 1260	U	100		µg/Kg-dry	1	7/2/2007 4:11:00 PM
Surr: TCX	59.6	26-136		%REC	1	7/2/2007 4:11:00 PM
Surr: DCB	10.5	20-133	S	%REC	1	7/2/2007 4:11:00 PM
		<b>SW8082A</b>		<b>SW3550</b>		Analyst: KF
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
4,4'-DDE	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
4,4'-DDT	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Aldrin	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
alpha-BHC	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
beta-BHC	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Chlordane	U	19		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Chlorobenzilate	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
DBCP	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
delta-BHC	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Dieldrin	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Endosulfan I	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Endosulfan II	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Endosulfan sulfate	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Endrin	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Endrin aldehyde	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Endrin ketone	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
gamma-BHC	0.26	6.4	J	µg/Kg-dry	1	7/3/2007 3:05:00 PM
Heptachlor	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Heptachlor epoxide	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Hexachlorobenzene	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Hexachlorocyclopentadiene	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Methoxychlor	U	6.4		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Toxaphene	U	61		µg/Kg-dry	1	7/3/2007 3:05:00 PM
Surr: DCB	96.3	31-133		%REC	1	7/3/2007 3:05:00 PM
Surr: TCX	104	32-132		%REC	1	7/3/2007 3:05:00 PM
		<b>SW8081B</b>		<b>SW3550</b>		Analyst: MMR

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-04A

**Client Sample ID:** SB-8 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:45:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	21.9	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: CM
		<b>SW6010B</b>				Analyst: JP
		<b>SW3050A</b>				
Aluminum	9780	4.40		mg/Kg-dry	10	7/3/2007 4:23:11 PM
Antimony	U	0.550		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Arsenic	19.9	0.550		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Barium	467	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Beryllium	U	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Cadmium	0.383	0.220		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Calcium	5500	0.550		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Chromium	19.4	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Cobalt	U	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Copper	137	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Iron	13300	4.40		mg/Kg-dry	10	7/3/2007 4:23:11 PM
Lead	844	0.330		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Magnesium	1400	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Manganese	191	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Nickel	10.6	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Potassium	1330	2.20		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Selenium	0.844	0.550		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Silver	0.612	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Sodium	375	1.32		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Thallium	U	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Vanadium	24.2	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
Zinc	185	0.440		mg/Kg-dry	1	7/3/2007 3:55:42 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>				Analyst: PT
		<b>SW3550A</b>				
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2-Chlorophenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits  
X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> SB-8 [10ft]
<b>Lab Order:</b> 0706266	<b>Tag Number:</b>
<b>Project:</b> 544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 3:45:00 PM
<b>Lab ID:</b> 0706266-04A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: PT</b>
2-Methylnaphthalene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2-Methylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
2-Nitrophenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
3+4-Methylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
3-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
4-Chloroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
4-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
4-Nitrophenol	U	190		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Acenaphthene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Acenaphthylene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Aniline	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Anthracene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Azobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzidine	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzo(a)anthracene	160	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzo(a)pyrene	110	150	J	µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzo(b)fluoranthene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzo(g,h,i)perylene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzo(k)fluoranthene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzoic acid	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Benzyl alcohol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Butyl benzyl phthalate	160	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Carbazole	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Chrysene	160	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Dibenzo(a,h)anthracene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Dibenzofuran	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Diethyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Dimethyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-04A

Client Sample ID: SB-8 [10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 3:45:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Fluoranthene	320	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Fluorene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Hexachlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Hexachlorocyclopentadiene	U	190		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Hexachloroethane	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Indeno(1,2,3-c,d)pyrene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Isophorone	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Naphthalene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Nitrobenzene	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Pentachlorophenol	U	190		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Phenanthrene	220	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Phenol	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Pyrene	270	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Pyridine	U	150		µg/Kg-dry	1	7/2/2007 11:54:00 AM
Surr: 2,4,6-Tribromophenol	46.5	22-124		%REC	1	7/2/2007 11:54:00 AM
Surr: 2-Fluorobiphenyl	42.8	27-119		%REC	1	7/2/2007 11:54:00 AM
Surr: 2-Fluorophenol	47.8	21-123		%REC	1	7/2/2007 11:54:00 AM
Surr: 4-Terphenyl-d14	49.7	28-126		%REC	1	7/2/2007 11:54:00 AM
Surr: Nitrobenzene-d5	45.3	21-118		%REC	1	7/2/2007 11:54:00 AM
Surr: Phenol-d6	50.4	18-129		%REC	1	7/2/2007 11:54:00 AM
<b>VOLATILE SW-846 METHOD 8260</b>						
		<b>SW8260B</b>				Analyst: MB
1,1,1,2-Tetrachloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,1,1-Trichloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,1,2,2-Tetrachloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,1,2-Trichloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,1-Dichloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,1-Dichloroethene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,1-Dichloropropene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2,3-Trichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2,3-Trichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2,4,5-Tetramethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2,4-Trichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2,4-Trimethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-8 [10ft]
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 3:45:00 PM
<b>Lab ID:</b>	0706266-04A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dibromo-3-chloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2-Dibromoethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2-Dichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2-Dichloroethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,2-Dichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,3,5-Trimethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,3-Dichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,3-dichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
1,4-Dichlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
2,2-Dichloropropane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
2-Butanone	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
2-Chloroethyl vinyl ether	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
2-Chlorotoluene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
2-Hexanone	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
2-Propanol	U	64		µg/Kg-dry	1	6/30/2007 8:06:00 AM
4-Chlorotoluene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
4-Isopropyltoluene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
4-Methyl-2-pentanone	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Acetone	100	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Acrolein	U	32		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Acrylonitrile	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Benzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Bromobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Bromochloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Bromodichloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Bromoform	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Bromomethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Carbon disulfide	1.8	6.4	J	µg/Kg-dry	1	6/30/2007 8:06:00 AM
Carbon tetrachloride	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Chlorobenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Chlorodifluoromethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Chloroethane	1000	800		µg/Kg-dry	125	7/2/2007 12:29:00 PM
Chloroform	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Chloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
cis-1,2-Dichloroethene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
cis-1,3-Dichloropropene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Dibromochloromethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Dibromomethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Dichlorodifluoromethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-04A

**Client Sample ID:** SB-8 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 3:45:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Diisopropyl ether	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Ethanol	U	32		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Ethyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Ethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Freon-114	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Hexachlorobutadiene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Isopropyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Isopropylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
m,p-Xylene	U	13		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Methyl tert-butyl ether	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Methylene chloride	34	6.4	B	µg/Kg-dry	1	6/30/2007 8:06:00 AM
n-Amyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Naphthalene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
n-Butyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
n-Butylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
n-Propyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
n-Propylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
o-Xylene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
p-Diethylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
p-Ethyltoluene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
sec-Butylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Styrene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
t-Butyl alcohol	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
tert-Butylbenzene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Tetrachloroethene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Toluene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
trans-1,2-Dichloroethene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
trans-1,3-Dichloropropene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Trichloroethene	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Trichlorofluoromethane	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Vinyl acetate	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Vinyl chloride	U	6.4		µg/Kg-dry	1	6/30/2007 8:06:00 AM
Surr: 4-Bromofluorobenzene	92.8	61-133		%REC	125	7/2/2007 12:29:00 PM
Surr: 4-Bromofluorobenzene	90.3	61-133		%REC	1	6/30/2007 8:06:00 AM
Surr: Dibromofluoromethane	113	61-139		%REC	1	6/30/2007 8:06:00 AM
Surr: Dibromofluoromethane	115	61-139		%REC	125	7/2/2007 12:29:00 PM
Surr: Toluene-d8	96.3	57-131		%REC	1	6/30/2007 8:06:00 AM
Surr: Toluene-d8	97.3	57-131		%REC	125	7/2/2007 12:29:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-9 [0-2ft]
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 4:00:00 PM
<b>Lab ID:</b>	0706266-05A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	1.73	0.116		mg/Kg-dry	10	7/2/2007 2:39:05 PM
						Analyst: JP
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	88		µg/Kg-dry	1	7/2/2007 4:27:00 PM
Aroclor 1221	U	88		µg/Kg-dry	1	7/2/2007 4:27:00 PM
Aroclor 1232	U	88		µg/Kg-dry	1	7/2/2007 4:27:00 PM
Aroclor 1242	U	88		µg/Kg-dry	1	7/2/2007 4:27:00 PM
Aroclor 1248	U	88		µg/Kg-dry	1	7/2/2007 4:27:00 PM
Aroclor 1254	U	88		µg/Kg-dry	1	7/2/2007 4:27:00 PM
Aroclor 1260	U	88		µg/Kg-dry	1	7/2/2007 4:27:00 PM
Surr: TCX	36.5	26-136		%REC	1	7/2/2007 4:27:00 PM
Surr: DCB	60.8	20-133		%REC	1	7/2/2007 4:27:00 PM
						Analyst: KF
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	23	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
4,4'-DDE	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
4,4'-DDT	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Aldrin	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
alpha-BHC	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
beta-BHC	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Chlordane	U	16		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Chlorobenzilate	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
DBCP	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
delta-BHC	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Dieldrin	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Endosulfan I	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Endosulfan II	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Endosulfan sulfate	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Endrin	17	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Endrin aldehyde	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Endrin ketone	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
gamma-BHC	110	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Heptachlor	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Heptachlor epoxide	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Hexachlorobenzene	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Hexachlorocyclopentadiene	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Methoxychlor	U	5.5		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Toxaphene	U	53		µg/Kg-dry	1	7/3/2007 3:22:00 PM
Surr: DCB	37.1	31-133		%REC	1	7/3/2007 3:22:00 PM
Surr: TCX	123	32-132		%REC	1	7/3/2007 3:22:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-9 [0-2ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 4:00:00 PM  
 Lab ID: 0706266-05A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	13.9	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: CM
		<b>SW6010B</b>	<b>SW3050A</b>			Analyst: JP
Aluminum	5900	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Antimony	0.734	0.497		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Arsenic	8.76	0.497		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Barium	225	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Beryllium	U	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Cadmium	0.978	0.199		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Calcium	3030	0.497		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Chromium	10.7	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Cobalt	U	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Copper	82.0	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Iron	31500	3.98		mg/Kg-dry	10	7/3/2007 4:25:03 PM
Lead	377	0.298		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Magnesium	1240	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Manganese	288	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Nickel	17.9	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Potassium	1220	1.99		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Selenium	U	0.497		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Silver	0.197	0.398	J	mg/Kg-dry	1	7/3/2007 3:57:40 PM
Sodium	371	1.19		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Thallium	U	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Vanadium	27.0	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
Zinc	499	0.398		mg/Kg-dry	1	7/3/2007 3:57:40 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>	<b>SW3550A</b>			Analyst: PT
1,2,4-Trichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
1,2-Dichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
1,3-Dichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
1,4-Dichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2,4,5-Trichlorophenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2,4,6-Trichlorophenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2,4-Dichlorophenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2,4-Dimethylphenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2,4-Dinitrophenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2,4-Dinitrotoluene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2,6-Dinitrotoluene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2-Chloronaphthalene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2-Chlorophenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-05A

**Client Sample ID:** SB-9 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 4:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: PT</b>
2-Methylnaphthalene	630	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2-Methylphenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2-Nitroaniline	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
2-Nitrophenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
3,3'-Dichlorobenzidine	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
3+4-Methylphenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
3-Nitroaniline	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
4,6-Dinitro-2-methylphenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
4-Bromophenyl phenyl ether	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
4-Chloro-3-methylphenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
4-Chloroaniline	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
4-Chlorophenyl phenyl ether	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
4-Nitroaniline	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
4-Nitrophenol	U	160		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Acenaphthene	1400	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Acenaphthylene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Aniline	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Anthracene	3200	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Azobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzidine	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(a)anthracene	4900	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(a)pyrene	3700	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(b)fluoranthene	3700	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(g,h,i)perylene	1900	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(k)fluoranthene	2500	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzoic acid	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzyl alcohol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-chloroethoxy)methane	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-chloroethyl)ether	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-chloroisopropyl)ether	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-ethylhexyl)phthalate	540	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Butyl benzyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Carbazole	950	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Chrysene	4700	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Dibenzo(a,h)anthracene	490	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Dibenzofuran	980	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Diethyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Dimethyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Di-n-butyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-05A

Client Sample ID: SB-9 [0-2ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:00:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>	<b>SW3550A</b>	Analyst: PT		
Azobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzidine	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(a)anthracene	4900	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(a)pyrene	3700	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(b)fluoranthene	3700	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(g,h,i)perylene	1900	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzo(k)fluoranthene	2500	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzoic acid	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Benzyl alcohol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-chloroethoxy)methane	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-chloroethyl)ether	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-chloroisopropyl)ether	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Bis(2-ethylhexyl)phthalate	540	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Butyl benzyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Carbazole	950	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Chrysene	4700	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Dibenzo(a,h)anthracene	490	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Dibenzofuran	980	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Diethyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Dimethyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Di-n-butyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Di-n-octyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Fluoranthene	11000	1300		µg/Kg-dry	10	7/3/2007 9:37:00 AM
Fluorene	1300	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Hexachlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Hexachlorobutadiene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Hexachlorocyclopentadiene	U	160		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Hexachloroethane	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Indeno(1,2,3-c,d)pyrene	2000	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Isophorone	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Naphthalene	760	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Nitrobenzene	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
N-Nitrosodimethylamine	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
N-Nitrosodi-n-propylamine	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
N-Nitrosodiphenylamine	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Pentachlorophenol	U	160		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Phenanthrene	16000	1300		µg/Kg-dry	10	7/3/2007 9:37:00 AM
Phenol	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Pyrene	11000	1300		µg/Kg-dry	10	7/3/2007 9:37:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-9 [0-2ft]
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 4:00:00 PM
<b>Lab ID:</b>	0706266-05A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		<b>Analyst: PT</b>
Pyridine	U	130		µg/Kg-dry	1	7/2/2007 12:19:00 PM
Surr: 2,4,6-Tribromophenol	56.6	22-124		%REC	1	7/2/2007 12:19:00 PM
Surr: 2,4,6-Tribromophenol	0	22-124	S	%REC	10	7/3/2007 9:37:00 AM
Surr: 2-Fluorobiphenyl	55.9	27-119		%REC	1	7/2/2007 12:19:00 PM
Surr: 2-Fluorobiphenyl	57.5	27-119		%REC	10	7/3/2007 9:37:00 AM
Surr: 2-Fluorophenol	0	21-123	S	%REC	10	7/3/2007 9:37:00 AM
Surr: 2-Fluorophenol	32.4	21-123		%REC	1	7/2/2007 12:19:00 PM
Surr: 4-Terphenyl-d14	57.8	28-126		%REC	10	7/3/2007 9:37:00 AM
Surr: 4-Terphenyl-d14	58.8	28-126		%REC	1	7/2/2007 12:19:00 PM
Surr: Nitrobenzene-d5	1.78	21-118	S	%REC	10	7/3/2007 9:37:00 AM
Surr: Nitrobenzene-d5	49.0	21-118		%REC	1	7/2/2007 12:19:00 PM
Surr: Phenol-d6	0	18-129	S	%REC	10	7/3/2007 9:37:00 AM
Surr: Phenol-d6	40.1	18-129		%REC	1	7/2/2007 12:19:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				<b>Analyst: MB</b>
1,1,1,2-Tetrachloroethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,1,1-Trichloroethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,1,2,2-Tetrachloroethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,1,2-Trichloroethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,1-Dichloroethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,1-Dichloroethene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,1-Dichloropropene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2,3-Trichlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2,3-Trichloropropane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2,4,5-Tetramethylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2,4-Trichlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2,4-Trimethylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2-Dibromo-3-chloropropane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2-Dibromoethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2-Dichlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2-Dichloroethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,2-Dichloropropane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,3,5-Trimethylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,3-Dichlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,3-dichloropropane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
1,4-Dichlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
2,2-Dichloropropane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
2-Butanone	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
2-Chloroethyl vinyl ether	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-05A

**Client Sample ID:** SB-9 [0-2ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 4:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>MB</b>		
2-Chlorotoluene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
2-Hexanone	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
2-Propanol	U	58		µg/Kg-dry	1	6/30/2007 8:44:00 AM
4-Chlorotoluene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
4-Isopropyltoluene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
4-Methyl-2-pentanone	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Acetone	20	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Acrolein	U	29		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Acrylonitrile	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Benzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Bromobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Bromochloromethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Bromodichloromethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Bromoform	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Bromomethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Carbon disulfide	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Carbon tetrachloride	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Chlorobenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Chlorodifluoromethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Chloroethane	6.6	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Chloroform	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Chloromethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
cis-1,2-Dichloroethene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
cis-1,3-Dichloropropene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Dibromochloromethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Dibromomethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Dichlorodifluoromethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Diisopropyl ether	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Ethanol	U	29		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Ethyl acetate	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Ethylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Freon-114	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Hexachlorobutadiene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Isopropyl acetate	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Isopropylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
m,p-Xylene	U	12		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Methyl tert-butyl ether	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Methylene chloride	29	5.8	B	µg/Kg-dry	1	6/30/2007 8:44:00 AM
n-Amyl acetate	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	SB-9 [0-2ft]
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 4:00:00 PM
<b>Lab ID:</b>	0706266-05A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>						
		<b>SW8260B</b>				<b>Analyst: MB</b>
Naphthalene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
n-Butyl acetate	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
n-Butylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
n-Propyl acetate	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
n-Propylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
o-Xylene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
p-Diethylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
p-Ethyltoluene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
sec-Butylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Styrene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
t-Butyl alcohol	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
tert-Butylbenzene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Tetrachloroethene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Toluene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
trans-1,2-Dichloroethene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
trans-1,3-Dichloropropene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Trichloroethene	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Trichlorofluoromethane	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Vinyl acetate	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Vinyl chloride	U	5.8		µg/Kg-dry	1	6/30/2007 8:44:00 AM
Surr: 4-Bromofluorobenzene	92.3	61-133		%REC	1	6/30/2007 8:44:00 AM
Surr: Dibromofluoromethane	99.7	61-139		%REC	1	6/30/2007 8:44:00 AM
Surr: Toluene-d8	96.9	57-131		%REC	1	6/30/2007 8:44:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-06A

**Client Sample ID:** SB-9 [8-10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 4:10:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	0.468	0.123		mg/Kg-dry	10	7/2/2007 2:41:14 PM
		<b>SW7471B</b>		<b>SW7471B</b>		Analyst: JP
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	100		µg/Kg-dry	1	7/2/2007 4:44:00 PM
Aroclor 1221	U	100		µg/Kg-dry	1	7/2/2007 4:44:00 PM
Aroclor 1232	U	100		µg/Kg-dry	1	7/2/2007 4:44:00 PM
Aroclor 1242	U	100		µg/Kg-dry	1	7/2/2007 4:44:00 PM
Aroclor 1248	U	100		µg/Kg-dry	1	7/2/2007 4:44:00 PM
Aroclor 1254	U	100		µg/Kg-dry	1	7/2/2007 4:44:00 PM
Aroclor 1260	U	100		µg/Kg-dry	1	7/2/2007 4:44:00 PM
Surr: TCX	46.9	26-136		%REC	1	7/2/2007 4:44:00 PM
Surr: DCB	14.5	20-133	S	%REC	1	7/2/2007 4:44:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
4,4'-DDE	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
4,4'-DDT	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Aldrin	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
alpha-BHC	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
beta-BHC	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Chlordane	U	19		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Chlorobenzilate	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
DBCP	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
delta-BHC	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Dieldrin	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Endosulfan I	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Endosulfan II	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Endosulfan sulfate	1.7	6.4	J	µg/Kg-dry	1	7/3/2007 2:18:00 PM
Endrin	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Endrin aldehyde	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Endrin ketone	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
gamma-BHC	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Heptachlor	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Heptachlor epoxide	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Hexachlorobenzene	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Hexachlorocyclopentadiene	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Methoxychlor	U	6.4		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Toxaphene	U	61		µg/Kg-dry	1	7/3/2007 2:18:00 PM
Surr: DCB	90.2	31-133		%REC	1	7/3/2007 2:18:00 PM
Surr: TCX	59.3	32-132		%REC	1	7/3/2007 2:18:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-9 [8-10ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 4:10:00 PM  
 Lab ID: 0706266-06A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: CM
Percent Moisture	22.6	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: JP
Aluminum	9900	4.79		mg/Kg-dry	10	7/3/2007 4:26:58 PM
Antimony	U	0.598		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Arsenic	3.81	0.598		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Barium	91.5	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Beryllium	U	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Cadmium	U	0.239		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Calcium	2920	0.598		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Chromium	14.1	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Cobalt	U	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Copper	29.1	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Iron	15600	4.79		mg/Kg-dry	10	7/3/2007 4:26:58 PM
Lead	222	0.359		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Magnesium	1500	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Manganese	224	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Nickel	10.7	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Potassium	1380	2.39		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Selenium	U	0.598		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Silver	U	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Sodium	303	1.44		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Thallium	U	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Vanadium	27.4	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
Zinc	51.9	0.479		mg/Kg-dry	1	7/3/2007 3:59:49 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
1,2,4-Trichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
1,2-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
1,3-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
1,4-Dichlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2,4,5-Trichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2,4,6-Trichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2,4-Dichlorophenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2,4-Dimethylphenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2,4-Dinitrophenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2,4-Dinitrotoluene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2,6-Dinitrotoluene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2-Chloronaphthalene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2-Chlorophenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-06A

Client Sample ID: SB-9 [8-10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:10:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
2-Methylnaphthalene	2500	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2-Methylphenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
2-Nitrophenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
3,3'-Dichlorobenzidine	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
3+4-Methylphenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
3-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
4,6-Dinitro-2-methylphenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
4-Bromophenyl phenyl ether	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
4-Chloro-3-methylphenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
4-Chloroaniline	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
4-Chlorophenyl phenyl ether	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
4-Nitroaniline	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
4-Nitrophenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Acenaphthene	U	190		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Acenaphthylene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Aniline	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Anthracene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Azobenzene	620	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzidine	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzo(a)anthracene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzo(a)pyrene	220	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzo(b)fluoranthene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzo(g,h,i)perylene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzo(k)fluoranthene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzoic acid	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Benzyl alcohol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Bis(2-chloroethoxy)methane	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Bis(2-chloroethyl)ether	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Bis(2-chloroisopropyl)ether	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Bis(2-ethylhexyl)phthalate	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Butyl benzyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Carbazole	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Chrysene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Dibenzo(a,h)anthracene	250	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Dibenzofuran	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Diethyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Dimethyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Di-n-butyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-06A

Client Sample ID: SB-9 [8-10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:10:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
				<b>SW8270D</b>		<b>SW3550A</b>
						Analyst: <b>PT</b>
Di-n-octyl phthalate	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Fluoranthene	660	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Fluorene	1500	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Hexachlorobenzene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Hexachlorobutadiene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Hexachlorocyclopentadiene	U	190		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Hexachloroethane	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Indeno(1,2,3-c,d)pyrene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Isophorone	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Naphthalene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Nitrobenzene	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
N-Nitrosodimethylamine	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
N-Nitrosodi-n-propylamine	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
N-Nitrosodiphenylamine	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Pentachlorophenol	U	190		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Phenanthrene	2000	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Phenol	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Pyrene	900	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Pyridine	U	150		µg/Kg-dry	1	7/2/2007 12:44:00 PM
Surr: 2,4,6-Tribromophenol	66.7	22-124		%REC	1	7/2/2007 12:44:00 PM
Surr: 2-Fluorobiphenyl	66.8	27-119		%REC	1	7/2/2007 12:44:00 PM
Surr: 2-Fluorophenol	35.5	21-123		%REC	1	7/2/2007 12:44:00 PM
Surr: 4-Terphenyl-d14	62.8	28-126		%REC	1	7/2/2007 12:44:00 PM
Surr: Nitrobenzene-d5	77.7	21-118		%REC	1	7/2/2007 12:44:00 PM
Surr: Phenol-d6	42.2	18-129		%REC	1	7/2/2007 12:44:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>						
				<b>SW8260B</b>		Analyst: <b>MB</b>
1,1,1,2-Tetrachloroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,1,1-Trichloroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,1,2,2-Tetrachloroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,1,2-Trichloroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,1-Dichloroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,1-Dichloroethene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,1-Dichloropropene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2,3-Trichlorobenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2,3-Trichloropropane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2,4,5-Tetramethylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2,4-Trichlorobenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2,4-Trimethylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-06A

Client Sample ID: SB-9 [8-10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:10:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: MB</b>		
1,2-Dibromo-3-chloropropane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2-Dibromoethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2-Dichlorobenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2-Dichloroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,2-Dichloropropane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,3,5-Trimethylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,3-Dichlorobenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,3-dichloropropane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
1,4-Dichlorobenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
2,2-Dichloropropane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
2-Butanone	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
2-Chloroethyl vinyl ether	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
2-Chlorotoluene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
2-Hexanone	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
2-Propanol	U	8100		µg/Kg-dry	125	6/30/2007 9:21:00 AM
4-Chlorotoluene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
4-Isopropyltoluene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
4-Methyl-2-pentanone	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Acetone	2900	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Acrolein	U	4000		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Acrylonitrile	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Benzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Bromobenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Bromochloromethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Bromodichloromethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Bromoform	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Bromomethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Carbon disulfide	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Carbon tetrachloride	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Chlorobenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Chlorodifluoromethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Chloroethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Chloroform	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Chloromethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
cis-1,2-Dichloroethene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
cis-1,3-Dichloropropene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Dibromochloromethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Dibromomethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Dichlorodifluoromethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-06A

Client Sample ID: SB-9 [8-10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:10:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: MB
Disopropyl ether	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Ethanol	U	4000		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Ethyl acetate	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Ethylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Freon-114	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Hexachlorobutadiene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Isopropyl acetate	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Isopropylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
m,p-Xylene	U	1600		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Methyl tert-butyl ether	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Methylene chloride	4900	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
n-Amyl acetate	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Naphthalene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
n-Butyl acetate	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
n-Butylbenzene	230	810	J	µg/Kg-dry	125	6/30/2007 9:21:00 AM
n-Propyl acetate	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
n-Propylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
o-Xylene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
p-Diethylbenzene	520	810	J	µg/Kg-dry	125	6/30/2007 9:21:00 AM
p-Ethyltoluene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
sec-Butylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Styrene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
t-Butyl alcohol	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
tert-Butylbenzene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Tetrachloroethene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Toluene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
trans-1,2-Dichloroethene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
trans-1,3-Dichloropropene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Trichloroethene	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Trichlorofluoromethane	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Vinyl acetate	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Vinyl chloride	U	810		µg/Kg-dry	125	6/30/2007 9:21:00 AM
Surr: 4-Bromofluorobenzene	103	61-133		%REC	125	6/30/2007 9:21:00 AM
Surr: Dibromofluoromethane	114	61-139		%REC	125	6/30/2007 9:21:00 AM
Surr: Toluene-d8	95.8	57-131		%REC	125	6/30/2007 9:21:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-10 [3ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 4:30:00 PM  
 Lab ID: 0706266-07A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	1.04	0.105		mg/Kg-dry	10	7/2/2007 2:43:23 PM
						Analyst: JP
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	94		µg/Kg-dry	1	7/3/2007 2:05:00 PM
Aroclor 1221	U	94		µg/Kg-dry	1	7/3/2007 2:05:00 PM
Aroclor 1232	U	94		µg/Kg-dry	1	7/3/2007 2:05:00 PM
Aroclor 1242	U	94		µg/Kg-dry	1	7/3/2007 2:05:00 PM
Aroclor 1248	U	94		µg/Kg-dry	1	7/3/2007 2:05:00 PM
Aroclor 1254	U	94		µg/Kg-dry	1	7/3/2007 2:05:00 PM
Aroclor 1260	U	94		µg/Kg-dry	1	7/3/2007 2:05:00 PM
Surr: TCX	87.9	26-136		%REC	1	7/3/2007 2:05:00 PM
Surr: DCB	119	20-133		%REC	1	7/3/2007 2:05:00 PM
						Analyst: KF
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
4,4'-DDE	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
4,4'-DDT	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Aldrin	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
alpha-BHC	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
beta-BHC	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Chlordane	U	18		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Chlorobenzilate	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
DBCP	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
delta-BHC	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Dieldrin	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Endosulfan I	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Endosulfan II	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Endosulfan sulfate	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Endrin	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Endrin aldehyde	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Endrin ketone	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
gamma-BHC	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Heptachlor	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Heptachlor epoxide	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Hexachlorobenzene	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Hexachlorocyclopentadiene	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Methoxychlor	U	5.8		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Toxaphene	U	56		µg/Kg-dry	1	7/3/2007 2:36:00 PM
Surr: DCB	106	31-133		%REC	1	7/3/2007 2:36:00 PM
Surr: TCX	107	32-132		%REC	1	7/3/2007 2:36:00 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
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 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-10 [3ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 4:30:00 PM  
 Lab ID: 0706266-07A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	18.2	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: CM
		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: JP
Aluminum	7390	4.23		mg/Kg-dry	10	7/3/2007 4:28:49 PM
Antimony	U	0.529		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Arsenic	3.76	0.529		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Barium	60.7	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Beryllium	U	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Cadmium	2.17	0.211		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Calcium	27500	5.29		mg/Kg-dry	10	7/3/2007 4:28:49 PM
Chromium	9.36	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Cobalt	U	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Copper	56.4	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Iron	12600	4.23		mg/Kg-dry	10	7/3/2007 4:28:49 PM
Lead	43.4	0.317		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Magnesium	6470	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Manganese	429	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Nickel	10.9	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Potassium	1540	2.11		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Selenium	U	0.529		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Silver	0.124	0.423	J	mg/Kg-dry	1	7/3/2007 4:10:02 PM
Sodium	279	1.27		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Thallium	U	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Vanadium	16.1	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
Zinc	543	0.423		mg/Kg-dry	1	7/3/2007 4:10:02 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
1,2,4-Trichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
1,2-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
1,3-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
1,4-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2,4,5-Trichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2,4,6-Trichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2,4-Dichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2,4-Dimethylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2,4-Dinitrophenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2,4-Dinitrotoluene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2,6-Dinitrotoluene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2-Chloronaphthalene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2-Chlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
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 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-07A

**Client Sample ID:** SB-10 [3ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 4:30:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
2-Methylnaphthalene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2-Methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
2-Nitrophenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
3,3'-Dichlorobenzidine	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
3+4-Methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
3-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
4,6-Dinitro-2-methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
4-Bromophenyl phenyl ether	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
4-Chloro-3-methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
4-Chloroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
4-Chlorophenyl phenyl ether	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
4-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
4-Nitrophenol	U	180		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Acenaphthene	100	140	J	µg/Kg-dry	1	7/2/2007 1:09:00 PM
Acenaphthylene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Aniline	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Anthracene	160	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Azobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzidine	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzo(a)anthracene	350	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzo(a)pyrene	280	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzo(b)fluoranthene	290	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzo(g,h,i)perylene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzo(k)fluoranthene	160	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzoic acid	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Benzyl alcohol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Bis(2-chloroethoxy)methane	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Bis(2-chloroethyl)ether	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Bis(2-chloroisopropyl)ether	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Bis(2-ethylhexyl)phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Butyl benzyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Carbazole	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Chrysene	370	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Dibenzo(a,h)anthracene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Dibenzofuran	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Diethyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Dimethyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Di-n-butyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-10 [3ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 4:30:00 PM  
 Lab ID: 0706266-07A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
Di-n-octyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Fluoranthene	800	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Fluorene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Hexachlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Hexachlorobutadiene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Hexachlorocyclopentadiene	U	180		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Hexachloroethane	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Indeno(1,2,3-c,d)pyrene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Isophorone	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Naphthalene	120	140	J	µg/Kg-dry	1	7/2/2007 1:09:00 PM
Nitrobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
N-Nitrosodimethylamine	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
N-Nitrosodi-n-propylamine	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
N-Nitrosodiphenylamine	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Pentachlorophenol	U	180		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Phenanthrene	780	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Phenol	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Pyrene	650	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Pyridine	U	140		µg/Kg-dry	1	7/2/2007 1:09:00 PM
Surr: 2,4,6-Tribromophenol	69.4	22-124		%REC	1	7/2/2007 1:09:00 PM
Surr: 2-Fluorobiphenyl	60.0	27-119		%REC	1	7/2/2007 1:09:00 PM
Surr: 2-Fluorophenol	55.0	21-123		%REC	1	7/2/2007 1:09:00 PM
Surr: 4-Terphenyl-d14	66.1	28-126		%REC	1	7/2/2007 1:09:00 PM
Surr: Nitrobenzene-d5	61.7	21-118		%REC	1	7/2/2007 1:09:00 PM
Surr: Phenol-d6	60.6	18-129		%REC	1	7/2/2007 1:09:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: LDS
1,1,1,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,1,1-Trichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,1,2,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,1,2-Trichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,1-Dichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,1-Dichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,1-Dichloropropene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2,3-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2,3-Trichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2,4,5-Tetramethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2,4-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2,4-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-07A

Client Sample ID: SB-10 [3ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:30:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: LDS		
1,2-Dibromo-3-chloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2-Dibromoethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2-Dichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,3,5-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,3-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,3-dichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
1,4-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
2,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
2-Butanone	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
2-Chloroethyl vinyl ether	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
2-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
2-Hexanone	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
2-Propanol	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
4-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
4-Isopropyltoluene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
4-Methyl-2-pentanone	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Acetone	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Acrolein	U	31		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Acrylonitrile	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Benzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Bromobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Bromochloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Bromodichloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Bromoform	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Bromomethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Carbon disulfide	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Carbon tetrachloride	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Chlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Chlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Chloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Chloroform	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Chloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
cis-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
cis-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Dibromochloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Dibromomethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Dichlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detecte	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-07A

**Client Sample ID:** SB-10 [3ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 4:30:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: LDS</b>		
Diisopropyl ether	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Ethanol	U	31		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Ethyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Ethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Freon-114	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Hexachlorobutadiene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Isopropyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Isopropylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
m,p-Xylene	U	12		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Methyl tert-butyl ether	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Methylene chloride	8.3	6.1	B	µg/Kg-dry	1	6/29/2007 3:46:00 PM
n-Amyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Naphthalene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
n-Butyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
n-Butylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
n-Propyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
n-Propylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
o-Xylene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
p-Diethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
p-Ethyltoluene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
sec-Butylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Styrene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
t-Butyl alcohol	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
tert-Butylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Tetrachloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Toluene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
trans-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
trans-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Trichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Trichlorofluoromethane	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Vinyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Vinyl chloride	U	6.1		µg/Kg-dry	1	6/29/2007 3:46:00 PM
Surr: 4-Bromofluorobenzene	87.7	61-133		%REC	1	6/29/2007 3:46:00 PM
Surr: Dibromofluoromethane	98.1	61-139		%REC	1	6/29/2007 3:46:00 PM
Surr: Toluene-d8	95.9	57-131		%REC	1	6/29/2007 3:46:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-08A

Client Sample ID: SB-10 [10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:45:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	7.86	0.540		mg/Kg-dry	50	7/2/2007 3:23:26 PM
SW7471B SW7471B Analyst: JP						
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	95		µg/Kg-dry	1	7/3/2007 2:21:00 PM
Aroclor 1221	U	95		µg/Kg-dry	1	7/3/2007 2:21:00 PM
Aroclor 1232	U	95		µg/Kg-dry	1	7/3/2007 2:21:00 PM
Aroclor 1242	U	95		µg/Kg-dry	1	7/3/2007 2:21:00 PM
Aroclor 1248	U	95		µg/Kg-dry	1	7/3/2007 2:21:00 PM
Aroclor 1254	U	95		µg/Kg-dry	1	7/3/2007 2:21:00 PM
Aroclor 1260	U	95		µg/Kg-dry	1	7/3/2007 2:21:00 PM
Surr: TCX	78.4	26-136		%REC	1	7/3/2007 2:21:00 PM
Surr: DCB	99.8	20-133		%REC	1	7/3/2007 2:21:00 PM
SW8082A SW3550 Analyst: KF						
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	1.0	5.9	J	µg/Kg-dry	1	7/3/2007 2:54:00 PM
4,4'-DDE	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
4,4'-DDT	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Aldrin	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
alpha-BHC	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
beta-BHC	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Chlordane	U	18		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Chlorobenzilate	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
DBCP	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
delta-BHC	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Dieldrin	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Endosulfan I	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Endosulfan II	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Endosulfan sulfate	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Endrin	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Endrin aldehyde	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Endrin ketone	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
gamma-BHC	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Heptachlor	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Heptachlor epoxide	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Hexachlorobenzene	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Hexachlorocyclopentadiene	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Methoxychlor	U	5.9		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Toxaphene	U	57		µg/Kg-dry	1	7/3/2007 2:54:00 PM
Surr: DCB	157	31-133	S	%REC	1	7/3/2007 2:54:00 PM
Surr: TCX	131	32-132		%REC	1	7/3/2007 2:54:00 PM
SW8081B SW3550 Analyst: MMR						

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-08A

Client Sample ID: SB-10 [10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:45:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PERCENT MOISTURE</b>						
Percent Moisture	18.1	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>D2216</b>				Analyst: CM
		<b>SW6010B</b>				Analyst: JP
Aluminum	8040	4.56		mg/Kg-dry	10	7/3/2007 4:36:38 PM
Antimony	0.607	0.570		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Arsenic	2.17	0.570		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Barium	46.8	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Beryllium	U	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Cadmium	U	0.228		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Calcium	8930	0.570		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Chromium	12.8	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Cobalt	U	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Copper	120	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Iron	13200	4.56		mg/Kg-dry	10	7/3/2007 4:36:38 PM
Lead	52.3	0.342		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Magnesium	1340	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Manganese	116	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Nickel	9.99	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Potassium	1500	2.28		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Selenium	U	0.570		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Silver	U	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Sodium	350	1.37		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Thallium	U	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Vanadium	23.9	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
Zinc	187	0.456		mg/Kg-dry	1	7/3/2007 4:12:31 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>				Analyst: PT
		<b>SW3550A</b>				
1,2,4-Trichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
1,2-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
1,3-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
1,4-Dichlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2,4,5-Trichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2,4,6-Trichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2,4-Dichlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2,4-Dimethylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2,4-Dinitrophenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2,4-Dinitrotoluene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2,6-Dinitrotoluene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2-Chloronaphthalene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2-Chlorophenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: SB-10 [10ft]  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 4:45:00 PM  
 Lab ID: 0706266-08A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>	<b>SW3550A</b>	Analyst: PT		
2-Methylnaphthalene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2-Methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
2-Nitrophenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
3,3'-Dichlorobenzidine	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
3+4-Methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
3-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
4,6-Dinitro-2-methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
4-Bromophenyl phenyl ether	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
4-Chloro-3-methylphenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
4-Chloroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
4-Chlorophenyl phenyl ether	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
4-Nitroaniline	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
4-Nitrophenol	U	180		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Acenaphthene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Acenaphthylene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Aniline	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Anthracene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Azobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzidine	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzo(a)anthracene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzo(a)pyrene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzo(b)fluoranthene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzo(g,h,i)perylene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzo(k)fluoranthene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzoic acid	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Benzyl alcohol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Bis(2-chloroethoxy)methane	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Bis(2-chloroethyl)ether	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Bis(2-chloroisopropyl)ether	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Bis(2-ethylhexyl)phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Butyl benzyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Carbazole	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Chrysene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Dibenzo(a,h)anthracene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Dibenzofuran	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Diethyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Dimethyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Di-n-butyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-08A

**Client Sample ID:** SB-10 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 4:45:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
Di-n-octyl phthalate	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Fluoranthene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Fluorene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Hexachlorobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Hexachlorobutadiene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Hexachlorocyclopentadiene	U	180		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Hexachloroethane	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Indeno(1,2,3-c,d)pyrene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Isophorone	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Naphthalene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Nitrobenzene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
N-Nitrosodimethylamine	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
N-Nitrosodi-n-propylamine	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
N-Nitrosodiphenylamine	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Pentachlorophenol	U	180		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Phenanthrene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Phenol	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Pyrene	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Pyridine	U	140		µg/Kg-dry	1	7/2/2007 1:34:00 PM
Surr: 2,4,6-Tribromophenol	58.7	22-124		%REC	1	7/2/2007 1:34:00 PM
Surr: 2-Fluorobiphenyl	42.9	27-119		%REC	1	7/2/2007 1:34:00 PM
Surr: 2-Fluorophenol	44.2	21-123		%REC	1	7/2/2007 1:34:00 PM
Surr: 4-Terphenyl-d14	55.6	28-126		%REC	1	7/2/2007 1:34:00 PM
Surr: Nitrobenzene-d5	37.2	21-118		%REC	1	7/2/2007 1:34:00 PM
Surr: Phenol-d6	49.8	18-129		%REC	1	7/2/2007 1:34:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: LDS
1,1,1,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,1,1-Trichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,1,2,2-Tetrachloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,1,2-Trichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,1-Dichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,1-Dichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,1-Dichloropropene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2,3-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2,3-Trichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2,4,5-Tetramethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2,4-Trichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2,4-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-08A

**Client Sample ID:** SB-10 [10ft]  
**Tag Number:**  
**Collection Date:** 6/26/2007 4:45:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: LDS		
1,2-Dibromo-3-chloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2-Dibromoethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2-Dichloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,3,5-Trimethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,3-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,3-dichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
1,4-Dichlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
2,2-Dichloropropane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
2-Butanone	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
2-Chloroethyl vinyl ether	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
2-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
2-Hexanone	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
2-Propanol	U	61		µg/Kg-dry	1	6/29/2007 4:41:00 PM
4-Chlorotoluene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
4-Isopropyltoluene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
4-Methyl-2-pentanone	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Acetone	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Acrolein	U	31		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Acrylonitrile	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Benzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Bromobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Bromochloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Bromodichloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Bromoform	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Bromomethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Carbon disulfide	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Carbon tetrachloride	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Chlorobenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Chlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Chloroethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Chloroform	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Chloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
cis-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
cis-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Dibromochloromethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Dibromomethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Dichlorodifluoromethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM

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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-08A

Client Sample ID: SB-10 [10ft]  
 Tag Number:  
 Collection Date: 6/26/2007 4:45:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: LDS		
Diisopropyl ether	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Ethanol	U	31		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Ethyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Ethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Freon-114	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Hexachlorobutadiene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Isopropyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Isopropylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
m,p-Xylene	U	12		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Methyl tert-butyl ether	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Methylene chloride	18	6.1	B	µg/Kg-dry	1	6/29/2007 4:41:00 PM
n-Amyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Naphthalene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
n-Butyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
n-Butylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
n-Propyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
n-Propylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
o-Xylene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
p-Diethylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
p-Ethyltoluene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
sec-Butylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Styrene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
t-Butyl alcohol	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
tert-Butylbenzene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Tetrachloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Toluene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
trans-1,2-Dichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
trans-1,3-Dichloropropene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Trichloroethene	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Trichlorofluoromethane	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Vinyl acetate	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Vinyl chloride	U	6.1		µg/Kg-dry	1	6/29/2007 4:41:00 PM
Surr: 4-Bromofluorobenzene	87.6	61-133		%REC	1	6/29/2007 4:41:00 PM
Surr: Dibromofluoromethane	119	61-139		%REC	1	6/29/2007 4:41:00 PM
Surr: Toluene-d8	92.1	57-131		%REC	1	6/29/2007 4:41:00 PM

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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-09A

**Client Sample ID:** GW-2  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:45:00 PM  
**Matrix:** LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
		<b>SW7470A</b>				<b>Analyst: JP</b>
Mercury	U	0.000200		mg/L	1	7/2/2007 1:02:20 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
		<b>SW8082A</b>		<b>SW3510B</b>		<b>Analyst: KF</b>
Aroclor 1016	U	1.0		µg/L	1	6/30/2007 12:44:00 PM
Aroclor 1221	U	1.0		µg/L	1	6/30/2007 12:44:00 PM
Aroclor 1232	U	1.0		µg/L	1	6/30/2007 12:44:00 PM
Aroclor 1242	U	1.0		µg/L	1	6/30/2007 12:44:00 PM
Aroclor 1248	U	1.0		µg/L	1	6/30/2007 12:44:00 PM
Aroclor 1254	U	1.0		µg/L	1	6/30/2007 12:44:00 PM
Aroclor 1260	U	1.0		µg/L	1	6/30/2007 12:44:00 PM
Surr: DCB	86.6	11-125		%REC	1	6/30/2007 12:44:00 PM
Surr: TCX	67.8	16-126		%REC	1	6/30/2007 12:44:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
		<b>SW8081B</b>		<b>SW3510B</b>		<b>Analyst: AR</b>
4,4'-DDD	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
4,4'-DDE	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
4,4'-DDT	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Aldrin	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
alpha-BHC	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
beta-BHC	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Chlordane	U	1.0		µg/L	1	6/30/2007 7:14:00 PM
Chlorobenzilate	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
DBCP	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
delta-BHC	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Dieldrin	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Endosulfan I	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Endosulfan II	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Endosulfan sulfate	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Endrin	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Endrin aldehyde	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Endrin ketone	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
gamma-BHC	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Heptachlor	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Heptachlor epoxide	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Hexachlorobenzene	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Hexachlorocyclopentadiene	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Methoxychlor	U	0.20		µg/L	1	6/30/2007 7:14:00 PM
Toxaphene	U	1.0		µg/L	1	6/30/2007 7:14:00 PM
Surr: DCB	51.5	26-130		%REC	1	6/30/2007 7:14:00 PM
Surr: TCX	61.8	29-127		%REC	1	6/30/2007 7:14:00 PM

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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-09A

Client Sample ID: GW-2  
 Tag Number:  
 Collection Date: 6/26/2007 2:45:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TARGET ANALYTE LIST METALS</b>						
		<b>SW6010B</b>		<b>SW3010A</b>		Analyst: JP
Aluminum	246	0.200		mg/L	10	7/3/2007 11:03:39 AM
Antimony	0.446	0.0250		mg/L	1	7/3/2007 10:30:49 AM
Arsenic	0.358	0.0250		mg/L	1	7/3/2007 10:30:49 AM
Barium	6.94	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Beryllium	U	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Cadmium	0.0140	0.0100		mg/L	1	7/3/2007 10:30:49 AM
Calcium	466	0.0250		mg/L	1	7/3/2007 10:30:49 AM
Chromium	2.17	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Cobalt	U	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Copper	6.11	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Iron	1250	0.200		mg/L	10	7/3/2007 11:03:39 AM
Lead	9.23	0.0150		mg/L	1	7/3/2007 10:30:49 AM
Magnesium	119	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Manganese	31.0	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Nickel	1.31	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Potassium	154	0.100		mg/L	1	7/3/2007 10:30:49 AM
Selenium	U	0.0250		mg/L	1	7/3/2007 10:30:49 AM
Silver	0.0112	0.0200	J	mg/L	1	7/3/2007 10:30:49 AM
Sodium	80.3	0.0300		mg/L	1	7/3/2007 10:30:49 AM
Thallium	U	0.0150		mg/L	1	7/3/2007 10:30:49 AM
Vanadium	1.62	0.0200		mg/L	1	7/3/2007 10:30:49 AM
Zinc	5.76	0.0200		mg/L	1	7/3/2007 10:30:49 AM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3510</b>		Analyst: PT
1,2,4-Trichlorobenzene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
1,2-Dichlorobenzene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
1,3-Dichlorobenzene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
1,4-Dichlorobenzene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2,4,5-Trichlorophenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2,4,6-Trichlorophenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2,4-Dichlorophenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2,4-Dimethylphenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2,4-Dinitrophenol	U	11		µg/L	1	6/30/2007 3:48:00 PM
2,4-Dinitrotoluene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2,6-Dinitrotoluene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2-Chloronaphthalene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2-Chlorophenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2-Methylnaphthalene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2-Methylphenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
2-Nitroaniline	U	5.6		µg/L	1	6/30/2007 3:48:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-09A

**Client Sample ID:** GW-2  
**Tag Number:**  
**Collection Date:** 6/26/2007 2:45:00 PM  
**Matrix:** LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3510</b>		Analyst: <b>PT</b>
2-Nitrophenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
3,3'-Dichlorobenzidine	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
3+4-Methylphenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
3-Nitroaniline	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
4,6-Dinitro-2-methylphenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
4-Bromophenyl phenyl ether	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
4-Chloro-3-methylphenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
4-Chloroaniline	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
4-Chlorophenyl phenyl ether	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
4-Nitroaniline	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
4-Nitrophenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Acenaphthene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Acenaphthylene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Aniline	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Anthracene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Azobenzene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Benzidine	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Benzo(a)anthracene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Benzo(a)pyrene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Benzo(b)fluoranthene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Benzo(g,h,i)perylene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Benzo(k)fluoranthene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Benzoic acid	1.0	5.6	J	µg/L	1	6/30/2007 3:48:00 PM
Benzyl alcohol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Bis(2-chloroethoxy)methane	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Bis(2-chloroethyl)ether	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Bis(2-chloroisopropyl)ether	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Bis(2-ethylhexyl)phthalate	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Butyl benzyl phthalate	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Carbazole	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Chrysene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Dibenzo(a,h)anthracene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Dibenzofuran	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Diethyl phthalate	5.9	5.6		µg/L	1	6/30/2007 3:48:00 PM
Dimethyl phthalate	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Di-n-butyl phthalate	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Di-n-octyl phthalate	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Fluoranthene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Fluorene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: GW-2  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 2:45:00 PM  
 Lab ID: 0706266-09A Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3510</b>		Analyst: PT
Hexachlorobenzene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Hexachlorobutadiene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Hexachlorocyclopentadiene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Hexachloroethane	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Indeno(1,2,3-c,d)pyrene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Isophorone	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Naphthalene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Nitrobenzene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
N-Nitrosodimethylamine	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
N-Nitrosodi-n-propylamine	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
N-Nitrosodiphenylamine	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Pentachlorophenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Phenanthrene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Phenol	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Pyrene	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Pyridine	U	5.6		µg/L	1	6/30/2007 3:48:00 PM
Surr: 2,4,6-Tribromophenol	114	22-124		%REC	1	6/30/2007 3:48:00 PM
Surr: 2-Fluorobiphenyl	109	18-124		%REC	1	6/30/2007 3:48:00 PM
Surr: 2-Fluorophenol	48.6	16-112		%REC	1	6/30/2007 3:48:00 PM
Surr: 4-Terphenyl-d14	114	17-121		%REC	1	6/30/2007 3:48:00 PM
Surr: Nitrobenzene-d5	90.0	19-115		%REC	1	6/30/2007 3:48:00 PM
Surr: Phenol-d6	34.8	12-102		%REC	1	6/30/2007 3:48:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>						
		<b>SW8260B</b>				Analyst: MB
1,1,1,2-Tetrachloroethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,1,1-Trichloroethane	5.9	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,1,2,2-Tetrachloroethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,1,2-Trichloroethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,1-Dichloroethane	44	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,1-Dichloroethene	2.5	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,1-Dichloropropene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2,3-Trichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2,3-Trichloropropane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2,4,5-Tetramethylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2,4-Trichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2,4-Trimethylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2-Dibromo-3-chloropropane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2-Dibromoethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-09A

Client Sample ID: GW-2  
 Tag Number:  
 Collection Date: 6/26/2007 2:45:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
1,2-Dichloroethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,2-Dichloropropane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,3,5-Trimethylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,3-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,3-dichloropropane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
1,4-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
2,2-Dichloropropane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
2-Butanone	U	3.0		µg/L	1	6/30/2007 3:09:00 AM
2-Chloroethyl vinyl ether	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
2-Chlorotoluene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
2-Hexanone	U	2.0		µg/L	1	6/30/2007 3:09:00 AM
2-Propanol	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
4-Chlorotoluene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
4-Isopropyltoluene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
4-Methyl-2-pentanone	U	2.0		µg/L	1	6/30/2007 3:09:00 AM
Acetone	U	2.0		µg/L	1	6/30/2007 3:09:00 AM
Acrolein	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Acrylonitrile	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Benzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Bromobenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Bromochloromethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Bromodichloromethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Bromoform	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Bromomethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Carbon disulfide	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Carbon tetrachloride	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Chlorobenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Chlorodifluoromethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Chloroethane	1600	5.0		µg/L	5	7/2/2007 11:52:00 AM
Chloroform	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Chloromethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
cis-1,2-Dichloroethene	2.4	1.0		µg/L	1	6/30/2007 3:09:00 AM
cis-1,3-Dichloropropene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Dibromochloromethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Dibromomethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Dichlorodifluoromethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Diisopropyl ether	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Ethanol	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Ethyl acetate	U	1.0		µg/L	1	6/30/2007 3:09:00 AM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-09A

Client Sample ID: GW-2  
 Tag Number:  
 Collection Date: 6/26/2007 2:45:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: MB</b>		
Ethylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Freon-114	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Hexachlorobutadiene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Isopropyl acetate	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Isopropylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
m,p-Xylene	U	2.0		µg/L	1	6/30/2007 3:09:00 AM
Methyl tert-butyl ether	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Methylene chloride	16	1.0	B	µg/L	1	6/30/2007 3:09:00 AM
n-Amyl acetate	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Naphthalene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
n-Butyl acetate	U	2.0		µg/L	1	6/30/2007 3:09:00 AM
n-Butylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
n-Propyl acetate	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
n-Propylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
o-Xylene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
p-Diethylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
p-Ethyltoluene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
sec-Butylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Styrene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
t-Butyl alcohol	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
tert-Butylbenzene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Tetrachloroethene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Toluene	1.4	1.0		µg/L	1	6/30/2007 3:09:00 AM
trans-1,2-Dichloroethene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
trans-1,3-Dichloropropene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Trichloroethene	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Trichlorofluoromethane	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Vinyl acetate	U	1.0		µg/L	1	6/30/2007 3:09:00 AM
Vinyl chloride	2.2	1.0		µg/L	1	6/30/2007 3:09:00 AM
Surr: 4-Bromofluorobenzene	92.0	54-134		%REC	5	7/2/2007 11:52:00 AM
Surr: 4-Bromofluorobenzene	92.4	54-134		%REC	1	6/30/2007 3:09:00 AM
Surr: Dibromofluoromethane	114	52-132		%REC	1	6/30/2007 3:09:00 AM
Surr: Dibromofluoromethane	115	52-132		%REC	5	7/2/2007 11:52:00 AM
Surr: Toluene-d8	96.5	51-127		%REC	5	7/2/2007 11:52:00 AM
Surr: Toluene-d8	97.1	51-127		%REC	1	6/30/2007 3:09:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	GW-2
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 2:45:00 PM
<b>Lab ID:</b>	0706266-09B	<b>Matrix:</b>	LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY-DISSOLVED</b>						
		<b>SW7470A</b>				Analyst: JP
Mercury	U	0.000200		mg/L	1	7/2/2007 12:34:07 PM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>						
		<b>SW6010B</b>		<b>SW3005A</b>		Analyst: JP
Aluminum	26.6	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Antimony	U	0.0250		mg/L	1	7/3/2007 10:27:42 AM
Arsenic	0.0454	0.0250		mg/L	1	7/3/2007 10:27:42 AM
Barium	2.53	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Beryllium	U	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Cadmium	U	0.0100		mg/L	1	7/3/2007 10:27:42 AM
Calcium	370	0.0250		mg/L	1	7/3/2007 10:27:42 AM
Chromium	0.234	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Cobalt	U	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Copper	U	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Iron	272	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Lead	0.467	0.0150		mg/L	1	7/3/2007 10:27:42 AM
Magnesium	35.1	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Manganese	17.3	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Nickel	0.297	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Potassium	54.2	0.100		mg/L	1	7/3/2007 10:27:42 AM
Selenium	U	0.0250		mg/L	1	7/3/2007 10:27:42 AM
Silver	U	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Sodium	48.7	0.0300		mg/L	1	7/3/2007 10:27:42 AM
Thallium	U	0.0150		mg/L	1	7/3/2007 10:27:42 AM
Vanadium	0.174	0.0200		mg/L	1	7/3/2007 10:27:42 AM
Zinc	1.56	0.0200		mg/L	1	7/3/2007 10:27:42 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-10A

**Client Sample ID:** GW-3  
**Tag Number:**  
**Collection Date:** 6/26/2007 5:00:00 PM  
**Matrix:** LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	U	0.000200		mg/L	1	7/2/2007 1:04:30 PM
		<b>SW7470A</b>		Analyst: <b>JP</b>		
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	1.0		µg/L	1	6/30/2007 1:00:00 PM
Aroclor 1221	U	1.0		µg/L	1	6/30/2007 1:00:00 PM
Aroclor 1232	U	1.0		µg/L	1	6/30/2007 1:00:00 PM
Aroclor 1242	U	1.0		µg/L	1	6/30/2007 1:00:00 PM
Aroclor 1248	U	1.0		µg/L	1	6/30/2007 1:00:00 PM
Aroclor 1254	U	1.0		µg/L	1	6/30/2007 1:00:00 PM
Aroclor 1260	U	1.0		µg/L	1	6/30/2007 1:00:00 PM
Surr: DCB	95.5	11-125		%REC	1	6/30/2007 1:00:00 PM
Surr: TCX	92.6	16-126		%REC	1	6/30/2007 1:00:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
4,4'-DDE	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
4,4'-DDT	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Aldrin	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
alpha-BHC	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
beta-BHC	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Chlordane	U	1.0		µg/L	1	6/30/2007 7:31:00 PM
Chlorobenzilate	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
DBCP	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
delta-BHC	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Dieldrin	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Endosulfan I	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Endosulfan II	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Endosulfan sulfate	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Endrin	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Endrin aldehyde	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Endrin ketone	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
gamma-BHC	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Heptachlor	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Heptachlor epoxide	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Hexachlorobenzene	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Hexachlorocyclopentadiene	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Methoxychlor	U	0.20		µg/L	1	6/30/2007 7:31:00 PM
Toxaphene	U	1.0		µg/L	1	6/30/2007 7:31:00 PM
Surr: DCB	44.9	26-130		%REC	1	6/30/2007 7:31:00 PM
Surr: TCX	70.5	29-127		%REC	1	6/30/2007 7:31:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> GW-3
<b>Lab Order:</b> 0706266	<b>Tag Number:</b>
<b>Project:</b> 544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 5:00:00 PM
<b>Lab ID:</b> 0706266-10A	<b>Matrix:</b> LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TARGET ANALYTE LIST METALS</b>						
		<b>SW6010B</b>		<b>SW3010A</b>		<b>Analyst: JP</b>
Aluminum	153	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Antimony	U	0.0250		mg/L	1	7/3/2007 10:49:14 AM
Arsenic	0.0968	0.0250		mg/L	1	7/3/2007 10:49:14 AM
Barium	1.16	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Beryllium	U	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Cadmium	U	0.0100		mg/L	1	7/3/2007 10:49:14 AM
Calcium	155	0.0250		mg/L	1	7/3/2007 10:49:14 AM
Chromium	0.533	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Cobalt	U	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Copper	0.845	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Iron	162	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Lead	0.814	0.0150		mg/L	1	7/3/2007 10:49:14 AM
Magnesium	47.5	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Manganese	3.11	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Nickel	0.291	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Potassium	68.3	0.100		mg/L	1	7/3/2007 10:49:14 AM
Selenium	U	0.0250		mg/L	1	7/3/2007 10:49:14 AM
Silver	U	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Sodium	94.7	0.0300		mg/L	1	7/3/2007 10:49:14 AM
Thallium	U	0.0150		mg/L	1	7/3/2007 10:49:14 AM
Vanadium	0.344	0.0200		mg/L	1	7/3/2007 10:49:14 AM
Zinc	2.34	0.0200		mg/L	1	7/3/2007 10:49:14 AM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3510</b>		<b>Analyst: PT</b>
1,2,4-Trichlorobenzene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
1,2-Dichlorobenzene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
1,3-Dichlorobenzene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
1,4-Dichlorobenzene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2,4,5-Trichlorophenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2,4,6-Trichlorophenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2,4-Dichlorophenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2,4-Dimethylphenol	3.3	5.6	J	µg/L	1	6/30/2007 4:19:00 PM
2,4-Dinitrophenol	U	11		µg/L	1	6/30/2007 4:19:00 PM
2,4-Dinitrotoluene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2,6-Dinitrotoluene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2-Chloronaphthalene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2-Chlorophenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2-Methylnaphthalene	0.98	5.6	J	µg/L	1	6/30/2007 4:19:00 PM
2-Methylphenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
2-Nitroaniline	U	5.6		µg/L	1	6/30/2007 4:19:00 PM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed for but not detected	X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-10A

Client Sample ID: GW-3  
 Tag Number:  
 Collection Date: 6/26/2007 5:00:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3510</b>		Analyst: PT
2-Nitrophenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
3,3'-Dichlorobenzidine	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
3+4-Methylphenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
3-Nitroaniline	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
4,6-Dinitro-2-methylphenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
4-Bromophenyl phenyl ether	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
4-Chloro-3-methylphenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
4-Chloroaniline	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
4-Chlorophenyl phenyl ether	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
4-Nitroaniline	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
4-Nitrophenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Acenaphthene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Acenaphthylene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Aniline	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Anthracene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Azobenzene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzidine	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzo(a)anthracene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzo(a)pyrene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzo(b)fluoranthene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzo(g,h,i)perylene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzo(k)fluoranthene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzoic acid	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Benzyl alcohol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Bis(2-chloroethoxy)methane	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Bis(2-chloroethyl)ether	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Bis(2-chloroisopropyl)ether	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Bis(2-ethylhexyl)phthalate	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Butyl benzyl phthalate	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Carbazole	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Chrysene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Dibenzo(a,h)anthracene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Dibenzofuran	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Diethyl phthalate	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Dimethyl phthalate	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Di-n-butyl phthalate	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Di-n-octyl phthalate	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Fluoranthene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Fluorene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-10A

Client Sample ID: GW-3  
 Tag Number:  
 Collection Date: 6/26/2007 5:00:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3510</b>		Analyst: PT
Hexachlorobenzene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Hexachlorobutadiene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Hexachlorocyclopentadiene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Hexachloroethane	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Indeno(1,2,3-c,d)pyrene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Isophorone	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Naphthalene	3.1	5.6	J	µg/L	1	6/30/2007 4:19:00 PM
Nitrobenzene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
N-Nitrosodimethylamine	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
N-Nitrosodi-n-propylamine	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
N-Nitrosodiphenylamine	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Pentachlorophenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Phenanthrene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Phenol	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Pyrene	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Pyridine	U	5.6		µg/L	1	6/30/2007 4:19:00 PM
Surr: 2,4,6-Tribromophenol	90.3	22-124		%REC	1	6/30/2007 4:19:00 PM
Surr: 2-Fluorobiphenyl	84.1	18-124		%REC	1	6/30/2007 4:19:00 PM
Surr: 2-Fluorophenol	46.5	16-112		%REC	1	6/30/2007 4:19:00 PM
Surr: 4-Terphenyl-d14	88.6	17-121		%REC	1	6/30/2007 4:19:00 PM
Surr: Nitrobenzene-d5	81.8	19-115		%REC	1	6/30/2007 4:19:00 PM
Surr: Phenol-d6	33.0	12-102		%REC	1	6/30/2007 4:19:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>						
		<b>SW8260B</b>				Analyst: MB
1,1,1,2-Tetrachloroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,1,1-Trichloroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,1,2,2-Tetrachloroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,1,2-Trichloroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,1-Dichloroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,1-Dichloroethene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,1-Dichloropropene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2,3-Trichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2,3-Trichloropropane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2,4,5-Tetramethylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2,4-Trichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2,4-Trimethylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2-Dibromo-3-chloropropane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2-Dibromoethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-10A

**Client Sample ID:** GW-3  
**Tag Number:**  
**Collection Date:** 6/26/2007 5:00:00 PM  
**Matrix:** LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: MB
1,2-Dichloroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,2-Dichloropropane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,3,5-Trimethylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,3-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,3-dichloropropane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
1,4-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
2,2-Dichloropropane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
2-Butanone	U	3.0		µg/L	1	6/30/2007 3:46:00 AM
2-Chloroethyl vinyl ether	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
2-Chlorotoluene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
2-Hexanone	U	2.0		µg/L	1	6/30/2007 3:46:00 AM
2-Propanol	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
4-Chlorotoluene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
4-Isopropyltoluene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
4-Methyl-2-pentanone	U	2.0		µg/L	1	6/30/2007 3:46:00 AM
Acetone	U	2.0		µg/L	1	6/30/2007 3:46:00 AM
Acrolein	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Acrylonitrile	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Benzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Bromobenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Bromochloromethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Bromodichloromethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Bromoform	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Bromomethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Carbon disulfide	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Carbon tetrachloride	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Chlorobenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Chlorodifluoromethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Chloroethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Chloroform	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Chloromethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
cis-1,2-Dichloroethene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
cis-1,3-Dichloropropene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Dibromochloromethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Dibromomethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Dichlorodifluoromethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Diisopropyl ether	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Ethanol	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Ethyl acetate	U	1.0		µg/L	1	6/30/2007 3:46:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-10A

Client Sample ID: GW-3  
 Tag Number:  
 Collection Date: 6/26/2007 5:00:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Ethylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Freon-114	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Hexachlorobutadiene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Isopropyl acetate	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Isopropylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
m,p-Xylene	U	2.0		µg/L	1	6/30/2007 3:46:00 AM
Methyl tert-butyl ether	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Methylene chloride	20	1.0	B	µg/L	1	6/30/2007 3:46:00 AM
n-Amyl acetate	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Naphthalene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
n-Butyl acetate	U	2.0		µg/L	1	6/30/2007 3:46:00 AM
n-Butylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
n-Propyl acetate	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
n-Propylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
o-Xylene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
p-Diethylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
p-Ethyltoluene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
sec-Butylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Styrene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
t-Butyl alcohol	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
tert-Butylbenzene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Tetrachloroethene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Toluene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
trans-1,2-Dichloroethene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
trans-1,3-Dichloropropene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Trichloroethene	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Trichlorofluoromethane	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Vinyl acetate	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Vinyl chloride	U	1.0		µg/L	1	6/30/2007 3:46:00 AM
Surr: 4-Bromofluorobenzene	93.3	54-134		%REC	1	6/30/2007 3:46:00 AM
Surr: Dibromofluoromethane	113	52-132		%REC	1	6/30/2007 3:46:00 AM
Surr: Toluene-d8	97.4	51-127		%REC	1	6/30/2007 3:46:00 AM

Qualifiers:			
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-10B

**Client Sample ID:** GW-3  
**Tag Number:**  
**Collection Date:** 6/26/2007 5:00:00 PM  
**Matrix:** LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY-DISSOLVED</b>						
Mercury	U	0.000200		mg/L	1	7/2/2007 12:36:16 PM
<b>SW7470A</b>						
Analyst: JP						
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>						
Aluminum	0.151	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Antimony	U	0.0250		mg/L	1	7/3/2007 10:46:49 AM
Arsenic	U	0.0250		mg/L	1	7/3/2007 10:46:49 AM
Barium	0.311	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Beryllium	U	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Cadmium	U	0.0100		mg/L	1	7/3/2007 10:46:49 AM
Calcium	115	0.0250		mg/L	1	7/3/2007 10:46:49 AM
Chromium	0.00652	0.0200	J	mg/L	1	7/3/2007 10:46:49 AM
Cobalt	U	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Copper	0.00790	0.0200	J	mg/L	1	7/3/2007 10:46:49 AM
Iron	0.171	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Lead	U	0.0150		mg/L	1	7/3/2007 10:46:49 AM
Magnesium	31.2	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Manganese	0.583	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Nickel	0.0270	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Potassium	56.7	0.100		mg/L	1	7/3/2007 10:46:49 AM
Selenium	U	0.0250		mg/L	1	7/3/2007 10:46:49 AM
Silver	U	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Sodium	99.4	0.0300		mg/L	1	7/3/2007 10:46:49 AM
Thallium	U	0.0150		mg/L	1	7/3/2007 10:46:49 AM
Vanadium	U	0.0200		mg/L	1	7/3/2007 10:46:49 AM
Zinc	0.0724	0.0200		mg/L	1	7/3/2007 10:46:49 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-11A

**Client Sample ID:** GW-1  
**Tag Number:**  
**Collection Date:** 6/26/2007 6:00:00 PM  
**Matrix:** LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
		<b>SW7470A</b>				<b>Analyst: JP</b>
Mercury	U	0.000200		mg/L	1	7/2/2007 1:06:41 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
		<b>SW8082A</b>				<b>Analyst: KF</b>
		<b>SW3510B</b>				
Aroclor 1016	U	1.0		µg/L	1	6/30/2007 1:17:00 PM
Aroclor 1221	U	1.0		µg/L	1	6/30/2007 1:17:00 PM
Aroclor 1232	U	1.0		µg/L	1	6/30/2007 1:17:00 PM
Aroclor 1242	U	1.0		µg/L	1	6/30/2007 1:17:00 PM
Aroclor 1248	U	1.0		µg/L	1	6/30/2007 1:17:00 PM
Aroclor 1254	U	1.0		µg/L	1	6/30/2007 1:17:00 PM
Aroclor 1260	U	1.0		µg/L	1	6/30/2007 1:17:00 PM
Surr: DCB	116	11-125		%REC	1	6/30/2007 1:17:00 PM
Surr: TCX	91.2	16-126		%REC	1	6/30/2007 1:17:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
		<b>SW8081B</b>				<b>Analyst: AR</b>
		<b>SW3510B</b>				
4,4'-DDD	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
4,4'-DDE	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
4,4'-DDT	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Aldrin	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
alpha-BHC	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
beta-BHC	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Chlordane	U	1.0		µg/L	1	6/30/2007 7:48:00 PM
Chlorobenzilate	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
DBCP	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
delta-BHC	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Dieldrin	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Endosulfan I	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Endosulfan II	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Endosulfan sulfate	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Endrin	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Endrin aldehyde	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Endrin ketone	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
gamma-BHC	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Heptachlor	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Heptachlor epoxide	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Hexachlorobenzene	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Hexachlorocyclopentadiene	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Methoxychlor	U	0.20		µg/L	1	6/30/2007 7:48:00 PM
Toxaphene	U	1.0		µg/L	1	6/30/2007 7:48:00 PM
Surr: DCB	84.9	26-130		%REC	1	6/30/2007 7:48:00 PM
Surr: TCX	91.1	29-127		%REC	1	6/30/2007 7:48:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-11A

**Client Sample ID:** GW-1  
**Tag Number:**  
**Collection Date:** 6/26/2007 6:00:00 PM  
**Matrix:** LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TARGET ANALYTE LIST METALS</b>						
		<b>SW6010B</b>		<b>SW3010A</b>		<b>Analyst: JP</b>
Aluminum	30.5	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Antimony	U	0.0250		mg/L	1	7/3/2007 10:53:32 AM
Arsenic	0.0586	0.0250		mg/L	1	7/3/2007 10:53:32 AM
Barium	0.660	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Beryllium	U	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Cadmium	U	0.0100		mg/L	1	7/3/2007 10:53:32 AM
Calcium	143	0.0250		mg/L	1	7/3/2007 10:53:32 AM
Chromium	0.126	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Cobalt	U	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Copper	0.192	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Iron	54.7	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Lead	1.15	0.0150		mg/L	1	7/3/2007 10:53:32 AM
Magnesium	30.7	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Manganese	1.03	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Nickel	0.103	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Potassium	54.3	0.100		mg/L	1	7/3/2007 10:53:32 AM
Selenium	U	0.0250		mg/L	1	7/3/2007 10:53:32 AM
Silver	U	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Sodium	81.5	0.0300		mg/L	1	7/3/2007 10:53:32 AM
Thallium	U	0.0150		mg/L	1	7/3/2007 10:53:32 AM
Vanadium	0.0676	0.0200		mg/L	1	7/3/2007 10:53:32 AM
Zinc	1.52	0.0200		mg/L	1	7/3/2007 10:53:32 AM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3510</b>		<b>Analyst: PT</b>
1,2,4-Trichlorobenzene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
1,2-Dichlorobenzene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
1,3-Dichlorobenzene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
1,4-Dichlorobenzene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2,4,5-Trichlorophenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2,4,6-Trichlorophenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2,4-Dichlorophenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2,4-Dimethylphenol	0.99	5.3	J	µg/L	1	6/30/2007 4:49:00 PM
2,4-Dinitrophenol	U	11		µg/L	1	6/30/2007 4:49:00 PM
2,4-Dinitrotoluene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2,6-Dinitrotoluene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2-Chloronaphthalene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2-Chlorophenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2-Methylnaphthalene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2-Methylphenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
2-Nitroaniline	U	5.3		µg/L	1	6/30/2007 4:49:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-11A

Client Sample ID: GW-1  
 Tag Number:  
 Collection Date: 6/26/2007 6:00:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3510</b>	<b>Analyst: PT</b>	
2-Nitrophenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
3,3'-Dichlorobenzidine	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
3+4-Methylphenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
3-Nitroaniline	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
4,6-Dinitro-2-methylphenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
4-Bromophenyl phenyl ether	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
4-Chloro-3-methylphenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
4-Chloroaniline	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
4-Chlorophenyl phenyl ether	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
4-Nitroaniline	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
4-Nitrophenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Acenaphthene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Acenaphthylene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Aniline	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Anthracene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Azobenzene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzidine	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzo(a)anthracene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzo(a)pyrene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzo(b)fluoranthene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzo(g,h,i)perylene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzo(k)fluoranthene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzoic acid	43	5.3		µg/L	1	6/30/2007 4:49:00 PM
Benzyl alcohol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Bis(2-chloroethoxy)methane	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Bis(2-chloroethyl)ether	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Bis(2-chloroisopropyl)ether	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Bis(2-ethylhexyl)phthalate	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Butyl benzyl phthalate	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Carbazole	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Chrysene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Dibenzo(a,h)anthracene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Dibenzofuran	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Diethyl phthalate	1.2	5.3	J	µg/L	1	6/30/2007 4:49:00 PM
Dimethyl phthalate	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Di-n-butyl phthalate	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Di-n-octyl phthalate	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Fluoranthene	1.4	5.3	J	µg/L	1	6/30/2007 4:49:00 PM
Fluorene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 U Indicates the compound was analyzed for but not detected  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 X Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: GW-1  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 6:00:00 PM  
 Lab ID: 0706266-11A Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>				<b>SW8270D</b>		<b>SW3510</b>
						Analyst: PT
Hexachlorobenzene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Hexachlorobutadiene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Hexachlorocyclopentadiene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Hexachloroethane	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Indeno(1,2,3-c,d)pyrene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Isophorone	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Naphthalene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Nitrobenzene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
N-Nitrosodimethylamine	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
N-Nitrosodi-n-propylamine	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
N-Nitrosodiphenylamine	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Pentachlorophenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Phenanthrene	1.3	5.3	J	µg/L	1	6/30/2007 4:49:00 PM
Phenol	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Pyrene	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Pyridine	U	5.3		µg/L	1	6/30/2007 4:49:00 PM
Surr: 2,4,6-Tribromophenol	103	22-124		%REC	1	6/30/2007 4:49:00 PM
Surr: 2-Fluorobiphenyl	102	18-124		%REC	1	6/30/2007 4:49:00 PM
Surr: 2-Fluorophenol	53.4	16-112		%REC	1	6/30/2007 4:49:00 PM
Surr: 4-Terphenyl-d14	106	17-121		%REC	1	6/30/2007 4:49:00 PM
Surr: Nitrobenzene-d5	88.7	19-115		%REC	1	6/30/2007 4:49:00 PM
Surr: Phenol-d6	39.3	12-102		%REC	1	6/30/2007 4:49:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>				<b>SW8260B</b>		Analyst: MB
1,1,1,2-Tetrachloroethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,1,1-Trichloroethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,1,2,2-Tetrachloroethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,1,2-Trichloroethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,1-Dichloroethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,1-Dichloroethene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,1-Dichloropropene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2,3-Trichlorobenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2,3-Trichloropropane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2,4,5-Tetramethylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2,4-Trichlorobenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2,4-Trimethylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2-Dibromo-3-chloropropane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2-Dibromoethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	GW-1
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 6:00:00 PM
<b>Lab ID:</b>	0706266-11A	<b>Matrix:</b>	LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		<b>Analyst: MB</b>		
1,2-Dichloroethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,2-Dichloropropane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,3,5-Trimethylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,3-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,3-dichloropropane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
1,4-Dichlorobenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
2,2-Dichloropropane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
2-Butanone	U	3.0		µg/L	1	6/30/2007 4:23:00 AM
2-Chloroethyl vinyl ether	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
2-Chlorotoluene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
2-Hexanone	U	2.0		µg/L	1	6/30/2007 4:23:00 AM
2-Propanol	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
4-Chlorotoluene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
4-Isopropyltoluene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
4-Methyl-2-pentanone	U	2.0		µg/L	1	6/30/2007 4:23:00 AM
Acetone	U	2.0		µg/L	1	6/30/2007 4:23:00 AM
Acrolein	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Acrylonitrile	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Benzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Bromobenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Bromochloromethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Bromodichloromethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Bromoform	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Bromomethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Carbon disulfide	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Carbon tetrachloride	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Chlorobenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Chlorodifluoromethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Chloroethane	13	1.0		µg/L	1	6/30/2007 4:23:00 AM
Chloroform	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Chloromethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
cis-1,2-Dichloroethene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
cis-1,3-Dichloropropene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Dibromochloromethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Dibromomethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Dichlorodifluoromethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Diisopropyl ether	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Ethanol	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Ethyl acetate	U	1.0		µg/L	1	6/30/2007 4:23:00 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-11A

Client Sample ID: GW-1  
 Tag Number:  
 Collection Date: 6/26/2007 6:00:00 PM  
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: MB		
Ethylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Freon-114	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Hexachlorobutadiene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Isopropyl acetate	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Isopropylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
m,p-Xylene	U	2.0		µg/L	1	6/30/2007 4:23:00 AM
Methyl tert-butyl ether	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Methylene chloride	16	1.0	B	µg/L	1	6/30/2007 4:23:00 AM
n-Amyl acetate	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Naphthalene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
n-Butyl acetate	U	2.0		µg/L	1	6/30/2007 4:23:00 AM
n-Butylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
n-Propyl acetate	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
n-Propylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
o-Xylene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
p-Diethylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
p-Ethyltoluene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
sec-Butylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Styrene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
t-Butyl alcohol	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
tert-Butylbenzene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Tetrachloroethene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Toluene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
trans-1,2-Dichloroethene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
trans-1,3-Dichloropropene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Trichloroethene	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Trichlorofluoromethane	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Vinyl acetate	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Vinyl chloride	U	1.0		µg/L	1	6/30/2007 4:23:00 AM
Surr: 4-Bromofluorobenzene	91.2	54-134		%REC	1	6/30/2007 4:23:00 AM
Surr: Dibromofluoromethane	114	52-132		%REC	1	6/30/2007 4:23:00 AM
Surr: Toluene-d8	97.9	51-127		%REC	1	6/30/2007 4:23:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> GW-1
<b>Lab Order:</b> 0706266	<b>Tag Number:</b>
<b>Project:</b> 544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 6:00:00 PM
<b>Lab ID:</b> 0706266-11B	<b>Matrix:</b> LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY-DISSOLVED</b>		<b>SW7470A</b>				Analyst: JP
Mercury	U	0.000200		mg/L	1	7/2/2007 12:38:25 PM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>		<b>SW6010B</b>		<b>SW3005A</b>		Analyst: JP
Aluminum	0.338	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Antimony	U	0.0250		mg/L	1	7/3/2007 10:51:37 AM
Arsenic	U	0.0250		mg/L	1	7/3/2007 10:51:37 AM
Barium	0.278	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Beryllium	U	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Cadmium	U	0.0100		mg/L	1	7/3/2007 10:51:37 AM
Calcium	146	0.0250		mg/L	1	7/3/2007 10:51:37 AM
Chromium	0.0102	0.0200	J	mg/L	1	7/3/2007 10:51:37 AM
Cobalt	U	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Copper	0.00206	0.0200	J	mg/L	1	7/3/2007 10:51:37 AM
Iron	0.393	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Lead	0.0119	0.0150	J	mg/L	1	7/3/2007 10:51:37 AM
Magnesium	31.6	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Manganese	0.371	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Nickel	0.00852	0.0200	J	mg/L	1	7/3/2007 10:51:37 AM
Potassium	61.9	0.100		mg/L	1	7/3/2007 10:51:37 AM
Selenium	U	0.0250		mg/L	1	7/3/2007 10:51:37 AM
Silver	U	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Sodium	93.0	0.0300		mg/L	1	7/3/2007 10:51:37 AM
Thallium	U	0.0150		mg/L	1	7/3/2007 10:51:37 AM
Vanadium	U	0.0200		mg/L	1	7/3/2007 10:51:37 AM
Zinc	0.0289	0.0200		mg/L	1	7/3/2007 10:51:37 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b> CA Rich Consultants Inc.	<b>Client Sample ID:</b> WD
<b>Lab Order:</b> 0706266	<b>Tag Number:</b>
<b>Project:</b> 544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b> 6/26/2007 6:15:00 PM
<b>Lab ID:</b> 0706266-12A	<b>Matrix:</b> SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
Mercury	1.27	0.106		mg/Kg-dry	10	7/2/2007 2:48:46 PM
<b>TPH 8015 DIESEL RANGE ORGANICS</b>						
Total DRO TPH	U	120		mg/Kg-dry	1	6/29/2007 1:04:00 PM
Surr: o-Terphenyl	77.3	33-122		%REC	1	6/29/2007 1:04:00 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>						
Aroclor 1016	U	90		µg/Kg-dry	1	7/2/2007 5:33:00 PM
Aroclor 1221	U	90		µg/Kg-dry	1	7/2/2007 5:33:00 PM
Aroclor 1232	U	90		µg/Kg-dry	1	7/2/2007 5:33:00 PM
Aroclor 1242	U	90		µg/Kg-dry	1	7/2/2007 5:33:00 PM
Aroclor 1248	U	90		µg/Kg-dry	1	7/2/2007 5:33:00 PM
Aroclor 1254	U	90		µg/Kg-dry	1	7/2/2007 5:33:00 PM
Aroclor 1260	U	90		µg/Kg-dry	1	7/2/2007 5:33:00 PM
Surr: TCX	94.3	26-136		%REC	1	7/2/2007 5:33:00 PM
Surr: DCB	76.0	20-133		%REC	1	7/2/2007 5:33:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>						
4,4'-DDD	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
4,4'-DDE	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
4,4'-DDT	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Aldrin	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
alpha-BHC	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
beta-BHC	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Chlordane	U	17		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Chlorobenzilate	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
DBCP	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
delta-BHC	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Dieldrin	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Endosulfan I	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Endosulfan II	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Endosulfan sulfate	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Endrin	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Endrin aldehyde	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Endrin ketone	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
gamma-BHC	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Heptachlor	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Heptachlor epoxide	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Hexachlorobenzene	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Hexachlorocyclopentadiene	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Methoxychlor	U	5.6		µg/Kg-dry	1	7/3/2007 3:12:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-12A

**Client Sample ID:** WD  
**Tag Number:**  
**Collection Date:** 6/26/2007 6:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>						
		<b>SW8081B</b>		<b>SW3550</b>		Analyst: <b>MMR</b>
Toxaphene	U	54		µg/Kg-dry	1	7/3/2007 3:12:00 PM
Surr: DCB	99.5	31-133		%REC	1	7/3/2007 3:12:00 PM
Surr: TCX	106	32-132		%REC	1	7/3/2007 3:12:00 PM
<b>PERCENT MOISTURE</b>						
		<b>D2216</b>				Analyst: <b>CM</b>
Percent Moisture	14.7	0		wt%	1	6/29/2007
<b>TARGET ANALYTE LIST METALS</b>						
		<b>SW6010B</b>		<b>SW3050A</b>		Analyst: <b>JP</b>
Aluminum	6290	4.04		mg/Kg-dry	10	7/3/2007 4:38:32 PM
Antimony	U	0.505		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Arsenic	6.35	0.505		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Barium	112	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Beryllium	U	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Cadmium	0.220	0.202		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Calcium	3550	0.505		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Chromium	13.0	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Cobalt	U	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Copper	57.4	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Iron	16700	4.04		mg/Kg-dry	10	7/3/2007 4:38:32 PM
Lead	171	0.303		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Magnesium	1110	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Manganese	246	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Nickel	12.5	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Potassium	1090	2.02		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Selenium	U	0.505		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Silver	U	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Sodium	245	1.21		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Thallium	U	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Vanadium	19.5	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
Zinc	105	0.404		mg/Kg-dry	1	7/3/2007 4:15:31 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: <b>PT</b>
1,2,4-Trichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
1,2-Dichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
1,3-Dichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
1,4-Dichlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2,4,5-Trichlorophenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2,4,6-Trichlorophenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2,4-Dichlorophenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2,4-Dimethylphenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2,4-Dinitrophenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc. Client Sample ID: WD  
 Lab Order: 0706266 Tag Number:  
 Project: 544 Union Avenue Brooklyn, N.Y. Collection Date: 6/26/2007 6:15:00 PM  
 Lab ID: 0706266-12A Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>						
		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
2,4-Dinitrotoluene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2,6-Dinitrotoluene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2-Chloronaphthalene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2-Chlorophenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2-Methylnaphthalene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2-Methylphenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2-Nitroaniline	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
2-Nitrophenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
3,3'-Dichlorobenzidine	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
3+4-Methylphenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
3-Nitroaniline	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
4,6-Dinitro-2-methylphenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
4-Bromophenyl phenyl ether	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
4-Chloro-3-methylphenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
4-Chloroaniline	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
4-Chlorophenyl phenyl ether	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
4-Nitroaniline	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
4-Nitrophenol	U	170		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Acenaphthene	240	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Acenaphthylene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Aniline	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Anthracene	410	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Azobenzene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzidine	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzo(a)anthracene	750	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzo(a)pyrene	620	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzo(b)fluoranthene	460	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzo(g,h,i)perylene	290	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzo(k)fluoranthene	500	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzoic acid	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Benzyl alcohol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Bis(2-chloroethoxy)methane	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Bis(2-chloroethyl)ether	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Bis(2-chloroisopropyl)ether	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Bis(2-ethylhexyl)phthalate	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Butyl benzyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Carbazole	220	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Chrysene	760	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Dibenzo(a,h)anthracene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed for but not detected X Value exceeds Maximum Contaminant Level

# American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	WD
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 6:15:00 PM
<b>Lab ID:</b>	0706266-12A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>		<b>SW8270D</b>		<b>SW3550A</b>		Analyst: PT
Dibenzofuran	190	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Diethyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Dimethyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Di-n-butyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Di-n-octyl phthalate	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Fluoranthene	1600	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Fluorene	230	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Hexachlorobenzene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Hexachlorobutadiene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Hexachlorocyclopentadiene	U	170		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Hexachloroethane	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Indeno(1,2,3-c,d)pyrene	280	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Isophorone	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Naphthalene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Nitrobenzene	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
N-Nitrosodimethylamine	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
N-Nitrosodi-n-propylamine	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
N-Nitrosodiphenylamine	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Pentachlorophenol	U	170		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Phenanthrene	1700	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Phenol	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Pyrene	1400	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Pyridine	U	130		µg/Kg-dry	1	7/2/2007 2:49:00 PM
Surr: 2,4,6-Tribromophenol	45.9	22-124		%REC	1	7/2/2007 2:49:00 PM
Surr: 2-Fluorobiphenyl	46.0	27-119		%REC	1	7/2/2007 2:49:00 PM
Surr: 2-Fluorophenol	46.9	21-123		%REC	1	7/2/2007 2:49:00 PM
Surr: 4-Terphenyl-d14	47.7	28-126		%REC	1	7/2/2007 2:49:00 PM
Surr: Nitrobenzene-d5	45.3	21-118		%REC	1	7/2/2007 2:49:00 PM
Surr: Phenol-d6	47.0	18-129		%REC	1	7/2/2007 2:49:00 PM
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>				Analyst: LDS
1,1,1,2-Tetrachloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,1,1-Trichloroethane	4.9	5.9	J	µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,1,2,2-Tetrachloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,1,2-Trichloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,1-Dichloroethane	6.4	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,1-Dichloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,1-Dichloropropene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2,3-Trichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

American Analytical Laboratories, LLC.

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	WD
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 6:15:00 PM
<b>Lab ID:</b>	0706266-12A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: <b>LDS</b>		
1,2,3-Trichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2,4,5-Tetramethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2,4-Trichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2,4-Trimethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2-Dibromo-3-chloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2-Dibromoethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2-Dichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2-Dichloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,2-Dichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,3,5-Trimethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,3-Dichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,3-dichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
1,4-Dichlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
2,2-Dichloropropane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
2-Butanone	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
2-Chloroethyl vinyl ether	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
2-Chlorotoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
2-Hexanone	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
2-Propanol	U	59		µg/Kg-dry	1	6/29/2007 5:05:00 PM
4-Chlorotoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
4-Isopropyltoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
4-Methyl-2-pentanone	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Acetone	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Acrolein	U	29		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Acrylonitrile	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Benzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Bromobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Bromochloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Bromodichloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Bromoform	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Bromomethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Carbon disulfide	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Carbon tetrachloride	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Chlorobenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Chlorodifluoromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Chloroethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Chloroform	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Chloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
cis-1,2-Dichloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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# American Analytical Laboratories, LLC.

Date: 05-Jul-07

CLIENT: CA Rich Consultants Inc.  
 Lab Order: 0706266  
 Project: 544 Union Avenue Brooklyn, N.Y.  
 Lab ID: 0706266-12A

Client Sample ID: WD  
 Tag Number:  
 Collection Date: 6/26/2007 6:15:00 PM  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>		<b>SW8260B</b>		Analyst: LDS		
cis-1,3-Dichloropropene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Dibromochloromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Dibromomethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Dichlorodifluoromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Diisopropyl ether	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Ethanol	U	29		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Ethyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Ethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Freon-114	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Hexachlorobutadiene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Isopropyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Isopropylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
m,p-Xylene	U	12		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Methyl tert-butyl ether	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Methylene chloride	9.8	5.9	B	µg/Kg-dry	1	6/29/2007 5:05:00 PM
n-Amyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Naphthalene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
n-Butyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
n-Butylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
n-Propyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
n-Propylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
o-Xylene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
p-Diethylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
p-Ethyltoluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
sec-Butylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Styrene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
t-Butyl alcohol	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
tert-Butylbenzene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Tetrachloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Toluene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
trans-1,2-Dichloroethene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
trans-1,3-Dichloropropene	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Trichloroethene	0.80	5.9	J	µg/Kg-dry	1	6/29/2007 5:05:00 PM
Trichlorofluoromethane	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Vinyl acetate	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Vinyl chloride	U	5.9		µg/Kg-dry	1	6/29/2007 5:05:00 PM
Surr: 4-Bromofluorobenzene	83.1	61-133		%REC	1	6/29/2007 5:05:00 PM
Surr: Dibromofluoromethane	98.1	61-139		%REC	1	6/29/2007 5:05:00 PM
Surr: Toluene-d8	97.2	57-131		%REC	1	6/29/2007 5:05:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed for but not detected	X	Value exceeds Maximum Contaminant Level

**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	WD
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 6:15:00 PM
<b>Lab ID:</b>	0706266-12A	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HEXAVALENT CHROMIUM</b> Chromium, Hexavalent	U	0.234		mg/Kg-dry	1	7/3/2007
<b>IGNITABILITY/FLASHPOINT SW-846 1010</b> Ignitability	>	140		°F	1	7/2/2007
<b>CORROSIVITY</b> pH	7.60	0		pH Units	1	6/29/2007
<b>REACTIVE CYANIDE</b> Reactive Cyanide	U	0.117		mg/Kg-dry	1	7/2/2007
<b>REACTIVE SULFIDE</b> Reactive Sulfide	U	2.34		mg/Kg-dry	1	7/2/2007

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

**CLIENT:** CA Rich Consultants Inc.  
**Lab Order:** 0706266  
**Project:** 544 Union Avenue Brooklyn, N.Y.  
**Lab ID:** 0706266-12B

**Client Sample ID:** WD  
**Tag Number:**  
**Collection Date:** 6/26/2007 6:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TCLP MERCURY</b>		<b>SW1311/7471B</b>		<b>SW1311</b>		Analyst: JP
Mercury	U	0.0200		mg/L	1	7/2/2007
<b>TCLP HERBICIDES SW-846 8151</b>		<b>SW8151A</b>		<b>SW3510B</b>		Analyst: AR
2,4,5-TP (Silvex)	U	0.015		mg/L	1	7/2/2007 12:43:00 PM
2,4-D	U	0.010		mg/L	1	7/2/2007 12:43:00 PM
Surr: 2,4-DCAA	88.3	17-130		%REC	1	7/2/2007 12:43:00 PM
<b>TCLP PESTICIDES SW-846 8081</b>		<b>SW8081B</b>		<b>SW3510B</b>		Analyst: AR
Chlordane	U	0.015		mg/L	1	6/30/2007 8:05:00 PM
Endrin	U	0.0060		mg/L	1	6/30/2007 8:05:00 PM
gamma-BHC	U	0.0020		mg/L	1	6/30/2007 8:05:00 PM
Heptachlor	U	0.0015		mg/L	1	6/30/2007 8:05:00 PM
Heptachlor epoxide	U	0.0015		mg/L	1	6/30/2007 8:05:00 PM
Methoxychlor	U	0.0020		mg/L	1	6/30/2007 8:05:00 PM
Toxaphene	U	0.010		mg/L	1	6/30/2007 8:05:00 PM
Surr: DCB	61.1	30-132		%REC	1	6/30/2007 8:05:00 PM
Surr: TCX	58.6	31-131		%REC	1	6/30/2007 8:05:00 PM
<b>TRIVALENT CHROMIUM</b>		<b>SW6010B</b>				Analyst: JP
Chromium, Trivalent	13.0	8.08		mg/Kg-dry	1	7/3/2007
<b>TCLP METALS PLUS CU, NI, ZN</b>		<b>SW1311/6010B</b>		<b>SW1311</b>		Analyst: JP
Arsenic	U	0.0500		mg/L	1	7/2/2007 3:05:02 PM
Barium	0.859	0.0500		mg/L	1	7/2/2007 3:05:02 PM
Cadmium	U	0.0500		mg/L	1	7/2/2007 3:05:02 PM
Chromium	0.00723	0.0500	J	mg/L	1	7/2/2007 3:05:02 PM
Copper	0.0439	0.0500	J	mg/L	1	7/2/2007 3:05:02 PM
Lead	2.46	0.0500		mg/L	1	7/2/2007 3:05:02 PM
Nickel	0.0601	0.0500		mg/L	1	7/2/2007 3:05:02 PM
Selenium	U	0.0500		mg/L	1	7/2/2007 3:05:02 PM
Silver	U	0.0500		mg/L	1	7/2/2007 3:05:02 PM
Zinc	0.803	0.0500		mg/L	1	7/2/2007 3:05:02 PM
<b>TCLP SEMIVOLATILES SW-846 8270</b>		<b>SW8270D</b>		<b>SW3510</b>		Analyst: PT
2,4,5-Trichlorophenol	U	0.050		mg/L	1	6/30/2007 5:18:00 PM
2,4,6-Trichlorophenol	U	0.085		mg/L	1	6/30/2007 5:18:00 PM
2,4-Dinitrotoluene	U	0.045		mg/L	1	6/30/2007 5:18:00 PM
2-Methylphenol	U	0.035		mg/L	1	6/30/2007 5:18:00 PM
3+4-Methylphenol	U	0.040		mg/L	1	6/30/2007 5:18:00 PM
Hexachlorobenzene	U	0.090		mg/L	1	6/30/2007 5:18:00 PM
Hexachlorobutadiene	U	0.15		mg/L	1	6/30/2007 5:18:00 PM
Hexachloroethane	U	0.040		mg/L	1	6/30/2007 5:18:00 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 05-Jul-07

<b>CLIENT:</b>	CA Rich Consultants Inc.	<b>Client Sample ID:</b>	WD
<b>Lab Order:</b>	0706266	<b>Tag Number:</b>	
<b>Project:</b>	544 Union Avenue Brooklyn, N.Y.	<b>Collection Date:</b>	6/26/2007 6:15:00 PM
<b>Lab ID:</b>	0706266-12B	<b>Matrix:</b>	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TCLP SEMIVOLATILES SW-846 8270</b>				<b>SW8270D</b>		<b>SW3510</b>
						Analyst: PT
Nitrobenzene	U	0.035		mg/L	1	6/30/2007 5:18:00 PM
Pentachlorophenol	U	0.17		mg/L	1	6/30/2007 5:18:00 PM
Pyridine	U	0.12		mg/L	1	6/30/2007 5:18:00 PM
Surr: 2,4,6-Tribromophenol	94.6	22-124		%REC	1	6/30/2007 5:18:00 PM
Surr: 2-Fluorobiphenyl	92.7	18-124		%REC	1	6/30/2007 5:18:00 PM
Surr: 2-Fluorophenol	93.0	16-112		%REC	1	6/30/2007 5:18:00 PM
Surr: 4-Terphenyl-d14	97.0	17-121		%REC	1	6/30/2007 5:18:00 PM
Surr: Nitrobenzene-d5	87.0	19-115		%REC	1	6/30/2007 5:18:00 PM
Surr: Phenol-d6	93.9	12-102		%REC	1	6/30/2007 5:18:00 PM
<b>TCLP VOLATILES</b>				<b>SW8260B</b>		<b>SW5030A</b>
						Analyst: MB
1,1-Dichloroethene	U	0.00055		mg/L	1	7/2/2007 11:15:00 AM
1,2-Dichloroethane	U	0.00065		mg/L	1	7/2/2007 11:15:00 AM
1,4-Dichlorobenzene	U	0.00085		mg/L	1	7/2/2007 11:15:00 AM
2-Butanone	U	0.0085		mg/L	1	7/2/2007 11:15:00 AM
Benzene	U	0.00060		mg/L	1	7/2/2007 11:15:00 AM
Carbon tetrachloride	U	0.00050		mg/L	1	7/2/2007 11:15:00 AM
Chlorobenzene	U	0.0010		mg/L	1	7/2/2007 11:15:00 AM
Chloroform	U	0.00050		mg/L	1	7/2/2007 11:15:00 AM
Tetrachloroethene	U	0.00070		mg/L	1	7/2/2007 11:15:00 AM
Trichloroethene	U	0.0010		mg/L	1	7/2/2007 11:15:00 AM
Vinyl chloride	U	0.0012		mg/L	1	7/2/2007 11:15:00 AM
Surr: 4-Bromofluorobenzene	99.1	54-134		%REC	1	7/2/2007 11:15:00 AM
Surr: Dibromofluoromethane	99.8	52-132		%REC	1	7/2/2007 11:15:00 AM
Surr: Toluene-d8	98.6	51-127		%REC	1	7/2/2007 11:15:00 AM
<b>CYANIDE, TOTAL</b>				<b>SW9012A</b>		<b>SW9012A</b>
						Analyst: STP
Cyanide, Total & Amenable: Auto Colorimetric	0.185	0.117		mg/Kg-dry	1	7/5/2007

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
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# ENVIROSCIENCE CONSULTANTS, INC.

2150 SMITHTOWN AVENUE, RONKONKOMA, NY 11779  
 PHONE: (631) 580-3191 • FACSIMILE: (631) 580-3195  
 WWW.ENVIROHEALTH.ORG  
 ELAP # 11681; NVLAP # 200531

## ASBESTOS BULK SAMPLE RESULTS

Client:	American Analytical Laboratories		Chain of Custody:	G-78-12
Project:	0706266		Date Sampled:	June 26, 2007
Typed:	PN	Job: 2798	Sampler:	Not Supplied
Analyst:	J. Spilleit		Date Analyzed:	July 5, 2007

Sample #	Description	Color	Location	Result	% Asbestos-type	% Non-asbestos Fibers-type	% Matrix-type
0706266-12A	Soil	Brown		None Detected		37.9% fiberglass	38.3% silicates and opaques 24.2% organics and carbonates

**Key:**

Asbestos Containing Materials contain more than 1% asbestos (shown in bold type).  
 Trace - Asbestos found is 1% or less; not considered ACM.  
 None Detected - No asbestos found in samples using polarized light microscopy (PLM).  
 None Detected by TEM - No asbestos found in samples using transmission electron microscopy (TEM) and polarized light microscopy (PLM) was found to be negative.  
 Inconclusive - No asbestos found in non-friable organically bound samples using polarized light microscopy (PLM).

Reviewed by:   
 Laboratory Manager

# Appendix D

**R E P O R T**

**GEOTECHNICAL EVALUATION**

**544 UNION AVENUE  
BROOKLYN, NEW YORK**

*Prepared for*

544 Unioncon, LLC  
1737 Veterans Highway  
Islandia, NY 11749

Original Report : July 25, 2007  
Updated Report : January 28, 2011

Prepared by:

**URS**

201 Willowbrook Blvd.  
Wayne, New Jersey 07470

Project No : 11100343

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## EXECUTIVE SUMMARY

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This report provides geotechnical recommendations for a multi story building at 544 Union Avenue in Brooklyn, New York. URS was originally retained by 544 Union Owner LLC to provide geotechnical engineering design services for a building that was designed by others and went dormant after driving piles. URS has been retained by 544 Unioncon LLC to update the geotechnical engineering report to include the work that was performed prior to the project going dormant.

Based on the 13 test borings performed at the site, the subsurface conditions consist of 5 to 18 ft of fill material underlain by a peat and organic clay layer with a thickness ranging from 2 to 15 ft. A 60 to 80 ft thick layer of sand is present beneath the peat and organic clay layer. Bedrock was not encountered. Groundwater was encountered at a depth of approximately 5 ft below the ground surface.

The recommended New York City Building Code soil profile type for this site is S<sub>3</sub>, with a corresponding S-factor of 1.5. The potential for liquefaction, in accordance with the NYC Building Code, is a concern and needs to be considered in the design.

As part of the original foundation recommendations and the initial construction in 2007-2008, 14 inch diameter Tapertube piles with a nominal yield strength of 50 ksi and a wall thickness of 0.25 inch were installed by Underpinning & Foundation Skanska, Inc. The pile driving hammer used was a Junttan HHK-5 hydraulic hammer. Initial test pile results indicated that the piles might have ultimate capacities in the 150 to 180 ton range. However, since some of the piles were damaged, it was decided to install additional piles to a shorter length to possibly avoid potential obstructions. The test pile results for these shorter test piles indicated that the piles may have ultimate capacities of approximately 100 tons. A total of two piles were selected for static load testing. The test results confirmed an allowable compression capacity of 70 tons and an allowable geotechnical uplift capacity of 24 tons. A total of 222 production piles were installed. Due to the proximity of the 31 Withers Street building and concerns regarding the effect of pile vibration on the building, the piles in this area were not installed. In order to potentially avoid having to install drilled piles in this area, the possibility of constructing a mat foundation for this building was investigated. The mat analyses performed previously are no longer applicable to the new building design.

Any additional piles that need to be installed can use the same size Tapertube pile. If the piles are driven with the same pile driving hammer and pile driving criteria, no additional static pile load tests will be required. However, it is recommended that additional PDA tests be performed on several of the initial piles installed once pile driving recommences. The Tapertube pile is a proprietary pile and is driven in New York City only by Underpinning. Recommendations for timber piles, Monotube piles, and straight pipe piles are included in the report. However, because these piles are different than the previously installed Tapertube piles, additional PDA and static load tests may be required.

Driving of piles close to adjacent structures may lead to excessive vibrations of the structure and possible settlement of the structure, depending on the foundation system of the adjacent structure. The distance at which vibrations and/or settlements will become a concern is dependent on many factors and should be determined in the field based on the results of vibration and settlement measurements made during the driving of the initial piles. For the

## **EXECUTIVE SUMMARY**

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purpose of estimating costs, it is recommended that piles located within 20 ft of adjacent structures should be considered to need a drilled-in foundation element (i.e., minipile). Due to the potential for large differential settlements between the existing piles and spread footings, the use of spread footings are not recommended.

A design groundwater depth of 4 ft below grade is recommended. Considering this, and that both buildings will not have a cellar level, the need for permanent groundwater control is not a concern; however, a vapor barrier installed beneath the cellar slab is recommended.

## 1.1 GENERAL

This report presents the results of the geotechnical investigation performed by URS Corporation (URS) for the proposed building located at 544-566 Union Avenue in the Borough of Brooklyn, New York (see Figure 1). URS was originally retained by 544 Union Owner LLC to provide geotechnical engineering design services for a building that was designed by Gene Kaufman, Architect PC (GKA). URS performed geotechnical investigations and submitted a report on July 25, 2007. URS was also retained by 544 Union Owner LLC to provide construction support and controlled inspection services for the piles. After driving the piles at the site, the project went dormant. URS has been retained by 544 Unioncon LLC to update the geotechnical engineering report to include the work that was performed prior to the project going dormant. Authorization to proceed with this work was obtained in the form of an agreement between 544 Unioncon LLC and URS Corporation and executed on December 20, 2010.

The foundation recommendations provided herein are in accordance with the 1968 New York City Building Code.

## 1.2 PROJECT DESCRIPTION

The project site encompasses the properties at 544 Union Avenue (Block 2736, Lot 1), 18 Frost Street (Block 2736, Lot 9), and 29 Withers Street (Block 2736, Lot 48). At the time of the field investigation, a one story industrial building encompassed all of the lots. Based on the information collected by us, the existing building was mainly used as a machine shop. The building has three garage doors on opposite ends of the building. The building does not have a cellar.

The “G” subway train is present beneath Union Ave. Based on the drawings provided by GKA, the bottom of the subway is estimated to be 25 ft below ground surface and the distance from the proposed building to the edge of the subway structure is estimated to be 23 ft.

The city records show that there is a 3 story residential building at 31 Withers Street (southeast corner of the site), and a 2 story industrial building at 22 Frost Street (northeast corner of the site). The depth and type of foundations of these buildings is unknown.

It is proposed to construct a multi-story building along Union Ave. and Frost St. It is not planned to construct a cellar for this building. The revised building configuration will include additional piles.

## 1.3 OBJECTIVES AND SCOPE OF SERVICES

The objectives of this investigation were to evaluate the subsurface conditions beneath the proposed building site and to provide geotechnical recommendations for design and construction. In order to achieve these objectives, the following scope of work was performed:

- Retained a drilling subcontractor to perform test borings at the proposed building site.
- Provided full-time controlled inspection of the drilling operations.

- Prepared this geotechnical report that includes the following:
  - a) A description of the subsurface investigation performed for this project;
  - b) A boring location plan showing the locations of the completed test borings;
  - c) The results of engineering evaluations and recommendations regarding the foundation design including:
    - Foundation type and estimated capacity; and bearing elevation;
    - Settlement estimates;
    - Evaluation of various pile foundations, if applicable, including estimated pile lengths and capacities;
    - Geotechnical earthquake engineering considerations including soil profile type and liquefaction potential;
    - Permanent groundwater control measures, as necessary;
    - Pile load test requirements, if applicable.
  - d) A discussion of construction related issues including:
    - Subgrade preparation and backfill requirements;
    - Excavation considerations;
    - Temporary groundwater control;
    - Temporary support of excavation system;
    - Construction monitoring considerations including vibration monitoring and compaction control.
  - e) Appendices that include test boring logs and laboratory test results.

## 2.1 GENERAL

The subsurface investigation consisted of a field investigation and geotechnical laboratory testing. The field investigation included test borings prior to construction and test pits during construction. Laboratory testing included physical index and property tests to characterize samples obtained from the field investigation. Details are described in the following sections.

## 2.2 FIELD INVESTIGATION

The field investigation was conducted in two phases. In the first phase, four test borings were performed between December 5 and December 12, 2005, and inspected on a full time basis by Mr. Mynul Chowdhury and Mr. Jonathan Ciampi of URS. One of the four borings was located on the sidewalk along Withers Street and the remaining three were located within the existing building. The borings were performed by Aquifer Drilling and Testing, Inc. of New Hyde Park. The sidewalk boring was advanced with a Mobile B-61 truck-mounted hydraulic rig, while the inside borings were advanced with a Davey DK515 track rig.

The second phase consisted of nine additional borings located within the existing building. The borings were performed by Warren George Inc. (WGI) between June 26 and July 10, 2007 under continuous inspection by Ms. Carol Hawk of URS. WGI used two Davey DK50 track mounted drill rigs. All boring locations are shown in Figure 2.

All borings used the rotary drilling technique with a 3-7/8 in. or 2-7/8 in. diameter tri-cone roller bit and 4 in. or 3 in. steel casing. Soil samples were obtained using techniques and equipment in general accordance with the American Society for Testing and Materials (ASTM) Standard Specification D1586-Standard Penetration Test (SPT). The SPT consists of driving a 2 inch O.D. split spoon sampler for a distance of 24 inches, with repeated blows of a 140 lb. hammer free falling a distance of 30 inches. The standard penetration, or N-value, is determined as the number of blows required to advance the sampler 12 inches after the initial 6 inches of penetration. The recovered split-spoon samples were placed in jars, labeled with the project name and number, boring number, sample, depth, SPT blow counts and the amount of recovery. Undisturbed tube samples were also obtained at two locations using a piston-type sampler.

Upon the completion of Boring B-1, a groundwater observation well was installed. The well was constructed from PVC Schedule 40 pipe. The lower section consists of a 10 ft long screen that is connected to a riser section. The annulus between the PVC and the wall of the test boring was backfilled with sand to near the top of the borehole. The remainder of the annulus was backfilled with bentonite.

The test boring logs are included in Appendix A.

During construction, test pits were performed adjacent to the 31 Withers Street building for the purpose of observing the foundation conditions and the potential impacts to the design and construction of the building at 544 Union Ave. A total of five test pits were performed. The test pit logs are included in Appendix B.

### 2.3 LABORATORY TESTING

Geotechnical laboratory testing consisting of six grain size analyses, three Atterberg limit tests, and one consolidation test was performed on selected soil samples to verify the field classifications and to assist in engineering evaluations. The results of the laboratory testing program are included in Appendix C.

### 2.4 SUBSURFACE CONDITIONS

Generally, subsurface conditions can be described by the following major strata:

#### **Stratum 1 - Fill (11-65)<sup>1</sup>**

This stratum generally consists of a medium dense to very loose brown to gray silty or gravelly fine to coarse SAND with some to trace gravel, brick fragments, or cinders. This stratum was encountered from the ground surface to a depth of about 5 to 18 feet in all test borings. SPT N-values varied from 1 blow per foot (bpf) to 39 bpf.

#### **Stratum 2: Peat and Organic Clay (11-65)**

This material was encountered under Stratum 1 in all borings except B-1. It generally consisted of very soft to medium stiff brown to black PEAT that transitioned into gray ORGANIC SILTY CLAY or sandy CLAY. SPT N-values in this material ranged from 1 to 15 bpf. The thickness of this stratum ranges from approximately 2 ft to 15 ft.

#### **Stratum 3 - Sand (7-65)**

This stratum was encountered under Stratum 1 in boring B-1 and under Stratum 2 in all other borings. It generally consists of a medium dense to dense brown silty fine to coarse SAND with some to trace gravel to fine to coarse SAND, trace silt. This stratum was encountered at depths of about 8 to 30.5 feet below the ground surface to the termination depth of boring except in borings B-1 and B-9 where it extended to a depth of about 90 feet. SPT N-values varied from 8 blows per foot (bpf) to 95 blows per foot (bpf).

### 2.5 GROUNDWATER CONDITIONS

Groundwater was measured inside the observation well installed at Boring B-1 on December 12, 2005 (6 days after well installation), at a depth of 4.8 feet below grade. The well was bailed (i.e., water removed from the well) to ensure that it is working properly. Additional groundwater measurements were made in five of the borings from Phase Two (June 26 – July 10, 2007). Measurements were made in open uncased boreholes after ground water levels had stabilized over night. Ground water depths consistently measured in the range of 4-ft to 6-ft, with an average depth of 4.7-ft. These measurements do not adequately reflect seasonal variations, but confirm a typical ground water surface.

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<sup>1</sup> Number in parentheses indicates classification according to the New York City Building Code.

### 3.1 GENERAL

This section of the report presents our geotechnical analyses and recommendations for the design of the proposed building foundation. Our evaluations and recommendations are based on the results of the field investigations performed for this project and our current understanding of the proposed project requirements.

### 3.2 SEISMIC CONSIDERATIONS

Based on the subsurface conditions, the seismic site classification (S type) is between an S<sub>1</sub> and an S<sub>3</sub>, mainly because of the presence of Stratum 1 and 2. In accordance with the NYC Building Code, the S type with the larger S factor must be used. Therefore, the recommended S type for this site is S<sub>3</sub>, which has an S factor of 1.5.

It is assumed that the buildings are classified as “Standard Occupancy” structures, as defined by the NYC Building Code. Based on this classification, liquefaction is only a concern if the N-values for the sandy soils below the groundwater plot to the left of the solid line shown in Figure 4. The N-values between depths of about 5 to 25 ft indicate that liquefaction is a concern; therefore, liquefaction needs to be considered in the design of the foundations.

### 3.3 FOUNDATION RECOMMENDATIONS

As part of the original foundation recommendations and the initial construction in 2007-2008, steel pipe piles were installed at the site. The following sections provide a summary of the pile load testing and production pile installation and recommendations for any future pile installations.

#### 3.3.1 Existing Piles

The piles driven previously are 14 inch diameter Tapertube piles with a nominal yield strength of 50 ksi and a wall thickness of 0.25 inch. The tapered section of the pile is 15 ft long with an 8 inch tip diameter. The piles were installed by Underpinning & Foundation Skanska (Underpinning) between October 9, 2007 to February 15, 2008. The pile driving hammer used was a Junttan HHK-5 hydraulic hammer. The hammer maximum rated energy is 54.6 k-ft with a ram weight of 11.0 kips, and a maximum theoretical height-of-fall of 4.9 ft. During driving, the height of the fall was limited to 2 ft.

#### *Pile Load Testing Results*

On October 9, 2007, 16 production piles (including one replacement pile) and 2 test piles, denoted as TP-1 and TP-2, were installed by Underpinning. In addition, Underpinning retained Urkkada Pacific Ltd. (Urkkada) to perform Pile Driving Analyzer (PDA) testing during the driving of 6 piles. The PDA results indicated that the piles might have ultimate capacities in the 150 to 180 ton range. However, four piles are noted on the logs as being bent (how this was determined and the extent of the bend is not noted). It is our understanding that it was then decided by others to install 3 additional piles (replacement piles) to a shorter length to possibly

avoid potential obstructions. These piles were installed on October 15, 2007 and included 2 test piles, denoted as TP-1R and TP-2R, which were driven to depths of about 31 ft and 35 ft, respectively. The PDA results for these shorter test piles indicates that they may have ultimate capacities of approximately 100 tons.

The installation of the piles noted above were inspected by Special testing & Consulting (SPC). After the driving of these piles, the client retained URS to observe the load test program, develop the pile driving criteria, and inspect the production piles.

A total of two piles were selected for static load testing. The test results confirmed an allowable compression capacity of 70 tons. In addition, monitoring of the reaction piles used for the load test indicate an allowable geotechnical uplift capacity of 24 tons.

Additional details regarding the test pile driving, PDA results, and static load test results are included in Appendix D.

#### *Pile Recommendations*

Based on the results of the pile load tests, the pile driving records and analyses, the following conclusions and recommendations were made:

1. Allowable compression capacity of test piles is 70 tons.
2. During production driving of piles, the piles should be driven to a minimum driving criteria of 16 blows per foot (bpf) and 10 bpf for at least 5 ft above the 16 bpf. The second criteria (i.e., for 5 ft above the 16 bpf) is done to provide some assurances that the piles are installed a minimum of 5 ft into the sand stratum below the clay stratum.
3. The driving criteria provided herein are based on the use of the same hammer used for the test piles. If the pile driving equipment is changed or modified during driving of production piles, it may be necessary to perform additional PDA tests to assist in ensuring that an adequate pile capacity is being achieved.
4. Allowable geotechnical tension capacity of 24 tons, which includes the pile weight.

#### *Production Piles Summary*

A total of 222 production piles were installed. The latest as-built pile drawing provided to URS is dated February 13, 2008 and is included in the Figures section of this report.

Due to the proximity of the 31 Withers Street building and concerns regarding the effect of pile vibration on the building, the piles in this area were not installed. The original design included this a separate building (referred to as Building B) from the main building (referred to as Building A). In order to potentially avoid having to install drilled piles in this area, the possibility of constructing a mat foundation for this building was investigated. The results of the analyses performed by URS for this foundation are include in Appendix E. We are not aware of any decision by the architect / structural engineer or the owner to proceed with a mat foundation. The mat analyses performed previously are no longer applicable to the new building design.

### **3.3.2 Future Piles and Foundations**

Any additional piles that need to be installed can use the same size Tapertube pile. If the piles are driven with the same pile driving hammer and pile driving criteria, no additional static pile

load tests will be required. However, it is recommended that additional PDA tests be performed on several of the initial piles installed once pile driving recommences. The Tapertube pile is a proprietary pile and is only driven in New York City by Underpinning.

The following pile types can also be considered. However, because they are different pile types than those previously installed, additional PDA and static load tests may be required.

#### *Timber Piles*

It is estimated that timber piles having a 12 inch butt diameter and 7 inch tip diameter will achieve an allowable capacity of 25 tons at a depth of approximately 50 ft below pile cutoff. Since this depth is close to the maximum length of a timber pile, it is recommended that test piles be installed at the site prior to selecting this foundation system. If this is not performed, it is possible that the piles may have a lower capacity than estimated when they are installed to the same depth. In order to avoid pile damage during driving through the fill layer, the timber piles should have a steel tip reinforcement.

A liquefaction induced downdrag load of 2 tons should be added to the seismic load case.

#### *Monotube Piles and Pipe Piles*

Monotube piles are a proprietary pile system that use a steel shell that has a continuous taper for the bottom section and is filled with concrete after installation. Based on a Monotube pile with a 14 inch butt diameter and a J taper, it is estimated that an allowable capacity of 60 tons will be achieved at a depth of 40 ft and 100 tons will be achieved at a depth of 50 ft below pile cutoff. Based on the pile driving results from the Tapertube pile, which is very similar to the Monotube pile, an allowable compression capacity of 70 tons is recommended.

Based on a 12 inch outside diameter straight concrete filled steel pipe pile, driven closed-end, it is estimated that an allowable capacity of 60 tons will be achieved at a depth of approximately 70 ft and 100 tons at a depth of approximately 100 ft below pile cutoff.

Liquefaction induced downdrag loads of 12.5 tons and 4 tons should be added to the seismic load case for the 14 inch Monotube and 12 inch pipe pile, respectively.

In order to avoid pile damage during driving through the fill layer, it is recommended that all steel piles have a minimum yield strength of 50 ksi. The maximum 3 gauge steel thickness is recommended for the Monotube pile. A preliminary 3/8 inch thickness is recommended for the straight pipe pile. The thickness of the straight pipe pile should be finalized based on the contractor's pile driving equipment and the results from the contractor's wave equation analyses.

#### *Pile Load Test Recommendations*

Confirmation of allowable capacity of friction piles in excess of 30 tons is required by performing static compression load tests. A minimum of two static load tests. For friction piles having capacities of less than 60 tons, the maximum test load of twice the proposed working capacity of the pile must be applied for at least 48 hours. For friction piles with capacities greater than 60 tons, a hold time of 96 hours at the maximum test load is required. During the installation of the test piles, a Pile Driving Analyzer (PDA) should be used to confirm that the allowable stresses in the pile are not exceeded during driving and to assist in developing pile driving criteria.

The above requirements are based on the 1968 NYCBC. The 2008 NYCBC requirements for pile load testing are less stringent, including less number of load tests and reduced hold times for the maximum loads. Therefore, if it is allowed to use the 2008 NYCBC for this project, some cost savings may be recognized.

### 3.3.3 Adjacent Structures

The piles located along Union Avenue are within the influence line of the subway structures. Therefore, drilled-in casings were installed prior to driving the piles, the soil in the casing was removed and the Tapertube piles were installed through the casing. URS had no involvement in obtaining approval from the Transit Authority (TA) for this work. It is our understanding that GKA coordinated the pile requirements with the TA. Any additional piles to be installed within the subway influence line will need to be installed in a similar manner.

Driving of piles close to adjacent structures may lead to excessive vibrations of the structure and possible settlement of the structure, depending on the foundation system of the adjacent structure. Therefore, the structural engineer should locate the driven piles as far away from existing structures as possible. The distance at which vibrations and/or settlements will become a concern is dependent on many factors and should be determined in the field based on the results of vibration and settlement measurements made during the driving of the initial piles. For the purpose of estimating costs, we recommend that piles located within 20 ft of adjacent structures should be considered to need a drilled-in foundation element (i.e., minipile).

It is estimated that a spread footing having an allowable bearing pressure of 1 tsf and placed at a depth of approximately 5 ft will experience settlements on the order of 2 to 3 inches. It is likely that much of this settlement will occur after the building is constructed. The deflection of the piles will be relatively small; therefore, the estimated settlement should be considered as a differential settlement. Considering this, spread footings are not recommended.

### 3.3.4 Floor Slab

The data from the laboratory tests on the soils of Stratum 2 indicate that the soil is somewhat overconsolidated. Therefore, considering that no additional fill will be placed at the site, settlement of this layer beneath the floor slab is not anticipated to be a concern. Therefore, the first floor slab of the buildings can be constructed as a slab-on-grade. The subsurface conditions at the proposed slab level are likely to consist of Stratum 1. Upon proper preparation of the subgrade, as given in Section 4.2, the slabs should bear on a minimum of 6 inches of crushed stone.

## 3.4 LATERAL EARTH PRESSURE

The design lateral pressures for permanent below grade walls consist of static and seismic pressures that are influenced by the thickness and type of overburden material. We recommend that the below grade walls located above the design groundwater level be designed for a static lateral soil pressure of 45 pcf. For the portion of the below grade walls located below the design

groundwater level, we recommend a static lateral pressure based on an equivalent fluid pressure of 85 pcf.

The NYC Building Code also requires that the below grade walls be designed to resist seismic loads. We recommend using a seismic lateral soil force of  $5H^2$  (lb/ft of wall), where H is the total vertical height of the wall, in feet. This force is in addition to the static force and should be applied at a distance of H/3 from the top of the wall (i.e., wall pressure is an inverted triangle).

The recommended lateral pressure does not include any surcharge loads adjacent to the walls or at the ground surface. We recommend adding a uniform (i.e., rectangular) lateral pressure distribution of 0.40 times the surcharge to the lateral soil pressure distribution. The structural engineer should determine the magnitude of the surcharge loads (i.e., live loads).

### **3.5 PERMANENT GROUNDWATER CONTROL**

A design groundwater level of 4 ft below grade is recommended. Considering that the proposed building will not have a cellar level and provided that the first floor slab level is above the design groundwater level, the need for permanent groundwater control is not a concern. However, it is recommended that a vapor barrier be placed beneath the slab.

#### 4.1 GENERAL

This section presents a discussion and recommendations regarding special geotechnical aspects of the proposed construction, which should be addressed in the project specifications and contract documents.

#### 4.2 SUBGRADE PREPARATION

In order to limit differential settlement of the slab-on-grade, it is recommended that the soil subgrade be proof-rolled with a minimum of 6 passes of a smooth drum vibrating roller with a minimum 10 ton static weight, or other approved equipment having similar energy. Any unstable areas encountered which cannot be stabilized by additional compaction should be excavated to competent material and the area backfilled with compacted structural fill. The proof-rolling should not be performed when the subgrade is wet, muddy, or frozen.

If foundations or the lowest level floor slab are constructed in the winter, the subgrade should be protected from frost action to limit possible subgrade deterioration resulting from freezing and thawing cycles. The concrete for the footings or slab should not be poured if the subgrade is wet, muddy, or frozen.

#### 4.3 EXCAVATION CONSIDERATIONS

Local temporary soil excavations above the natural groundwater level can have cut slopes as steep as 1.5H:1V. Temporary soil excavations below the natural groundwater level should be no steeper than 2H:1V.

All vertical soil faces will require temporary support until the new basement walls and foundations are constructed and the area is properly backfilled. A feasible support system may consist of soldier piles or concrete piers and wood lagging with sufficient lateral restraint (e.g., anchors, rakers, bracing, etc.), as required. Measurements of vibration levels should be made in selected adjacent structures during the installation of the support system. The maximum vibration levels should be established as part of the pre-construction survey. In order to reduce excessive noise and vibrations that might develop from hard driving of the piles through obstructions in the soil, the piles could be placed in pre-drilled holes.

The design and construction of any slopes and/or temporary excavation support systems should be the responsibility of a licensed New York Professional Engineer retained by the foundation contractor. All excavations and temporary support systems should conform to pertinent OSHA and local safety regulations. The soil and rock parameters used in the design of the temporary excavation support systems should be reviewed by the owner's geotechnical engineer prior to construction of the temporary support structures. Excavations and bracing will be subject to controlled inspection in accordance with the New York City Building Code.

#### **4.4 TEMPORARY GROUNDWATER CONTROL**

Assuming that the groundwater remains at the measured depth of 5 ft, and considering that neither building will have a cellar level, the need for significant dewatering during construction should not be anticipated. If portions of the buildings are located below the groundwater level, the groundwater should be lowered to at least 2 ft below the bottom of the foundation level so that the subgrade can be properly prepared and inspected. Depending on the size and depth of the excavation, the use of sumps connected to perimeter drainage trenches may not be sufficient to lower the groundwater to the necessary level. Therefore, if large or deep areas need to be excavated, the contractor should develop and submit a groundwater control plan for review and approval by the design engineer.

#### **4.5 UNDERPINNING**

Underpinning will be required at locations where the foundations of existing adjacent structures are above the proposed excavation levels. Underpinning of the adjacent structures should transfer the foundation loads from their present bearing level to a level below the lowest excavation elevation of the proposed building. Some information regarding the depth and type of the adjacent building foundations is available. It is recommended that additional information be collected regarding the depth and type of adjacent building foundations. This information should be provided to the Contractor for the purpose of estimating underpinning needs and for the preparation of the foundation bid. The proposed underpinning system, designed by the Contractors engineer, should be reviewed and inspected by a qualified engineer during construction.

#### **4.6 BACKFILL AND COMPACTION REQUIREMENTS**

Backfill materials should be granular soils free of organic material, cinder, brick, asphalt, ash, and other unsuitable materials. The sandy soils encountered above the bedrock can be used as structural fill provided that unsuitable materials are removed prior to placement. Backfill beneath slabs-on-grade should be compacted to a minimum of 95% of the maximum dry density, as determined by ASTM D1557-88, Method C. All backfill should be placed in lifts not exceeding 8 inches in loose thickness.

#### **4.7 PRE-CONSTRUCTION SURVEY**

A pre-construction survey should be performed for any adjacent structure or utility that is within 50-ft of the proposed construction site, to provide the Owner with documentation of existing conditions in the event of a future damage claim. Based on the survey results, a monitoring program should be designed for checking the performance of the adjacent structure or utility and for monitoring construction procedures. This monitoring program should include recommendations for the location of survey points to monitor vertical and horizontal movements and locations for monitoring vibrations during key construction activities. The monitoring program should also included criteria for allowable movements and vibrations, and the procedures to be implemented if the criteria are exceeded during construction.

**4.8 CONSTRUCTION MONITORING**

It is recommended that a geotechnical engineer familiar with the subsurface conditions and foundation design criteria review and approve the foundation contractors procedures and provide inspection services during excavation and foundation construction. Inspection services should include:

- Observation and documentation of all phases of excavation and foundation construction.
- Special inspection of the subgrade and pile installation, as required by the NYC Building Code.
- Monitoring of vibrations.
- Monitoring of subgrade preparation, backfill placement, and compaction.
- Load test inspection and report preparation, if required.

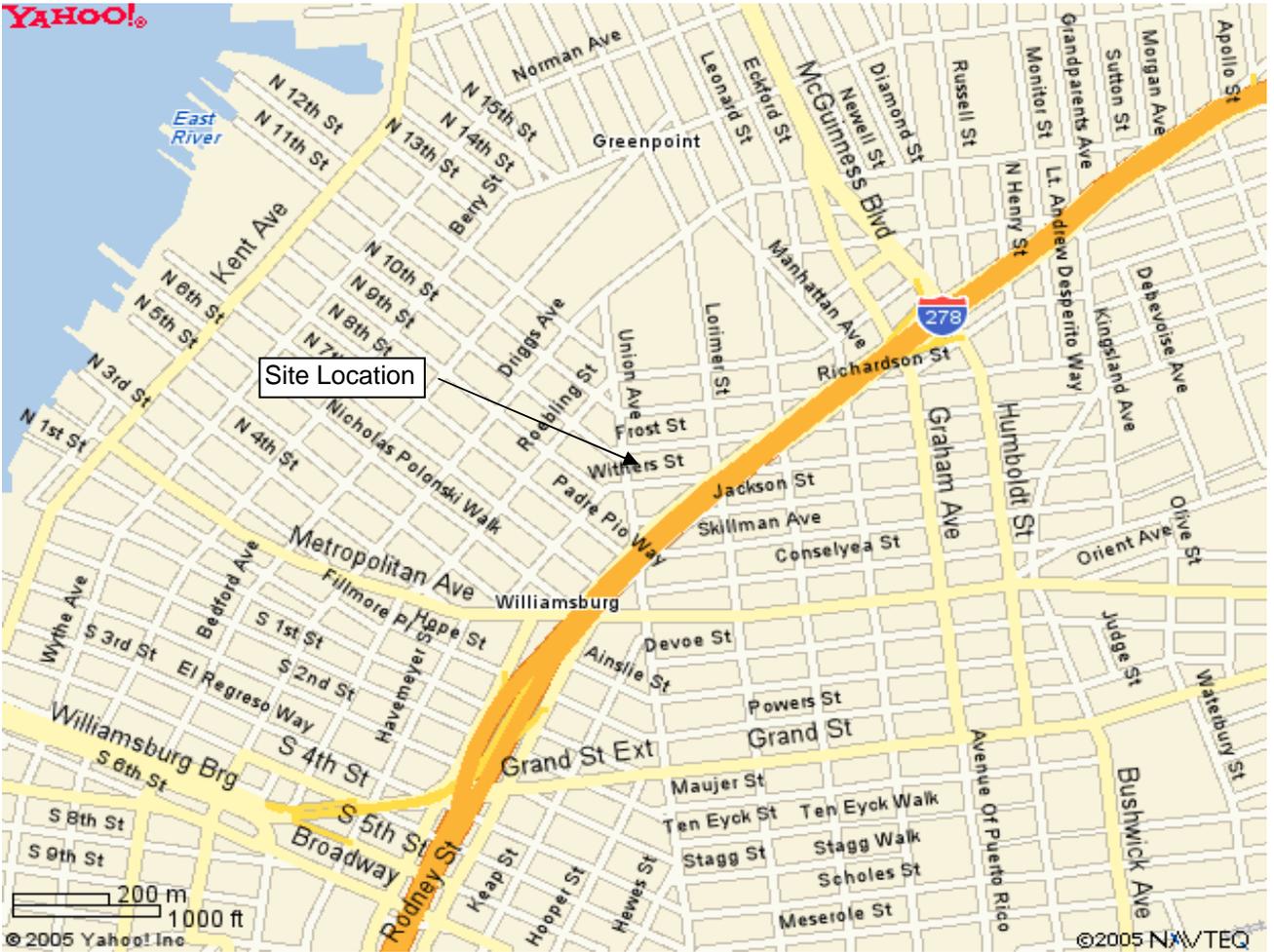
Professional judgments were necessary in relation to determining stratigraphy and soil properties from the subsurface investigations. Such judgments were based partly on the evaluation of the technical information gathered, and partly on our experience with similar projects. If further investigation reveals differences in the subsurface conditions and/or groundwater level, or if the proposed building design is different from indicated herein, or is changed, it is recommended that we be given the opportunity to review the new information and modify our recommendations, if deemed appropriate.

The results presented in this report are applicable only to the present study, and should not be used for any other purpose without our review and consent. This study has been conducted in accordance with the standard of care commonly used as state-of-the-practice in the profession. No other warranties are either expressed or implied.

## **FIGURES**

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YAHOO!



**SITE LOCATION PLAN  
544 UNION AVENUE  
BROOKLYN, NEW YORK**

**URS**

WAYNE, NEW JERSEY

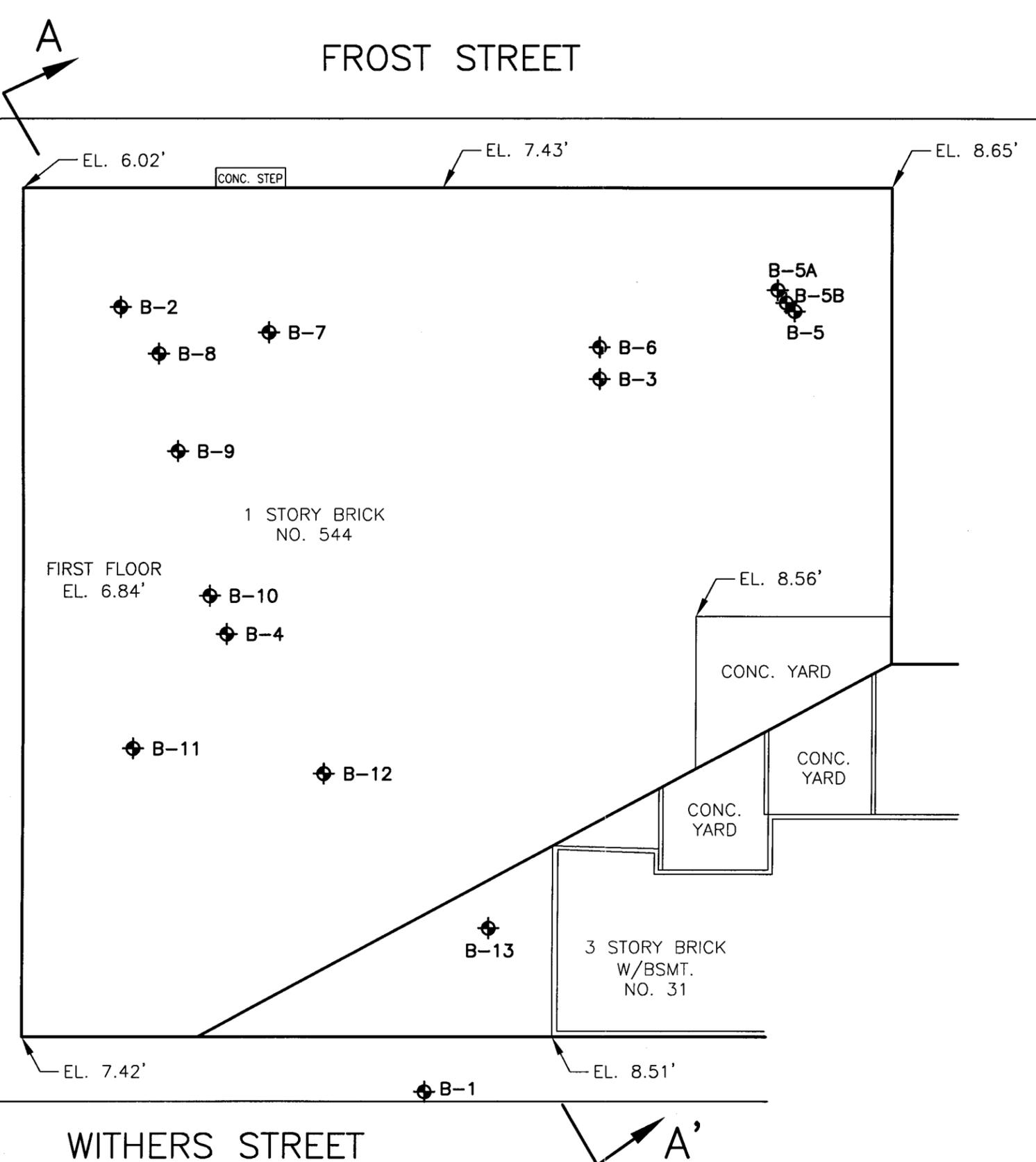
DR. BY: TGT	SCALE: As Shown	PROJ: 19684803
	DATE: 1/10/2006	FIG NO: 1

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UNION AVENUE

FROST STREET

WITHERS STREET

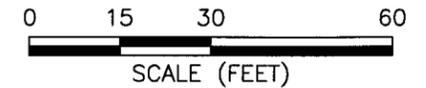


**LEGEND**

- B-1 BORING LOCATION AND IDENTIFICATION NUMBER
- GENERALIZED SUBSURFACE PROFILE LOCATION

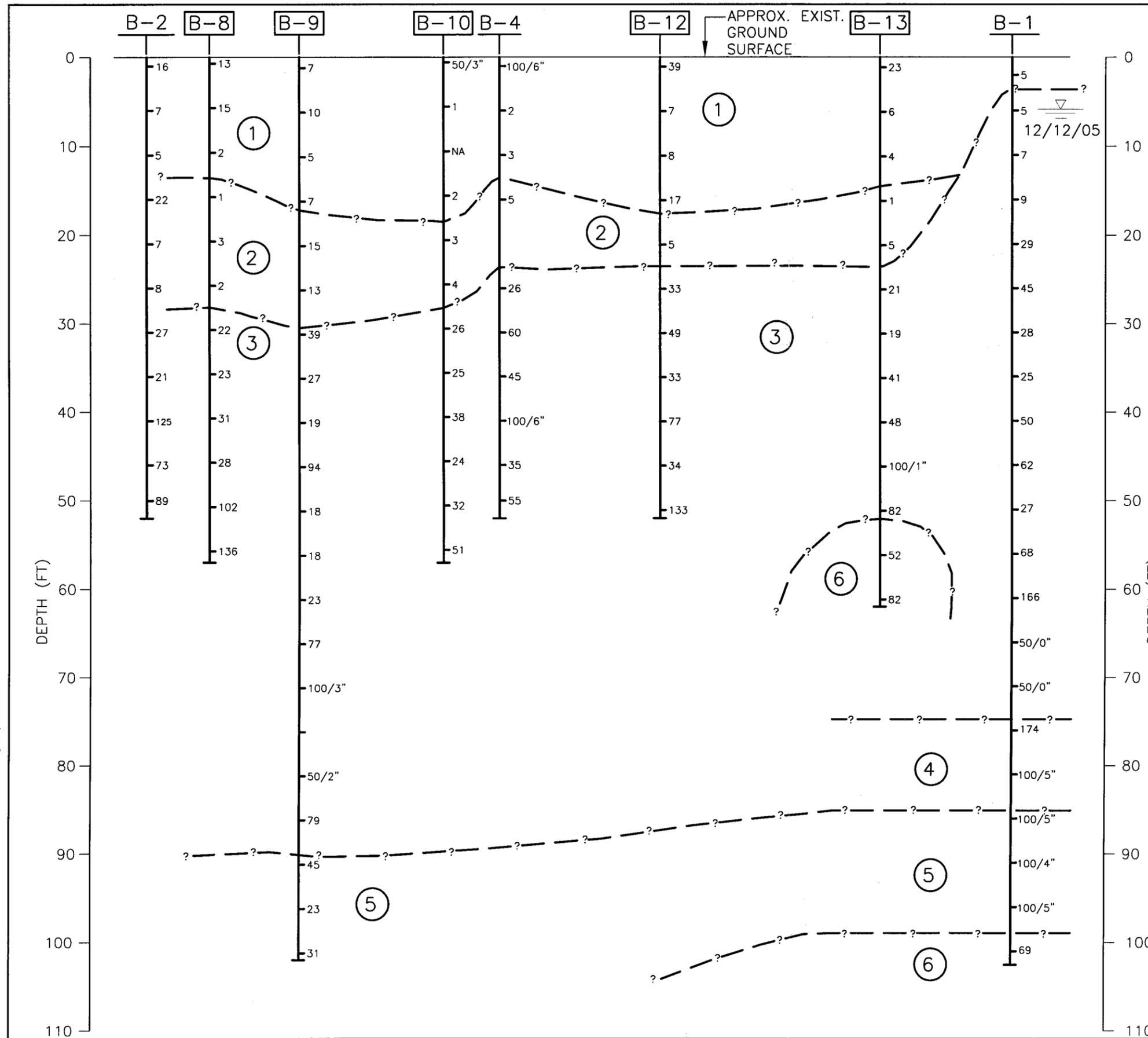
**NOTES:**

1. MAP SOURCE: ARCHITECTURAL SURVEY, 544 UNION AVENUE, BOROUGH OF BROOKLYN, COUNTY OF KINGS, CITY OF NEW YORK, STATE OF NEW YORK, DATED SEPTEMBER 19, 2005, BY FEHRINGER SURVEYING, P.C.
2. ELEVATIONS REFER TO BROOKLYN HIGHWAY DATUM, WHICH IS 2.56 FEET ABOVE 1929 MEAN SEA LEVEL AT SANDY HOK, NJ.



BORING LOCATION PLAN 544 UNION AVENUE BROOKLYN, NY					
<b>URS</b> WAYNE, NEW JERSEY					
DR. BY	ET	SCALE	AS SHOWN	DWG. NO. 84803003	PROJ. NO. 19674803
CK'D. BY	CH	DATE	JULY 24, 2007	FIG. NO.	2

K:\Cadd\19684803\544 UNION AV.BROOKLYN\84803004.dwg, Layout1, 7/24/2007 12:29:11 PM



**GENERAL NOTES:**

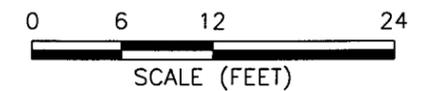
1. MATERIAL DESCRIPTIONS ARE GENERALIZED AND INCLUDE SAMPLES WITH A NATURAL DEGREE OF VARIATION. SEE BORING LOGS FOR MORE DETAILED DESCRIPTIONS OF THE INDIVIDUAL SAMPLES.
2. DEPTH AND THICKNESS OF SOIL STRATA BOUNDARIES ARE BASED ON INTERPRETATION OF BORINGS AND LABORATORY TESTS RESULTS AND ARE SHOWN ONLY TO AID IN VISUALIZING GENERALIZED SUBSURFACE CONDITIONS. ACTUAL STRATA BOUNDARIES BETWEEN BORINGS MAY DIFFER FROM THE CONDITIONS SHOWN HEREIN.

**GENERALIZED SOIL DESCRIPTIONS:**

- ① MISCELLANEOUS FILL: BROWN TO GRAY, MEDIUM DENSE TO VERY LOOSE, SILTY OR GRAVELLY FINE TO COARSE SAND WITH SOME TO TRACE GRAVEL, BRICK FRAGMENTS, OR CINDERS. [11-65]
- ② BROWN TO BLACK, VERY SOFT TO MEDIUM STIFF, PEAT TO ORGANIC SILTY CLAY OR SANDY CLAY. [11-65]
- ③ BROWN TO GREEN, MEDIUM DENSE TO DENSE, SILTY FINE TO COARSE SAND WITH SOME TO TRACE GRAVEL, TO FINE TO COARSE SAND, TRACE SILT. [7-65]
- ④ BROWN, HARD, FINE SANDY SILT WITH SOME CLAY. [10-65]
- ⑤ BROWN, MEDIUM DENSE TO VERY DENSE, SILTY FINE SAND TO FINE SAND, TRACE SILT. [8-65]
- ⑥ GRAY TO RED, HIGH PLASTICITY, STIFF CLAY WITH TRACES OF SILT. [9-65]

**LEGEND**

- GEOTECHNICAL BORING DRILLED BY AQUIFER DRILLING AND TESTING INC., UNDER URS SUPERVISION.
- GEOTECHNICAL BORING DRILLED BY WARRREN GEORGE INC., UNDER URS SUPERVISION.
- N-VALUE, DEFINED AS NUMBER OF BLOWS OF A 140-LB HAMMER FREE FALLING FOR 30 INCHES REQUIRED TO ADVANCE A STANDARD SPLIT SPOON SAMPLER 12 INCHES AFTER INITIAL 6 INCH PENETRATION.
- APPROX. INTERFACE BETWEEN SOIL STRATA
- WATER LEVEL IN THE OBSERVATION WELL AND DATE OF OBSERVATION

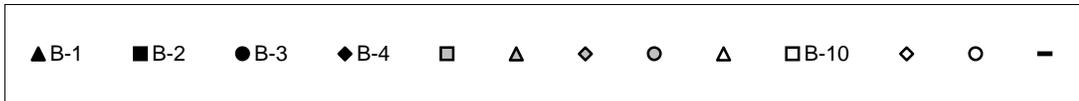
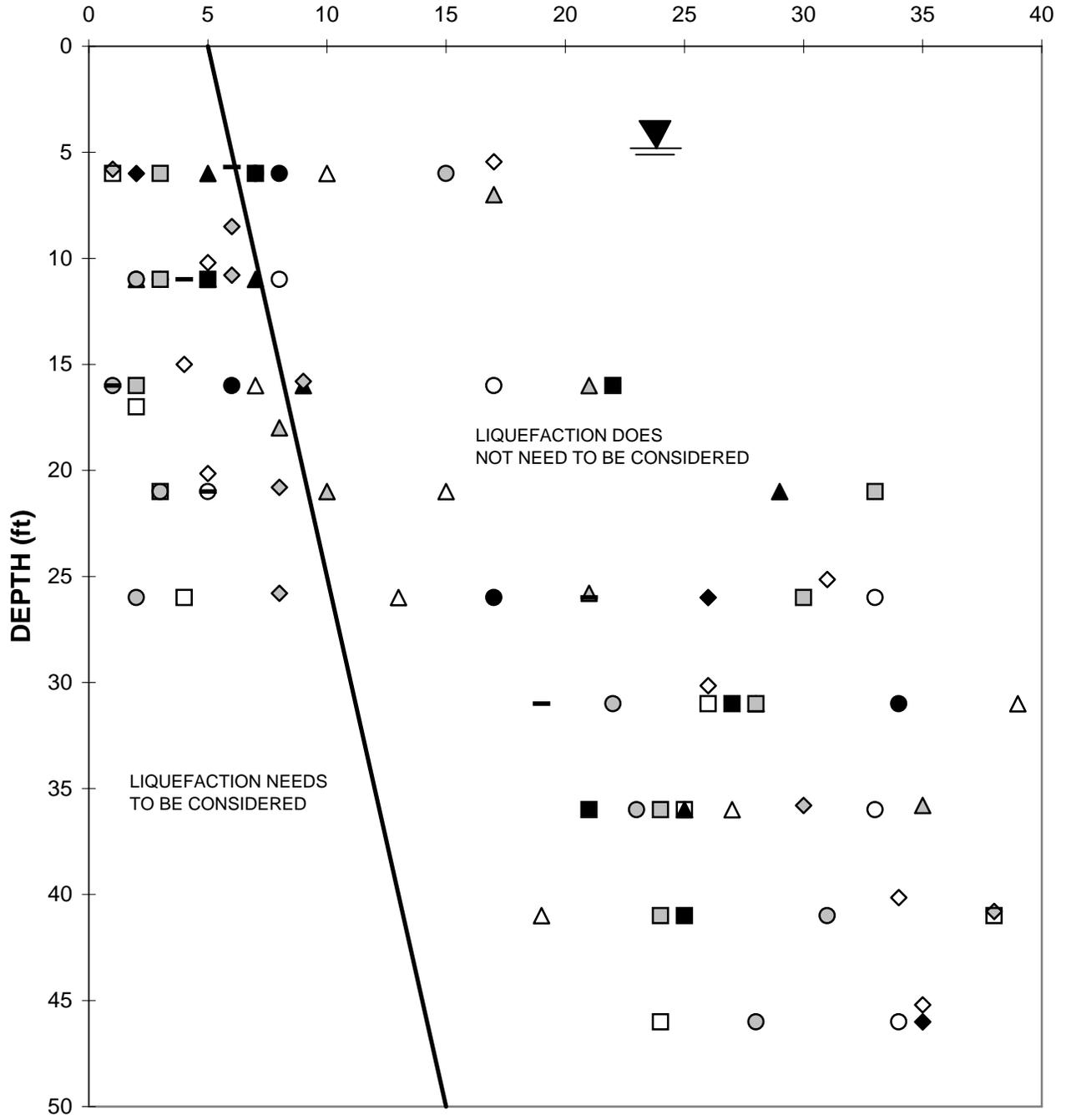


GENERALIZED SUBSURFACE PROFILE A-A'  
544 UNION AVENUE, BROOKLYN, N.Y.

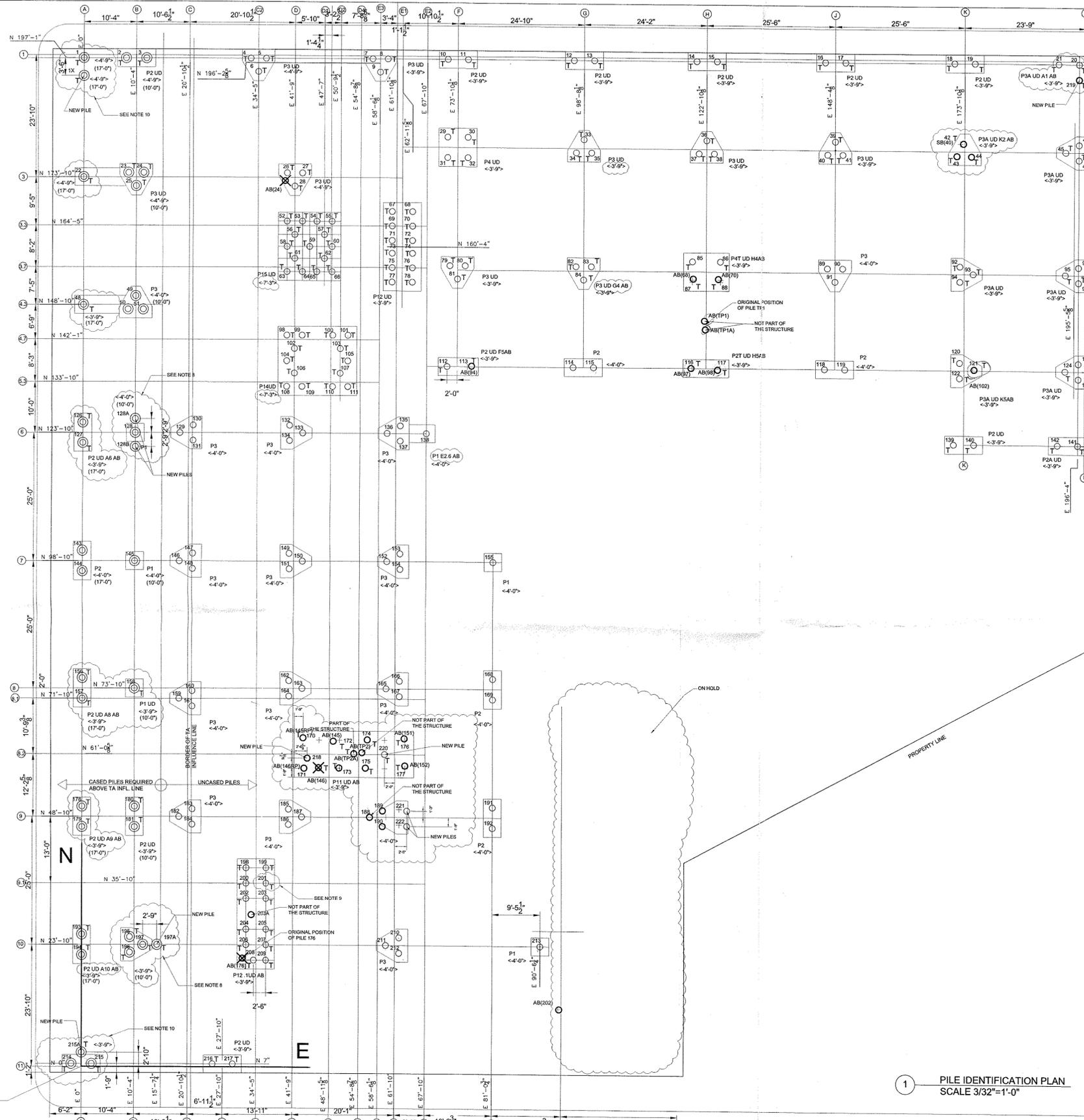
**URS**  
WAYNE, NEW JERSEY

DR. BY	ET	SCALE	AS SHOWN	DWG. NO. 84803004	PROJ. NO. 19684803
CK'D. BY	CH	DATE	DEC. 16, 2005	FIG. NO.	3

Uncorrected N-Value (bpf)



<b>SOIL LIQUEFACTION POTENTIAL</b> <b>544 UNION AVENUE</b> <b>BROOKLYN, NEW YORK</b>		
 URS WAYNE, NJ		
DR. BY: CLH	SCALE: As Shown	PROJ NO: 19684803
CHK'D BY: TGT	DATE: 7/11/2007	FIG NO: 4

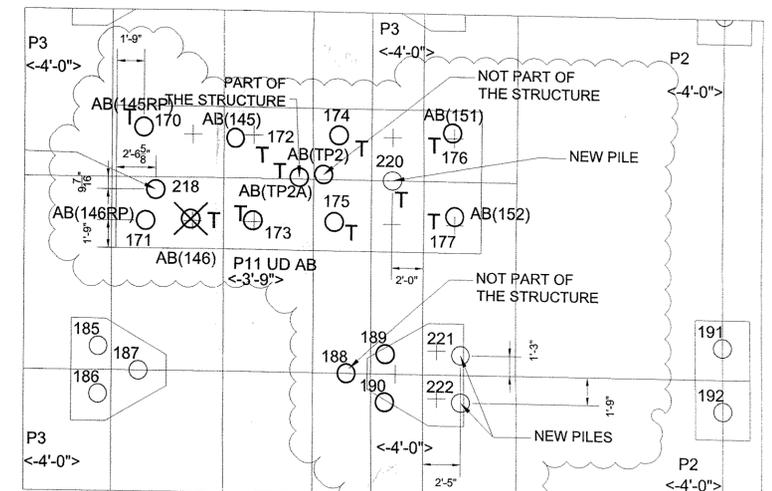


**NOTES :**

1. TOP ELEVATION OF PILE CAPS AND GRADE BEAMS -1'-0"
2. ALL PILES -70 TON ALLOWABLE
3. ENGINEERS/ARCHITECTS PLEASE CHECK PILE COORDINATES AND CUT OFF ELEVATION
4. MINIMUM O.D FOR CASING 24"
5. FOR PILE DETAIL SEE CONTRACT DRAWING S-310 REV.14 ON 11/29/2007
6. REJECTED PILES TO BE FULLY GROUTED
7. COORDINATES OF THE PILES ARE MEASURED TO THE NORTH AND EAST FROM THE (0,0) POINT LOCATED AT THE INTERSECTION OF COLUMN LINES A AND 11. THIS SYSTEM OF COORDINATES IS IN PLACE SINCE THE BEGGING OF THE JOB (REVISION 0) AND HAS NOT BEEN CHANGED. THE DEVIATIONS OF THE PILES ARE IN FEET FROM THE ORIGINAL POSITION OF THE PILE IN RESPECT TO THE SAME SYSTEM OF COORDINATES.
8. AFTER RESTRIKE, IF THE PILES 128 AND/OR 197 ARE REJECTED BY THE ENGINEER, THE PILES 128A, 128B AND/OR 197A WILL BE INSTALLED AS CORRECTIVE ACTION.
9. IF AFTER RESTRIKE THE PILES 201 IS REJECTED, THE ENGINEER WILL RECOMMEND CORRECTIVE ACTIONS.
10. IF THE FINAL DEVIATIONS OF PILES 1 AND/OR 215 ARE NOT ACCEPTABLE TO THE ENGINEER, PILES 1X AND/OR 215A WILL BE INSTALLED AS CORRECTIVE ACTION.

**LEGEND :**

- DENOTES 70 TON 14" O.D. TAPER TUBE PILE IN ORIGINAL POSITION.
- ⊙ DENOTES 70 TON 14" O.D. TAPER TUBE PILE IN CASING IN ORIGINAL POSITION
- T DENOTES PILE WITH TENSION REINFORCEMENT
- AB(XXX) AB DENOTES AS BUILT PILE AND (XXX) IS THE NO. OF PILE FROM REV.3 DRAWING
- ( ) DENOTES LENGTH OF CASING
- < > DENOTES CUT OFF ELEVATION
- ⊗ DENOTES REJECTED PILES
- DENOTES PILES IN AS BUILT POSITIONS
- PXX UD DENOTES PILE CAPS WITH TENSION REINFORCEMENT
- + DENOTES ORIGINAL POSITION OF THE PILE



1 PILE IDENTIFICATION PLAN SCALE 3/32"=1'-0"

2 DETAIL AT P11 UD AB SCALE 3/16"=1'-0"

DESIGNED \_\_\_\_\_  
 DRAWN SR  
 CHECKED AF  
 PROJ. ENGR. AF

SCALE  
 3/32"=1'-0"



**UNDERPINNING & FOUNDATION SKANSKA**

46-36 54TH ROAD MASPETH, NY 11378 PHONE: (718) 786-6557 FAX: (718) 786-6981

544 UNION AVE  
 BROOKLYN NEW YORK  
 TAPERTUBE PILE  
 PILE IDENTIFICATION PLAN

DATE: 08/08/2007  
 DWG. NO.: 300909-PIP-001  
 SHEET NO.: 1 OF 2  
 JOB NO.: 300909-5.5

7	02/13/08	AS PER ENGINEER	A.F.
6	02/06/08	COORDINATION	A.F.
5	1/8/08	AS PER ENGINEER	A.F.
4	12/7/07	REDESIGN AT 70 TON	A.F.
3	10/01/07	AS PER ENGINEER	SR
2	09/07/07	AS PER ENGINEER	SR
1	08/30/07	AS PER ENGINEER	SR
NO.	DATE	ISSUED FOR	BY

**APPENDIX A**  
**TEST BORING LOGS**

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Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-1

Sheet 1 of 4

Date(s) Drilled	12/5/05 - 12/6/05	Logged By	M. Chowdhury	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Aquifer Drilling & Testing, Inc.	Coordinates	North: East:
Casing Size/Type	4 in steel	Drill Rig Operator	Gopal	Total Depth Drilled (feet)	102.0 Rock Depth (feet) n/a
Drill Rig Type	Mobile B-61	Drill Bit Size/Type	3 7/8 in Tricone	Sampler Type(s)	2 in O.D. Split Spoon
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in S	Casing Hammer Wt/Drop	300 lb / 30 in S Core Barrel Size/Type n/a
Boring Location and Comments	See Plan			No. of Samples	Dist.: Undist.:0 Core (ft):0

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								(SC) brown to yellow, clayey SAND, some silt. (Fill) [11-65]					
	S-1	0.5	2 2 3 4										
5								(CL-ML) brown, low plasticity SILTY CLAY, trace f. sand. [9-65 to 10-65]					
	S-2	1.5	4 3 2 2										
10								(SM) brown, c. to f. SAND, some silt, tr. f. gravel. [7-65]			16	29	
	S-3	1.0	3 3 4 2										
15								(SC-SM) brown silty-clayey c. to f. SAND, some f. gravel. (7-65)	20	16	20	34	
	S-4	1.0	4 6 3 3										
20								(SM) brown, m-f SAND, some gravel, trace clay, trace silt. (7-65)					
	S-5	0.2	10 14 15 23										
25								(SM) brown, silty f. SAND, some clay. (8-65)					
	S-6	1.2	15 27 18 17										
30													

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-1

Sheet 2 of 4

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
30	S-7	1.0	12 13 15 14					(SC) light brown, clayey SAND, trace silt. [9-65]					
35	S-8	1.2	8 11 14 21					Same as above.					
40	S-9	1.5	21 28 22 27					(SM) brown, silty f. SAND, trace clay. (8-65)					
45	S-10	1.8	21 27 35 34					Same as above.					
50	S-11	1.7	19 23 24 26					(SP-SM) brown, m-f SAND, trace silt, trace f. gravel. (7-65)					Rig chatters from 47' to 49', probable boulder.
55	S-12	1.5	24 28 40 44					Same as above.					
60	S-13	0.0	68 66 100/5"					No recovery.					
65													Boulder from 62' to 65'.

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-1

Sheet 3 of 4

Depth, feet	Soil Samples				Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)								
65	S-14	0.0	50/0"					No recovery.						
70	S-15	0.0	50/0"					No recovery.						Probable boulder from 68' to 70'.
75	S-16	1.0	46 74 100/5"					(ML) brown, f. sandy SILT. some clay.(10-65)						
80	S-17	0.7	49 100/5"					Same as above.						
85	S-18	0.8	56 100/5"					(SM) brown, silty f. SAND. (8-65)						
90	S-19	0.6	90 100/4"					Same as above.						
95	S-20	0.8	64 100/5"					Same as above.						
100														

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-1

Sheet 4 of 4

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
	S-21	1.5	24 29 40 46					(CH) gray, high plasticity CLAY, trace silt. (9-65)					Upon completion, installed a 30 ft groundwater observation well.
105								End of boring @ 102 feet BGS.					
110													
115													
120													
125													
130													
135													

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-2

Sheet 1 of 2

Date(s) Drilled	12/7/05 - 12/8/05	Logged By	J. Ciampi	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Aquifer Drilling & Testing, Inc.	Coordinates	North: East:
Casing Size/Type	3 and 4 in steel	Drill Rig Operator	J. Philben	Total Depth Drilled (feet)	52.0
Drill Rig Type	Davey DK 515	Drill Bit Size/Type	3 7/8 in Tricone	Sampler Type(s)	2 in O.D. Split Spoon/ 3 in D. Shelby Tube
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	140 lb / 30 in Donut
Boring Location and Comments	See Plan	Core Barrel Size/Type	n/a	No. of Samples	Dist.: 11 Undist.: 1 Core (ft): 0

Depth, feet	Soil Samples				Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RCD (%)								
0								Concrete floor slab						
	S-1	0.8	4 5 11 28					Black to brown gravelly c. to f. SAND, some red brick and cinders (FILL) (11-65)						
5	S-2	0.0	6 4 3 14					No recovery						
10	S-3	0.1	1 1 4 7					Brown c. to f. SAND, some red brick (FILL) (11-65)						
15	S-4	0.8	29 15 7 12					Brown c. to f. SAND, some f. gravel and red brick (FILL) (11-65)						3" O.D. SS used
20	S-5	1.2	1 3 4 6					(OH) Dk. brown to black ORGANIC silty CLAY, some fibers, tr. f. sand (11-65)						
	U-1	2.0	P U S H											
25	S-6	1.5	4 4 4 5					(OH) Green ORGANIC silty CLAY (11-65)						
30														

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-2

Sheet 2 of 2

Depth, feet	Soil Samples				Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)								
30	S-7	0.9	14 14 13 14					(SM) Green c. to f. SAND, some organic clay, tr. f gravel (7-65)			14	18		
35	S-8	0.3	11 10 11 17					(SM) Brown silty m. to f. SAND, tr. f. gravel (7-65)						
40	S-9	0.7	14 25 100/6"					(SM) Greenish brown silty m. to f. SAND, tr. c. to f. gravel (7-65)					Rig chatter	
45	S-10	1.1	19 35 38 41					(SM) Green silty c. to f. SAND, tr. f gravel (7-65)						
50	S-11	1.3	39 47 42 84					(SM) Green silty m. to f. SAND (7-65)						
								End of boring 52 feet below existing floor slab						
55														
60														
65														

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-3

Sheet 1 of 2

Date(s) Drilled	12/8/05 - 12/9/05	Logged By	J. Ciampi	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Aquifer Drilling & Testing, Inc.	Coordinates	North: East:
Casing Size/Type	4 in steel	Drill Rig Operator	J. Philben	Total Depth Drilled (feet)	52.0
Drill Rig Type	Davey DK 515	Drill Bit Size/Type	3 7/8 in Tricone	Rock Depth (feet)	n/a
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	140 lb / 30 in Donut
Boring Location and Comments	See Plan	Sampler Type(s)	2 in O.D. Split Spoon/ 3 in D. Shelby Tube	Core Barrel Size/Type	n/a
				No. of Samples	Dist.: 11 Undist.: 0 Core (ft): 0

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	0.7	4 22 6 4					Brown c. to f. gravelly, c. to f. SAND, some red brick (FILL) (11-65)					
5	S-2	0.3	6 5 3 5					Brown to black c. to f. SAND, some cinders (FILL) (11-65)					
10	S-3	0.0	3 1 1 2					No recovery					
15	S-4	0.3	7 3 3 3					Black c. to f. SAND, some cinders and red brick (FILL) (11-65)					
20	S-5A	0.8	5 12					(OH) Dk. green ORGANIC silty CLAY (11-65)	78	49	82	38	
	S-5B	0.8	16 18					(SM) Green silty m. to f. SAND (7-65)			17	22	
25	S-6	0.4	1 4 13 19					(SM) Brown silty c. to f. SAND, some f. gravel (7-65)					
30													Rig chatter

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-3

Sheet 2 of 2

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
30	S-7	0.7	45 20 14 22					(SM) Brown silty m. to f. SAND, tr. f gravel (7-65)					Rig chatter
35	S-8	0.9	29 23 21 24					(SM) Brown silty m. to f. SAND (7-65)					
40												Boulder from 40 to 42 feet	
	S-9		27 47 51 76					(SM) Brown silty c. to f. SAND, some c. to f. gravel (7-65)					
45	S-10A	0.4	26					(CL) Red CLAY, some f. sand to silt, tr. f gravel (9-65)					
	S-10B	0.8	29 60 70				(SM) Brown silty m. to f. SAND, tr. f. gravel						
50	S-11	0.8	99 63 73 53					(SM) Brown silty c. to f. SAND, some c. to f. gravel and weathered rock (7-65)					
								End of boring 52 feet below existing floor slab					
55													
60													
65													

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-4

Sheet 1 of 2

Date(s) Drilled	12/12/05	Logged By	J. Ciampi	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Aquifer Drilling & Testing, Inc.	Coordinates	North: East:
Casing Size/Type	4 in steel	Drill Rig Operator	J. Philben	Total Depth Drilled (feet)	52.0
Drill Rig Type	Davey DK 515	Drill Bit Size/Type	3 7/8 in Tricone	Rock Depth (feet)	n/a
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	140 lb / 30 in Donut
Boring Location and Comments	See Plan	Sampler Type(s)	2 in O.D. Split Spoon/ 3 in D. Shelby Tube		
		Core Barrel Size/Type	n/a		
		No. of Samples	Dist.: 10 Undist.: 1 Core (ft): 0		

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	0.5	100/6"					Brown c. to f. sandy, c. to f. gravel (FILL) (11-65)					
5	S-2	0.3	1 1 1 3					Black cinders, some f. gravel to f. sand (FILL) (11-65)					
10	S-3	0.3	1 1 2 3					Same as above					
15	S-4	1.0	1 2 3 5					(PT) Brown PEAT (11-65)					
20	U-1	2.0	P U S H					(PT) Brown PEAT (11-65)	66	30	49	84	Consolidation test
								(OH) Green ORGANIC silty CLAY, some f. sand (11-65)					
25	S-5	1.6	8 12 14 14					(SM) Green silty m. to f. SAND (7-65)					
30													Rig chatter

Project: 544 Union Avenue  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-4

Sheet 2 of 2

Depth, feet	Soil Samples				Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)								
30	S-6	1.4	20 30 30 41					(SM) Brown silty c. to f. SAND, tr. c. to f. gravel (7-65)						
35	S-7	0.7	16 19 26 27					(SM) Brown silty m. to f. SAND (7-65)						
40	S-8	0.3	100/6"					(SM) Brown silty c. to f. SAND, some c. to f. gravel (7-65)						
45	S-9	0.3	14 20 15 18					Same as above						
50	S-10	0.3	19 19 36 47					(SM) Brown silty m. to f. SAND						
								End of boring 52 feet below existing floor slab						
55														
60														
65														

Rig chatter and slow drilling from 40.5 to 44 feet

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

**Log of Boring B-5**  
 Sheet 1 of 1

Date(s) Drilled	6/29/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:
Casing Size/Type	NA	Drill Rig Operator	Luis Muniz	Total Depth Drilled (feet)	0.9
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8 in Tricone	Rock Depth (feet)	
Groundwater Level and Date Measured	NA	Hammer W/Drop	NA	Casing Hammer W/Drop	NA
Boring Location and Comments	See Plan			No. of Samples	Dist.: 0 Undist.: 0 Core (ft): 0

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
								Paving stone					
								End of boring 0.85 ft below existing floor slab.					
5													
10													
15													
20													
25													
30													

Date(s) Drilled	6/29/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates North: East:
Casing Size/Type	NA	Drill Rig Operator	Luis Muniz	Total Depth Drilled (feet) 1.0    Rock Depth (feet)
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8 in, 3 7/8 in Tricone	Sampler Type(s) 2 in OD Split Spoon
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop NA
Boring Location and Comments	See Plan			No. of Samples Dist: 0    Undist.: 0    Core (ft): 0

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0	S-1	0.2	50/2.5				0	Concrete floor slab					
								Brown silty GRAVEL, some f. to c. sand, trace metal (FILL) (11-65)					
								Paving stone					
								End of boring 1 ft below existing floor slab.					
5													
10													
15													
20													
25													
30													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-5B

Sheet 1 of 2

Date(s) Drilled	7/6/07 - 7/9/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:
Casing Size/Type	4 in Steel	Drill Rig Operator	Luis Muniz	Total Depth Drilled (feet)	57.0 Rock Depth (feet)
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8 in, 3 7/8 in Tricone	Sampler Type(s)	2 in OD Split Spoon
Groundwater Level and Date Measured	6 ft 7/10/2007	Hammer	140 lb / 30 in W/Drop Donut	Casing Hammer	W/Drop 300 lb / 24 in
Boring Location and Comments	See Plan	No. of Samples	Dist.: 11 Undist.: Core (ft):		

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS	
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)								
0								Concrete floor slab						
								Paving stone						Possible foundation or paving. Cobble has squared and finished side painted orange.
	S-1	0.6	6 10 7					Top 0.4': (SM) Brown silty f. to c. SAND, some gravel (FILL) [11-65] Bot 0.2': (ML) Black silt, trace burnt wood (FILL) [11-65]						
5	S-2	0.5	3 2 1 3					(SC) Gray f. to c. SAND, some clay, trace shell fragments, wood, brick fragments [9-65]						
10	S-3	0.2	3 2 1 2					(SC) Gray f. to c. SAND, some clay, gravel, trace brick fragments [9-65]						
15	S-4	NR	3 1 1 1					No recovery						Two attempts at same depth with no recovery.
20	S-5	1.0	3 8 25 6					Top 0.35': (Pt) Black PEAT, some organic silt, trace f. - m. sand [11-65] Mid 0.45': (SC) Black to light gray organic clayey f. to c. SAND, some gravel, trace pocket red silty f. to c. sand [9-65] Bot 0.2': (OH) Light gray high plasticity organic silty CLAY, trace f. to c. sand [11-65]						
25	S-6	1.0	24 14 16 17					(SP-SM) Brown f. to c. SAND, trace silt [7-65]						
30														

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-5B

Sheet 2 of 2

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)		REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)					% Fines		
30	S-7	0.7	12 15 13 16					(SM) Brown silty f. to c. SAND, some gravel, with occasional seam of brown SILT (ML) (1/2") and pocket of brown CLAY (CL) [6-65]					
35	S-8	1.0	14 10 14 17					(CH) Red & gray high plasticity CLAY with frequent seams (1/8" to 1/16") of brown silty f. SAND (SM) [9-65]					
40	S-9	1.1	7 10 14 30					Top 0.9': (CL) Brownish gray medium plasticity silty CLAY, some f. to c. sand [9-65] Bot 0.2': (SM) Brown silty f. to m. SAND, trace c. sand with occasional seams (1/4" to 1/8") of red brown medium plasticity CLAY (CL) [7-65]					
45	S-10	1.2	25 26 31 24					Top 0.8': (SM) Brown f. to m. SAND, some silt, trace c. sand, clay, with frequent seams (1/2" to 1/4") brown f. to c. SAND, trace silt (SP-SM) [7-65] Bot 0.4': (SP-SM) Brown f. to c. SAND, trace silt with occasional pocket of red SILT, trace mica (ML) [7-65]					
50	S-11	1.0	5 9 17 19					(CH) Medium stiff red high plasticity CLAY, with occasional pockets of gray high plasticity CLAY (CH); and pockets of medium plasticity brown f. sandy CLAY (CL) [9-65]					PP < 0.25 tsf. Pocket Penetrometer value does not correspond to blow counts.
55	S-12	1.3	8 12 17 25					Top 0.7': (CL) Stiff gray medium plasticity f. sandy CLAY, some mica [9-65] Bot 0.6': (CH) Very stiff light gray high plasticity CLAY, trace mica [9-65]					Top: PP = 1.75 tsf Bot: PP = 2.75 tsf
								End of boring 57 ft below existing floor slab.					
60													
65													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-6

Sheet 1 of 2

Date(s) Drilled	6/26/07 - 6/28/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:
Casing Size/Type	4 in Steel	Drill Rig Operator	Luis Muniz	Total Depth Drilled (feet)	56.8
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8 in, 3 7/8 in Tricone	Sampler Type(s)	2 in OD Split Spoon
Groundwater Level and Date Measured	4 ft 6/28/2007	Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in
Boring Location and Comments	See Plan	No. of Samples	Dist: 12	Undist: Core (ft):	

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	0.6	9 5 8 5					(SM) Light brown to brown, silty f. to m. SAND, trace concrete fragment, brick fragment, pocket yellow brown clay (FILL) [11-65]					
5	S-2	0.6	12 11 6 2					(ML) Gray f. to c. sandy SILT, some clay, trace black charcoal, yellowish brown shell fragments (FILL) [11-65]					
10	S-3	0.4	1 1 1 1					(SM) Gray organic silty f. to c. SAND, some shell fragments, wood fragments [7-65]					
15	S-4	NR	2 5 16 10										
	S-5	1.2	13 3 5 7					(Pt) Dark gray to brown ROOT MAT, with occasional dark gray low plasticity organic silty CLAY seams (1/8") (CL) [11-65]					
20	S-6	NR	4 5 5					Top 0.7': (Pt) Dark brown PEAT [11-65]					Sample S-6 from 20' - 22' had no recovery. Second attempt (S-7) was made from 21' - 22'.
	S-7	1.4	7					Mid 0.15': (OH) Gray to brown medium plasticity organic silty CLAY, some f. to c. sand, trace mica [11-65] Bot 0.55': (OH) Gray, medium plasticity organic silty CLAY, trace f. sand, roots, mica [11-65]					
25	S-8	1.1	7 10 11 9					(SP-SM) Brown to red f. to m. SAND, trace silt, with occasional seams of light grayish brown CLAY (CL) [7-65]					
30													Rig chatter at 28.15 ft. Possible gravel layer.



Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-7

Sheet 1 of 2

Date(s) Drilled	6/29/07 - 7/2/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:
Casing Size/Type	4 in Steel	Drill Rig Operator	Luis Muniz	Total Depth Drilled (feet)	56.6
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8 in, 3 7/8 in Tricone	Rock Depth (feet)	
Groundwater Level and Date Measured	4 ft 7/6/2007	Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in
Boring Location and Comments	See Plan	Sampler Type(s)	2 in OD Split Spoon		
		Core Barrel Size/Type	NA		
		No. of Samples	Dist.: 12 Undist.: Core (ft):		

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	1.0	3 7 9 14					Top 0.2': (SM) Brown silty c. to f. SAND, some gravel, trace slag (FILL) [11-65] Bot 0.8': (SP-SM) Dark brown f. to c. SAND, trace silt, brick fragments (FILL) [11-65]					
5								No recovery					
	S-2	NR	2 1 1/12"										
	S-3	0.2	4 3 3 4					(CL) Brown medium plasticity f. to c. sandy CLAY (FILL) [11-65]					
10								(SM) Brown silty c. to f. SAND (FILL) [11-65]					Losing drilling mud from 10' to 15'.
	S-4	0.2	6 3 3 3										Something wedged in 4-in casing; possibly wood.
15								(SM) Dark gray silty f. to c. SAND, some fiber textile fragments (FILL) [11-65]					
	S-5	0.3	14 6 3 3 6										
20								(Pt) Black PEAT [11-65]					No recovery 1st attempt from 20' - 22'. 2nd attempt from 21' - 23'.
	S-6	1.6	2 3 5 7										
25								(SM) Dark gray organic silty f. to m. SAND, trace clay [7-65]					
	S-7	1.2	6 3 5 3										
30													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-7

Sheet 2 of 2

Depth, feet	Soil Samples				Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)		REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							%	
30	S-8	0.7	14 12 30 34					(SM) Brownish gray silty f. to c. SAND, trace gravel [7-65]						
35	S-9	0.8	12 14 16 19					(SM) Brown silty f. to c. SAND, trace gravel with occasional pocket red silty f. sand [7-65]						
40	S-10	0.9	7 12 26 31					Varved layers & seams of: red high plasticity CLAY (CH) (4" to 2"); brown f. to c. SAND, some silt (SM) (3/4" to 1/4"); brown f. sandy SILT (ML) (1/2" to 1/8"); medium plasticity silty CLAY (CL) (1/8" to 1/16"); and partings of f. SAND, trace silt (SP-SM) [9-65]						42' to 42.4' rig chatter; possible gravel layer. 42.9' to 43.2' rig chatter & slow drilling; possible boulder.
45	S-11	0.9	21 26 23 26					(SM) Brown f. to m. SAND, some silt, trace gravel, c. sand [7-65]						
50	S-12	1.3	28 37 58 61					Top 0.6': (SM) Brown c. to f. SAND, some silt, trace gravel [7-65] Bot 0.7': (SC) Gray clayey f. to c. SAND [9-65]						
55	S-13	1.8	32 140 98 100/3"					Top 0.5': (SM) Dark brownish gray silty f. to c. SAND [7-65] Bot 1.3': (SC) Dark greenish gray clayey f. to c. SAND, trace gravel [9-65] End of boring 56.55 ft below existing floor slab.						
60														
65														

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-8

Sheet 1 of 2

Date(s) Drilled	6/29/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)			
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:		
Casing Size/Type	4 in Steel	Drill Rig Operator	Antonio Berris	Total Depth Drilled (feet)	57.0	Rock Depth (feet)	
Drill Rig Type	DK 50	Drill Bit Size/Type	3 7/8 in Tricone	Sampler Type(s)	2 in OD Split Spoon		
Groundwater Level and Date Measured	4.4 ft 7/2/2007	Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in		
Boring Location and Comments	See Plan			No. of Samples	Dist.: 12 Undist.: Core (ft):		

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0	S-1	0.7	17 6 7 4					(SM) Light brown to dark brown, f. to c. SAND, some gravel, silt, siag (FILL) [11-65]					
5	S-2	0.8	4 10 5 6					(SM) Dark gray to black, silty f. to m. SAND with slight petroleum odor (FILL) [11-65]					
10	S-3	0.5	1/12" 2 3					(CL) Brown medium plasticity f. to c. sandy CLAY, trace porcelain fragment (FILL) [11-65]					
15	S-4	1.0	1/12" 1/12"					(Pt) Brown ROOT MAT [11-65]					
20	S-5	1.6	WH 1 2 2					Top 1.2': (Pt) Black & brown PEAT, some clay [11-65] Bot 0.4': (CL) Dark gray medium plasticity CLAY, some brown peat [11-65]					
25	S-6	1.6	1 2 1/12"					(OL) Soft gray medium plasticity silty clay [11-65]					PP = 0.5 tsf
30													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-8

Sheet 2 of 2

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
30	S-7	0.7	9 10 12 9					(SP-SM) Brown f. to c. SAND, some gravel, trace silt [6-65]					
35	S-8	0.6	10 14 9 18					(SC) Light brownish gray f. to m. SAND, some clay, gravel, trace c. sand [9-65]					
40	S-9	0.9	16 16 15 16					Interbedded layers of: Light brownish gray f. to m. SAND, some clay, gravel, trace c. sand (SC) (2 1/2" to 2"); and brown f. to m. SAND, some silt (SM) (2 3/8") [9-65]					
45	S-10	1.2	16 15 13 18					(SP-SM) Brown f. to c. SAND, trace silt [7-65]					
50	S-11	1.3	40 52 50 59					(SC) Dark greenish gray f. to c. SAND, some clay [9-65]					
55	S-12	1.3	44 69 67 50/2-3/8"					Stiff varved seams of: Brown f. SAND, some silt, trace mica (SM) (1/8" to 1/2"); and light red brown medium plasticity silty CLAY (CL) (1/16") [9-65]					
								End of boring 57 ft below existing floor slab					
60													
65													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-9

Sheet 1 of 4

Date(s) Drilled	7/5/07 - 7/9/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:
Casing Size/Type	4 in Steel	Drill Rig Operator	Antonio Berris	Total Depth Drilled (feet)	102.0
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8", 3 7/8", 2 7/8" Tricone	Sampler Type(s)	2 in OD Split Spoon
Groundwater Level and Date Measured	4.5 6/29/2007	Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in
Boring Location and Comments	See Plan	No. of Samples		Dist.: 22	Undist.: Core (ft):

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	0.9	1 1 6 10					(SM) Dark brown & red f. to c. SAND, some slag, silt (FILL) [11-65]					
5	S-2	0.8	3 5 5 10					(SM) Red to olive green silty f. c. SAND, some gravel [11-65]					
10	S-3	0.7	5 3 2 3					(SC) Light grayish brown clayey f. to m. SAND, some shell fragments, trace pockets yellow silty m. sand, vegetable fibers [11-65]					10' - 18.5' mix of organic and fill.
15	S-4	0.4	2 3 4 2					(SM) Gray silty f. to c. SAND, some brick fragments, trace gravel, shell fragments [11-65]					
20	S-5	0.1	6 8 7 9					(Pt) Dark brown PEAT [11-65]					
25	S-6	1.6	7 6 7 5					Top 0.9': (SM) Gray organic silty f. to c. SAND, trace vegetation interbedded with layers (1") of organic SILT, some clay, f. sand (OL) [11-65] Mid 0.4': (OL) Gray f. sandy organic SILT [11-65] Bot 0.25': (OL) Gray organic SILT, some clay, trace vegetation varved with seams (1/8") of high plasticity organic silty CLAY (OH) [11-65]					
30													



Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-9

Sheet 3 of 4

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
65	S-14	1.3	20 32 45 40					(SC) Gray clayey f. to c. SAND interbedded with layer (2") of medium plasticity gray silty CLAY, trace f. to c. sand (CL) [9-65]					64'. After reaming out casing, 7 ft of sand flowed up into casing.
70	S-16	1.3	13 31 100/3"					Top 0.8': (SP-SM) Brown f. to c. SAND, trace silt [7-65] Bot 0.5': (SC) Grayish brown f. to c. SAND, some silt, gravel [9-65]					Sample S-15 at 67.5' had refusal (50 blows per 1/2"). Boulder from 67.5' - 68'. Lost mud 69' - 75'.
75	S-17	1.0	37 100/6"					Top 0.5': (SP-SM) Brown f. to m. SAND, trace silt [7-65] Bot 0.5': (SM) Greenish brown silty f. to c. SAND, trace gravel [7-65]					
80	S-18	NA	13 71 50/2"					(SP-SM) Brown f. to m. SAND, trace silt, mica [7-65]					Running sands from 80' - 100'. 3-in casing advanced to sampling depth before each sample. Sand running up into casing 1' to 3' after casing reamed out with 2 7/8" bit.
85	S-19	1.5	34 34 45 71					Same as above					
90	S-20	1.5	20 20 25 35					(SP-SM) Brown f. SAND, trace mica, silt [8-65]					Fine sand coming up in wash water. Tub emptied & fresh revert drilling mud mixed 3 times between 80' & 100'.
95	S-21	2.0	8 6 17 25					Same as above					
100													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-9

Sheet 4 of 4

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
	S-22	1.5	36 17 14 28					(SP-SM) Brown f. SAND, trace c. sand, mica, silt [8-65]					
105								End of boring 102 ft below existing floor slab.					
110													
115													
120													
125													
130													
135													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-10

Sheet 1 of 2

Date(s) Drilled	7/2/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:
Casing Size/Type	4 in Steel	Drill Rig Operator	Antonio Berris	Total Depth Drilled (feet)	57.0 Rock Depth (feet)
Drill Rig Type	DK 50	Drill Bit Size/Type	3 7/8 in Tricone	Sampler Type(s)	2 in OD Split Spoon
Groundwater Level and Date Measured	5 ft 7/9/2007	Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in Core Barrel Size/Type NA
Boring Location and Comments	See Plan			No. of Samples	Dist.: Undist.: Core (ft):

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	0.5	16 50/3"					(SM) Brown silty f. to c. SAND, trace gravel (FILL) [11-65]					
5								No Recovery					Lost wash water return at 4'.
	S-2	NR	2 1 1/12"					No Recovery					* Pushed spoon.
	S-3	NR	*					No Recovery					
10								(GP) Dark gray small to medium GRAVEL, some c. to f. sand, trace porcelain fragments, metal (FILL) [11-65]					
	S-4	0.3	NA					(SC) Brown clayey f. to m. SAND, some gravel (FILL) [11-65]					
	S-5	0.1	P U S H					(GP) Dark gray medium gravel, some c. to f. sand, shell fragment (FILL) [11-65]					Two attempts at same depth. Poor recovery.
15								(GP) Dark gray medium gravel, some c. to f. sand, shell fragment (FILL) [11-65]					
	S-6	0.1	5 1 1 1 1					(GP) Dark gray medium gravel, some c. to f. sand, shell fragment (FILL) [11-65]					
20								Top 0.95': (Pt) Black PEAT[11-65] Bot 0.3': (OL) Soft dark brownish gray medium plasticity organic silty CLAY, some roots [11-65]					Bot: PP = 0.25 tsf
	S-7	1.3	WH 1 2 4					(SM) Gray organic silty f. to c. SAND interbedded with seams (1/2" to 1/8") of f. sandy CLAY (OL) [9-65]					
25								(SM) Gray organic silty f. to c. SAND interbedded with seams (1/2" to 1/8") of f. sandy CLAY (OL) [9-65]					
	S-8	1.3	2 1 3 4					(SM) Gray organic silty f. to c. SAND interbedded with seams (1/2" to 1/8") of f. sandy CLAY (OL) [9-65]					
30													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-10

Sheet 2 of 2

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS	
	Type Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)								
30	S-9	1.1	11 14 12 12					(SM) Brown silty f. to c. SAND, trace gravel [7-65]						
35	S-10	0.8	16 12 13 15					(SM) Brown silty f. to c. SAND, trace gravel with occasional layers (1/2") of f. to c. sandy CLAY (CL) [7-65]						
40	S-11	1.3	22 18 20 29					(SM) Brown silty f. to c. SAND, trace gravel with occasional seams (1/2" to 1/8") of yellow silty f. to m. SAND (SM), layers (1/2") of red medium plasticity CLAY (CL), and pockets of green silty f. SAND (SM) [7-65]						
45	S-12	1.2	15 13 11 14					(SM) Brown silty f. to c. SAND, trace gravel, clay [7-65]						
50	S-13	1.1	16 17 15 17					(SM) Brown f. to c. SAND, some gravel, silt [6-65]						
55	S-14	1.4	17 21 30 28					(SP-SM) Brown f. to c. SAND, trace gravel, silt [7-65]						
								End of boring 57 ft below existing floor slab						
60														
65														

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-11

Sheet 1 of 2

Date(s) Drilled	7/2/07 - 7/3/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:
Casing Size/Type	4 in Steel	Drill Rig Operator	Luis Muniz	Total Depth Drilled (feet)	55.8
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8", 3 7/8", 2 7/8" Tricone	Sampler Type(s)	2 in OD Split Spoon
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in
Boring Location and Comments	See Plan			No. of Samples	Dist.: 11 Undist.: Core (ft):

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	0.8	5 6 7 5					(SM) Brown to reddish brown silty f. to c. SAND with layer (1") of black burnt wood (FILL) [11-65]					
5	S-2	0.8	10 12 5 3					(SM) Brown silty f. to c. SAND with layer (1 1/2") of dark brownish gray fiber textile with strong petroleum odor (FILL) [11-65]					
10	S-3	NR	7 4 1					No recovery					
	S-4	NR	U S H					No recovery					
15	S-5	1.5	6 2 2 2					(SC) Brownish gray clayey f. to c. SAND, some gravel (FILL) [11-65]					
20	S-6	1.2	4 2 3 7					(Pt) Dark brown PEAT [11-65]					
25	S-7	0.3	11 13 18 19					(CL) Dark gray medium plasticity f. to c. sandy CLAY, some gravel [9-65]					Gravel stuck in tip of spoon.
30			8					(SM) Brown silty f. to c. SAND, trace gravel, clay [7-65]					

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-11

Sheet 2 of 2

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
30	S-8	0.8	12 13										
35	S-9	1.0	1 42 23 29					(SM) Interbedded seams of red silty f. to c. SAND (1/2" to 1/4") and light reddish brown silty f. to m. SAND (1/4" to 1/8") [7-65]					Possible boulder at 33.8'. Very hard drilling. Broke through at 34.3'. Rig chatter 34.5' - 54.3'; possible cobbles. Borehole caving in repeatedly at approx. 35 ft.
40	S-10	0.9	28 15 19 15					(SP-SM) Brown f. to c. SAND, trace gravel, silt with occasional seams (1/16") of red silty f. to m. SAND (SM) [7-65]					Rig chatter from 38.8' - 39.1'; possible gravel layer.
45	S-11	0.9	17 19 16 18					(SP-SM) Reddish brown f. to c. SAND, trace silt, gravel [7-65]					
50	S-12	1.1	17 15 17 23					(SP-SM) Brown f. to c. SAND, trace gravel, silt [7-65]					
55	S-13	1.2	45 50 74 46					(SP-SM) Brown f. to c. SAND, trace silt interbedded with layers (1 1/2") of brown f. SAND, some silt, trace mica (SM) and green f. to m. SAND, some clay (SC) [7-65]					
								End of boring 55.8 ft below existing floor slab					
60													
65													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-12

Sheet 1 of 2

Date(s) Drilled	7/3/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)	
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates North: East:	
Casing Size/Type	4 in Steel	Drill Rig Operator	Antonio Berris	Total Depth Drilled (feet)	51.5
Drill Rig Type	DK 50	Drill Bit Size/Type	4 7/8 in, 3 7/8 in Tricone	Rock Depth (feet)	
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in
Boring Location and Comments	See Plan			Sampler Type(s)	2 in OD Split Spoon
				Core Barrel Size/Type	NA
				No. of Samples	Dist.: 11 Undist.: Core (ft):

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	1.6	5 14 25 23					(SM) Brown to light brown silty f. to c. SAND, some brick fragments, trace gravel (FILL) [11-65]					
5	S-2	0.6	2 3 4 10					(SM) Gray silty f. to c. SAND, some black charcoal (FILL) [11-65]					
10	S-3	0.4	4 3 5 6					(SM) Gray to dark gray silty f. to c. SAND, trace brick fragments (FILL) [11-65]					
15	S-4	0.8	20 12 5 4					(CL) Light brownish gray to gray silty CLAY, some f. sand, brick fragments with frequent seams & layers (1/16" to 1") silty f. to c. SAND (SM) (FILL) [11-65]					
20	S-5	1.7	2 3 2 5					(Pt) Brown to dark brown PEAT [11-65]					Strong organic odor.
25	S-6	1.0	18 17 16 12					Top 0.6': (SM) Dark grayish brown f. to c. SAND, some silt, trace gravel, clay [7-65] Bot 0.4': (SM) Brown silty f. to c. SAND, some gravel [6-65]					Rig chatter at 23.5'.
30													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

## Log of Boring B-12

Sheet 2 of 2

Depth, feet	Soil Samples				Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)								
30	S-7	0.9	26 19 30 32					Top 0.6': (SM) Brown f. to c. SAND, some silt, trace gravel with occasional seams (1/8") reddish brown medium plasticity silty CLAY (CL) [7-65] Bot 0.3': (SC) Light grayish brown f. to c. SAND, some clay [9-65]						
35	S-8	0.8	17 17 16 21					(SC) Brown f. to c. SAND, some clay, trace gravel, mica with layers (1") of red highly plastic CLAY (CH) & brown f. to c. SAND, trace silt (SP-SM) [9-65]						
40	S-9	1.1	40 35 42 50					(SM) Brownish gray f. to m. SAND, some silt, trace gravel with occasional seams of small gravel (GP) (3/4" to 1/4") [7-65]						Rig chatter at 41'.
45	S-10	0.5	21 18 16 19					(SP-SM) Brown f. to c. SAND, trace gravel, silt [7-65]						
50	S-11	NA	40 33 100/6"					(SC) Green f. to c. SAND, some clay, large gravel interbedded with occasional seams of yellow silty f. to m. SAND (SM) (1/2" to 1/4"); brownish gray f. to c. SAND, some clay (SC) (1/8"); brownish gray high plasticity silty CLAY (CH) (1/8"); & pocket of pink SILT (ML) [9-65] End of boring 51.5 ft below existing floor slab						
55														
60														
65														

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

# Log of Boring B-13

Sheet 1 of 2

Date(s) Drilled	7/5/07 - 7/6/07	Logged By	CL Hawk	Approximate Surface Elevation (feet)			
Drilling Method	Mud Rotary	Drilling Contractor	Warren George Inc	Coordinates	North: East:		
Casing Size/Type	4 in, 3 in Steel	Drill Rig Operator	Luis Muniz	Total Depth Drilled (feet)	62.0	Rock Depth (feet)	
Drill Rig Type	DK 50	Drill Bit Size/Type	3 7/8 in Tricone	Sampler Type(s)	2 in OD Split Spoon		
Groundwater Level and Date Measured		Hammer Wt/Drop	140 lb / 30 in Donut	Casing Hammer Wt/Drop	300 lb / 24 in		
Boring Location and Comments	See Plan			No. of Samples	Dist: 13 Undist.: Core (ft):		

Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type, Number	Recov. (ft)	Pen. Resist (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0								Concrete floor slab					
	S-1	0.4	5 5 18 7					(SP-SM) Gray to dark gray gravelly f. to c. SAND, trace silt (FILL) [11-65]					
5	S-2	0.3	12 3 3 2					Black fiber textile & brick fragments, some f. to c. SAND, trace silt (FILL) [11-65]					
10	S-3	NR	1 2 2 2					No recovery					
	S-4	0.2	P U S H					(CL) Brown medium plasticity silty CLAY, some f. to c. SAND [11-65]					
15	S-5	1.7	1/12" 1 2					(Pt) Brown to dark brown PEAT [11-65]					
20	S-6	0.7	2 2 3 6					Top 0.15': (Pt) Dark brown PEAT [11-65] Bot 0.55': (OH) Dark gray to light gray high plasticity organic silty CLAY, trace gravel with frequent seams (1/8" to 1/16") silty f. to m. SAND (SM) [11-65]					Bot: pp = 0.25 tsf
25	S-7	0.6	18 12 9 11					(SM) Brown silty f. to c. SAND, some gravel, trace pocket green silty f. to c. SAND [6-65]					
30													

Project: 544 Union Ave  
 Project Location: Brooklyn, NY  
 Project Number: 19684803

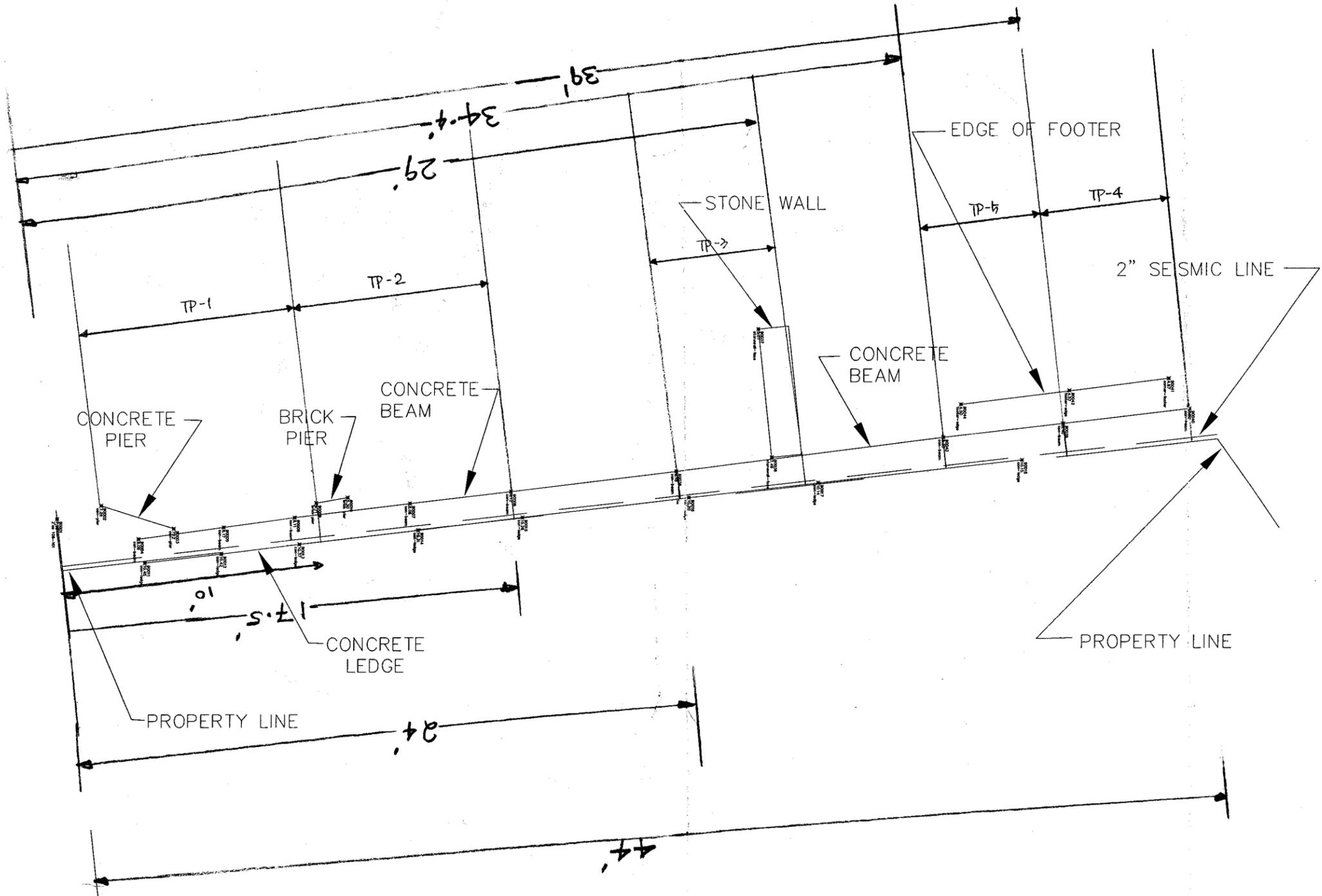
## Log of Boring B-13

Sheet 2 of 2

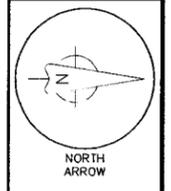
Depth, feet	Soil Samples			Rock Coring			Graphic Log	MATERIAL DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS/ OTHER TESTS
	Type Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
30	S-8	1.1	8 6 13 20					Top 0.3': (SM) Brown silty f. to c. SAND, trace clay [7-65] Bot 0.8': Medium stiff, varved seams of: Red medium plasticity silty CLAY, trace gravel (CL) (3/8" to 1/4"); brown silty f. SAND (SM) (1/4" to 1/8"); and partings of brown f. to m. SAND, trace silt (SP-SM) [9-65]					Heavy rig chatter 32' - 33'; possible gravel/cobble zone.
35	S-9	1.1	19 16 25 26					(SP-SM) Brown f. to m. SAND, trace silt, mica with occasional partings green silty f. to m. SAND (SM) [7-65]					
40	S-10	0.4	25 26 22 40					(SM) Brown f. to c. SAND, some gravel, silt with occasional seam (1/16") green silty f. to c. SAND [6-65]					
45	S-11	NR	100/1"					No recovery					
50	S-12	1.2	25 37 45 36					(SP-SM) Brown f. to m. SAND, trace silt, mica [7-65]					
55	S-13	0.6	24 31 26 39					(CL) Brownish gray medium plasticity CLAY, some silt, f. to c. sand, trace gravel with occasional pocket of red silty clay					Rig chatter at 57'; possible gravel layer.
60	S-14	1.2	47 38 44 55					(CL) Brownish gray medium plasticity silty CLAY, some gravel, f. to c. sand interbedded with layers of reddish brown SILT, trace mica (ML) (2") and red silty f. to c. SAND (SM) (1" to 1/2") and occasional pockets of yellow silty f. SAND [9-65] End of boring 62 ft below existing floor slab					Rig chatter from 59' - 59.5'. Down pressure 1100 psi. Possible boulder.
65													

**APPENDIX B**  
**TEST PIT LOGS**

---



Date: 11-27-2007 11:30 AM 3122m Path Name: N:\PROJECTS-Correl\2552-Hud-544 Union Ave\Drawings\11-27-07-Layout Tab - D SITE



Rev. No.	Date	Revision

**Paul Emilius Jr.**  
 Professional Land Surveyor  
 N.Y. License No. 50203

(IN FEET)  
 1 inch = 2 ft.

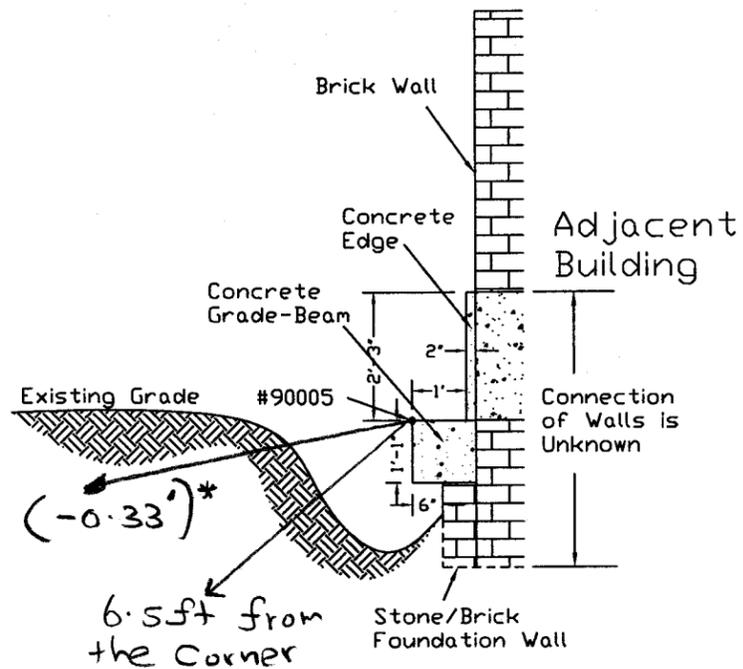
**Layout Inc.**  
 Professional Land Surveyors  
 Construction Surveying Specialists  
 Civil Engineers  
 205-C Chubb Ave. and Floor  
 Lyndhurst, NJ 07071  
 Ph: 201-933-1146 - Fax: 201-933-1145

**Grade Beam Sketch**  
 Located At:  
**544 Union Avenue**  
**Brooklyn, New York**  
 Prepared For:  
**Hudson Meridian**  
**Address**  
**Town, State**

Drawn By: JWS  
 Checked: BMD  
 Scale: 1" = 2'  
 Date: 11-27-2007  
 Proj No.: 2553  
 Page: 1 of 1

NOTE: First Floor Level = El. + 8.5

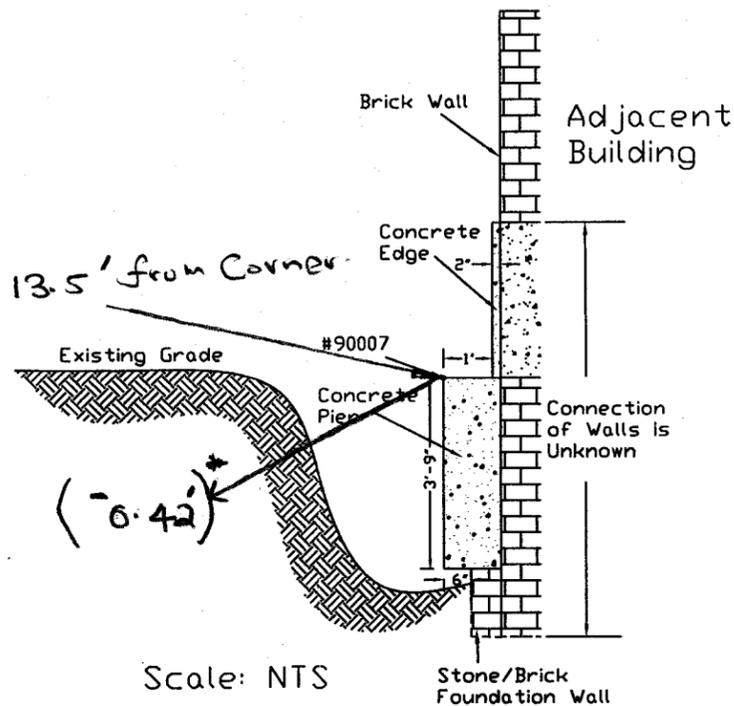
TEST PIT #1 (Cross-Section A-A')  
6.5 ft from Corner



Scale: NTS

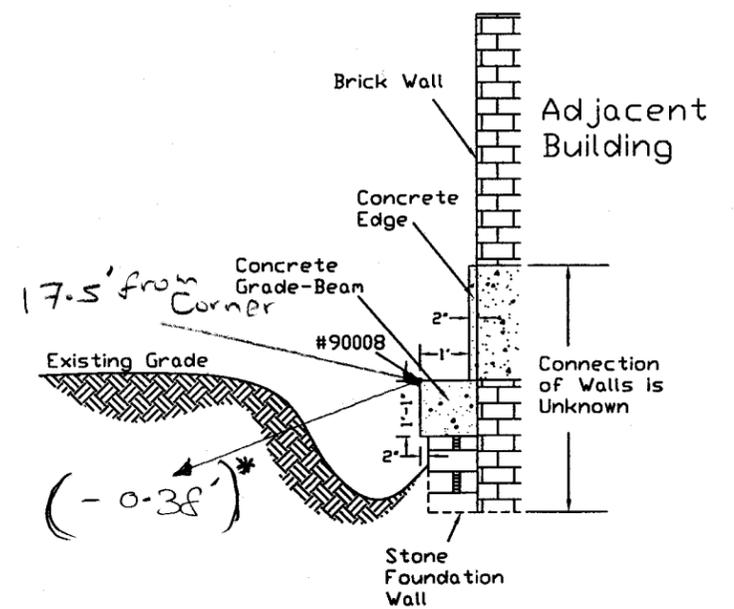
\* Vertical distance below 1<sup>st</sup> Floor level

TEST PIT #2 (Cross-Section A-A')  
13.5 ft from Corner



Scale: NTS

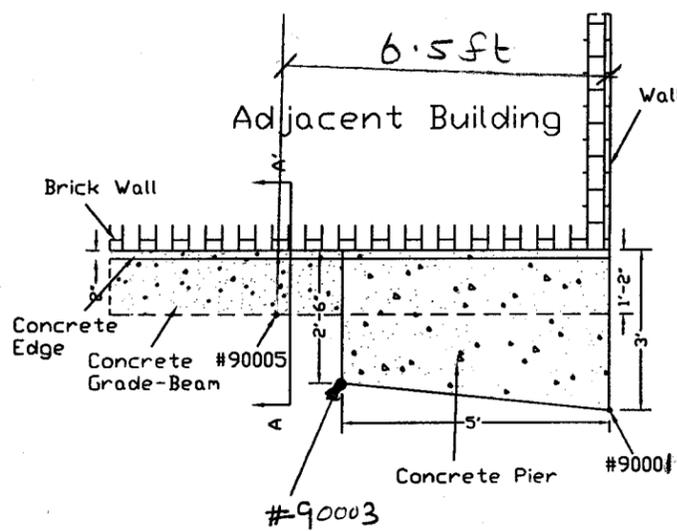
TEST PIT #2 (Cross-Section B-B')  
17.5' from Corner



Scale: NTS

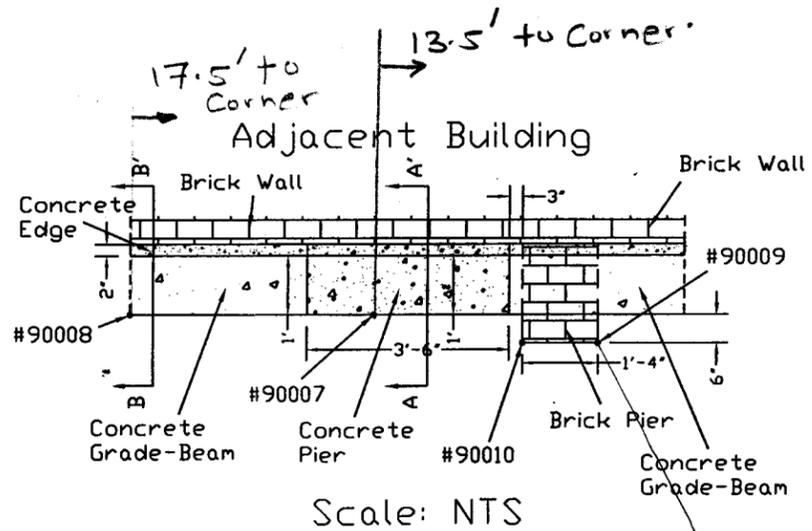
\* Vertical Distance below 1<sup>st</sup> FLOOR LEVEL

TEST PIT #1 (Plan)



Scale: NTS

TEST PIT #2 (Plan)



Scale: NTS

NOTES:

- #90010 (TYP.) ARE IDENTIFICATION NUMBERS USED BY LAYOUT INC. LAND SURVEYORS (SEE ATTACHED DRAWING)
- TEST PIT PICTURES ATTACHED SEPERATELY

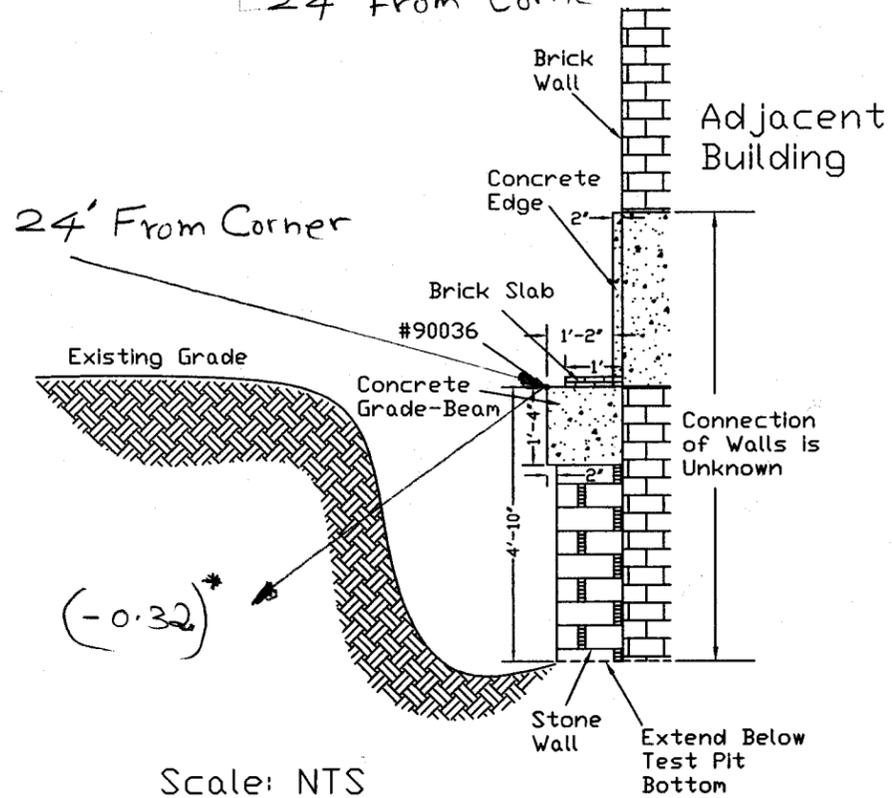
TEST PIT #1 & #2  
31 WITHERS STREET FOUNDATION  
544 UNION AVENUE  
BROOKLYN, NEW YORK

**URS**  
WAYNE, NEW JERSEY

DR. BY	SCALE	NTS	DWG. NO.	PROJ. NO. 11100056
CK'D. BY	DATE	NOVEMBER 30, 2007	FIG. NO.	02

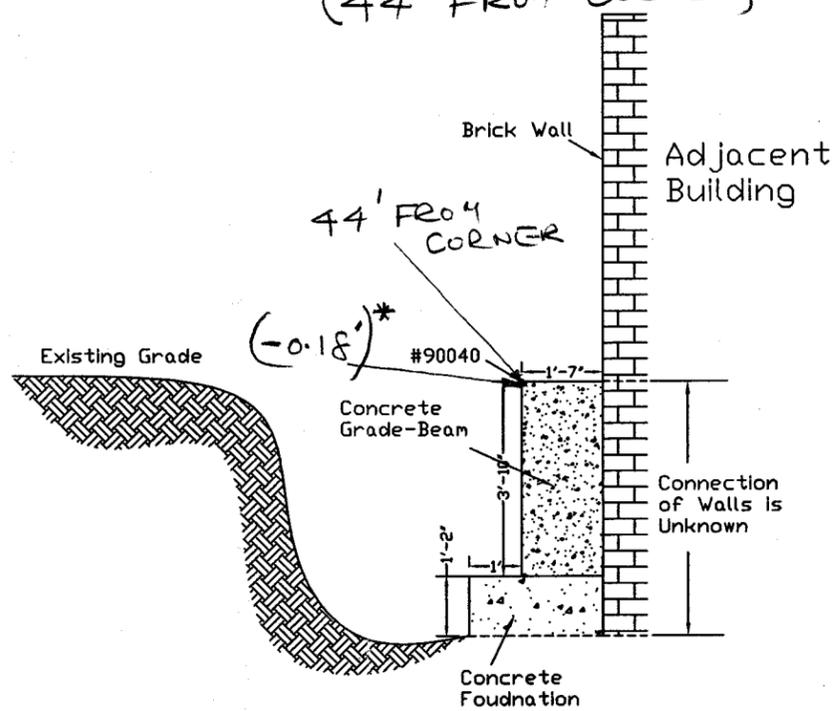
Note: First Floor Level = EL. + 8.5

TEST PIT #3 (Cross-Section A-A')  
24' From Corner



Scale: NTS

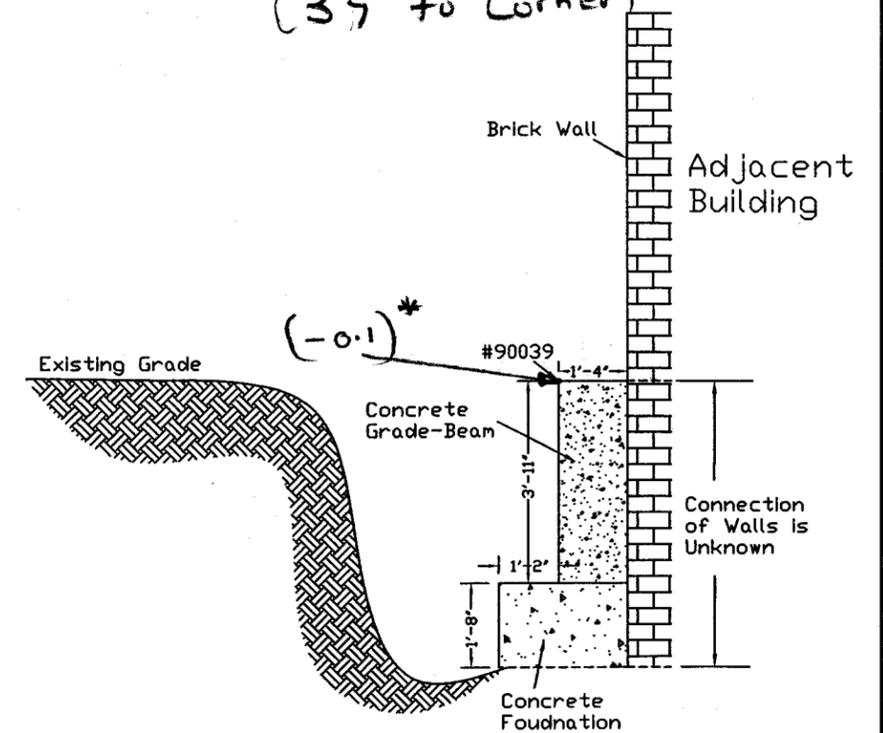
TEST PIT #4 (Cross-Section)  
(44' FROM CORNER)



Scale: NTS

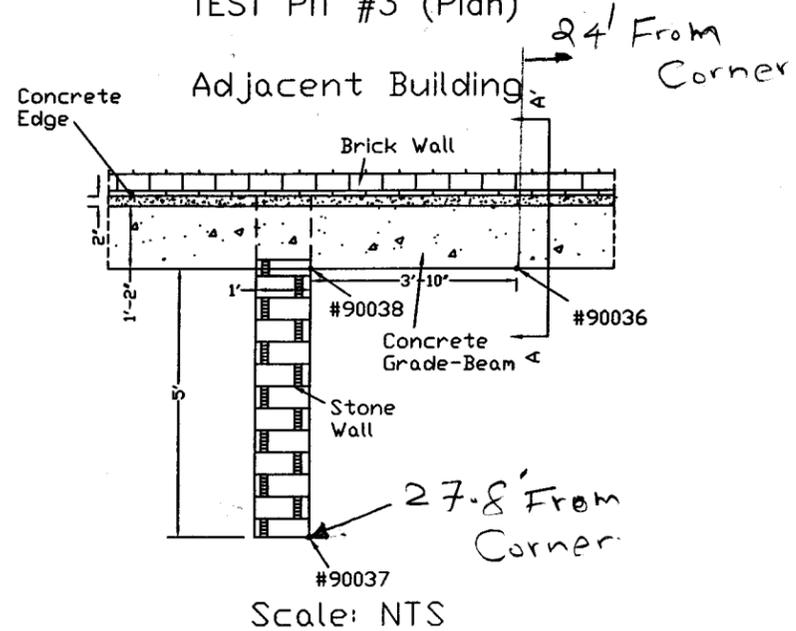
\* Vertical distance below 1<sup>ST</sup> Floor Level

TEST PIT #5 (Cross-Section)  
(39' to Corner)



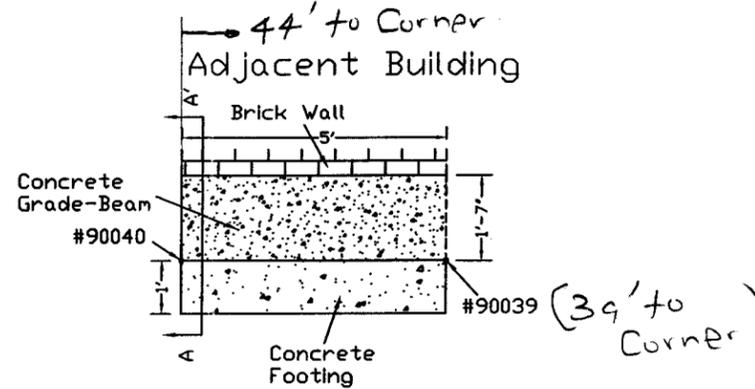
Scale: NTS

TEST PIT #3 (Plan)



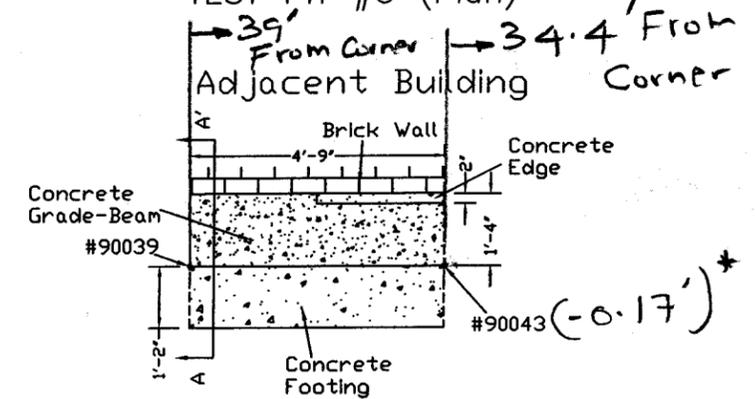
Scale: NTS

TEST PIT #4 (Plan)



Scale: NTS

TEST PIT #5 (Plan)



Scale: NTS

NOTES:

- #90010 (TYP.) ARE IDENTIFICATION NUMBERS USED BY LAYOUT INC. LAND SURVEYORS (SEE ATTACHED DRAWING)
- TEST PIT PICTURES ATTACHED SEPERATELY

TEST PIT #3, #4, & #5  
31 WITHERS STREET FOUNDATION  
544 UNION AVENUE  
BROOKLYN, NEW YORK

**URS**  
WAYNE, NEW JERSEY

DR. BY	SCALE	NTS	DWG. NO.	PROJ. NO. 11100056
CK'D. BY	DATE	NOVEMBER 30, 2007	FIG. NO.	→

# LOG OF TEST PIT: TP-1



PROJECT AND LOCATION 544 Union Avenue, Brooklyn, NY		ELEVATION (FT)	PROJECT NUMBER 11100056
EXCAVATING CONTRACTOR	APPROXIMATE TEST PIT LOCATION See test pit location plan	DATE STARTED 11/27/2007	DATE COMPLETED 11/27/2007
INSPECTOR Vai Navaratnam		NO. OF BAG SAMPLES N/A	NO. OF JAR SAMPLES N/A



COMPLETION DEPTH 36" DEPTH TO WATER N/A

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# LOG OF TEST PIT: TP-3



PROJECT AND LOCATION 544 Union Avenue, Brooklyn, NY		ELEVATION (FT)	PROJECT NUMBER 11100056
EXCAVATING CONTRACTOR	APPROXIMATE TEST PIT LOCATION See test pit location plan	DATE STARTED 11/27/2007	DATE COMPLETED 11/27/2007
INSPECTOR Vai Navaratnam		NO. OF BAG SAMPLES N/A	NO. OF JAR SAMPLES N/A



COMPLETION DEPTH 58"

DEPTH TO WATER N/A

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# LOG OF TEST PIT: TP-4



PROJECT AND LOCATION 544 Union Avenue, Brooklyn, NY		ELEVATION (FT)	PROJECT NUMBER 11100056
EXCAVATING CONTRACTOR	APPROXIMATE TEST PIT LOCATION See test pit location plan	DATE STARTED 11/27/2007	DATE COMPLETED 11/27/2007
INSPECTOR Vai Navaratnam		NO. OF BAG SAMPLES N/A	NO. OF JAR SAMPLES N/A



COMPLETION DEPTH 60' DEPTH TO WATER N/A

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**APPENDIX C**  
**LABORATORY TEST RESULTS**

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**544 Union Avenue, Brooklyn, NY**

**LABORATORY TESTING DATA SUMMARY**

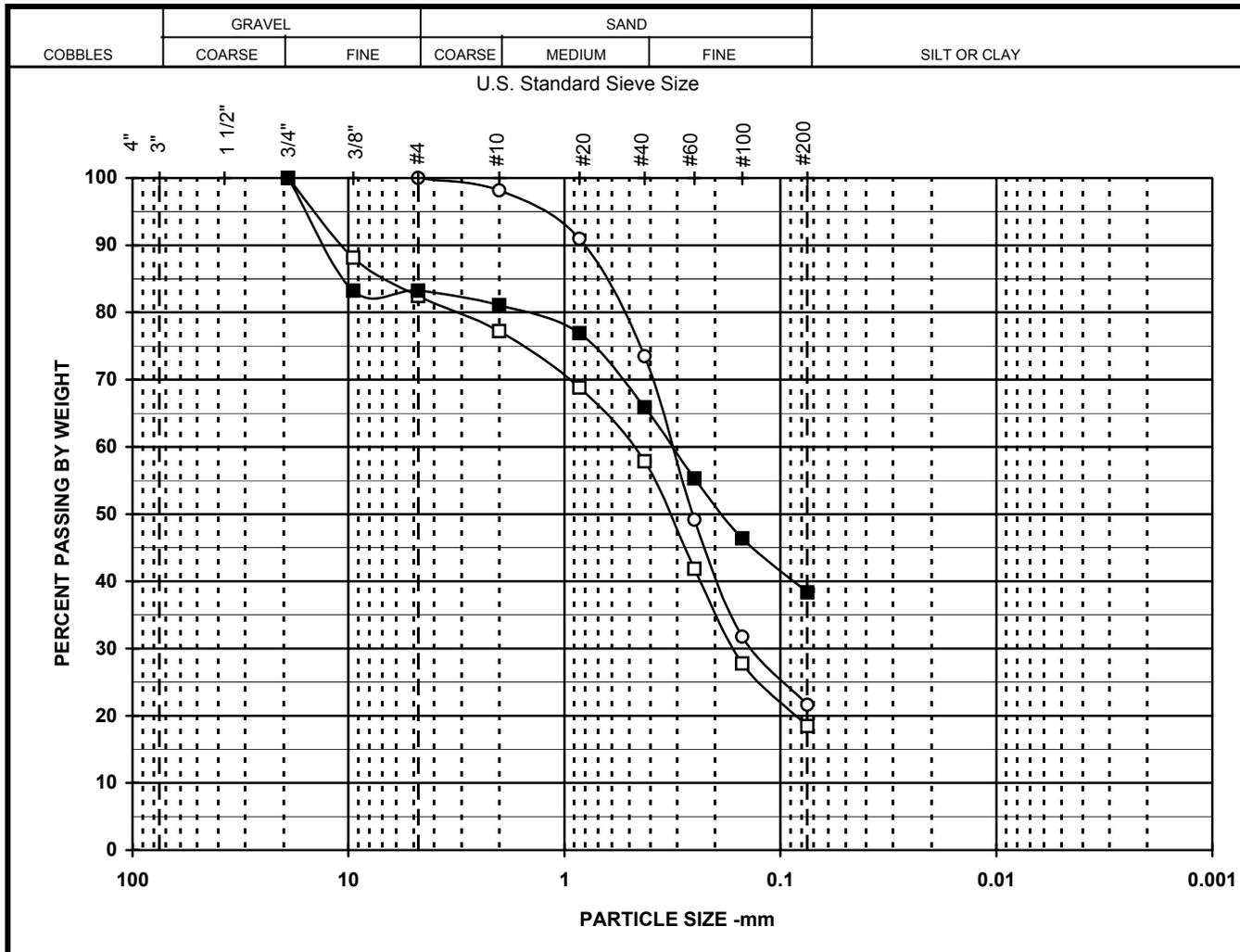
BORING NO.	SAMPLE NO.	DEPTH (ft)	IDENTIFICATION TESTS						REMARKS
			WATER CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLAS. IND.	USCS SYMB. (1)	SIEVE MINUS NO. 200 (%)	
B-1	S-3	10-12	15.9				SM	28.9	
B-1	S-4	15-17	20.0	20	16	4	SC-SM	34.4	

Note: (1) USCS symbol based on visual observation and Sieve reported.

**544 Union Ave.  
Brooklyn, NY  
LABORATORY TESTING DATA SUMMARY**

BORING NO.	SAMPLE NO.	DEPTH (ft)	IDENTIFICATION TESTS								CONSOL.		REMARKS	
			WATER CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLAS. IND.	USCS SYMB. (1)	SIEVE MINUS NO. 200 (%)	TOTAL UNIT WEIGHT (pcf)	DRY UNIT WEIGHT (pcf)	Method	INITIAL CONDITIONS		
												VOID RATIO		SATUR-ATION
B-2	S-7	30-32	13.8				SM	18.4						
B-3	S-5A	20-21	81.5	78	49	29	PT	38.4						
B-3	S-5B	21-22	16.8				SM	21.6						
B-4	U-1	20-22							96.2					
B-4	U-1	20.6	54.1											
B-4	U-1	21.15	430.0											
B-4	U-1C	21.4	48.8	66	30	36	CH	83.9	108.2	72.7	D2435	1.404	97	C05279
B-4	U-1	21.7	34.2											

Note: (1) USCS symbol based on visual observation and Sieve and Atterberg limits reported.



Symbol	□	■	○
Boring	B-2	B-3	B-3
Sample	S-7	S-5A	S-5B
Spec			
Depth	30-32	20-21	21-22
% +3"			
% Gravel	17.6	16.8	
% SAND	64.0	44.8	78.4
% FINES	18.4	38.4	21.6
% -2μ			
Cc			
Cu			
LL		78	
PL		49	
PI		29	
USCS	SM	PT	SM
w (%)	13.8	81.5	16.8

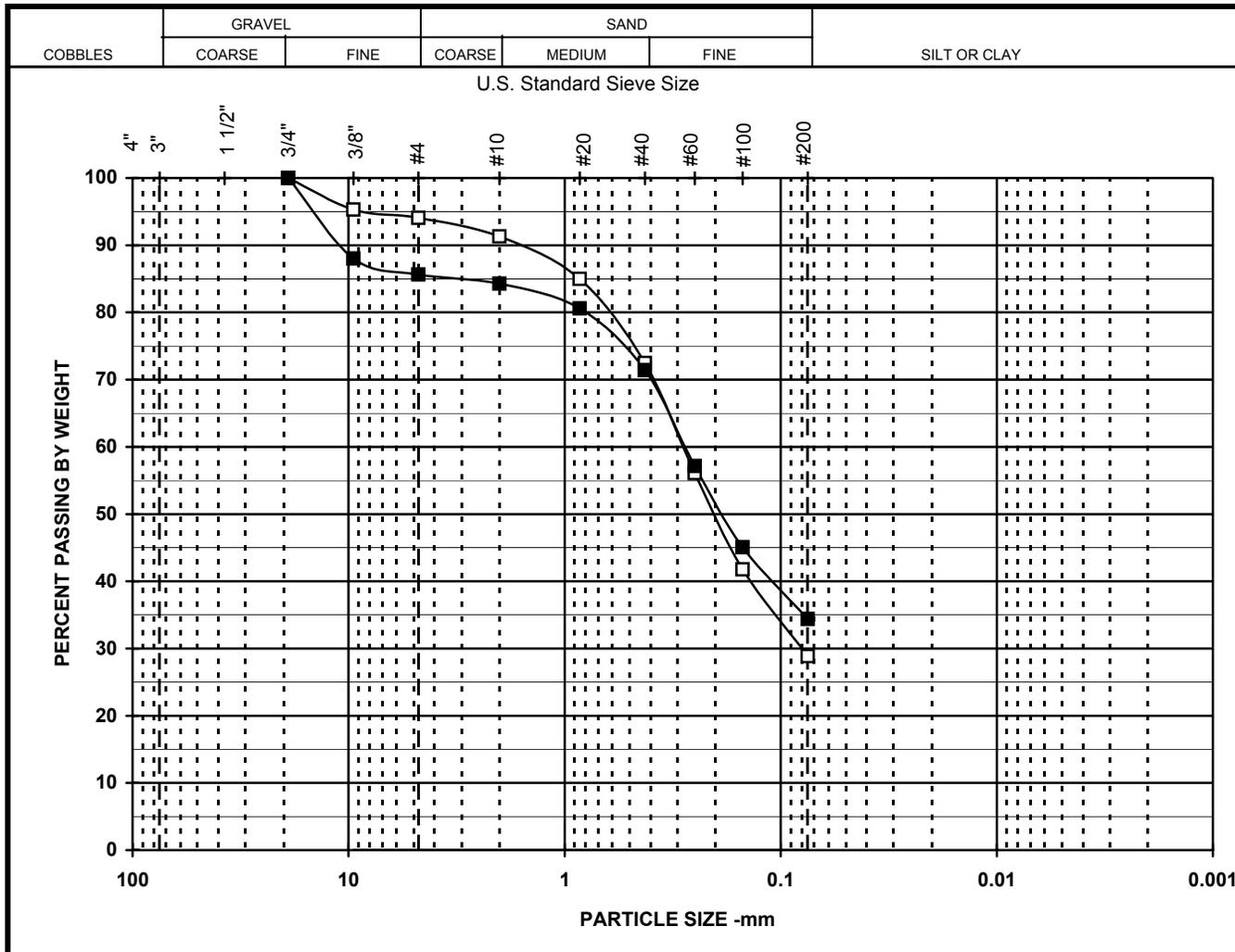
Particle Size (Sieve #)	PERCENT FINER		
	□	■	○
4"			
3"			
1 1/2"			
3/4"	100.0	100.0	
3/8"	88.1	83.2	
4	82.4	83.2	100.0
10	77.2	81.1	98.2
20	68.8	76.9	90.9
40	57.9	65.9	73.5
60	41.8	55.3	49.1
100	27.8	46.4	31.8
200	18.4	38.4	21.6

SYMBOL	DESCRIPTION AND REMARKS
□	gray c-f SAND, some f. grave, silt.
■	black silty sandy PEAT, some f. gravel.
○	gray c-f SAND, some silt.

**PARTICLE SIZE DISTRIBUTION**  
544 Union Avenue, Brooklyn, NY

Project No.	19684803	January 2006	Figure
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**URS Corporation**

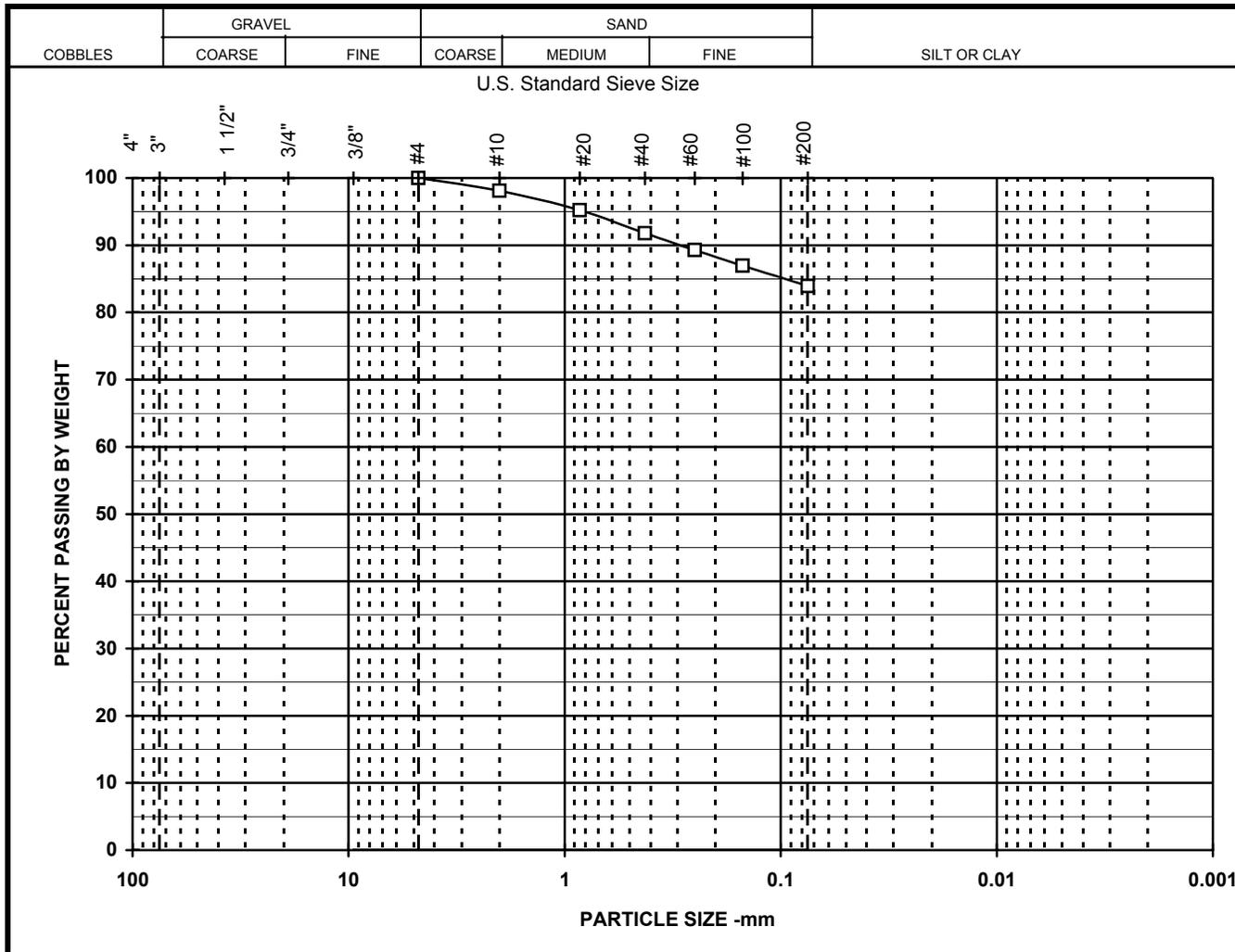


Symbol	□	■	○
Boring	B-1	B-1	
Sample	S-3	S-4	
Spec			
Depth	10-12	15-17	
% +3"			
% Gravel	5.9	14.4	
% SAND	65.2	51.2	
% FINES	28.9	34.4	
% -2μ			
Cc			
Cu			
LL		20	
PL		16	
PI		4	
USCS	SM	SC-SM	
w (%)	15.9	20.0	

Particle Size (Sieve #)	PERCENT FINER		
	□	■	○
4"			
3"			
1 1/2"			
3/4"	100.0	100.0	
3/8"	95.3	88.0	
4	94.1	85.6	
10	91.3	84.3	
20	85.0	80.6	
40	72.5	71.4	
60	56.1	57.1	
100	41.8	45.1	
200	28.9	34.4	

SYMBOL	DESCRIPTION AND REMARKS
□	brown c-f SAND, some silt, trace f. gravel
■	brown silty-clayey c-f SAND, some f. gravel.
○	

PARTICLE SIZE DISTRIBUTION		
544 Union Avenue, Brooklyn, NY		
Project No.	19684803	December 2005
		Figure
<b>URS Corporation</b>		

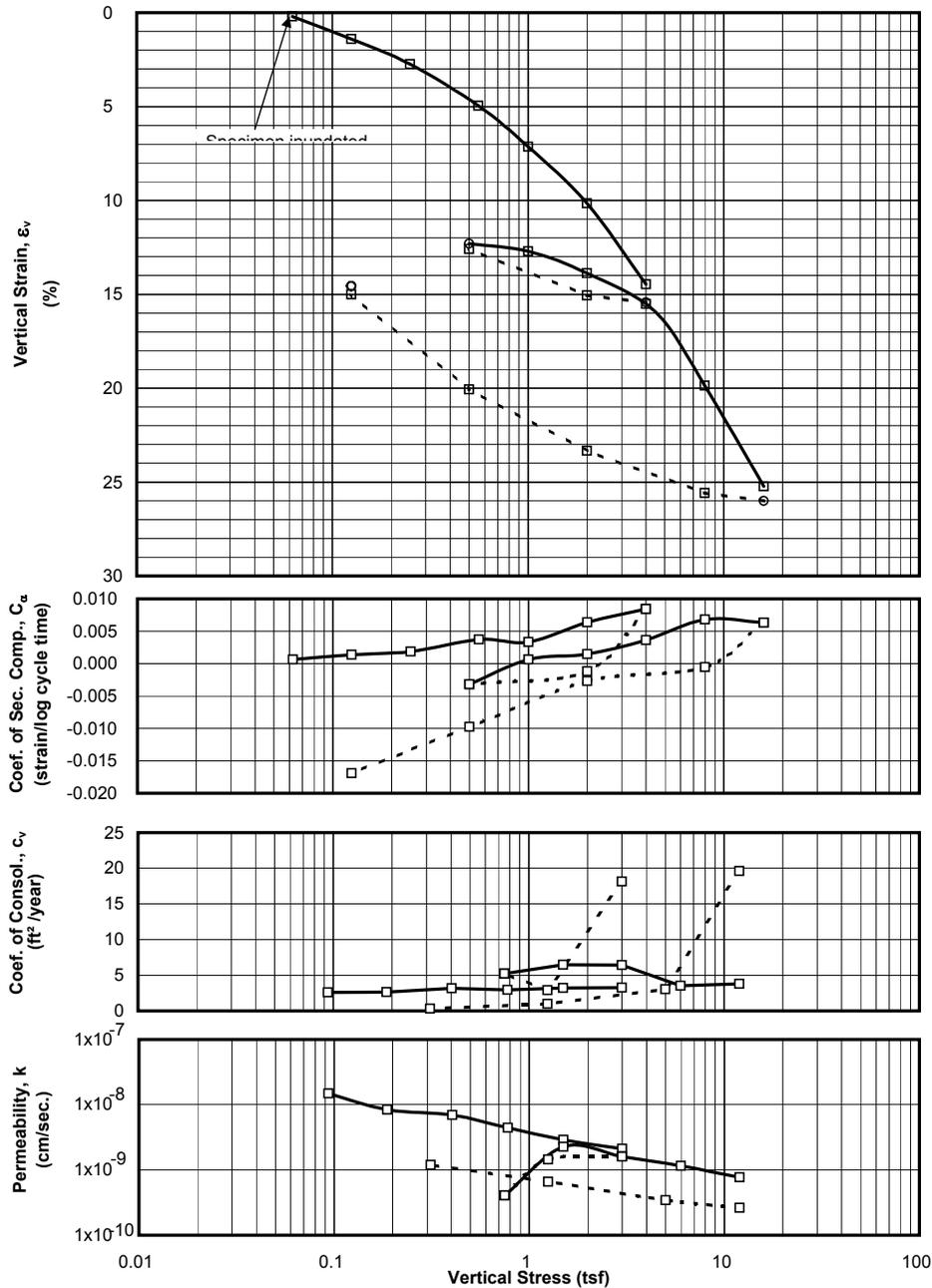


Symbol	□	■	○
Boring	B-4		
Sample	U-1C		
Spec			
Depth	21.4		
% +3"			
% Gravel			
% SAND	16.1		
% FINES	83.9		
% -2μ			
Cc			
Cu			
LL	66		
PL	30		
PI	36		
USCS	CH-OH		
w (%)			

Particle Size (Sieve #)	PERCENT FINER		
	□	■	○
4"			
3"			
1 1/2"			
3/4"			
3/8"			
4	100.0		
10	98.1		
20	95.2		
40	91.8		
60	89.3		
100	87.0		
200	83.9		

SYMBOL	DESCRIPTION AND REMARKS
□	gray ORGANIC CLAY, some c-f sand; peat mat'l noted.
■	
○	

PARTICLE SIZE DISTRIBUTION		
544 Union Avenue, Brooklyn, NY		
Project No.	19684803	January 2006
		Figure
<b>URS Corporation</b>		



### SAMPLE INFORMATION

Boring: B-4  
 Sample: U-1C  
 Depth: 21.40 feet  
 Elevation:  
 Type: 3-inch thin wall tube  
 Description: CH-OH, gray ORGANIC CLAY, some c-f sand;  
 peat mat'l noted.  
 LL = 66, PL = 30, PI = 36

### SPECIMEN INFORMATION

(NOTE: Initial and final states refer to beginning and end of test)

Initial height: 0.61 inch  
 Diameter: 2.50 inch

Initial water content: 48.8 %  
 Initial total unit weight: 108.2 pcf  
 Initial dry unit weight: 72.7 pcf  
 Initial void ratio: 1.404  
 Initial degree of saturation: 97 %

Final water content: 44.5 %  
 Final total unit weight: 112.6 pcf  
 Final dry unit weight: 77.9 pcf  
 Final void ratio: 1.243  
 Final degree of saturation: 100 % (assumed specific gravity = 2.80)

### TEST SUMMARY

Construction Method: Casagrande (Log)  
 Estimated preconsolidation stress (tsf): 2.2 (Range: 1.5 to 2.4)  
 Estimated in situ effective overburden stress (tsf):  
 Compression Ratio (strain per log cycle stress): 0.179  
 Compression Index (void ratio per log cycle stress): 0.430  
 Swell Ratio (strain per log cycle stress): 0.041  
 Swell Index (void ratio per log cycle stress): 0.099  
 Recompression Ratio (strain per log cycle stress): 0.033  
 Recompression Index (void ratio per log cycle stress): 0.079  
 Remarks:

**LEGEND:** □ End of primary ○ End of Stage — Loading - - - - - Unloading

Test Date: 12/16/05	Tested By: RV	Checked By: CMJ
544 Union Ave. Brooklyn, NY		ONE DIMENSIONAL CONSOLIDATION TEST Boring: B-4 Depth: 21.40 feet
URS	Project No. 19684803	January 2006

PROJECT:	544 Union Ave.	Initial height:	0.608 inch	Final height:	0.565 inch
PROJECT NO.:	19684803	Initial water content:	48.8 %	Final water content:	44.5 %
BORING:	B-4	Initial dry density:	72.7 pcf	Final dry density:	77.9 pcf
SAMPLE:	U-1C	Initial total density:	108.2 pcf	Final total density:	112.6 pcf
TEST:	C05279	Initial saturation:	97 %	Final saturation:	100 %
DEPTH, feet:	21.4	Initial void ratio:	1.404	Final void ratio:	1.243
BY:	RV			Final strain:	7.1 %
TEST DATE:	12/16/2005				

EQUIPMENT: SPECIMEN DESCRIPTION: CH-OH, gray ORGANIC CLAY, some c-f sand;

Load Frame No.:	7	peat mat'l noted.			
Ring Diameter:	2.5 inch	G	LL	PL	PI
		2.8	66	30	36

Load No.	Load (tsf)	d <sub>100</sub> (inch)	t <sub>100</sub> Strain (%)	t <sub>100</sub> Void Ratio (-)	Final Strain (%)	Final Void Ratio (-)	c <sub>v</sub> (ft <sup>2</sup> /year)	C <sub>α</sub> (strain/logt)	Constrained Modulus (tsf)	Permeability (cm/sec)
1	0.063	0.0013	0.211	1.399	0.337	1.396	363.55	0.0006	29.57	3.71E-07
2	0.125	0.0085	1.403	1.370	1.498	1.368	2.57	0.0014	5.25	1.48E-08
3	0.250	0.0166	2.734	1.338	2.879	1.335	2.61	0.0019	9.39	8.40E-09
4	0.558	0.0301	4.952	1.285	5.299	1.276	3.18	0.0037	13.90	6.90E-09
5	1.00	0.0435	7.142	1.232	7.461	1.224	2.95	0.0033	20.17	4.41E-09
6	2.00	0.0618	10.152	1.160	10.821	1.144	3.19	0.0064	33.22	2.90E-09
7	4.00	0.0880	14.463	1.056	15.429	1.033	3.25	0.0084	46.39	2.12E-09
8	2.00	0.0916	15.053	1.042	14.917	1.045	18.12	-0.0012	339.29	1.61E-09
9	0.500	0.0766	12.584	1.101	12.295	1.108	2.90	-0.0032	60.76	1.44E-09
10	1.00	0.0773	12.712	1.098	12.844	1.095	5.23	0.0006	389.56	4.05E-10
11	2.00	0.0844	13.871	1.070	14.081	1.065	6.48	0.0015	86.28	2.27E-09
12	4.00	0.0944	15.522	1.031	16.018	1.019	6.41	0.0036	121.17	1.60E-09
13	8.00	0.1209	19.865	0.926	20.684	0.907	3.52	0.0068	92.10	1.15E-09
14	16.0	0.1535	25.226	0.797	26.007	0.779	3.81	0.0063	149.22	7.70E-10
15	8.00	0.1556	25.581	0.789	25.460	0.792	19.60	-0.0005	2251.19	2.63E-10
16	2.00	0.1420	23.333	0.843	23.043	0.850	3.03	-0.0027	266.84	3.43E-10
17	0.500	0.1221	20.076	0.921	19.297	0.940	1.00	-0.0097	46.05	6.57E-10
18	0.125	0.0913	15.014	1.043	14.573	1.053	0.29286	-0.0169	7.41	1.19E-09

**APPENDIX D**  
**PILE LOAD TEST REPORT**

---

**R E P O R T**

**AXIAL PILE LOAD TEST RESULTS**

**544 UNION AVENUE  
BROOKLYN, NEW YORK**

*Prepared for*  
544 Union Owner, LLC  
190 North 10<sup>th</sup> Street, Suite 306  
Brooklyn, NY 11211

November 29, 2007

Prepared by:

**URS**

201 Willowbrook Blvd.  
Wayne, New Jersey 07470

Project No : 11100056



November 29, 2007

Ms. Leslie Westreich  
544 Union Owner, LLC  
190 North 10<sup>th</sup> Street, Suite 306  
Brooklyn, New York 11211

**Subject: Axial Pile Load Test Results – 14” Tapertube Piles  
544 Union Avenue, Brooklyn, NY**

Dear Ms. Westreich:

This letter report presents the results of static axial pile load tests performed on 14” Tapertube® piles for the proposed building located at 544 Union Avenue in Brooklyn, New York. The following sections present information regarding the pile type and installation, load test results, and conclusions and recommendations.

## **Pile Type and Installation**

The piles tested are 14” Tapertube piles with a nominal yield strength of 50 ksi and a wall thickness of 0.25”. The tapered section of the pile is 15 ft long and with an 8” tip diameter. It is our understanding that 18 piles were driven on October 9, 2007 by Underpinning and Foundation Contractors, Inc. (Underpinning). These piles consisted of 16 production piles (including one replacement pile) and 2 test piles denoted as TP-1 and TP-2. Installation of these piles were inspected by Special testing & Consulting (SPC). In addition, Underpinning retained Urkkada Pacific Ltd. (Urkkada) to perform Pile Driving Analyzer (PDA) dynamic pile testing on 6 of the 18 piles installed on October 9, 2007. PDA dynamic testing of these 6 piles, indicated that the piles might have ultimate capacities in the 150 to 180 ton range.

Out of these 18 piles, 4 piles are noted on the logs as being bent (how this was determined and the extent of the bend is not noted). It is our understanding that it was then decided by others to install 3 additional piles (replacement piles) to a shorter length so as to possibly avoid potential obstructions to the piles. These piles were installed on October 15, 2007 and consisted of 2 load test piles denoted as TP-1R and TP-2R, which were driven to depths of about 31 ft and 35 ft, respectively. In addition, PDA testing was also performed on these test piles. The PDA dynamic testing of these shorter test piles indicates that they may have ultimate capacities of approximately 100 tons.

URS Corporation  
201 Willowbrook Blvd.  
Wayne, NJ 07470  
(973) 785-0700  
(973) 785-0023 (fax)



Ms. Leslie Westreich  
544 Union Owner LLC  
Page 2

The driving hammer is a Junttan HHK-5 hydraulic hammer. According to the manufacturer specifications, the hammer maximum rated energy is 54.6 ft-kip with a ram weight of 11.0 kips, and a maximum theoretical height-of-fall of 4.9 ft. The maximum practical height of fall is 4.5 ft. During driving, the height of fall was limited to 2.0 ft.

The pile driving records are included in Appendix A. The results from PDA testing are included in Appendix B.

### **Axial Static Load Test Results**

The axial static load tests were performed in general accordance with the requirements given in the New York City Building Code (NYCBC). The loads were applied by Underpinning, under the supervision of URS field representative. The measurements of pile displacements and pile loads were performed by the URS field representative. The static load tests on test piles TP-1R and TP-2R were started on November 12, 2007 and completed on November 21, 2007. In addition to the compression load tests, URS also monitored the upward movement of the reaction piles at the request of Underpinning.

The movement of the pile as a function of the load is given in Figures 1 and 2 for TP-1R and TP-2R, respectively. Also included on these figures are the estimated movements of the pile due to elastic compression of the pile. The NYCBC requires that the net settlement of the pile at twice the working load (200 % load) be less than 0.75 inches. The net settlement is defined as the gross settlement of the pile minus the elastic compression of the pile. The net settlement of the test piles (TP-1R and TP-2R) at the 200% load of 140 tons is less than 0.75 inches; therefore, the test piles have a compression working capacity of 70 tons.

Each test pile was connected to four reaction piles during the load test. Therefore, when the compression test piles were loaded to a maximum load of 180 tons each reaction pile may have experienced an uplift load of about 45 tons. The observed upward displacement measurements obtained from all (total 8) reaction piles indicated that gross displacements were less than 1/10 inch. Considering that elastic extension of the reaction piles for 45 tons load is also about 1/10 inch, measured net settlement of the reaction piles for a maximum (ultimate) load of about 45 tons was negligible.

The measured data from the compression load tests are included in Appendix C. The upward movements of reaction piles are included in Appendix D.

### **Conclusions and Recommendations**

Based on the results of the pile load tests, pile driving records and our analyses, the following conclusions and recommendations are provided:

1. Allowable compression capacity of test piles is 70 tons.



Ms. Leslie Westreich  
544 Union Owner LLC  
Page 3

2. During production driving of piles, the piles should be driven to a minimum driving criteria of 16 blows per foot (bpf) and 10 bpf for at least 5 ft above the 16 bpf. The second criteria (i.e., for 5 ft above the 16 bpf) 10 bpf is done to provide some assurances that the piles are installed a minimum of 5 ft into the sand stratum below the clay stratum.
3. The driving criteria provided herein are based on the use of same hammer as the test piles. If the pile driving equipment is changed or modified during driving of production piles it may be necessary to perform additional PDA tests to assist in ensuring that an adequate pile capacity is being achieved.
4. Allowable tension capacity of 24 tons, which includes the weight of the pile (about 2 tons).

Thank-you for selecting us for this technically challenging project. Please contact me if you have any questions, or need additional information.

Sincerely,

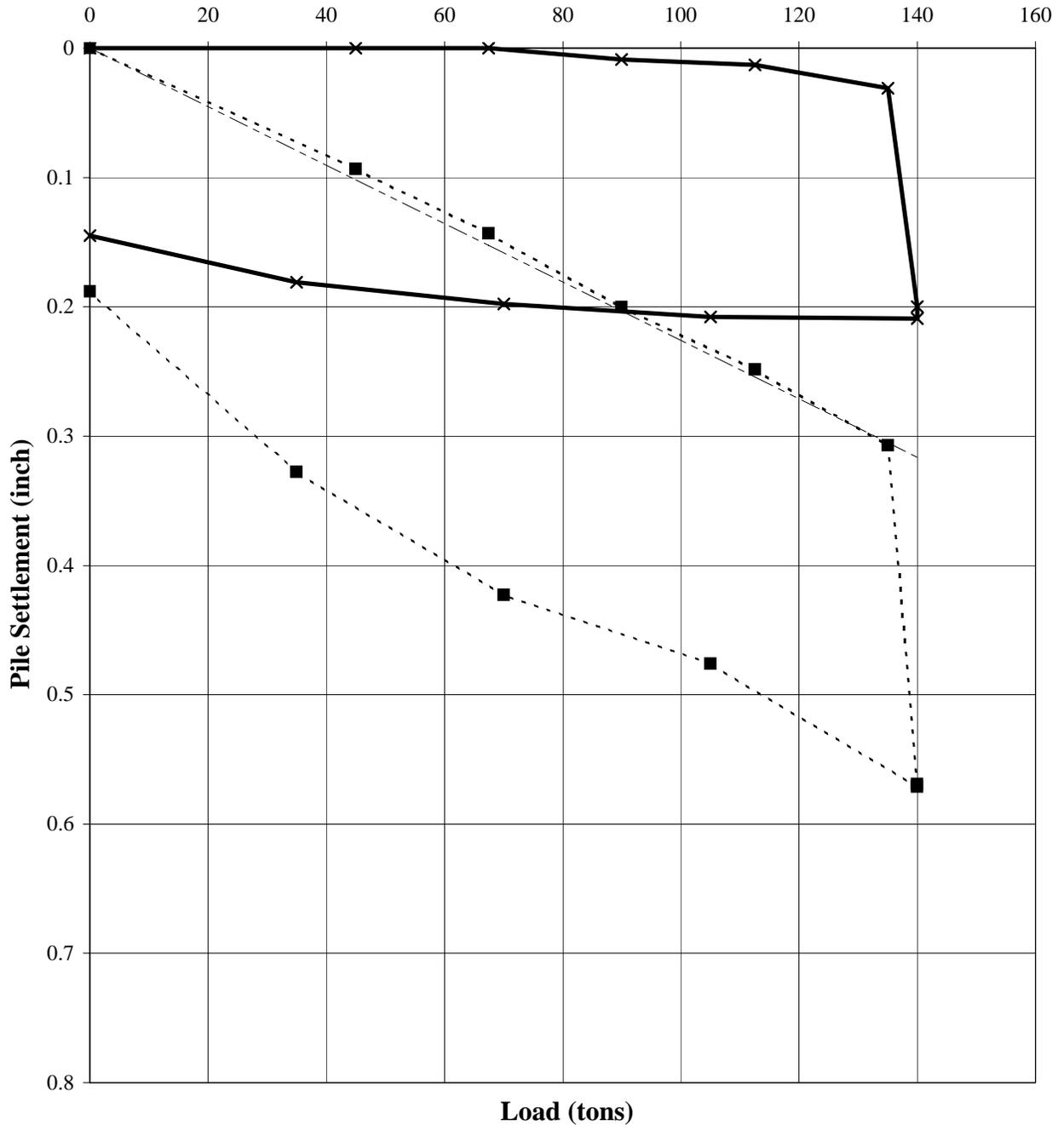
A handwritten signature in black ink, appearing to read 'Thomas G. Thomann', written over a light blue grid background.

Thomas G. Thomann, Ph.D., P.E.  
Vice President

Attachments:

- Appendix A: Pile Driving Records
- Appendix B: PDA Testing Results
- Appendix C: Compression Load Test Data
- Appendix D: Upward Displacement Data of Reaction Piles

## **FIGURES**

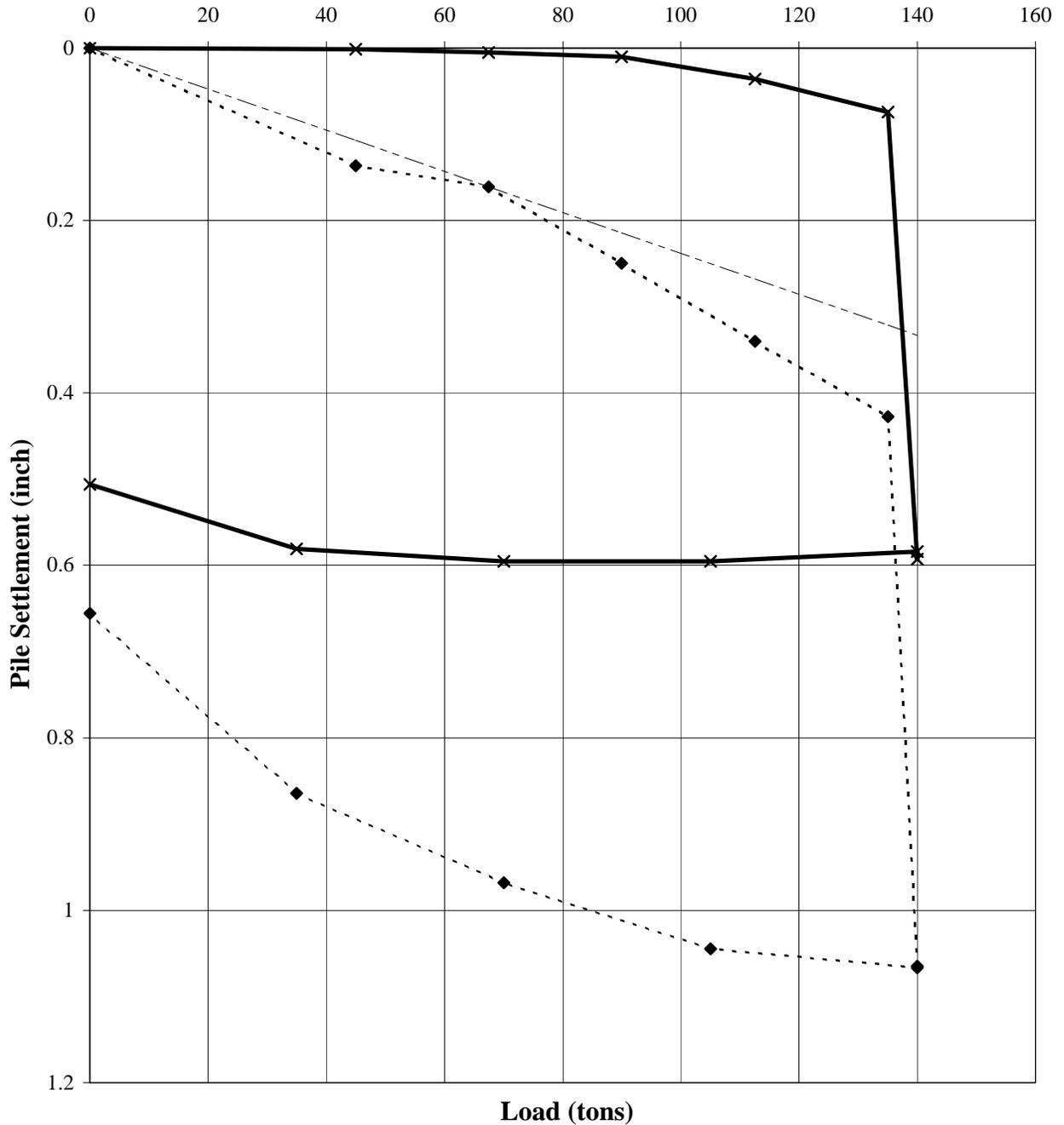


- - ■ - - Butt Displacement                      - - x - - Tip Displacement  
 - . . - - Elastic Pile Compression

Pile Length = 31 ft

Not all data are shown for the sake of clarity

<b>Load - Settlement Curve : Test Pile TP-1R</b> <b>544 Union Avenue</b> <b>Brooklyn, New York</b>		
 <small>WAYNE, NEW JERSEY</small>		
DR. BY: VN	SCALE: As Shown	PROJ NO: 11100056
CHK'D BY:	DATE: Nov. 2007	FIG NO: 1



---◆--- Butt Displacement —×— Tip Displacement ---- Elastic Pile Compression

Pile Length = 35 ft

Not all data are shown for the sake of clarity

<b>Load - Settlement Curve : Test Pile TP-2R</b> <b>544 Union Avenue</b> <b>Brooklyn, New York</b>		
 <small>WAYNE, NEW JERSEY</small>		
DR. BY: VN	SCALE: As Shown	PROJ NO: 11100056
CHK'D BY:	DATE: Nov. 2007	FIG NO: 2

APPENDIX A  
PILE DRIVING RECORDS



Special Testing & Consulting, LLC  
 43 Kinsella Street ♦ Dix Hills, New York 11746  
 Phone: 631.242.5606 ♦ Fax: 631.242.5629  
 www.special-testing.com

**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	1	of	18
Client:	Hudson Meridian						
Project Name/Address:	544 Union Avenue						
Inspector:	M. Silverstein	Hours:	7-3				
Contractor:	Skanska						

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	#40	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 Hyd.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42	14	
3			43	11	
4			44	11	
5			45		
6			46		
7			47		
8			48		Stopped driving at 43'
9			49		
10	17		50		Taper O.K
11			51		
12			52		
13	18		53		
14			54		
15	25		55		
16			56		
17			57		
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31	11		71		
32	12		72		
33	13		73		
34	12		74		
35	14		75		
36	13		76		
37	14		77		
38	15		78		
39	15		79		
40	13		80		

Comments:



Special Testing & Consulting, LLC  
 43 Kinsella Street ♦ Dix Hills, New York 11746  
 Phone: 631.242.5606 ♦ Fax: 631.242.5629  
 www.special-testing.com

**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	2 of 18
Client:	Hudson Meridian				
Project Name/Address:	544 Union Ave. Bklyn NY				
Inspector:	M. Silverstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	#102	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	21	
2			42	23	
3			43	26	
4			44	24	
5			45		
6			46		Stopped
7			47		
8			48		
9			49		Driving at 44'
10	35		50		
11			51		
12			52		Taper O.K.
13			53		
14			54		
15	30		55		
16			56		
17			57		
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		
40	18		80		

Comments:



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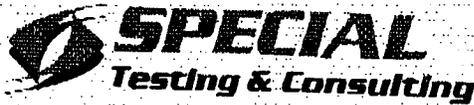
**PILE DRIVING LOG**

Date: 10/9/07 File No.: Page: 3 of 18  
 Client: Hudson Meridian  
 Project Name/Address: 1544 Union Ave Bklyn NY  
 Inspector: M. Silverstein Hours: 7-3  
 Contractor: Skanska

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	#24	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45' + 20'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	MHK-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	10	
2			42	13	
3			43	12	
4			44	18	
5			45	24	
6			46	17	Obstruction hit at 45'
7			47	13	Splice made
8			48	16	
9			49	14	
10	30		50	14	
11			51	15	
12			52	16	
13			53	15	
14			54	12	
15			55	14	
16			56	15	
17			57	13	
18			58	15	
19			59	17	
20			60	14	
21			61		
22			62		
23			63		Splice made at
24			64		45' another 20'
25			65		pipe was added using
26			66		but connector ring
27			67		which was welded
28			68		together
29			69		
30			70		
31			71		Pile Bent at 45'
32			72		
33			73		Stopped driving at
34			74		60'
35			75		
36			76		
37			77		
38			78		
39			79		
40			80		

Comments:



TP-12  
RE.

Special Testing & Consulting, LLC  
43 Kinsella Street • Dix Hills, New York 11746  
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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	4	of	18
Client:	Hudson Meridian						
Project Name/Address:	544 Union Ave. Bklyn NY						
Inspector:	M. Silverstein	Hours:	7-3				
Contractor:	Skanska						

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	#70	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	MHK-5 HYS	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	24	
2			42	36	
3			43		
4			44		
5			45		Stopped driving at 42'
6			46		
7			47		
8			48		
9			49		PDA TEST
10	20		50		CAP - 300 KIPS
11			51		Stress - 35
12			52		
13			53		
14			54		ENERGY - 19
15	23		55		
16			56		
17			57		Taper O.K.
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		
40			80		

Comments:



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 43 Kinsella Street • Dix Hills, New York 11746  
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 www.special-testing.com

**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	5 of 18
Client:	Hudson Meridian				
Project Name/Address:	1544 Union Ave. Bklyn NY				
Inspector:	M. Silverstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	TP#1	PILE SIZE (BUTT/TIP):	4"
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	31	
2			42	33	
3			43		
4			44		
5			45		Stopped driving
6			46		at 42'
7			47		
8			48		PDA test:
9			49		
10	37		50		300 kips
11			51		stress 38
12			52		
13			53		Energy 19
14			54		
15	30		55		
16	5		56		
17	5		57		Taper O.K.
18	5		58		
19	5		59		
20	5		60		
21	5		61		
22	5		62		
23	5		63		
24	8		64		
25	8		65		
26	8		66		
27	8		67		
28	10		68		
29	10		69		
30	13		70		
31	16		71		
32	15		72		
33	15		73		
34	16		74		
35	20		75		
36	20		76		
37	20		77		
38	20		78		
39	24		79		
40	33		80		

Comments:



TP-22  
re

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43 Kinsella Street • Dix Hills, New York 11746  
Phone: 631.242.5606 • Fax: 631.242.5629  
www.special-testing.com

**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	6	of	18
Client:	Hudson Meridian						
Project Name/Address:	544 UNION AVE. BKLYN NY						
Inspector:	M. Silverstein	Hours:	7-3				
Contractor:	Skanska						

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	146	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1					
2			42	13	@ 40 1/2'
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		Stopped driving at 40 1/2'
9			49		
10	35		50		pile Bent at
11			51		
12			52		
13			53		32' ✓
14			54		
15	34		55		
16			56		
17			57		
18			58		
19			59		
20	22		60		
21			61		
22			62		
23			63		
24			64		
25	25		65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		
40			80		

Comments:



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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	7 of 18
Client:	Hudson Meridian				
Project Name/Address:	544 Union Avenue				
Inspector:	M. Silverstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	TP#2	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10	20		50		
11			51		
12			52		
13			53		
14			54		
15	35		55		
16			56		
17			57		
18			58		
19			59		
20			60		
21	12		61		
22			62		
23			63		
24			64		
25	25		65		
26	25		66		
27	20		67		
28	20		68		
29	12		69		
30			70		
31	12		71		
32			72		
33			73		
34	12		74		
35	12		75		
36	15		76		
37	15		77		
38	15		78		
39	20		79		
40	18		80		

Comments:



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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	8 of 18
Client:	Hudson Meridian				
Project Name/Address:	1544 Union Ave Bklyn NY				
Inspector:	M. Silverstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	176	PILE SIZE (BUTT/TIP)	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD.	COMPANY:	SFC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	M.S.

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10	50		50		
11			51		
12			52		
13			53		
14			54		
15	20		55		
16			56		
17			57		
18			58		
19			59		
20	30		60		
21			61		
22			62		
23			63		
24			64		
25	34		65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		
40			80		

Obstruction hit at 37'  
 Stopped driving at 38'

Comments:



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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	9 of 18
Client:	Hudson Meridian				
Project Name/Address:	544 Union Ave.				
Inspector:	M. Silvrstan	Hours:	7-3		
Contractor:	Skanska.				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	202	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	28	
2			42	31	
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10	45		50		
11			51		
12			52		
13			53		
14			54		
15	30		55		
16			56		
17			57		
18			58		
19			59		
20	38		60		
21			61		
22			62		
23			63		
24			64		
25	38		65		
26			66		
27			67		
28			68		
29			69		
30	9		70		
31			71		
32	11		72		
33	12		73		
34	15		74		
35	19		75		
36	19		76		
37	22		77		
38	22		78		
39	22		79		
40	27		80		

Obstruction  
 pile bent at 30'  
 stopped driving  
 at 42'

Comments:



TP-1R  
Rd.

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**PILE DRIVING LOG**

Date: 10/9/07 File No.: Page: 10 of 18  
 Client: Hudson Meridian  
 Project Name/Address: 544 ~~Atlantic~~ Union Bklyn NY  
 Inspector: M. Silverstein Hours: 7-3  
 Contractor:

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	68	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HMK-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	31	
2			42	31	
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10	42		50		
11			51		
12			52		
13			53		
14			54		
15	36		55		
16			56		
17			57		
18			58		
19			59		
20	30		60		
21			61		
22			62		
23			63		
24			64		
25	31		65		
26	6		66		
27	9		67		
28	12		68		
29	11		69		
30	11		70		
31	11		71		
32	11		72		
33	11		73		
34	18		74		
35	18		75		
36	20		76		
37	18		77		
38	22		78		
39	30		79		
40	31		80		

Stopped driving at 42' Pile was bent at taper

Comments:



TP-1R  
RE.

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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	11	of	18
Client:	Hudson Meridian						
Project Name/Address:	544 Union Ave Bklyn NY						
Inspector:	M. Silverstein	Hours:	7-3				
Contractor:	Skanska						

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	98	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10	56		50		
11			51		
12			52		
13			53		
14			54		
15	26		55		
16			56		
17			57		
18			58		
19			59		
20	33		60		
21			61		
22			62		
23			63		
24			64		
25	45		65		
26			66		
27	11		67		
28	13		68		
29	13		69		
30	14		70		
31	10		71		
32	11		72		
33	11		73		
34	11		74		
35	11		75		
36	12		76		
37	12		77		
38	12		78		
39	12		79		
40	37		80		

Pile Did NOT  
Bend  
Stopped driving  
at 39' w/  
37 b/ft.

Comments:



TP-12  
Re.

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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	12 of 18
Client:	Hudson Meridian				
Project Name/Address:	544 Union Ave. Bklyn NY				
Inspector:	M. Silurstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	97	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHC-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43		
4			44		
5			45		File did NOT
6			46		
7			47		
8	↓		48		Band
9			49		
10	17		50		Stopped driving
11			51		
12			52		
13			53		at 40' at
14	↓		54		
15	26		55		
16			56		25 b/ft.
17			57		
18			58		
19	↓		59		
20	35		60		
21			61		
22			62		
23			63		
24			64		
25	↓		65		
26	35		66		
27			67		
28	↓		68		
29	12		69		
30	13		70		
31	14		71		
32	14		72		
33	15		73		
34	↓		74		
35	20		75		
36	17		76		
37	↓		77		
38	21		78		
39	23		79		
40	25		80		

Comments:



TP-2R  
re

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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	13	of	18
Client:	Hudson Meridian						
Project Name/Address:	544 Union Ave Bklyn NY						
Inspector:	M. Silwstein	Hours:	7-3				
Contractor:	Skanska						

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	152	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	LHC-5 HYD.	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS.

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42	18	
3			43		
4			44		
5			45		
6			46		
7			47		
8	↓		48		
9			49		
10	23		50		
11	↓		51		
12			52		
13	↓		53		
14			54		
15	29		55		
16	↓		56		
17			57		
18			58		
19	↓		59		
20	16		60		
21	↓		61		
22			62		
23	↓		63		
24			64		
25	26		65		
26	↓		66		
27	4		67		
28	↓		68		
29			69		
30	8		70		
31	↓		71		
32	69		72		
33	↓		73		
34	9		74		
35	↓		75		
36	12		76		
37	↓		77		
38	13		78		
39	↓		79		
40	18		80		

Comments:



TP-2R  
RE

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**PILE DRIVING LOG**

Date: 10/9/07 File No.: Page: 14 of 18  
 Client: Hudson Meridian  
 Project Name/Address: 154 Union Ave. Bklyn NY  
 Inspector: M. Silvrstein Hours: 7-3  
 Contractor: Skanska

BUILDING/STRUCTURE: DATE PILE DRIVEN: 10/9/07  
 CONTRACTOR: Skanska TYPE OF PILE: Tapered  
 PILE LOCATION: 151 PILE SIZE (BUTT/TIP):  
 GROUND ELEVATION: LENGTH: 45'  
 TIME START: CUT OFF ELEVATION:  
 TIME FINISH: BATTERED/VERTICAL:  
 HAMMER TYPE: HHK-5 HYD COMPANY: STC  
 "DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO: INSPECTOR: MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	29	
2			42	17	
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		Stopped
9			49		Driving at
10	35		50		42'
11			51		
12			52		
13			53		
14			54		
15	25		55		
16			56		
17			57		NO Bend
18			58		
19			59		
20	15		60		IN Pile
21			61		
22			62		
23			63		
24			64		
25	22		65		
26	9		66		
27	9		67		
28	11		68		
29	11		69		
30	8		70		
31	8		71		
32	9		72		
33	9		73		
34	9		74		
35	10		75		
36	11		76		
37	12		77		
38	15		78		
39	16		79		
40	20		80		

Comments:



TP-22  
ee

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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	15 of 18
Client:	Hudson Meridian				
Project Name/Address:	544 Union Avenue Bklyn NY				
Inspector:	M. Silverstein	Hours:			
Contractor:	JKASKA				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	JKASKA	TYPE OF PILE:	Tapered
PILE LOCATION:	146R	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD	COMPANY:	SFC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	ALG

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42	14	
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10	25		50		No Bond in Pile
11			51		
12			52		
13			53		Stopped driving
14			54		at 45'
15	35		55		
16			56		
17			57		
18			58		
19			59		
20	17		60		
21			61		
22			62		
23			63		
24			64		
25	29		65		
26	7		66		
27	8		67		
28	7		68		
29	7		69		
30	7		70		
31	6		71		
32	6		72		
33	9		73		
34	8		74		
35	8		75		
36	11		76		
37	13		77		
38	15		78		
39	16		79		
40	16		80		

Comments:



TP-2R  
re

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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	16 of 18
Client:	Hudson Meridian				
Project Name/Address:	541 Union Ave Bklyn NY				
Inspector:	M. Silverstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapped
PILE LOCATION:	145	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHC-5 HYD	COMPANY:	SFC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	NLS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	16	
2			42	16	
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10	26		50		
11			51		
12			52		
13			53		
14			54		
15	34		55		
16			56		
17			57		
18			58		
19			59		
20	22		60		
21			61		
22			62		
23			63		
24			64		
25	27		65		
26			66		
27			67		
28	18		68		
29	18		69		
30	10		70		
31	11		71		
32	9		72		
33	9		73		
34	9		74		
35	10		75		
36	13		76		
37	14		77		
38	16		78		
39	18		79		
40	16		80		

Comments: Pile moved 3' east from its original location as per Craig from Skanska



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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	17 of 18
Client:	Hudson Meridian				
Project Name/Address:	544 Union Ave. Bklyn NY				
Inspector:	M. Silverstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	<del>#15</del> 93	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HMK-5 HYD	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43		
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10			50		
11			51		
12			52		
13			53		
14			54		
15			55		
16			56		
17			57		
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		
40			80		

Comments: Obstruction 2' below grade pile NOT driven



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**PILE DRIVING LOG**

Date:	10/9/07	File No.:		Page:	18 of 18
Client:	Hudson Meridian				
Project Name/Address:	1544 Union Ave. Bklyn NY				
Inspector:	M. Silvrstein	Hours:	7-3		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/9/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	94	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45'
TIME START:		CUT OFF ELEVATION:	
TIME FINISH:		BATTERED/VERTICAL:	
HAMMER TYPE:	HHC-5 HYD	COMPANY:	SFC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	MS

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41	17	
2			42	19	
3			43	22	
4			44	21	
5		Obstruction hit	45		
6		pile walker 12"	46		
7		continues	47		
8		driving	48		
9			49		NO Bend in
10	26		50		pile
11			51		
12			52		
13			53		Drive pile to
14			54		
15	12		55		44' at
16			56		
17			57		21 b/ft.
18			58		
19			59		
20	16		60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39	10		79		
40	15		80		

Comments:



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**PILE DRIVING LOG**

Date:	10/15/07	File No.:		Page:	1	of	10
Client:	Hudson Meridian						
Project Name/Address:	544 Union Ave.						
Inspector:	M. Silverstein	Hours:	7-2:30				
Contractor:	Skanska						
BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/16/07				
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered				
PILE LOCATION:	145	PILE SIZE (BUTT/TIP):	6" / 6"				
GROUND ELEVATION:		LENGTH:	45'				
TIME START:	11:45	CUT OFF ELEVATION:					
TIME FINISH:	1:50	BATTERED/VERTICAL:					
HAMMER TYPE:	HMK 5 HYP	COMPANY:	SFC				
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	M.S.				

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43	1	14" movement 2 stroke
4			44		
5			45		360 kips
6			46		
7			47		
8			48		
9			49		
10			50		
11			51		
12			52		
13			53		
14			54		
15			55		
16			56		
17			57		
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		



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**PILE DRIVING LOG**

Date:	10/15/07	File No.:		Page:	2 of 6
Client:	Hudson Meridian				
Project Name/Address:	1544 Union Ave. BKLYN NY				
Inspector:	M. Silverstein	Hours:	7-2:00		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/19/07 - POA
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	9P2	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45
TIME START:	12:30	CUT OFF ELEVATION:	
TIME FINISH:	12:00	BATTERED/VERTICAL:	
HAMMER TYPE:	HHK 5 Hyd	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	M.S.

le sink

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42	1	1/4" 2' stroke
3			43		335 kips
4			44		
5			45		
6			46		
7			47		
8			48		
9			49		
10			50		
11			51		
12			52		
13			53		
14			54		
15			55		
16			56		
17			57		
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		



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**PILE DRIVING LOG**

Date:	10/15/07	File No.:		Page:	3	of	6
Client:	Hudson Meridian						
Project Name/Address:	544 Union Ave.						
Inspector:	M. Silvestein	Hours:	7-				
Contractor:	Skanska						

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/15/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	15a	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45
TIME START:	12:45	CUT OFF ELEVATION:	
TIME FINISH:	12:55	BATTERED/VERTICAL:	
HAMMER TYPE:	HHK 5 HYP	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	M.S.

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43	1	2' stroke 1/8"
4			43 1/2	1	2' stroke 3/16"
5			43 3/4	1	2' stroke 1/4"
6			46		
7			47		
8			48		
9			49		343 kips
10			50		
11			51		
12			52		
13			53		
14			54		
15			55		
16			56		
17			57		
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31			71		
32			72		
33			73		
34			74		
35			75		
36			76		
37			77		
38			78		
39			79		



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**PILE DRIVING LOG**

Date:	10/15/07	File No.:		Page:	4 of 6
Client:	Hudson Meridian				
Project Name/Address:	554 Union Ave.				
Inspector:	M. Silverstein	Hours:	7-2 <sup>30</sup>		
Contractor:	Skanska				

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/15/07
CONTRACTOR:	Skanska	TYPE OF PILE:	Tapered
PILE LOCATION:	TP2 R	PILE SIZE (BUTT/TIP)	
GROUND ELEVATION:		LENGTH:	45
TIME START:	1:05	CUT OFF ELEVATION:	
TIME FINISH:	1:15	BATTERED/VERTICAL:	
HAMMER TYPE:	HHK-5 HYD	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	M.S.

Depth In Feet	Blows	Remarks	Depth In Feet	Blows	Remarks
1			41		
2	1		42		
3	1	6" - 1' Stroke	43		Energy = 25.4
4	1		44		
5	6		45		kips = 250
6			46		
7			47		
8			48		
9	6	61' Stroke	49		
10			50		
11			51		
12			52		
13			53		
14			54		
15			55		
16			56		
17			57		
18			58		
19			59		
20			60		
21			61		
22			62		
23			63		
24			64		
25			65		
26			66		
27			67		
28			68		
29			69		
30			70		
31	11		71		
32	11		72		
33	12		73		
34	12		74		
35	16		75		
36			76		
37			77		
38			78		
39			79		



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**PILE DRIVING LOG**

Date:	10/15/07	File No.:		Page:	5	of	6
Client:	Hudson Meridian						
Project Name/Address:	544 Union Ave.						
Inspector:	M. Silverstein	Hours:	7-2 <sup>30</sup>				
Contractor:							

BUILDING/STRUCTURE:		DATE PILE DRIVEN:	10/15/07
CONTRACTOR:	SKanska	TYPE OF PILE:	Tapered
PILE LOCATION:	145 E (H)	PILE SIZE (BUTT/TIP):	
GROUND ELEVATION:		LENGTH:	45
TIME START:	12	CUT OFF ELEVATION:	
TIME FINISH:	30	BATTERED/VERTICAL:	
HAMMER TYPE:	HHK 5 HYD	COMPANY:	STC
"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO:		INSPECTOR:	M.S.

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43		
4			44		
5	13	1' strokes	45		
6			46		
7			47		
8			48		
9			48		
10	22		50		
11			51		
12			52		
13			53		
14	5		54		
15	10	55			
16	3	56			
17	3	57			
18	3	58			
19	3	59			
20	2	60			
21	3	61			
22	3	62			
23	4	63			
24	5	64			
25	6	65			
26	6	65			
27	5	67			
28	7	68			
29	7	69			
30	7	70			
31	7	71			
32	7	72			
33	6	73			
34	7	74			
35	7	75			



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**PILE DRIVING LOG**

Date: 10/15/07 File No.: \_\_\_\_\_ Page: 6 of 6

Client: Hudson Meridian

Project Name/Address: 544 Union Ave. Bklyn

Inspector: M. Silverstein Hours: 7-2:30

Contractor: Skanska

---

BUILDING/STRUCTURE: \_\_\_\_\_ DATE FILE DRIVEN: 10/15/07

CONTRACTOR: Skanska TYPE OF PILE: Tapered

PILE LOCATION: TPIR PILE SIZE (BUTT/TIP): 45"

GROUND ELEVATION: \_\_\_\_\_ LENGTH: 45'

TIME START: 1:48 CUT OFF ELEVATION: \_\_\_\_\_

TIME FINISH: 1:54 BATTERED/VERTICAL: \_\_\_\_\_

HAMMER TYPE: HHC'S HVD COMPANY: STC

"DEPTH" COLUMN OF PILE DRIVING RECORD REFERENCED TO: \_\_\_\_\_ INSPECTOR: M.S.

Depth in Feet	Blows	Remarks	Depth in Feet	Blows	Remarks
1			41		
2			42		
3			43		
4			44		PDA
5	16	6" - 1' stroke	45		
6			46		
7			47		KIPS = 280
8			48		
9			49		energy = 25
10	25	6" - 1' stroke	50		
11			51		
12			52		
13			53		
14		1' stroke	54		
15	29		55		
16	5		56		
17	5		57		
18	6		58		
19	6		59		
20	6		60		
21	6		61		
22	6		62		
23	8		63		
24	9		64		
25	9		65		
26	10		66		
27	10		67		
28	12		68		
29	16		69		
30	17		70		
31	18		71		
32			72		
33		HOME @ 31'	73		
34			74		
35			75		
36			76		

APPENDIX B  
PDA TESTING RESULTS



Comprehensive Geotechnical Engineering Services

# Report on Dynamic Testing and Analysis of Piles

**544 Union Ave.**

**Brooklyn, NY**

## 1. Terms of Reference

Urkkada has been retained by Underpinning and Foundation Contractors, Inc. (Underpinning) to perform PDA testing and analysis of piles driven at 544 Union Ave., Brooklyn, NY. Mr. Stanley Merjan, P.E., Underpinning, is contact person.

This report presents results of dynamic testing and analysis of eight piles driven at the subject site. The piles were tested using the PAL-R remote PDA system, owned and operated by Underpinning. The data was collected and analyzed in Urkkada office, utilizing a telephone connection to the remote system. The data was collected on October 9, 2007. Also, an Urkkada representative tested additional piles during our site visit on October 15, 2007.

## 2. Piles

Eight piles, designated TP1, TP1R, TP2, TP2R, 70, 145, 146, and 152, are tested. The piles are 8" x 14" x 15' x 0.25" wall thickness Tapertube piles with 14" x 0.25" wall thickness pipe extensions. The nominal yield strength of the steel is 50 ksi. The piles are driven at production locations.

The desired ultimate capacity is 360 kips.

## 3. Hammer

The driving hammer is a Junttan HHK-5 hydraulic hammer. According to the manufacturer specifications, the hammer maximum rated energy is 54.6 ft-kip with a ram weight of 11.0 kips, and a maximum theoretical height-of-fall of 4.9 ft. The maximum practical height of fall is 4.5 ft. During driving, the height of fall was limited to 2.0 ft.

## 4. Results of Testing and Analysis

### 4.1 General

Details of the piles tested, hammer specifics, dates of driving and testing, depths, etc. are summarized in Table 1 placed after the text portion of the report.

Dynamic test data, such as Case Method Estimates of mobilized static resistance, transferred energy, maximum compressive stresses, corresponding penetration resistance values, CAPWAP results, and other information, are presented in Table 2.

Eight CAPWAP analyses are performed as indicated in Table 2. Detailed CAPWAP results are enclosed in Appendix I. The CAPWAP results include two graphics sheets. The first shows the measured wave traces, and the results of the analysis shown as force match, simulated static loading tests for pile head and pile toe, and the distribution of shaft resistance and pile forces. The second shows diagram of the distribution of "extrema" along the pile, that is, the following values:

- Maximum Force and Maximum Transferred Energy
- Maximum Compressive Stress and Maximum Tension Stress
- Maximum Velocity and Maximum Displacement

### 4.2 Pile Capacity

As indicated in Table 2, the CAPWAP computed capacities of the piles tested are as follows:

Pile	Testing Condition	Embedment (ft)	Mobilized Resistance (kips)	Shaft Resistance (kips)	Toe Resistance (kips)
TP1	ID	42.0 /	300 /	200 /	100
TP1R	ID	34.0 /	230 /	140 /	90
TP2	ID	40.0	200 /	100	100
TP2	RSTR	40.0	320 /	220	100
TP2R	ID	27.0	200 /	120	80
70	ID	42.0	320	220	100
145	RSTR	42.0	360	260	100
152	RSTR	42.0	320	220	100

### 4.3 Maximum Transferred Energy, EMX

185 kips ← Ave.

The maximum transferred energy at the end of driving varied between 19.5 ft-kip and 22.0 ft-kip. At restrike, the maximum transferred energy varied between 19.4 ft-kip and 23.1 ft-kip.

#### **4.4 Maximum Compressive Stresses, CSX and CSB**

During PDA testing, the maximum compressive stress did not exceed 41 ksi, which is within the industry acceptable limit of 90% yield strength. These values are acceptable and pile-damage is unlikely to occur if proper pile alignment is maintained.

#### **4.5 Pile Structural Integrity**

The CAPWAP analyses indicate no structural damage in any of the piles tested.

### **5. Summary of Test Results and On-Site Observations**

- At end of drive, the CAPWAP computed capacity ranged between 200 kips and 320 kips. The shaft resistance ranged between 100 kips and 220 kips and the toe resistance ranged between 80 kips and 100 kips.
- At restrike, the CAPWAP computed capacity ranged between 320 kips and 360 kips. The shaft resistance ranged between 220 kips and 260 kips and the toe resistance ranged between 80 kips and 100 kips.
- During PDA testing, the maximum compressive stress did not exceed the industry acceptable limit of 90% yield strength.
- The maximum transferred energy at end of drive varied between 19.5 ft-kip and 22.0 ft-kip. At restrike, the maximum transferred energy varied between 19.4 ft-kip and 23.1 ft-kip.
- Five index piles that were not tested with PDA were damaged by obstructions. These damages were sustained when the piles were driven to lengths of 38 feet and longer.
- Seven other index piles that were not tested with PDA did not develop driving resistances in excess of 18 blows per foot at depths to 40 feet.
- No pile damage is observed in the piles tested.

### **6. Recommendations**

Based on the PDA testing and CAPWAP analysis results, we recommend to use the piles as 240 kips (60t design load) rather than 360 kips (90t design load) piles. Pile lengths should generally be limited to 38 feet from existing grade in order to limit damage by obstructions and excessive lengths. Based on the PDA testing and CAPWAP analysis we expect the pile capacity in this length range to fall short of the intended 90 tons. The results of statically load testing piles TP1R and TP2R in accordance with the New York City Building Code will determine the pile capacity.

Dynamic Testing and Analysis of Piles  
 544 Union Ave, Brooklyn, NY. 0710CS727

TABLE 1 PILE DATA SUMMARY

Pile No.	Date of Testing	Testing Condition	Elapsed Time Between Testing and EOID	Hammer Model and Type	Pile Type	Pile Size (in)	Pile Cross Section Area (in <sup>2</sup> )	Total Length (ft)	Length below Gages (ft)	Embed. Depth during Dynamic Testing (ft)	CAPWAP Analysis Performed
TP1	October 9, 2007	ID	----	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0	42.5	36.0 - 42.0	Yes
TP1R	October 15, 2007	ID	----	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0	42.0	~34.0	Yes
TP2	October 9, 2007 October 15, 2007	ID RSTR	---- 6 days	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0	42.5	35.0 - 40.0 40.0	Yes Yes
TP2R	October 15, 2007	ID	----	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0	42.0	~27.0	Yes
70	October 9, 2007	ID	----	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0	42.5	35.0 - 42.0	Yes
145	October 15, 2007	RSTR	6 days	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0	42.0	42.0	Yes
146	October 9, 2007	ID	----	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0	42.5	36.0 - 40.5	No
152	October 15, 2007	RSTR	6 days	HHK-5	Tapertube	8" x 14" x 0.25" x 15ft with 14" x 0.25" extension	10.8	45.0 +8 ft follower	48.0	42.0	Yes

ID: Initial Drive  
 D2: Second Drive  
 RSTR: Restrike

Dynamic Testing and Analysis of Piles  
544 Union Ave, Brooklyn, NY. 0710CS727

TABLE 2: PDA DATA TABLE and CAPWAP RESULTS

Pile (No.)	Record (No.)	Testing Condition	Time after EOID (Days)	Equivalent PRES		PDA Driving Analyzer Data										CAPWAP RESULTS						
				@ EOID (bl/ft)	@RSTR (bl/in)	EMX (kip-ft)	Hammer Stroke (ft)	Max. Force (kip)	Impact Force (kip)	CSX (ksi)	CSB (ksi)	RMX J = 0.7 (kip)	RMX J = 0.8 (kip)	RMX J = 0.9 (kip)	Mobilized Static Resistance		Smith Damping Factor		Quake			
																Total (kip)	Shaft (kip)	Toe (kip)	Shaft (s/ft)	Toe (s/ft)	Shaft (in)	Toe (in)
TP1	204	EOID	---	33		21.7	2.0	427	297	39.1	25.0	362	357	354	300	200	100	0.10	0.10	0.10	0.1	0.2
TP1R	181	EOID	---	16		22.0	2.0	359	304	33.6	28.7	287	285	284	230	140	90	0.10	0.10	0.10	0.1	0.3
TP2	93 3	EOID BOR	6	18	4	21.7 19.4	2.0 2.0	313 417	305 323	30.0 38.3	27.8 24.9	230 353	227 343	224 334	200 320	100 220	100 100	0.10 0.10	0.10 0.10	0.10 0.10	0.1 0.1	0.4 0.2
TP2R	173	EOID	---	18		20.3	2.0	303	303	30.6	23.2	240	239	239	200	120	80	0.10	0.10	0.10	0.1	0.3
70	172	EOID	---	36		19.5	2.0	381	274	37.1	21.7	331	328	326	320	220	100	0.10	0.10	0.10	0.1	0.3
145	4	BOR	6	16	4	10.6	2.0	413	222	36.1	21.2	388	383	378	360	260	100	0.10	0.10	0.10	0.1	0.1
152	5	BOR	6	18	4	23.1	2.0	405	269	40.3	32.5	360	353	347	320	220	100	0.10	0.10	0.10	0.1	0.2

PRES: Penetration Resistance  
EOID: End of Initial Drive  
BOR: Beginning of Restrike  
EMX: Maximum Transferred Energy at Sensors  
ETR: Energy Transfer Ratio  
CSX: Maximum Compressive Stress at Sensors  
CSB: Maximum Compressive Stress at Pile Toe

# **APPENDIX I**

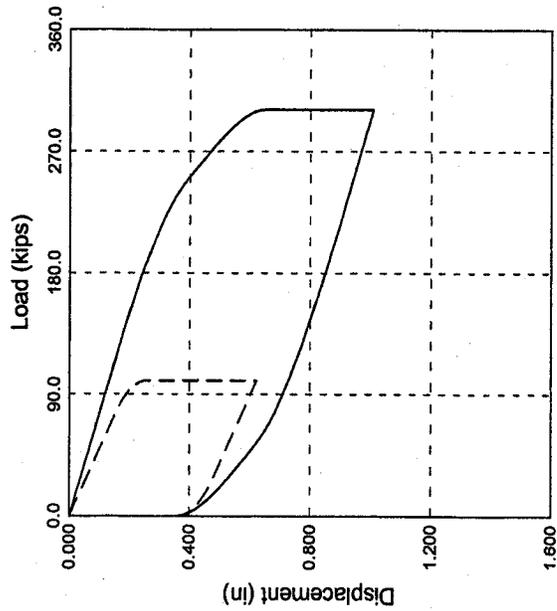
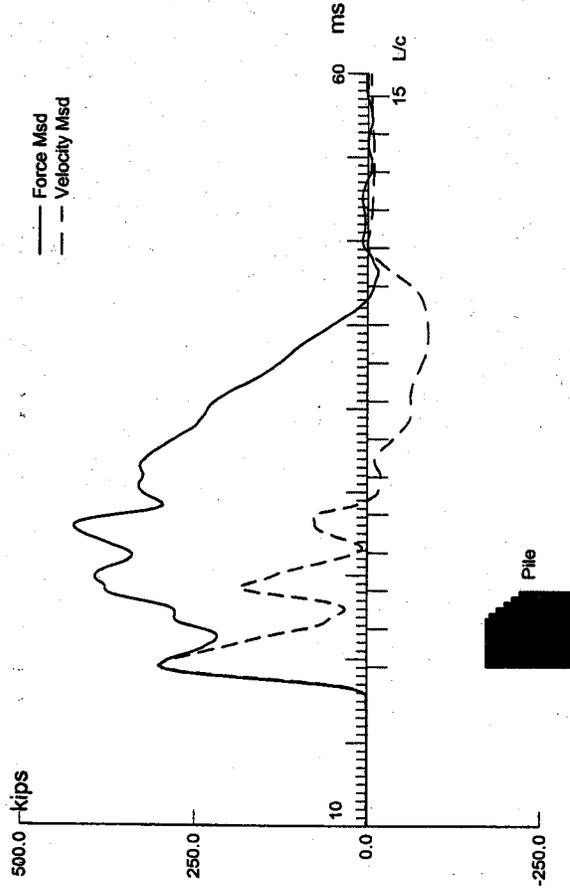
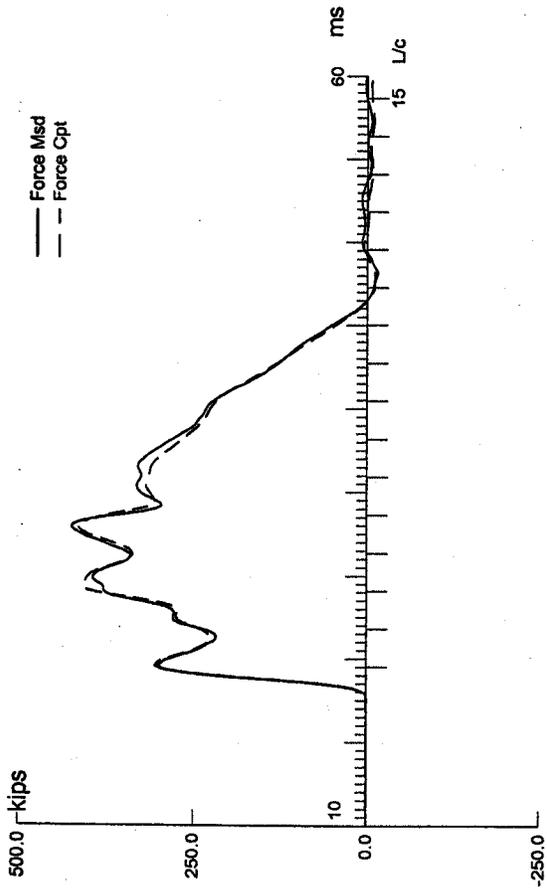
## **CAPWAP Results**

0710CS727; Pile: TP-1; Blow: 204 (Test: 08-Oct-2008 10:07:)

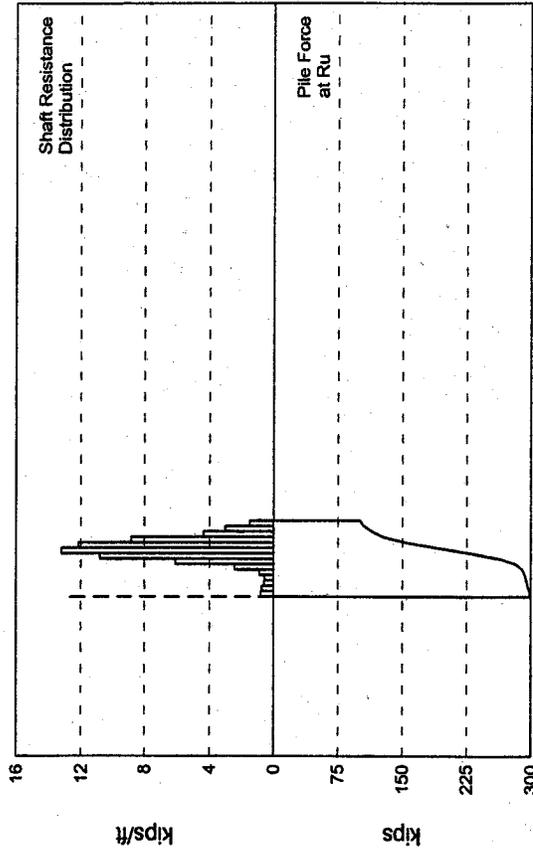
Urkada

24-Oct-2007

CAPWAP(R) 2006

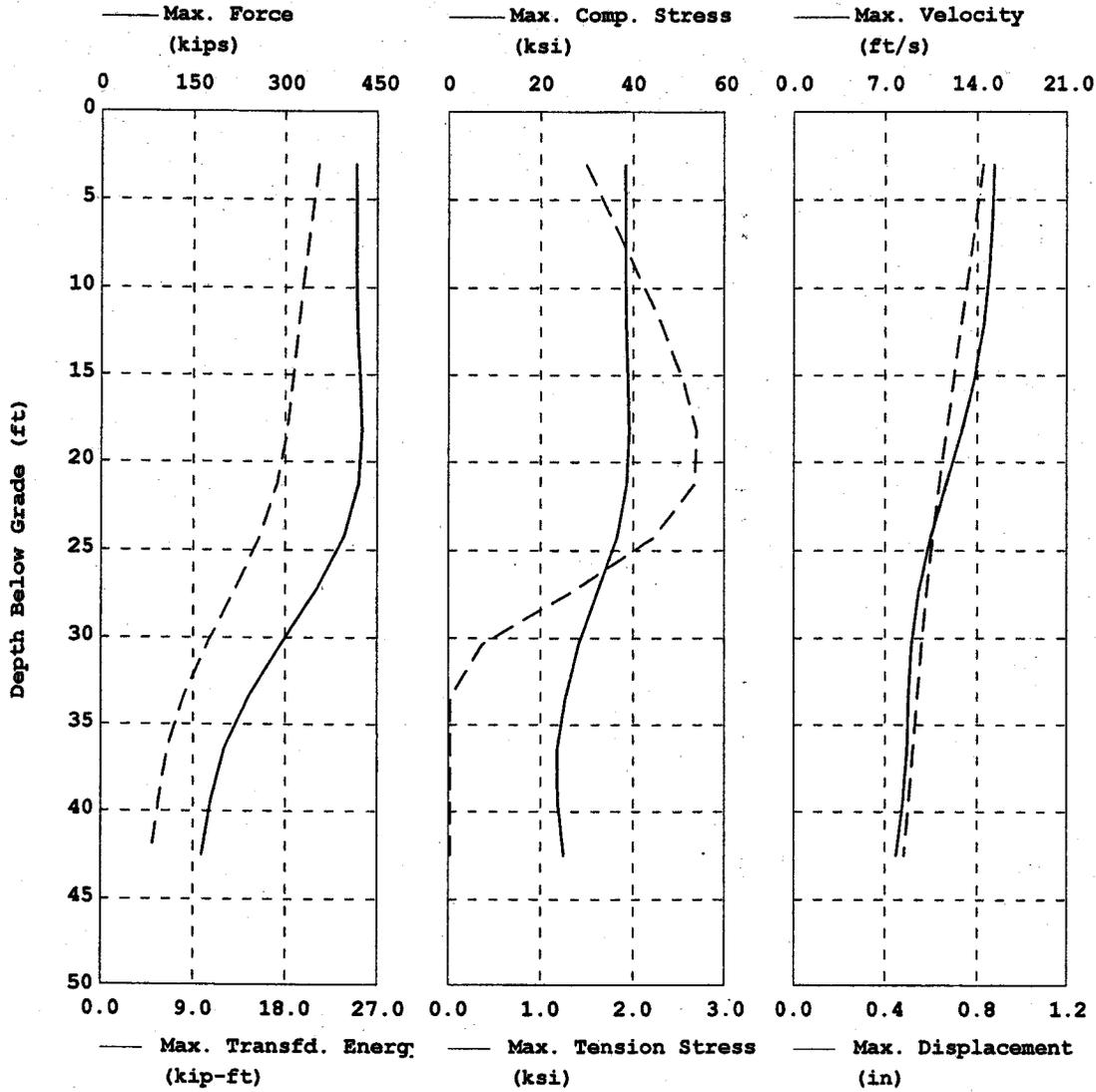


$R_u = 300.8$  kips  
 $R_s = 200.5$  kips  
 $R_b = 100.3$  kips  
 $D_y = 0.64$  in  
 $D_x = 1.01$  in



0710CS727; Pile: TP-1  
 Blow: 204  
 Urkkada

Test: 08-Oct-2008 10:07:  
 CAPWAP(R) 2006  
 OP: PAL



0710CS727; Pile: TP-1  
 Blow: 204  
 Urkkada

Test: 08-Oct-2008 10:07:  
 CAPWAP(R) 2006  
 OP: PAL

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 300.8; along Shaft 200.5; at Toe 100.3 kips

Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in Pile kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	6.1	5.6	2.3	296.1	4.7	0.76	0.21	0.100
3	9.1	8.6	1.8	294.3	6.5	0.59	0.16	0.100
4	12.1	11.6	1.7	292.6	8.2	0.56	0.15	0.100
5	15.2	14.7	2.7	289.9	10.9	0.89	0.24	0.100
6	18.2	17.7	7.4	282.5	18.3	2.44	0.67	0.100
7	21.3	20.8	18.6	263.9	36.9	6.13	1.67	0.100
8	24.3	23.8	32.9	231.0	69.8	10.84	2.96	0.100
9	27.3	26.8	40.1	190.9	109.9	13.21	3.61	0.100
10	30.4	29.9	36.9	154.0	146.8	12.16	3.45	0.100
11	33.4	32.9	26.8	127.2	173.6	8.83	2.76	0.100
12	36.4	35.9	13.3	113.9	186.9	4.38	1.52	0.100
13	39.5	39.0	9.1	104.8	196.0	3.00	1.17	0.100
14	42.5	42.0	4.5	100.3	200.5	1.48	0.66	0.100
Avg. Shaft			14.3			4.77	1.41	0.100
Toe			100.3				287.48	0.100

Soil Model Parameters/Extensions	Shaft	Toe
Quake (in)	0.100	0.200
Case Damping Factor	1.040	0.520
Unloading Quake (% of loading quake)	100	75
Reloading Level (% of Ru)	100	100
Unloading Level (% of Ru)	15	

CAPWAP match quality = 3.06 (Wave Up Match) ; RSA = 0  
 Observed: final set = 0.364 in; blow count = 33 b/ft  
 Computed: final set = 0.360 in; blow count = 33 b/ft

0710CS727; File: TP-1

Test: 08-Oct-2008 10:07:

Blow: 204

CAPWAP(R) 2006

Urkkada

OP: PAL

EXTREMA TABLE

File Sgmt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.0	414.2	-16.2	38.3	-1.50	21.24	15.3	0.826
2	6.1	414.6	-19.1	38.4	-1.77	20.56	15.1	0.794
3	9.1	414.6	-22.1	38.4	-2.04	19.92	14.9	0.761
4	12.1	415.7	-25.0	38.5	-2.32	19.34	14.5	0.729
5	15.2	419.7	-27.3	38.9	-2.53	18.79	13.8	0.697
6	18.2	422.9	-29.0	39.1	-2.69	18.17	12.8	0.665
7	21.3	417.7	-28.8	38.7	-2.67	17.20	11.6	0.634
8	24.3	394.5	-24.0	36.5	-2.22	15.49	10.5	0.606
9	27.3	349.5	-14.6	32.4	-1.35	13.03	9.6	0.581
10	30.4	293.4	-3.8	28.3	-0.37	10.36	9.0	0.559
11	33.4	239.8	-0.2	25.4	-0.02	8.06	8.8	0.539
12	36.4	200.0	-0.2	23.6	-0.02	6.44	8.7	0.521
13	39.5	178.5	-0.2	23.7	-0.02	5.61	8.4	0.503
14	42.5	164.0	-0.1	25.0	-0.02	4.89	7.8	0.483
Absolute	18.2			39.1			(T = 27.5 ms)	
	18.2				-2.69		(T = 47.0 ms)	

max. Top Comp. Stress = 38.3 ksi (T= 26.2 ms, max= 1.021 x Top)  
 max. Comp. Stress = 39.1 ksi (Z= 18.2 ft, T= 27.5 ms)  
 max. Tens. Stress = -2.69 ksi (Z= 18.2 ft, T= 47.0 ms)  
 max. Energy (EMX) = 21.2 kip-ft; max. Measured Top Displ. (DMX)= 0.87 in

0710CS727; File: TP-1

Test: 08-Oct-2008 10:07:

Blow: 204

CAPWAP(R) 2006

Urkkada

OP: PAL

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	397.1	376.7	356.3	335.9	315.6	295.2	274.8	254.4	234.1	213.7
RX	422.9	411.0	401.3	392.3	383.4	374.6	367.7	362.7	357.8	354.3
RU	397.1	376.7	356.3	335.9	315.6	295.2	274.8	254.4	234.1	213.7

RAU = 334.0 (kips); RA2 = 328.6 (kips)

Current CAPWAP Ru = 300.8 (kips); Corresponding J(RP) = 0.47;

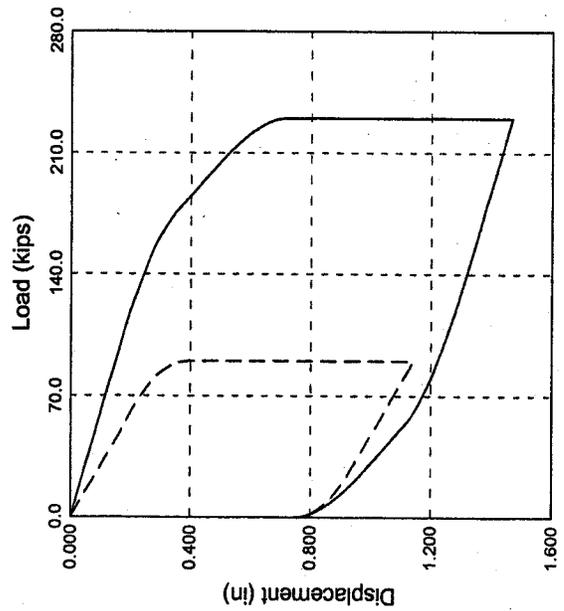
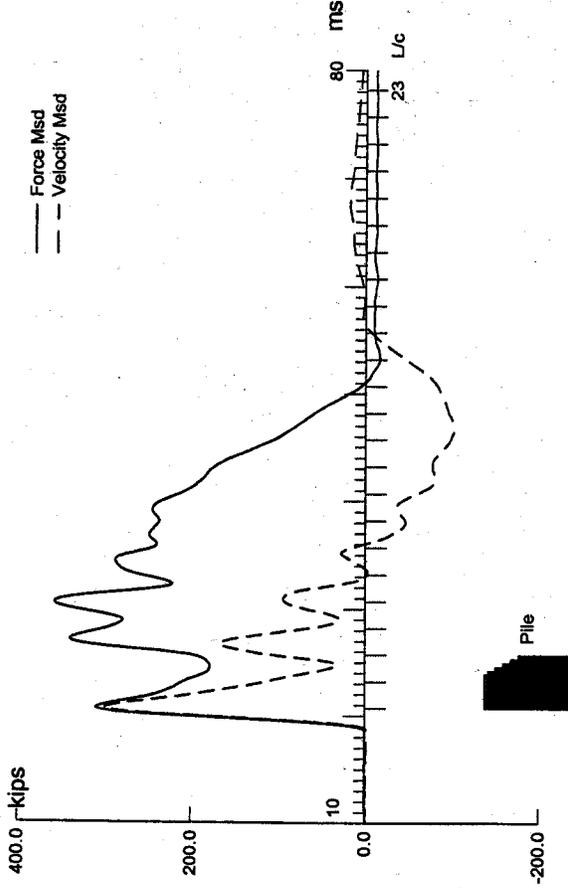
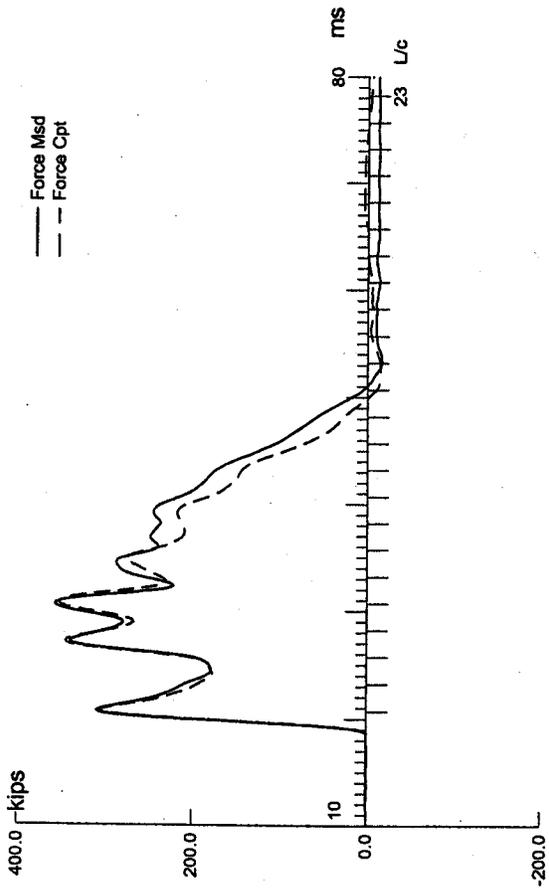
RMX requires higher damping; see PDA-W

VMX	VFN	VT1+2	FT1	FMX	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
15.77	0.00	304.0	296.8	426.9	0.868	0.368	0.364	21.7	599.6

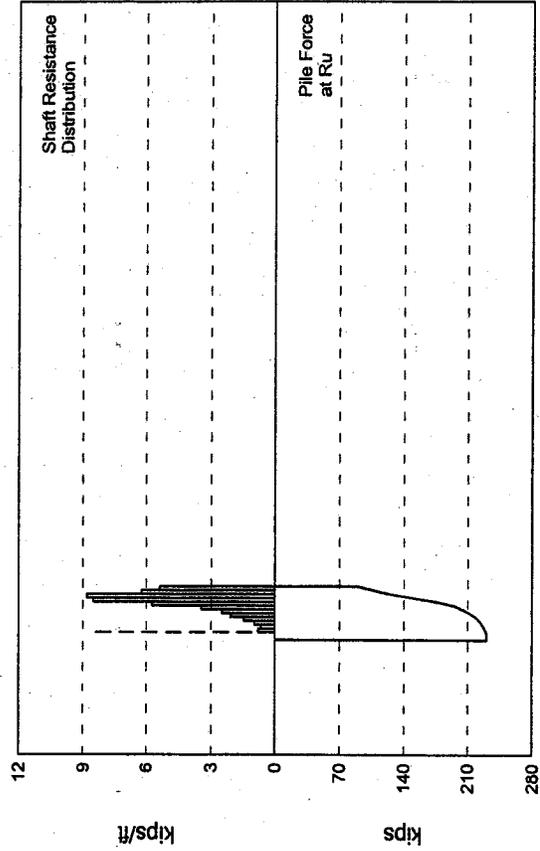
Peak Velocity Time = 20.77 ms.

0710CS727; Pile: TP1R; Blow: 181 (Test: 15-Oct-2007 13:57:)  
 Urkkada

24-Oct-2007  
 CAPWAP(R) 2006

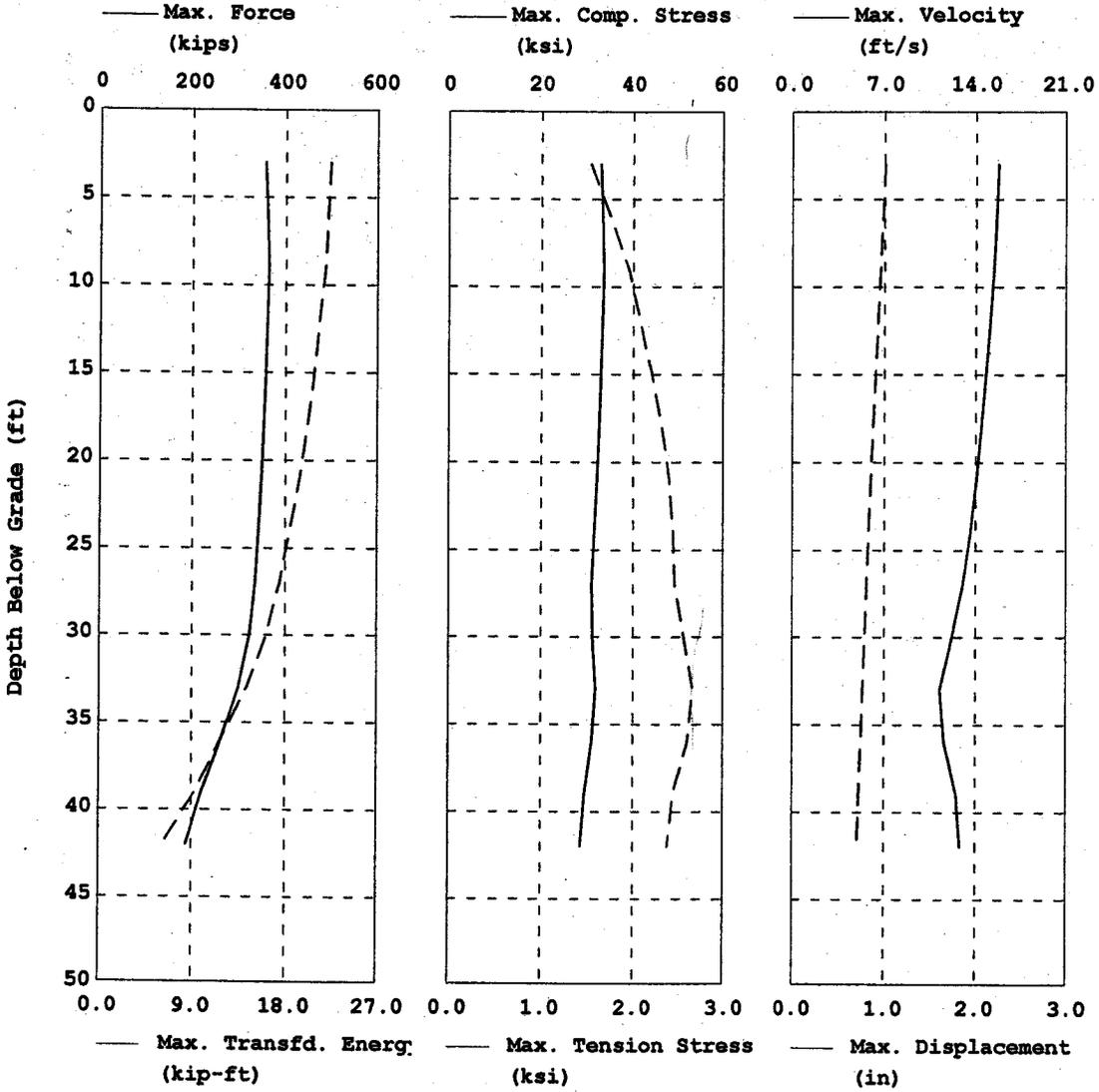


RU = 230.1 kips  
 Rs = 140.1 kips  
 Rb = 90.0 kips  
 Dy = 0.72 in  
 Dx = 1.47 in



0710CS727; Pile: TP1R  
Blow: 181  
Urkkada

Test: 15-Oct-2007 13:57:  
CAPWAP (R) 2006  
OP: AM



0710CS727; File: TP1R

Test: 15-Oct-2007 13:57:

Blow: 181

CAPWAP (R) 2006

Urkkada

OP: AM

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 230.1; along Shaft 140.1; at Toe 90.0 kips

Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in Pile kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	6.0	-2.0	0.0	230.1	0.0	0.00*	0.00*	0.000
3	9.0	1.0	2.4	227.7	2.4	2.40	0.66	0.100
4	12.0	4.0	2.0	225.7	4.4	0.67	0.18	0.100
5	15.0	7.0	2.9	222.8	7.3	0.97	0.26	0.100
6	18.0	10.0	4.4	218.4	11.7	1.47	0.40	0.100
7	21.0	13.0	6.3	212.1	18.0	2.10	0.57	0.100
8	24.0	16.0	7.5	204.6	25.5	2.50	0.68	0.100
9	27.0	19.0	10.4	194.2	35.9	3.47	0.95	0.100
10	30.0	22.0	17.2	177.0	53.1	5.73	1.64	0.100
11	33.0	25.0	25.6	151.4	78.7	8.53	2.67	0.100
12	36.0	28.0	26.5	124.9	105.2	8.83	3.07	0.100
13	39.0	31.0	18.7	106.2	123.9	6.23	2.43	0.100
14	42.0	34.0	16.2	90.0	140.1	5.40	2.40	0.100
Avg. Shaft			10.0			4.12	1.04	0.100
Toe			90.0				255.67	0.100

\*Guide friction or other non-soil resistance.

Soil Model Parameters/Extensions	Shaft	Toe
Quake (in)	0.100	0.300
Case Damping Factor	0.728	0.467
Damping Type		Smith
Unloading Quake (% of loading quake)	30	54
Reloading Level (% of Ru)	100	100
Unloading Level (% of Ru)	2	
Soil Plug Weight (kips)		0.16

CAPWAP match quality = 13.03 (Wave Up Match) ; RSA = 0  
 Observed: final set = 0.750 in; blow count = 16 b/ft  
 Computed: final set = 0.452 in; blow count = 27 b/ft

0710CS727; Pile: TP1R

Test: 15-Oct-2007 13:57:

Blow: 181

CAPWAP (R) 2006

Urkkada

OP: AM

EXTREMA TABLE

File Sgmnt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.0	355.3	-16.6	32.9	-1.54	22.27	15.7	1.006
2	6.0	359.8	-18.9	33.3	-1.75	22.04	15.6	0.982
3	9.0	362.6	-21.1	33.6	-1.95	21.81	15.4	0.957
4	12.0	359.6	-22.4	33.3	-2.08	21.24	15.1	0.931
5	15.0	356.2	-23.9	33.0	-2.21	20.74	14.8	0.906
6	18.0	352.4	-25.0	32.6	-2.31	20.13	14.4	0.881
7	21.0	347.8	-25.9	32.2	-2.40	19.37	14.1	0.856
8	24.0	341.2	-26.4	31.6	-2.44	18.42	13.6	0.832
9	27.0	334.8	-26.6	31.0	-2.46	17.41	13.0	0.810
10	30.0	323.0	-26.4	31.3	-2.55	16.15	12.2	0.789
11	33.0	299.4	-24.9	31.9	-2.65	14.30	11.3	0.768
12	36.0	262.8	-21.9	31.1	-2.59	11.79	11.6	0.748
13	39.0	221.9	-18.4	29.6	-2.45	9.33	12.6	0.728
14	42.0	188.1	-15.6	28.7	-2.38	6.19	12.8	0.709
Absolute	9.0			33.6			(T = 27.7 ms)	
	33.0				-2.65		(T = 55.2 ms)	

max. Top Comp. Stress = 32.9 ksi (T= 31.1 ms, max= 1.021 x Top)  
 max. Comp. Stress = 33.6 ksi (Z= 9.0 ft, T= 27.7 ms)  
 max. Tens. Stress = -2.65 ksi (Z= 33.0 ft, T= 55.2 ms)  
 max. Energy (EMX) = 22.3 kip-ft; max. Measured Top Displ. (DMX)= 1.36 in

0710CS727; Pile: TP1R

Test: 15-Oct-2007 13:57:

Blow: 181

CAPWAP (R) 2006

Urkkada

OP: AM

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	352.2	325.7	299.1	272.6	246.1	219.6	193.0	166.5	140.0	113.5
RX	352.2	328.5	317.8	308.0	299.9	292.8	289.8	287.5	285.9	284.3
RU	352.2	325.7	299.1	272.6	246.1	219.6	193.0	166.5	140.0	113.5

RAU = 246.5 (kips); RA2 = 282.1 (kips)

Current CAPWAP Ru = 230.1 (kips); Corresponding J(RP) = 0.46;

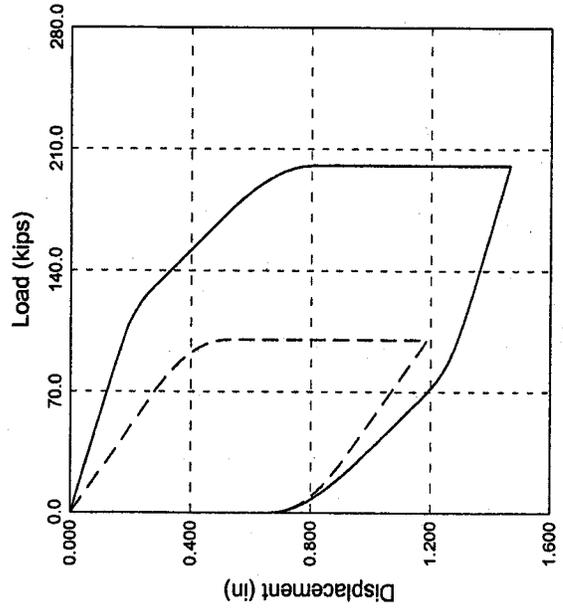
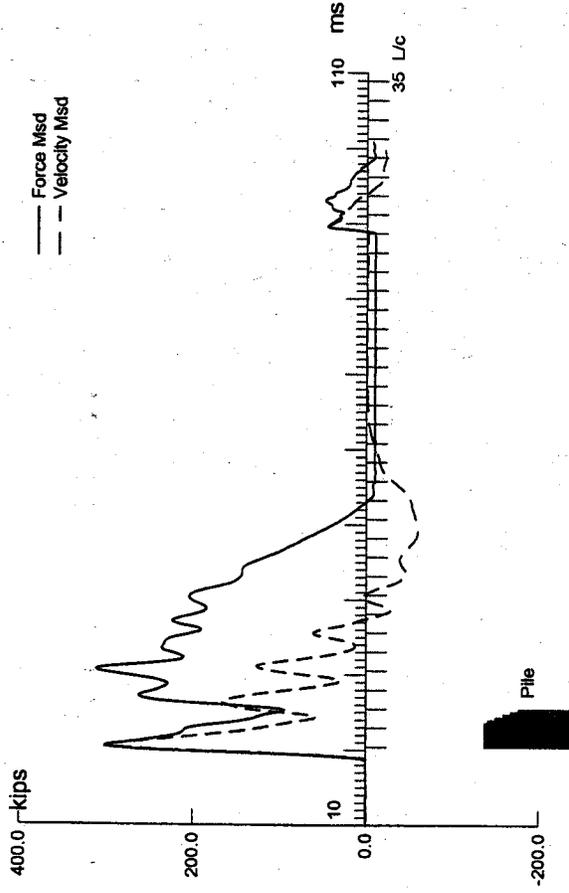
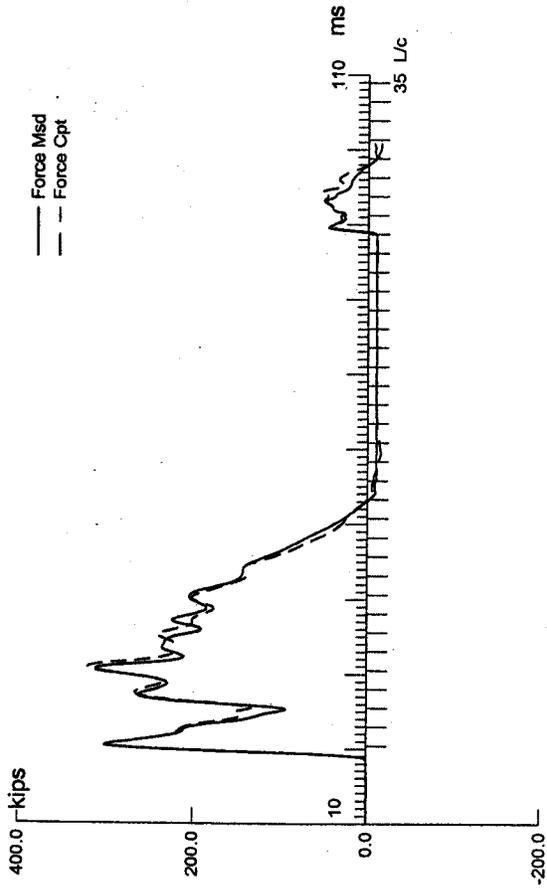
RMX requires higher damping; see PDA-W

VMX	VFN	VT1+Z	FT1	FMX	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
15.78	0.00	304.1	313.3	359.1	1.364	0.731	0.750	22.0	386.8

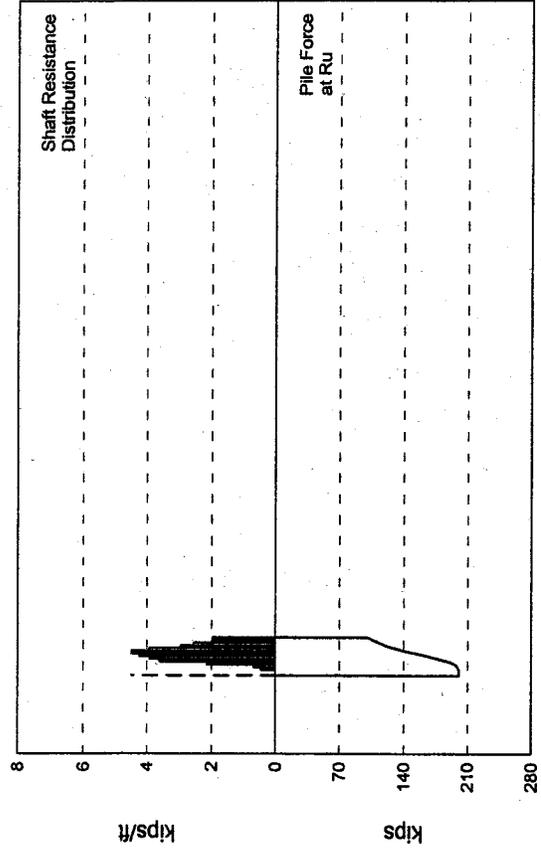
Peak Velocity Time = 20.88 ms.

0710CS727; Pile: TP-2; Blow: 93 (Test: 08-Oct-2008 13:20;)  
 Urkkada

24-Oct-2007  
 CAPWAP(R) 2006



$R_u = 200.3$  kips  
 $R_s = 100.1$  kips  
 $R_b = 100.2$  kips  
 $D_v = 0.80$  in  
 $D_x = 1.46$  in



0710CS727; Pile: TP-2

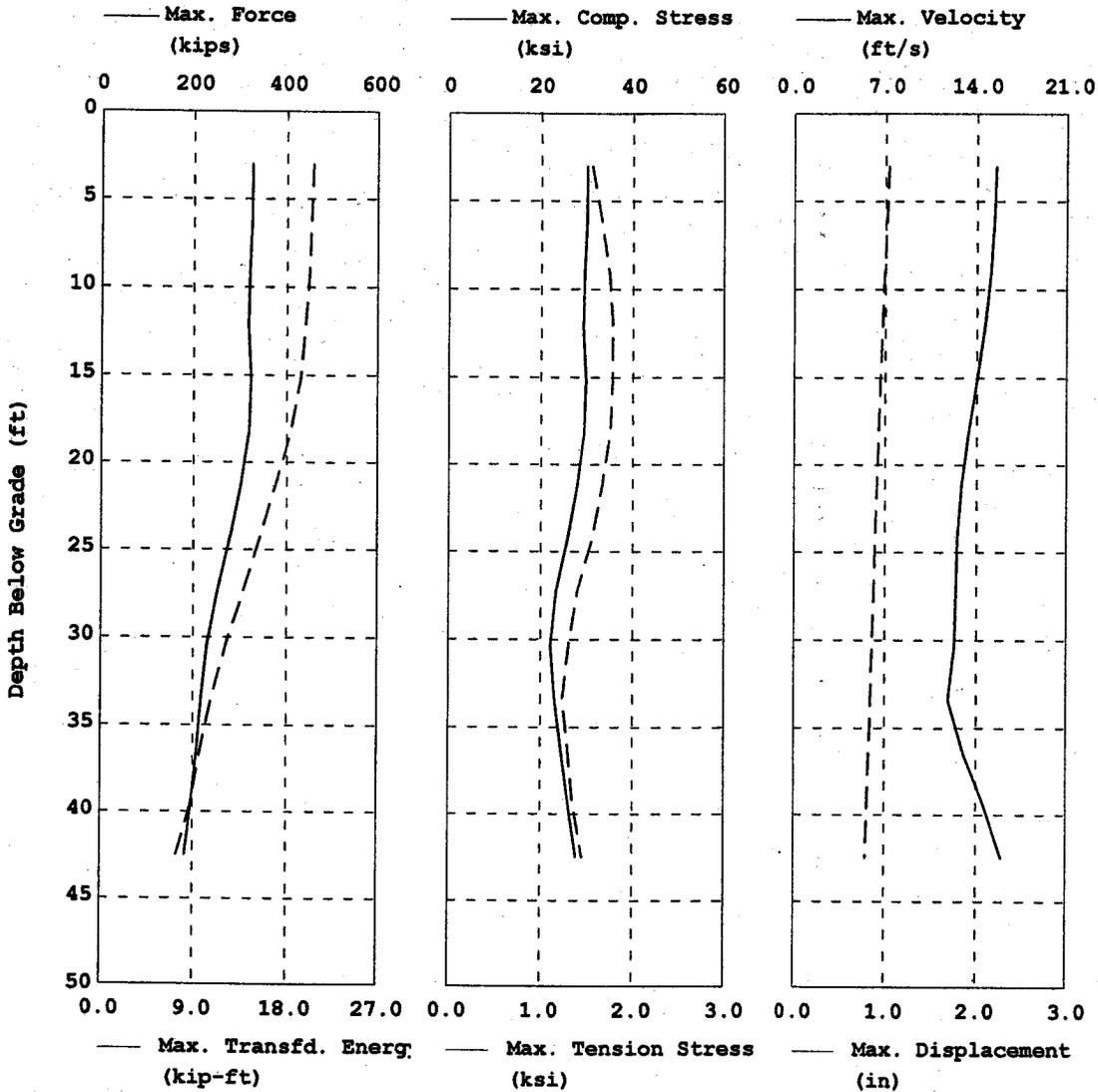
Test: 08-Oct-2008 13:20:

Blow: 93

CAPWAP(R) 2006

Urkkada

OP: PAL



0710CS727; File: TP-2

Test: 08-Oct-2008 13:20:

Blow: 93

CAPWAP (R) 2006

Urkkada

OP: PAL

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 200.3; along Shaft 100.1; at Toe 100.2 kips

Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in Pile kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	9.1	6.6	1.4	198.9	1.4	0.46	0.13	0.100
3	12.1	9.6	2.1	196.8	3.5	0.69	0.19	0.100
4	15.2	12.7	6.5	190.3	10.0	2.14	0.59	0.100
5	18.2	15.7	11.0	179.3	21.0	3.62	0.99	0.100
6	21.3	18.8	11.9	167.4	32.9	3.92	1.07	0.100
7	24.3	21.8	12.9	154.5	45.8	4.25	1.16	0.100
8	27.3	24.8	13.6	140.9	59.4	4.48	1.22	0.100
9	30.4	27.9	11.9	129.0	71.3	3.92	1.11	0.100
10	33.4	30.9	9.0	120.0	80.3	2.96	0.93	0.100
11	36.4	33.9	7.8	112.2	88.1	2.57	0.89	0.100
12	39.5	37.0	6.0	106.2	94.1	1.98	0.77	0.100
13	42.5	40.0	6.0	100.2	100.1	1.98	0.88	0.100
Avg. Shaft			7.7			2.50	0.74	0.100
Toe			100.2				287.20	0.100

Soil Model Parameters/Extensions

		Shaft	Toe
Quake	(in)	0.100	0.400
Case Damping Factor		0.519	0.520
Damping Type			Smith
Unloading Quake	(% of loading quake)	30	30
Reloading Level	(% of Ru)	100	100
Unloading Level	(% of Ru)	10	
Soil Plug Weight	(kips)		0.23

CAPWAP match quality	=	5.29	(Wave Up Match) ;	RSA = 0
Observed: final set	=	0.667 in;	blow count	= 18 b/ft
Computed: final set	=	0.598 in;	blow count	= 20 b/ft

0710CS727; Pile: TP-2

Test: 08-Oct-2008 13:20:

Blow: 93

CAPWAP(R) 2006

Urkkada

OP: PAL

EXTREMA TABLE

Pile Sgmnt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.0	324.5	-16.8	30.0	-1.56	20.53	15.5	1.036
2	6.1	324.2	-17.9	30.0	-1.66	20.35	15.3	1.014
3	9.1	319.6	-18.8	29.6	-1.74	20.16	15.1	0.991
4	12.1	316.5	-19.3	29.3	-1.78	19.79	14.6	0.969
5	15.2	323.1	-19.3	29.9	-1.78	19.34	14.0	0.947
6	18.2	318.9	-19.0	29.5	-1.75	18.39	13.4	0.927
7	21.3	301.7	-18.0	27.9	-1.67	16.94	12.9	0.909
8	24.3	279.2	-16.9	25.8	-1.56	15.42	12.6	0.891
9	27.3	252.4	-15.1	23.4	-1.40	13.83	12.5	0.873
10	30.4	230.2	-13.6	22.2	-1.31	12.21	12.3	0.857
11	33.4	218.2	-11.7	23.1	-1.24	10.80	11.9	0.840
12	36.4	209.0	-11.1	24.7	-1.30	9.74	13.0	0.824
13	39.5	196.5	-10.2	26.1	-1.36	8.83	14.6	0.807
14	42.5	182.4	-9.6	27.8	-1.46	7.46	15.9	0.790
Absolute	3.0			30.0			(T = 31.2 ms)	
	15.2				-1.78		(T = 101.0 ms)	

max. Top Comp. Stress = 30.0 ksi (T= 31.2 ms, max= 1.000 x Top)  
 max. Comp. Stress = 30.0 ksi (Z= 3.0 ft, T= 31.2 ms)  
 max. Tens. Stress = -1.78 ksi (Z= 15.2 ft, T= 101.0 ms)  
 max. Energy (EMX) = 20.5 kip-ft; max. Measured Top Displ. (DMX)= 1.14 in

0710CS727; Pile: TP-2

Test: 08-Oct-2008 13:20:

Blow: 93

CAPWAP(R) 2006

Urkkada

OP: PAL

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	279.7	247.2	214.6	182.0	149.5	116.9	84.3	51.8	19.2	0.0
RX	283.1	268.2	253.3	245.0	240.9	236.9	233.7	230.6	227.5	224.9
RU	279.7	247.2	214.6	182.0	149.5	116.9	84.3	51.8	19.2	0.0

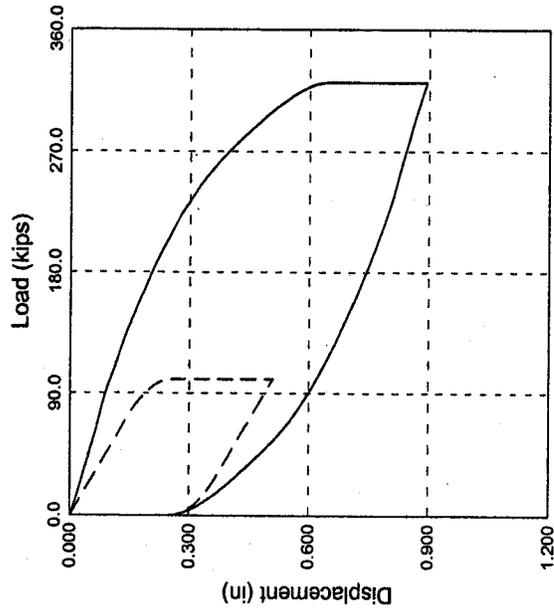
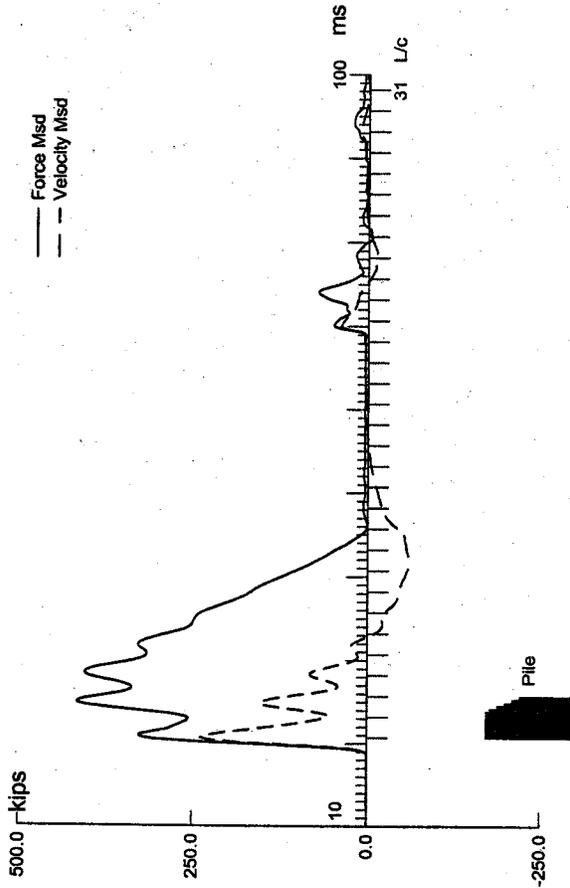
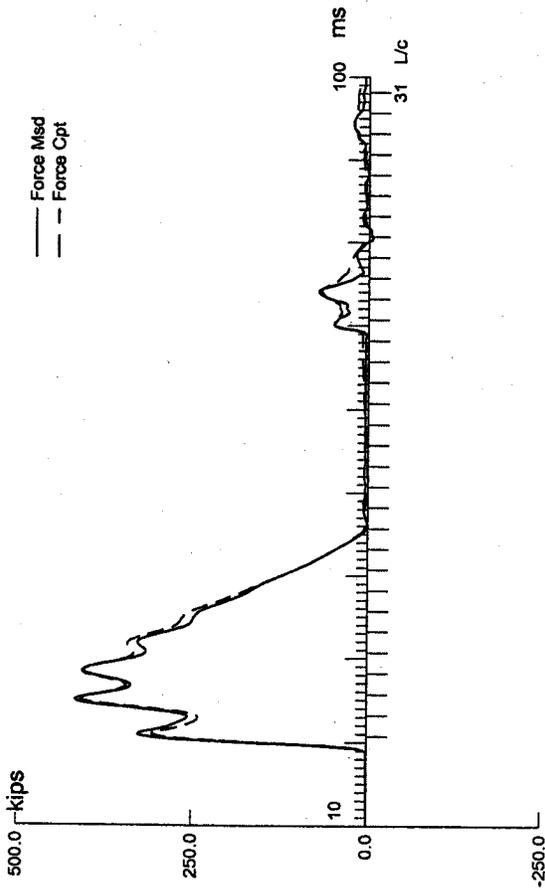
RAU = 199.8 (kips); RA2 = 234.4 (kips)

Current CAPWAP Ru = 200.3 (kips); Corresponding J(RP) = 0.24;

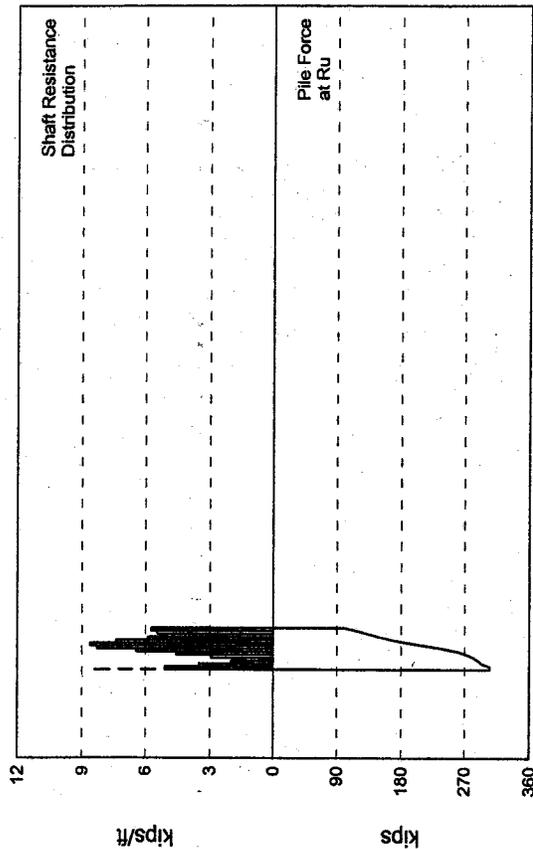
RMK requires higher damping; see PDA-W

VMX	VFN	VT1+Z	FT1	FMX	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
15.56	0.00	299.9	305.5	313.4	1.141	0.669	0.667	21.7	455.8

Peak Velocity Time = 20.59 ms.

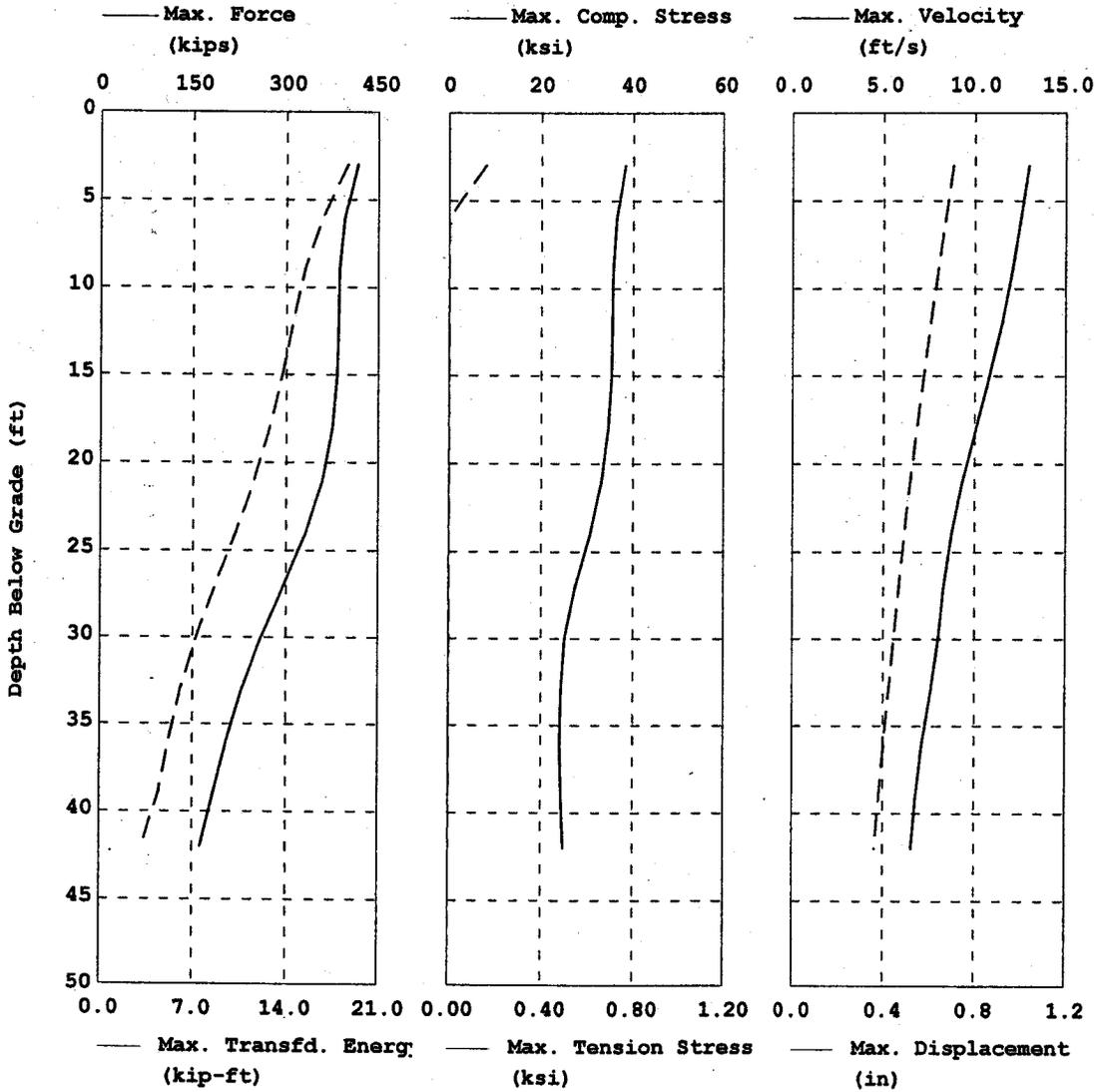


RU = 320.7 kips  
 Rs = 220.2 kips  
 Rb = 100.5 kips  
 Dy = 0.64 in  
 Dx = 0.89 in



0710CS727; Pile: TP2  
 Blow: 3  
 Urkkada

Test: 15-Oct-2007 12:36:  
 CAPWAP (R) 2006  
 OP: AM



0710CS727; Pile: TP2

Test: 15-Oct-2007 12:36:

Blow: 3

CAPWAP (R) 2006

Urkkada

OP: AM

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 320.7; along Shaft 220.2; at Toe 100.5 kips

Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in Pile kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	6.0	6.0	10.6	294.7	26.0	3.53	0.97	0.100
3	9.0	9.0	6.0	288.7	32.0	2.00	0.55	0.100
4	12.0	12.0	5.8	282.9	37.8	1.93	0.53	0.100
5	15.0	15.0	8.9	274.0	46.7	2.97	0.81	0.100
6	18.0	18.0	13.7	260.3	60.4	4.57	1.25	0.100
7	21.0	21.0	19.4	240.9	79.8	6.47	1.77	0.100
8	24.0	24.0	24.9	216.0	104.7	8.30	2.27	0.100
9	27.0	27.0	25.9	190.1	130.6	8.63	2.36	0.100
10	30.0	30.0	22.3	167.8	152.9	7.43	2.12	0.100
11	33.0	33.0	17.7	150.1	170.6	5.90	1.85	0.100
12	36.0	36.0	16.0	134.1	186.6	5.33	1.85	0.100
13	39.0	39.0	16.4	117.7	203.0	5.47	2.13	0.100
14	42.0	42.0	17.2	100.5	220.2	5.73	2.55	0.100
Avg. Shaft			15.7			5.24	1.55	0.100
Toe			100.5				285.50	0.100

Soil Model Parameters/Extensions

		Shaft	Toe
Quake	(in)	0.100	0.200
Case Damping Factor		1.142	0.521
Reloading Level	(% of Ru)	100	100
Unloading Level	(% of Ru)	20	
Soil Plug Weight	(kips)		0.04

CAPWAP match quality = 2.76 (Wave Up Match) ; RSA = 0  
 Observed: final set = 0.250 in; blow count = 48 b/ft  
 Computed: final set = 0.268 in; blow count = 45 b/ft

0710CS727; File: TP2

Test: 15-Oct-2007 12:36:

Blow: 3

CAPWAP (R) 2006

Urkkada

OP: AM

EXTREMA TABLE

File Sgmt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.0	413.5	-1.7	38.3	-0.16	18.58	12.9	0.706
2	6.0	392.9	0.0	36.4	0.00	16.69	12.5	0.672
3	9.0	385.1	0.0	35.6	0.00	15.36	12.0	0.639
4	12.0	383.5	0.0	35.5	0.00	14.49	11.5	0.607
5	15.0	381.4	0.0	35.3	0.00	13.69	10.8	0.576
6	18.0	373.8	0.0	34.6	0.00	12.73	10.1	0.546
7	21.0	357.5	0.0	33.1	0.00	11.57	9.3	0.518
8	24.0	331.1	0.0	30.7	0.00	10.20	8.7	0.491
9	27.0	295.9	0.0	27.4	0.00	8.69	8.3	0.468
10	30.0	259.5	0.0	25.1	0.00	7.25	8.0	0.446
11	33.0	228.4	0.0	24.3	0.00	6.09	7.6	0.424
12	36.0	204.2	0.0	24.2	0.00	5.20	7.2	0.403
13	39.0	183.1	0.0	24.4	0.00	4.45	6.8	0.382
14	42.0	163.3	0.0	24.9	0.00	3.20	6.6	0.360
Absolute	3.0			38.3			(T = 25.3 ms)	
	3.0				-0.16		(T = 81.6 ms)	

max. Top Comp. Stress = 38.3 ksi (T= 25.3 ms, max= 1.000 x Top)  
 max. Comp. Stress = 38.3 ksi (Z= 3.0 ft, T= 25.3 ms)  
 max. Tens. Stress = -0.16 ksi (Z= 3.0 ft, T= 81.6 ms)  
 max. Energy (EMX) = 18.6 kip-ft; max. Measured Top Displ. (DMX)= 0.72 in

0710CS727; File: TP2

Test: 15-Oct-2007 12:36:

Blow: 3

CAPWAP (R) 2006

Urkkada

OP: AM

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	415.5	400.6	385.7	370.9	356.0	341.1	326.2	311.3	296.4	281.5
RX	442.8	430.0	417.1	404.2	391.3	378.4	366.1	353.9	343.1	334.9
RU	415.5	400.6	385.7	370.9	356.0	341.1	326.2	311.3	296.4	281.5

RAU = 318.0 (kips); RA2 = 387.3 (kips)

Current CAPWAP Ru = 320.7 (kips); Corresponding J(RP) = 0.64

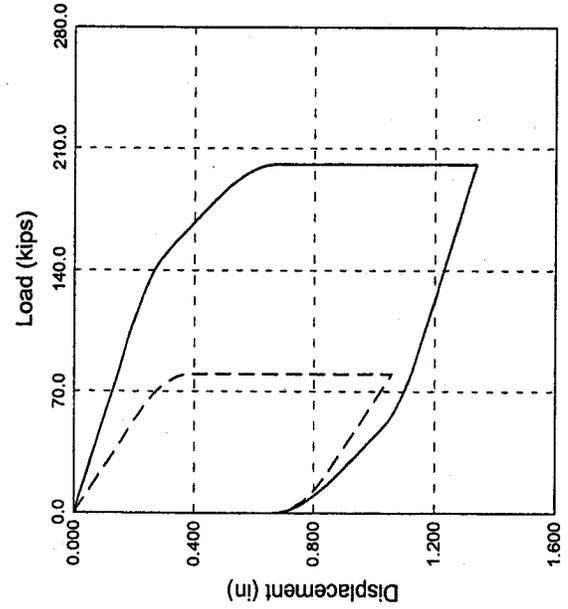
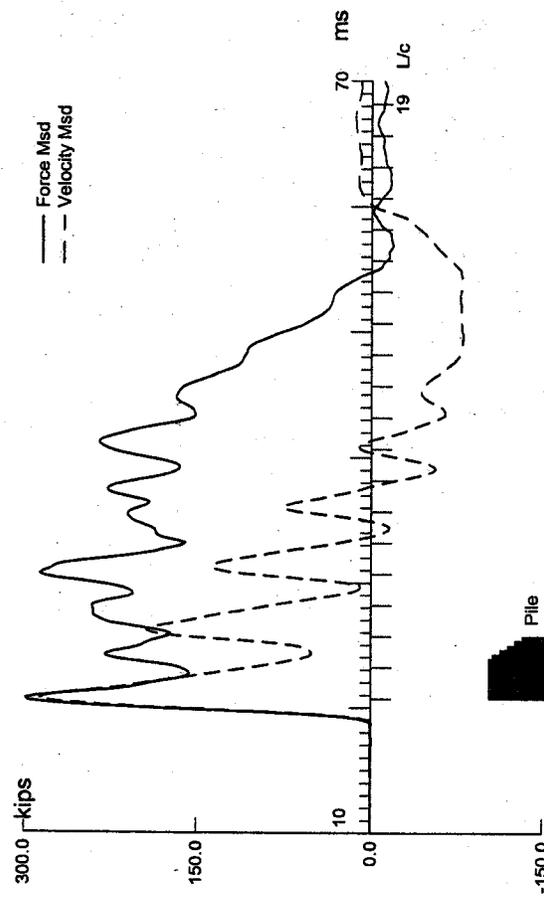
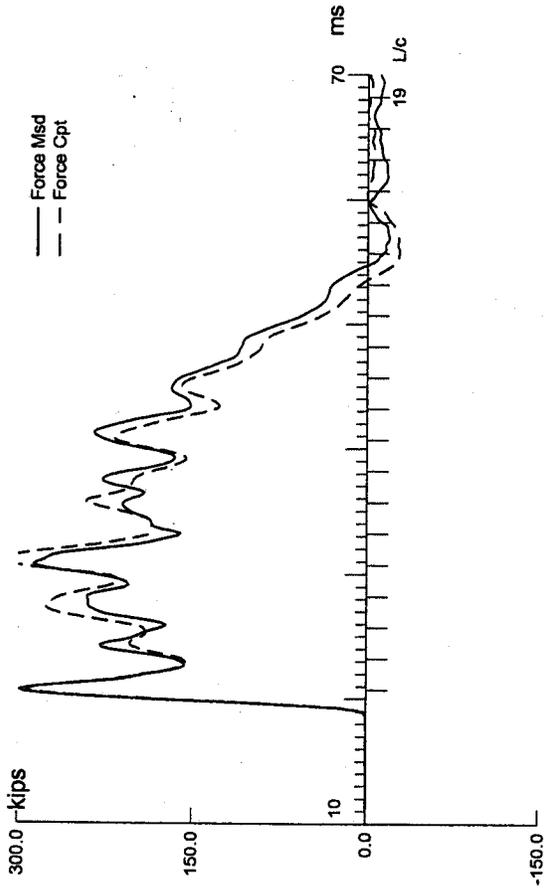
J(RX) = 0.9 matches RX9 within 5%

VMX	VFN	VT1*Z	FT1	FMX	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
12.50	0.00	240.9	323.5	417.4	0.724	0.248	0.250	19.4	643.4

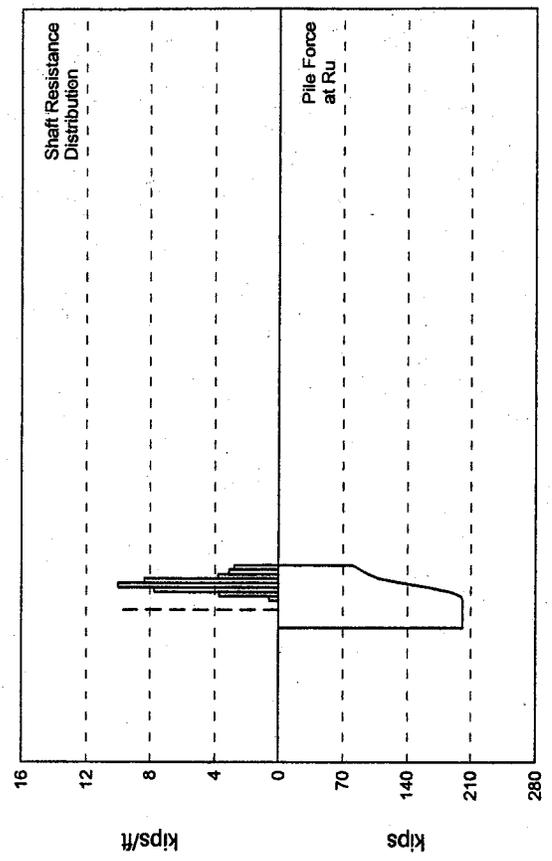
Peak Velocity Time = 20.88 ms.

0710CS727; Pile: TP2R; Blow: 173 (Test: 15-Oct-2007 13:15:)  
 Urkkada

24-Oct-2007  
 CAPWAP(R) 2006

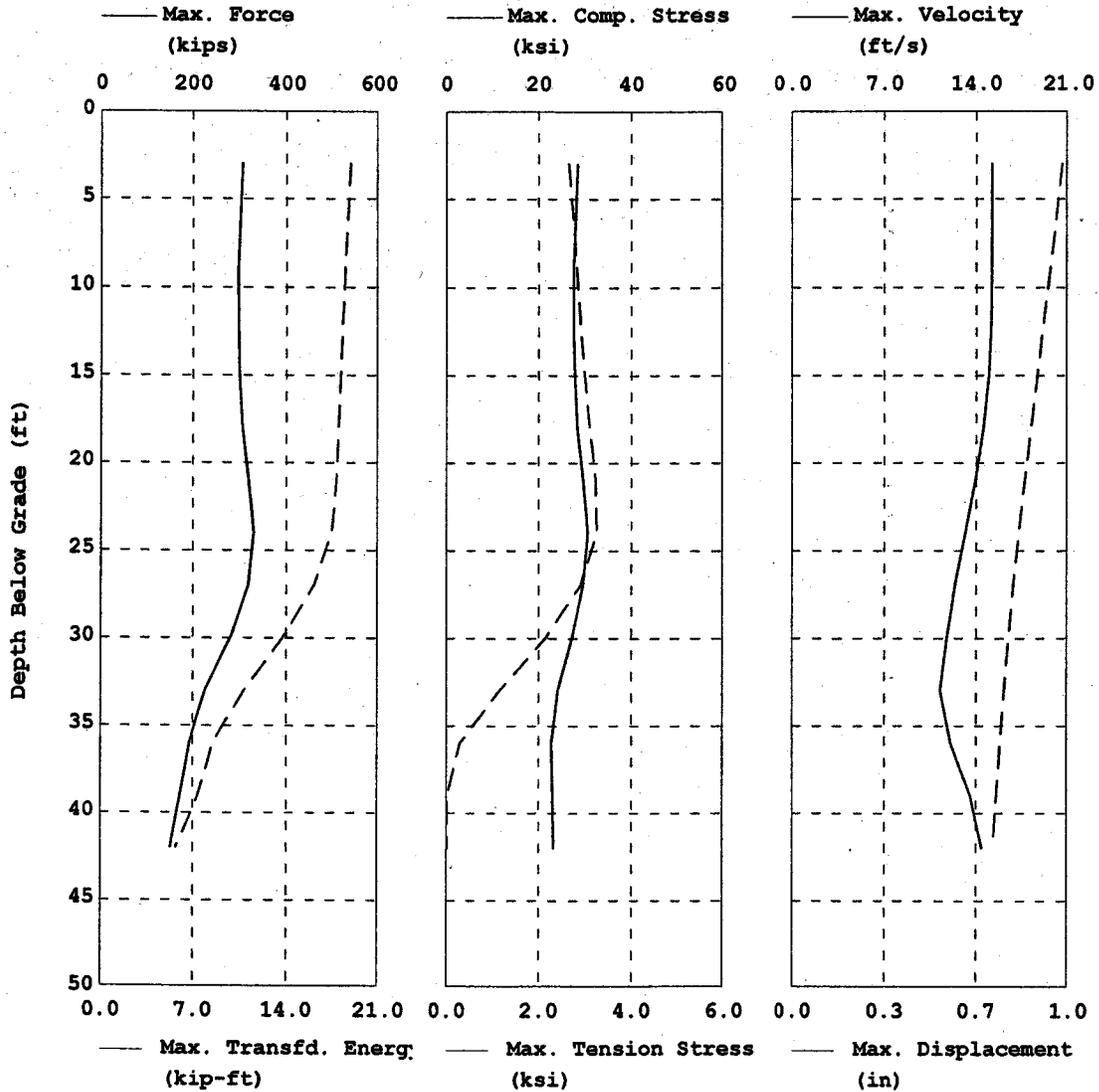


Ru = 200.8 kips  
 Rs = 120.6 kips  
 Rb = 80.2 kips  
 Dy = 0.67 in  
 Dx = 1.34 in



0710CS727; Pile: TP2R  
 Blow: 173  
 Urkkada

Test: 15-Oct-2007 13:15:  
 CAPWAP (R) 2006  
 OP: AM



0710CS727; File: TP2R  
 Blow: 173  
 Urkkada

Test: 15-Oct-2007 13:15:  
 CAPWAP(R) 2006  
 OP: AM

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 200.8; along Shaft 120.6; at Toe 80.2 kips								
Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in File kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	6.0	-9.0	0.0	200.8	0.0	0.00*	0.00*	0.000
3	9.0	-6.0	0.0	200.8	0.0	0.00*	0.00*	0.000
4	12.0	-3.0	0.0	200.8	0.0	0.00*	0.00*	0.000
5	15.0	0.0	0.0	200.8	0.0	0.00	0.00	0.000
6	18.0	3.0	0.0	200.8	0.0	0.00	0.00	0.000
7	21.0	6.0	1.8	199.0	1.8	0.60	0.16	0.100
8	24.0	9.0	11.2	187.8	13.0	3.73	1.02	0.100
9	27.0	12.0	23.3	164.5	36.3	7.77	2.12	0.100
10	30.0	15.0	30.2	134.3	66.5	10.07	2.87	0.100
11	33.0	18.0	25.1	109.2	91.6	8.37	2.62	0.100
12	36.0	21.0	11.4	97.8	103.0	3.80	1.32	0.100
13	39.0	24.0	9.3	88.5	112.3	3.10	1.21	0.100
14	42.0	27.0	8.3	80.2	120.6	2.77	1.23	0.100
Avg. Shaft			8.6			4.47	0.92	0.100
Toe			80.2				227.83	0.100

\*Guide friction or other non-soil resistance.

Soil Model Parameters/Extensions	Shaft	Toe
Quake (in)	0.100	0.300
Case Damping Factor	0.626	0.416
Damping Type		Smith
Reloading Level (% of Ru)	100	100
Unloading Level (% of Ru)	20	
Soil Plug Weight (kips)		0.15

CAPWAP match quality = 13.67 (Wave Up Match) ; RSA = 0  
 Observed: final set = 0.667 in; blow count = 18 b/ft  
 Computed: final set = 0.456 in; blow count = 26 b/ft

0710CS727; Pile: TP2R

Test: 15-Oct-2007 13:15:

Blow: 173

CAPWAP(R) 2006

Urkkada

OP: AM

EXTREMA TABLE

Pile Sgmt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.0	306.4	-28.6	28.4	-2.65	18.84	15.2	0.977
2	6.0	301.7	-29.6	27.9	-2.74	18.65	15.2	0.955
3	9.0	296.8	-30.5	27.5	-2.82	18.46	15.2	0.933
4	12.0	297.2	-31.3	27.5	-2.89	18.27	15.1	0.910
5	15.0	299.6	-32.3	27.7	-2.99	18.13	14.9	0.887
6	18.0	305.5	-33.5	28.3	-3.10	17.97	14.5	0.864
7	21.0	319.3	-34.9	29.6	-3.23	17.80	13.9	0.842
8	24.0	330.2	-35.2	30.6	-3.26	17.43	13.2	0.821
9	27.0	318.5	-31.3	29.5	-2.89	16.11	12.4	0.800
10	30.0	280.7	-22.1	27.2	-2.14	13.73	11.8	0.783
11	33.0	226.6	-10.9	24.1	-1.16	10.85	11.2	0.767
12	36.0	192.0	-2.5	22.7	-0.29	8.51	12.1	0.753
13	39.0	172.7	-0.1	23.0	-0.02	7.41	13.6	0.741
14	42.0	152.2	-0.1	23.2	-0.01	5.73	14.4	0.727
Absolute	24.0			30.6			(T = 22.5 ms)	
	24.0				-3.26		(T = 57.5 ms)	

max. Top Comp. Stress = 28.4 ksi (T= 31.2 ms, max= 1.078 x Top)  
 max. Comp. Stress = 30.6 ksi (Z= 24.0 ft, T= 22.5 ms)  
 max. Tens. Stress = -3.26 ksi (Z= 24.0 ft, T= 57.5 ms)  
 max. Energy (EMX) = 18.8 kip-ft; max. Measured Top Displ. (DMX)= 1.16 in

0710CS727; Pile: TP2R

Test: 15-Oct-2007 13:15:

Blow: 173

CAPWAP(R) 2006

Urkkada

OP: AM

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	300.1	270.7	241.2	211.7	182.2	152.8	123.3	93.8	64.4	34.9
RX	300.1	270.7	250.7	244.6	242.1	241.1	240.6	240.0	239.5	239.0
RU	300.1	270.7	241.2	211.7	182.2	152.8	123.3	93.8	64.4	34.9

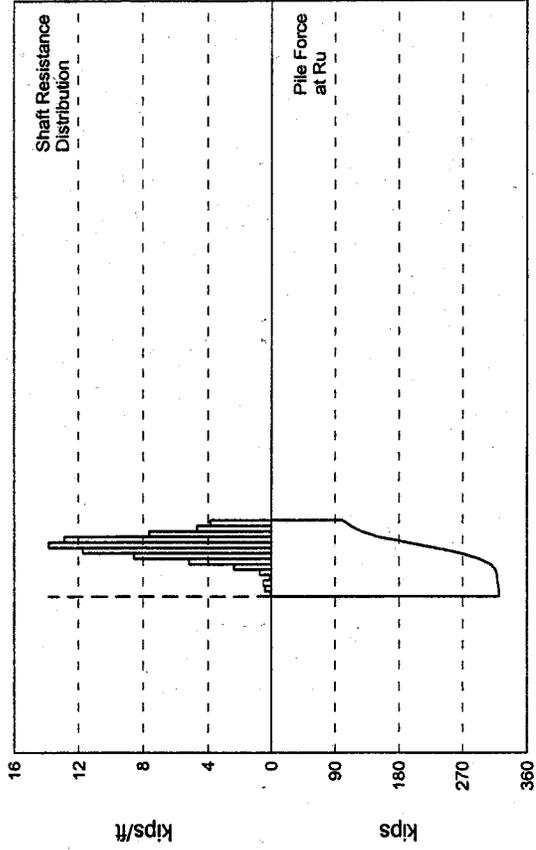
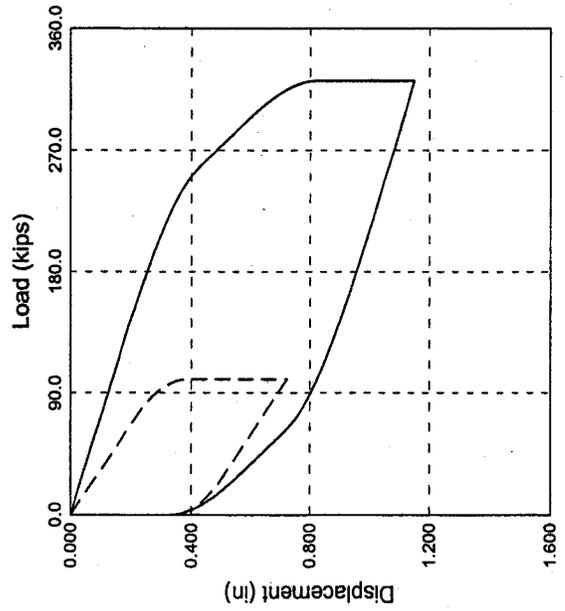
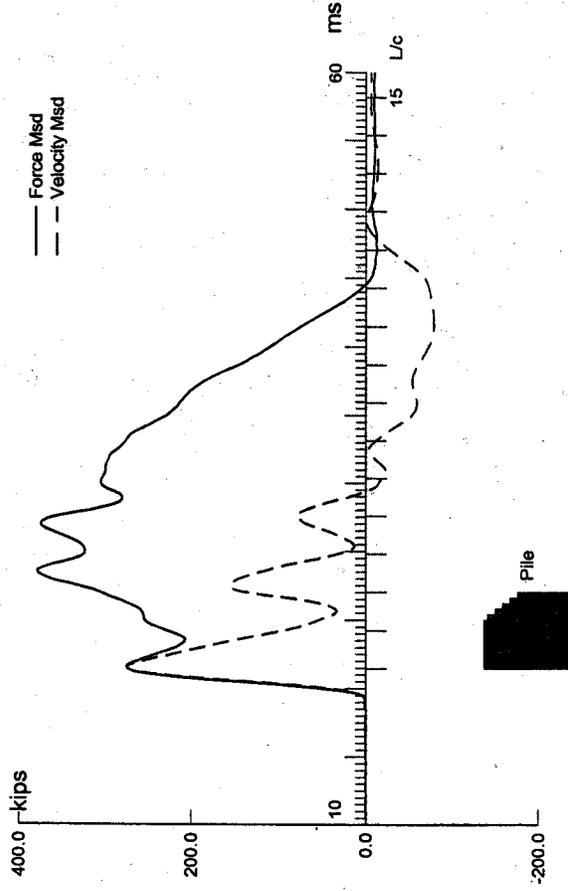
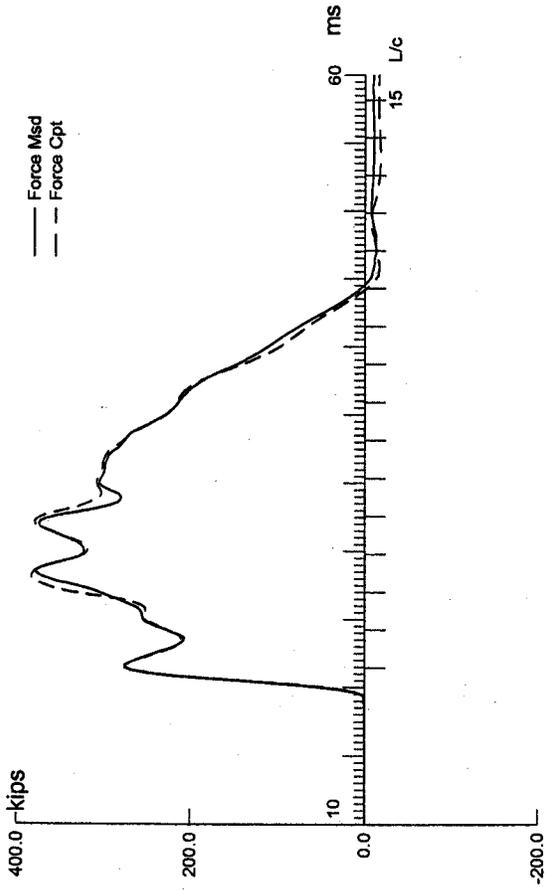
RAU = 221.6 (kips); RA2 = 213.0 (kips)

Current CAPWAP Ru = 200.8 (kips); Corresponding J(RP) = 0.34;

RMK requires higher damping; see PDA-W

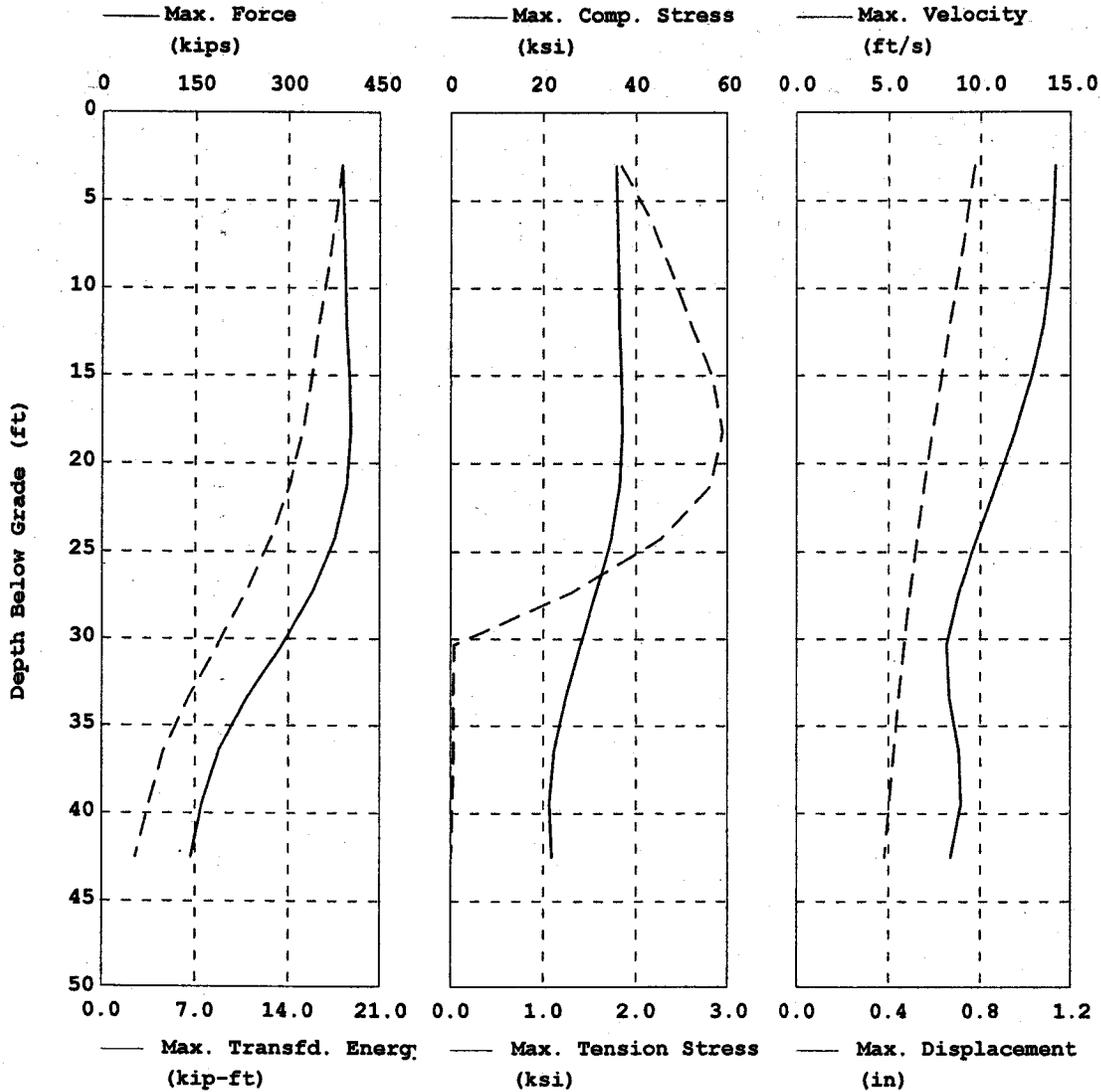
VMX	VFN	VT1+Z	FT1	FMX	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
15.14	0.00	291.8	303.0	303.0	1.160	0.664	0.667	20.3	420.8

Peak Velocity Time = 20.88 ms.



0710CS727; Pile: 70  
Blow: 172  
Urkkada

Test: 08-Oct-2008 09:32:  
CAPWAP(R) 2006  
OP: PAL



0710CS727; Pile: 70

Test: 08-Oct-2008 09:32:

Blow: 172

CAPWAP (R) 2006

Urkkada

OP: PAL

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 320.9; along Shaft 220.7; at Toe 100.2 kips

Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in Pile kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	6.1	6.1	1.2	319.6	1.3	0.40	0.11	0.100
3	9.1	9.1	1.6	318.0	2.9	0.53	0.14	0.100
4	12.1	12.1	0.3	317.7	3.2	0.10	0.03	0.100
5	15.2	15.2	2.3	315.4	5.5	0.76	0.21	0.100
6	18.2	18.2	7.2	308.2	12.7	2.37	0.65	0.100
7	21.3	21.3	15.8	292.4	28.5	5.20	1.42	0.100
8	24.3	24.3	26.1	266.3	54.6	8.60	2.35	0.100
9	27.3	27.3	35.6	230.7	90.2	11.73	3.20	0.100
10	30.4	30.4	42.1	188.6	132.3	13.87	3.94	0.100
11	33.4	33.4	39.2	149.4	171.5	12.91	4.03	0.100
12	36.4	36.4	23.2	126.2	194.7	7.64	2.65	0.100
13	39.5	39.5	14.3	111.9	209.0	4.71	1.83	0.100
14	42.5	42.5	11.7	100.2	220.7	3.85	1.71	0.100
Avg. Shaft			15.8			5.19	1.53	0.100
Toe			100.2				287.20	0.100

Soil Model Parameters/Extensions	Shaft	Toe
Quake (in)	0.100	0.300
Case Damping Factor	1.145	0.520
Damping Type		Smith
Unloading Quake (% of loading quake)	30	54
Reloading Level (% of Ru)	100	100
Unloading Level (% of Ru)	30	
Soil Plug Weight (kips)		0.00

CAPWAP match quality = 3.12 (Wave Up Match) ; RSA = 0  
 Observed: final set = 0.333 in; blow count = 36 b/ft  
 Computed: final set = 0.310 in; blow count = 39 b/ft

0710CS727; Pile: 70  
 Blow: 172  
 Urkkada

Test: 08-Oct-2008 09:32:  
 CAPWAP(R) 2006  
 OP: PAL

EXTREMA TABLE

Pile Sgmt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.0	386.6	-19.9	35.8	-1.84	18.03	14.1	0.775
2	6.1	389.5	-23.3	36.1	-2.16	17.55	14.0	0.739
3	9.1	391.4	-25.7	36.2	-2.38	16.94	13.8	0.703
4	12.1	393.5	-28.1	36.4	-2.60	16.29	13.4	0.666
5	15.2	398.4	-30.6	36.9	-2.83	15.76	12.7	0.629
6	18.2	400.3	-31.7	37.1	-2.93	15.07	11.9	0.592
7	21.3	394.5	-30.4	36.5	-2.81	14.08	10.9	0.556
8	24.3	374.8	-24.4	34.7	-2.26	12.65	9.8	0.523
9	27.3	339.1	-14.1	31.4	-1.31	10.81	8.8	0.494
10	30.4	290.2	-0.4	28.0	-0.03	8.71	8.2	0.468
11	33.4	233.6	-0.3	24.8	-0.03	6.53	8.3	0.444
12	36.4	188.4	-0.3	22.2	-0.03	4.66	8.8	0.423
13	39.5	160.5	-0.2	21.3	-0.02	3.56	8.9	0.403
14	42.5	142.9	-0.0	21.7	-0.00	2.50	8.4	0.382
Absolute	18.2			37.1			(T = 27.8 ms)	
	18.2				-2.93		(T = 47.9 ms)	

max. Top Comp. Stress = 35.8 ksi (T= 26.9 ms, max= 1.035 x Top)  
 max. Comp. Stress = 37.1 ksi (Z= 18.2 ft, T= 27.8 ms)  
 max. Tens. Stress = -2.93 ksi (Z= 18.2 ft, T= 47.9 ms)  
 max. Energy (EMX) = 18.0 kip-ft; max. Measured Top Displ. (DMX)= 0.85 in

0710CS727; File: 70

Test: 08-Oct-2008 09:32:

Blow: 172

CAPWAP(R) 2006

Urkkada

OP: PAL

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	360.8	342.0	323.2	304.4	285.6	266.8	248.0	229.2	210.4	191.6
RX	380.7	369.8	361.7	354.2	346.8	341.8	336.8	331.8	328.1	326.2
RU	360.8	342.0	323.2	304.4	285.6	266.8	248.0	229.2	210.4	191.6

RAU = 313.0 (kips); RA2 = 311.9 (kips)

Current CAPWAP Ru = 320.9 (kips); Corresponding J(RP) = 0.21

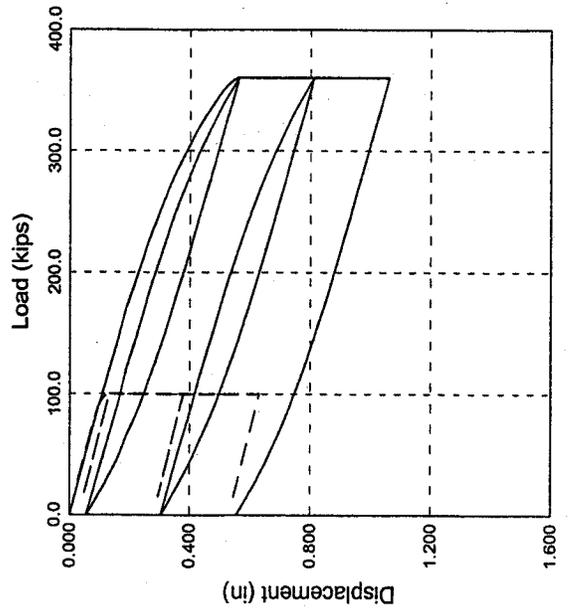
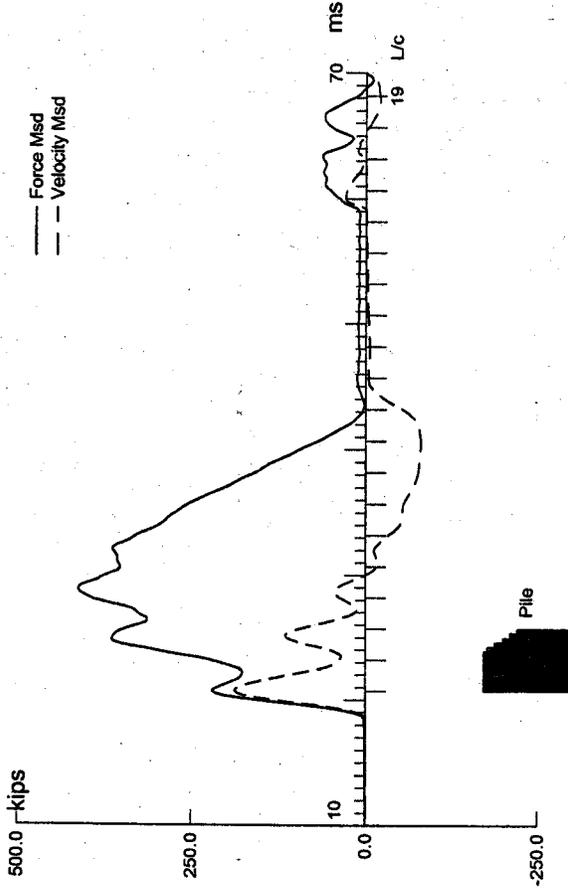
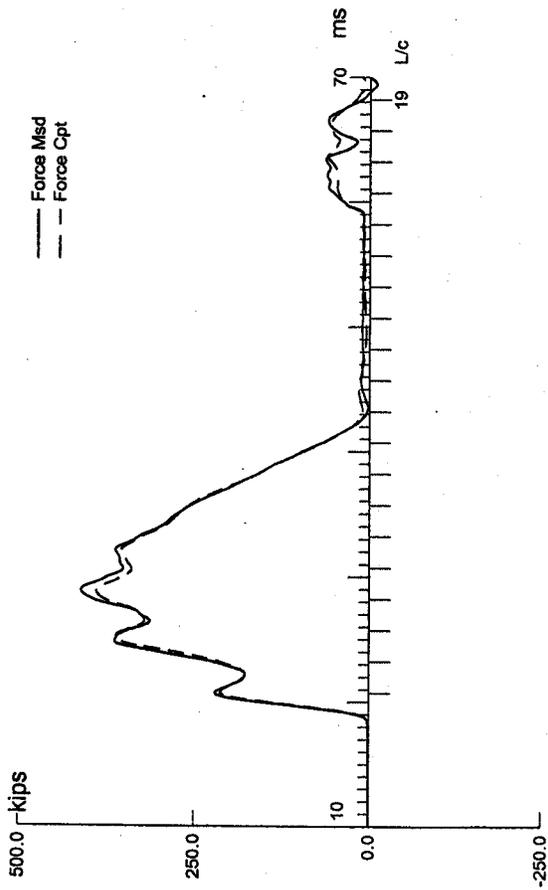
J(RX) = 0.9 matches RX9 within 5%

VMX	VFN	VT1+Z	FT1	FMX	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
14.24	0.00	274.6	274.1	380.6	0.852	0.336	0.333	19.5	548.7

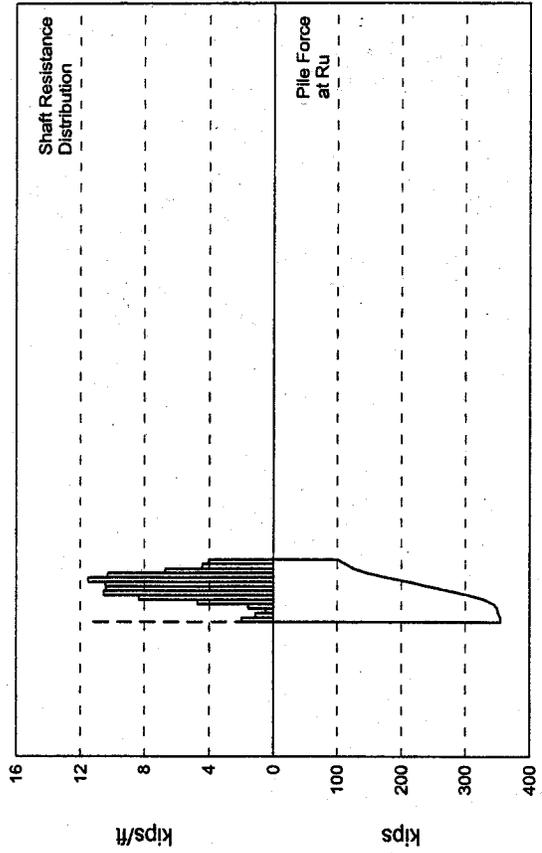
Peak Velocity Time = 20.59 ms.

0710CS727; Pile: 145; Blow: 4 (Test: 15-Oct-2007 11:46:)  
Urkada

24-Oct-2007  
CAPWAP(R) 2006



RU = 360.2 kips  
 Rs = 260.1 kips  
 Rb = 100.1 kips  
 Dy = 0.56 in  
 Dx = 1.06 in



0710CS727; Pile: 145

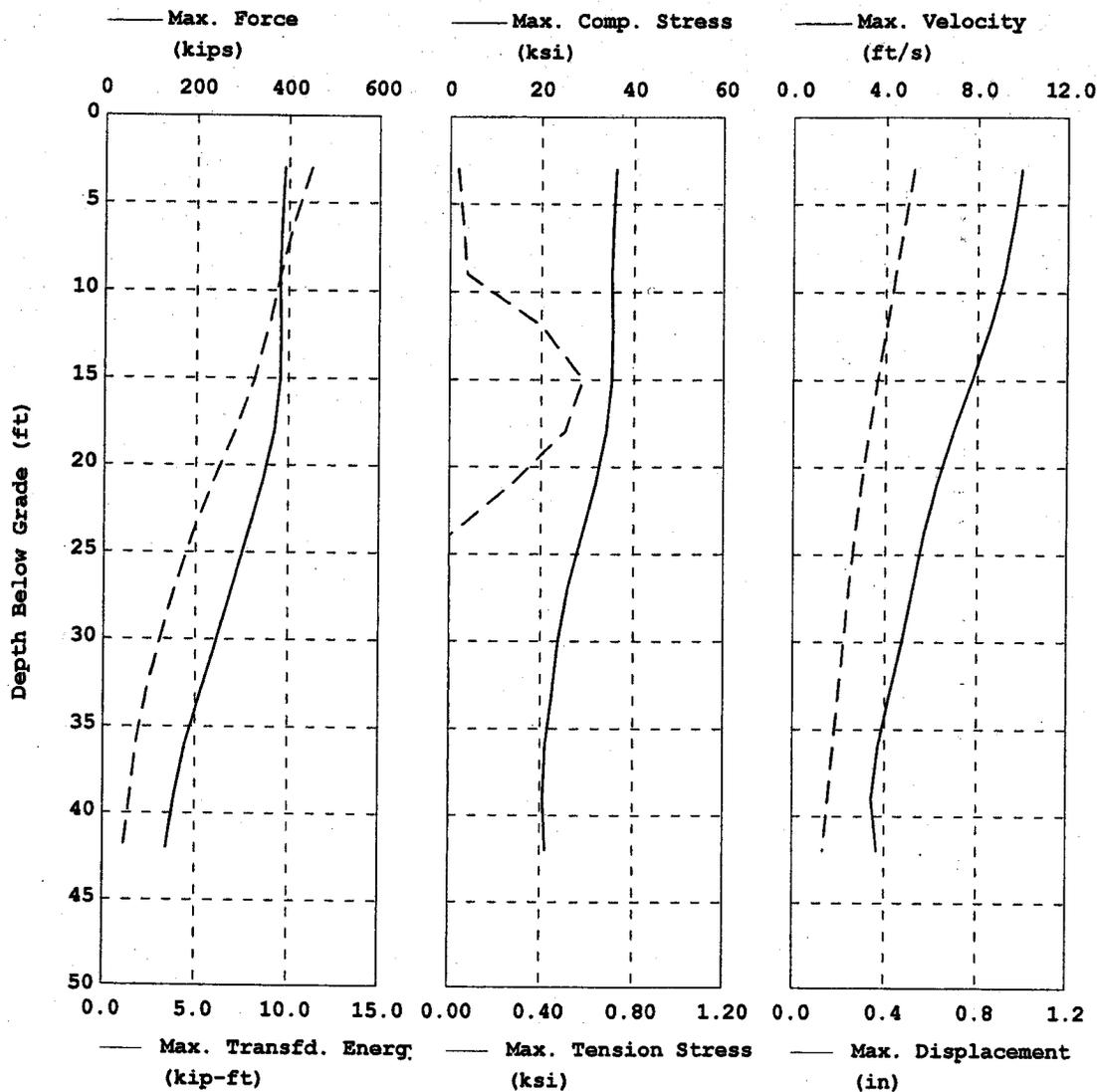
Blow: 4

Urkkada

Test: 15-Oct-2007 11:46:

CAPWAP(R) 2006

OP: AM



0710CS727; Pile: 145  
 Blow: 4  
 Urkkada

Test: 15-Oct-2007 11:46:  
 CAPWAP (R) 2006  
 OP: AM

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 360.2; along Shaft 260.1; at Toe 100.1 kips

Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in Pile kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	6.0	6.0	3.4	350.9	9.3	1.13	0.31	0.100
3	9.0	9.0	1.5	349.4	10.8	0.50	0.14	0.100
4	12.0	12.0	4.7	344.7	15.5	1.57	0.43	0.100
5	15.0	15.0	14.1	330.6	29.6	4.70	1.28	0.100
6	18.0	18.0	25.1	305.5	54.7	8.37	2.29	0.100
7	21.0	21.0	31.7	273.8	86.4	10.57	2.89	0.100
8	24.0	24.0	31.3	242.5	117.7	10.43	2.85	0.100
9	27.0	27.0	31.4	211.1	149.1	10.47	2.86	0.100
10	30.0	30.0	34.6	176.5	183.7	11.53	3.29	0.100
11	33.0	33.0	31.0	145.5	214.7	10.33	3.24	0.100
12	36.0	36.0	20.1	125.4	234.8	6.70	2.33	0.100
13	39.0	39.0	13.2	112.2	248.0	4.40	1.72	0.100
14	42.0	42.0	12.1	100.1	260.1	4.03	1.79	0.100
Avg. Shaft			18.6			6.19	1.83	0.100
Toe			100.1				284.36	0.100

Soil Model Parameters/Extensions	Shaft	Toe
Quake (in)	0.100	0.100
Case Damping Factor	1.349	0.519
Reloading Level (% of Ru)	100	100
Unloading Level (% of Ru)	10	
Soil Plug Weight (kips)		0.22

CAPWAP match quality	=	7.14	(Wave Up Match) ; RSA = 2
Observed: final set	=	0.250 in;	blow count = 48 b/ft
Computed: final set	=	0.051 in;	blow count = 234 b/ft

0710CS727; Pile: 145

Test: 15-Oct-2007 11:46:

Blow: 4

CAPWAP (R) 2006

Urkkada

OP: AM

EXTREMA TABLE

Pile Sgmt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.0	390.5	-0.4	36.1	-0.04	11.23	9.9	0.520
2	6.0	384.2	-0.6	35.6	-0.06	10.31	9.6	0.481
3	9.0	381.0	-0.8	35.3	-0.07	9.57	9.2	0.442
4	12.0	382.9	-4.4	35.4	-0.41	8.92	8.6	0.403
5	15.0	381.8	-6.3	35.3	-0.58	8.16	7.8	0.364
6	18.0	368.8	-5.4	34.1	-0.50	7.12	6.9	0.327
7	21.0	343.3	-3.0	31.8	-0.27	5.94	6.2	0.294
8	24.0	311.5	0.0	28.8	0.00	4.82	5.6	0.265
9	27.0	278.9	0.0	25.8	0.00	3.89	5.2	0.240
10	30.0	246.6	0.0	23.9	0.00	3.10	4.7	0.217
11	33.0	211.8	0.0	22.6	0.00	2.38	4.2	0.194
12	36.0	178.5	0.0	21.1	0.00	1.82	3.7	0.173
13	39.0	155.3	0.0	20.7	0.00	1.46	3.4	0.153
14	42.0	138.9	0.0	21.2	0.00	1.12	3.7	0.132
Absolute	3.0			36.1			(T = 29.1 ms)	
	15.0				-0.58		(T = 44.1 ms)	

max. Top Comp. Stress = 36.1 ksi (T= 29.1 ms, max= 1.000 x Top)  
 max. Comp. Stress = 36.1 ksi (Z= 3.0 ft, T= 29.1 ms)  
 max. Tens. Stress = -0.58 ksi (Z= 15.0 ft, T= 44.1 ms)  
 max. Energy (EMX) = 11.2 kip-ft; max. Measured Top Displ. (DMX)= 0.49 in

0710CS727; Pile: 145

Test: 15-Oct-2007 11:46:

Blow: 4

CAPWAP(R) 2006

Urkkada

OP: AM

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	331.4	323.5	315.5	307.5	299.5	291.5	283.5	275.6	267.6	259.6
RX	426.0	420.7	415.4	410.1	404.7	399.4	394.1	388.7	383.4	378.1
RU	331.4	323.5	315.5	307.5	299.5	291.5	283.5	275.6	267.6	259.6

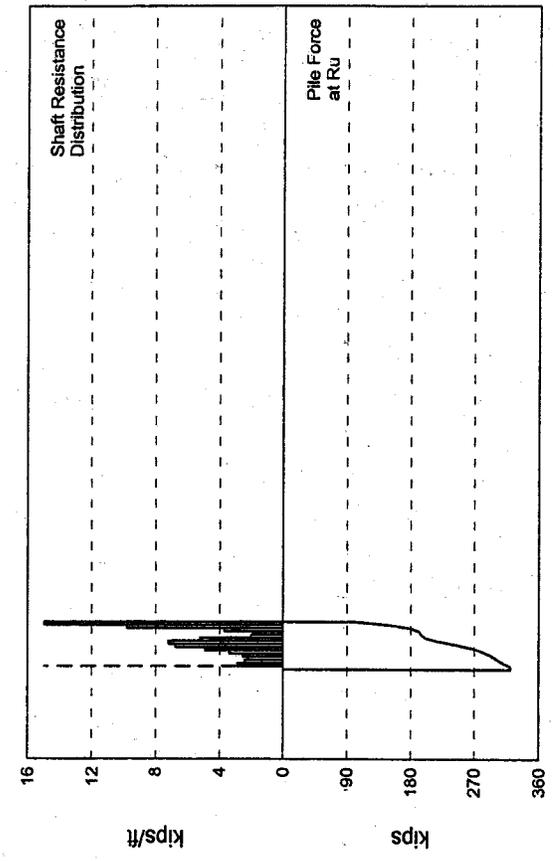
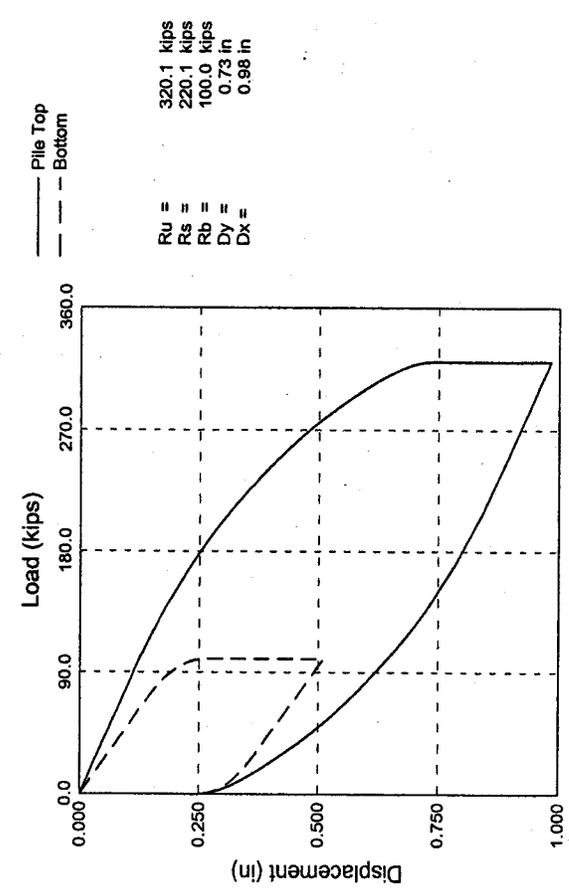
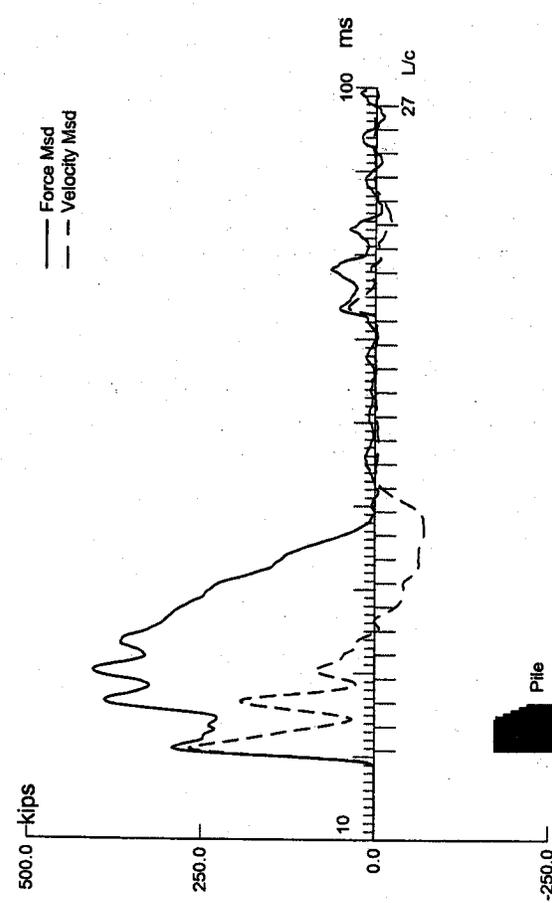
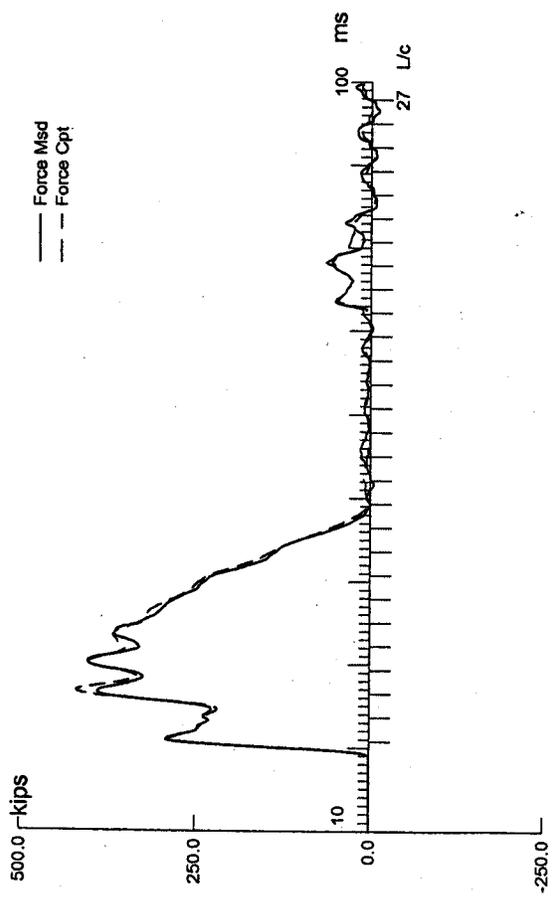
RAU = 303.5 (kips); RA2 = 307.7 (kips)

Current CAPWAP Ru = 360.2 (kips); Corresponding J(RP)= 0.00

J(RX) = 0.9 matches RX9 within 5%

VMX	VFN	VT1+Z	FT1	FMX	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
9.82	0.00	189.3	222.0	413.6	0.495	0.250	0.250	10.6	514.5

Peak Velocity Time = 20.88 ms.



0710CS727; Pile: 152

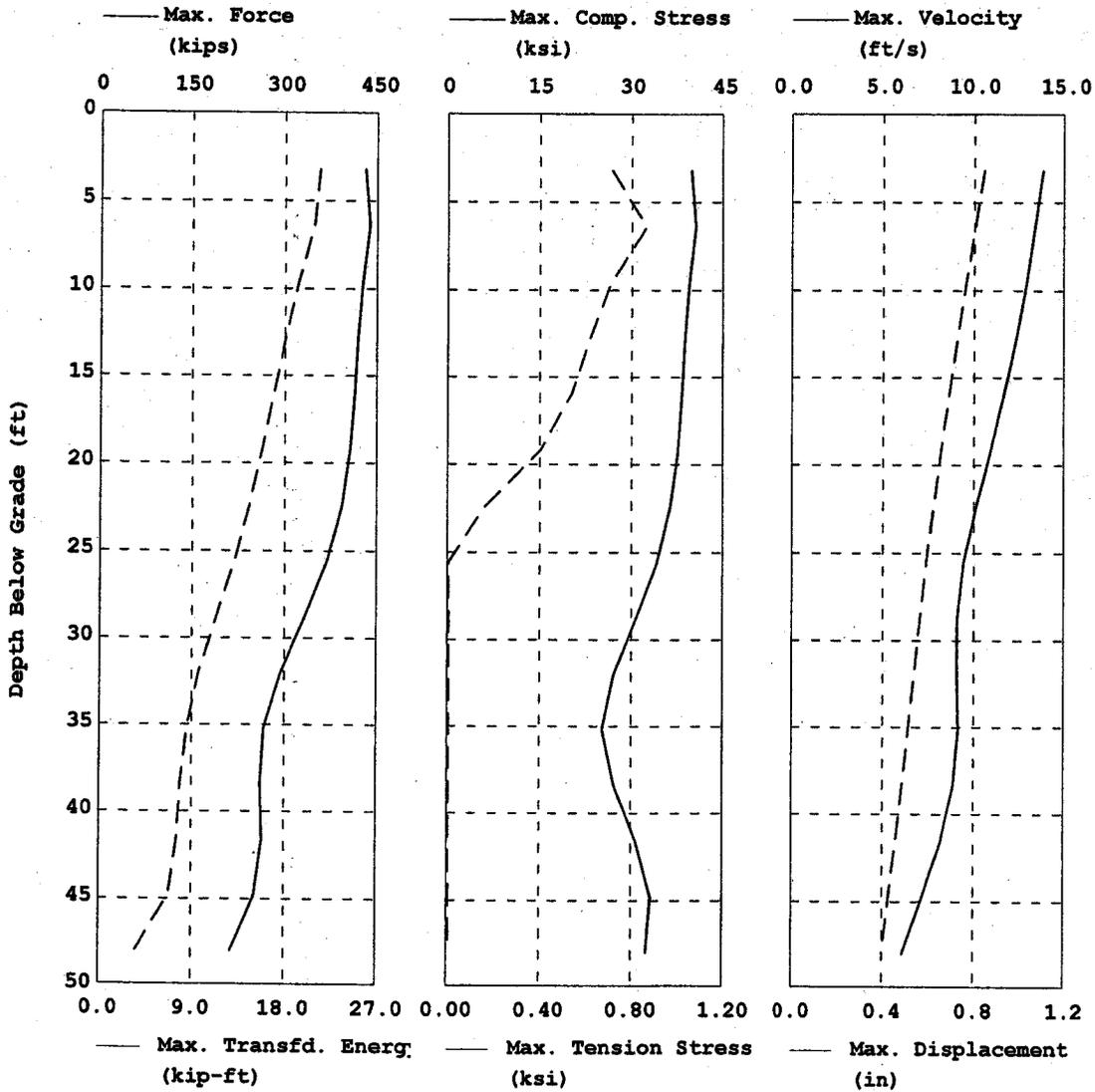
Blow: 5

Urkkada

Test: 15-Oct-2007 12:52:

CAPWAP (R) 2006

OP: AM



0710CS727; Pile: 152  
 Blow: 5  
 Urkkada

Test: 15-Oct-2007 12:52:  
 CAPWAP (R) 2006  
 OP: AM

CAPWAP SUMMARY RESULTS

Total CAPWAP Capacity: 320.1; along Shaft 220.1; at Toe 100.0 kips

Soil Sgmt No.	Dist. Below Gages ft	Depth Below Grade ft	Ru kips	Force in Pile kips	Sum of Ru kips	Unit Resist. (Depth) kips/ft	Unit Resist. (Area) ksf	Smith Damping Factor s/ft
2	9.6	3.6	7.7	303.2	16.9	2.41	0.66	0.100
3	12.8	6.8	7.0	296.2	23.9	2.19	0.60	0.100
4	16.0	10.0	8.1	288.1	32.0	2.53	0.69	0.100
5	19.2	13.2	10.9	277.2	42.9	3.41	0.93	0.100
6	22.4	16.4	15.8	261.4	58.7	4.94	1.35	0.100
7	25.6	19.6	21.7	239.7	80.4	6.78	1.85	0.100
8	28.8	22.8	23.1	216.6	103.5	7.22	1.97	0.100
9	32.0	26.0	16.8	199.8	120.3	5.25	1.43	0.100
10	35.2	29.2	6.4	193.4	126.7	2.00	0.56	0.100
11	38.4	32.4	2.1	191.3	128.8	0.66	0.20	0.100
12	41.6	35.6	11.9	179.4	140.7	3.72	1.27	0.100
13	44.8	38.8	31.5	147.9	172.2	9.84	3.79	0.100
14	48.0	42.0	47.9	100.0	220.1	14.97	6.62	0.100
Avg. Shaft			15.7			5.24	1.55	0.100
Toe			100.0				284.08	0.100

Soil Model Parameters/Extensions	Shaft	Toe
Quake (in)	0.100	0.200
Case Damping Factor	1.142	0.519
Reloading Level (% of Ru)	100	100
Unloading Level (% of Ru)	30	

CAPWAP match quality = 3.76 (Wave Up Match) ; RSA = 0  
 Observed: final set = 0.250 in; blow count = 48 b/ft  
 Computed: final set = 0.313 in; blow count = 38 b/ft

0710CS727; Pile: 152  
 Blow: 5  
 Urkkada

Test: 15-Oct-2007 12:52:  
 CAPWAP(R) 2006  
 OP: AM

EXTREMA TABLE

Pile Sgmt No.	Dist. Below Gages ft	max. Force kips	min. Force kips	max. Comp. Stress ksi	max. Tens. Stress ksi	max. Trnsfd. Energy kip-ft	max. Veloc. ft/s	max. Displ. in
1	3.2	428.5	-7.7	39.7	-0.72	21.37	13.8	0.843
2	6.4	435.6	-9.3	40.3	-0.86	20.82	13.3	0.803
3	9.6	424.6	-7.7	39.3	-0.71	19.32	12.8	0.765
4	12.8	417.2	-6.7	38.6	-0.62	18.06	12.3	0.727
5	16.0	412.0	-5.8	38.1	-0.54	16.95	11.6	0.690
6	19.2	405.2	-4.4	37.5	-0.40	15.83	10.9	0.655
7	22.4	392.3	-1.8	36.3	-0.16	14.59	10.1	0.622
8	25.6	368.4	-0.0	34.1	-0.00	13.12	9.4	0.591
9	28.8	332.5	-0.1	30.8	-0.00	11.39	9.1	0.563
10	32.0	293.6	-0.1	27.2	-0.01	9.71	9.1	0.537
11	35.2	267.3	-0.1	25.3	-0.01	8.50	9.2	0.513
12	38.4	261.9	-0.0	27.3	-0.00	7.91	8.9	0.487
13	41.6	264.7	-0.0	30.8	-0.01	7.57	8.2	0.458
14	44.8	252.3	-0.1	33.2	-0.01	6.79	7.2	0.428
15	48.0	214.2	-0.1	32.5	-0.01	3.57	6.1	0.399
Absolute	6.4			40.3			(T = 27.2 ms)	
	6.4				-0.86		(T = 86.4 ms)	

max. Top Comp. Stress = 39.7 ksi (T= 27.0 ms, max= 1.017 x Top)  
 max. Comp. Stress = 40.3 ksi (Z= 6.4 ft, T= 27.2 ms)  
 max. Tens. Stress = -0.86 ksi (Z= 6.4 ft, T= 86.4 ms)  
 max. Energy (EMX) = 21.4 kip-ft; max. Measured Top Displ. (DMX)= 0.92 in

0710CS727; Pile: 152

Test: 15-Oct-2007 12:52:

Blow: 5

CAPWAP (R) 2006

Urkkada

OP: AM

	CASE METHOD									
J =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
RP	379.0	360.4	341.8	323.2	304.6	286.0	267.4	248.7	230.1	211.5
RX	441.4	426.9	412.5	399.2	385.9	375.6	366.9	360.0	353.7	347.5
RU	379.0	360.4	341.8	323.2	304.6	286.0	267.4	248.7	230.1	211.5

RAU = 318.1 (kips); RA2 = 350.6 (kips)

Current CAPWAP Ru = 320.1 (kips); Corresponding J(RP) = 0.32;

RMX requires higher damping; see PDA-W

VMK	VFN	VT1*Z	FT1	FMK	DMX	DFN	SET	EMX	QUS
ft/s	ft/s	kips	kips	kips	in	in	in	kip-ft	kips
13.98	0.00	269.5	295.6	405.6	0.920	0.250	0.250	23.1	601.9

Peak Velocity Time = 20.94 ms.

APPENDIX C  
COMPRESSION LOAD TEST DATA

Project Name 544 Union Ave  
 URS Project No. 11100051  
 Contractor Underpinning & Foundation skanska  
 Column No. \_\_\_\_\_  
 Pile No. TP-1R  
 Primary Measuring Device Dial gauges  
 Auxiliary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile \_\_\_\_\_  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)			Average Settlement (in.)	Telltale Gauge Reading (in)	Settlement Rate (in./hr)	Settlement Rate (in./hr)	Remarks
				A	B	C					
	0	0%	0	0.000	0.000	0.000	0.000	0.000			11/12/2007 8:30
1100	45	50%	4	0.098	0.050	0.068	0.072	0.029	1.080	0.435	
			10	0.098	0.050	0.069	0.072	0.029	0.003	0.000	
1800	67.5	75%	1	0.172	0.100	0.139	0.137	0.029			
			10	0.173	0.101	0.142	0.139	0.030	0.011	0.007	
2200	90	100%	1	0.214	0.137	0.182	0.178	0.030			
			15	0.217	0.139	0.185	0.180	0.030	0.011	0.000	
			45	0.217	0.141	0.186	0.181	0.030	0.002	0.000	
			60	0.218	0.141	0.187	0.182	0.029	0.003	-0.004	
			75	0.218	0.141	0.187	0.182	0.029	0.000	0.000	
			100	0.219	0.141	0.187	0.182	0.029	0.001	0.000	
			120	0.219	0.141	0.188	0.183	0.029	0.001	0.000	
2800	112.5	125%	1	0.294	0.206	0.262	0.254	0.036			
			20	0.297	0.209	0.266	0.257	0.048	0.011	0.038	
			60	0.299	0.211	0.267	0.259	0.048	0.002	0.000	
			90	0.299	0.211	0.267	0.259	0.048	0.000	0.000	
			120	0.300	0.211	0.267	0.259	0.048	0.001	0.000	
3300	135	150%	1	0.358	0.265	0.329	0.317	0.054			
			8	0.360	0.267	0.331	0.319	0.055	0.017	0.009	
			30	0.362	0.268	0.333	0.321	0.064	0.005	0.025	
			45	0.362	0.271	0.334	0.322	0.065	0.005	0.004	
			75	0.362	0.271	0.334	0.322	0.076	0.000	0.022	
			100	0.364	0.271	0.335	0.323	0.076	0.002	0.000	
			120	0.364	0.271	0.335	0.323	0.076	0.000	0.000	11/12/2007 14:55
3800	157.5	175%	0	0.432	0.331	0.403	0.389	0.078			15:09
			10	0.434	0.333	0.406	0.391	0.089	0.014	0.066	15:19
			33	0.435	0.335	0.408	0.393	0.101	0.004	0.031	15:42
			66	0.438	0.337	0.410	0.395	0.101	0.004	0.000	16:15
			91	0.438	0.337	0.410	0.395	0.101	0.000	0.000	16:40
			106	0.438	0.370	0.411	0.406	0.102	0.045	0.004	16:55
4100	171	190%		0.488	0.379	0.463	0.443	0.112			17:00
4350	180	200%	0				0.483	0.121			17:20
4350	180	200%	15				0.497	0.139	0.056	0.072	17:50
4100	171	190%	60				0.497	0.153	0.000	0.019	18:30
4100	171	190%	120				0.498	0.154	0.001	0.001	19:30
4100	171	190%	240				0.498	0.157	0.000	0.002	21:30
4100	171	190%	300				0.499	0.157	0.001	0.000	22:10
4100	171	190%	840				0.505	0.168	0.001	0.001	11/12/2007
4100	171	190%	900				0.505	0.168	0.000	0.000	11/13/2007 7:00
4100	171	190%	900				0.505	0.168	0.000	0.000	11/13/2007 8:00
4350	180	200%	960				0.527	0.168	0.022	0.000	8:51
3800	157.5	175%	1011	0.580	0.460	0.552	0.531	0.168	0.004	0.000	9:25
3800	157.5	175%	1020				0.534	0.171	0.007	0.003	10:30
3800	157.5	175%	1110				0.536	0.172	0.001	0.001	11:30
3800	157.5	175%	1170				0.536	0.174	0.000	0.002	12:30
4000	170	190%	1230				0.539	0.176	0.003	0.002	1:30
4350	180	200%	1270				0.539	0.176	0.000	0.000	14:30
4250	180	200%	1450				0.538	0.195	0.000	0.006	17:30
4250	180	200%	1510	0.587	0.469	0.558	0.538	0.194	0.000	-0.001	18:30
3400	140	155%	2260				0.540	0.194	0.000	0.000	11/14/2007
4250	180	200%	2265				0.541	0.194	0.012	0.000	7:05
4250	180	200%	2290	0.593	0.473	0.563	0.543	0.196	0.005	0.005	7:30
3400	140	155%	2320				0.544	0.198	0.003	0.004	8:00
3300	140	155%	2380	0.597	0.474	0.565	0.545	0.213	0.002	0.011	9:00
4200	180	200%	2410	0.605	0.489	0.578	0.557	0.208	0.009	0.007	9:30

Project Name 544 Union Ave  
 URS Project No. 11100051  
 Contractor Underpinning & Foundation skanska  
 Column No. \_\_\_\_\_  
 Pile No. TP-1R  
 Primary Measuring Device Dial gauges  
 Auxiliary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)			Average Settlement (in.)	Telltale Gauge Reding (in.)	Settlement Rate (in./hr)	Settlement Rate (in./hr)	Remarks
				A	B	C					
3400	140	155%	2500	0.604	0.481	0.573	0.553	0.209	0.004	-0.002	11:00
3400	140	155%	2560	0.602	0.479	0.571	0.551	0.211	-0.003	0.001	12:00
3300	135	150%		0.502	0.379	0.465	0.449	0.202			12:05
2200	90	100%		0.501	0.377	0.464	0.447	0.200			12:15
1100	45	50%		0.391	0.278	0.358	0.342	0.191			12:15
1100	45	50%		0.388	0.271	0.355	0.338	0.189			12:30
0	0	0%		0.212	0.134	0.177	0.174	0.140			12:30
0	0	0%		0.205	0.130	0.169	0.168	0.140			12:40
0	0	0%	0	0.000	0.000	0.000		0.000			11/14/2007 15:00
1600	45	50%	1	0.123	0.103	0.054	0.093	0.000			
2400	67.5	75%	1	0.180	0.156	0.094	0.143	0.000			
3150	90	100%	1	0.237	0.207	0.136	0.193	0.004			
			15	0.239	0.209	0.137	0.195	0.006	0.007	0.009	
			18	0.242	0.212	0.141	0.198	0.008	0.067	0.040	
			30	0.245	0.215	0.141	0.200	0.009	0.010	0.005	
3850	112.5	125%	1	0.290	0.260	0.183	0.244	0.010			
			30	0.295	0.265	0.185	0.248	0.013	0.008	0.006	
4650	135	150%	1	0.351	0.323	0.238	0.304	0.029			
			30	0.358	0.324	0.239	0.307	0.031	0.006	0.004	
5400	157.5	175%	1	0.413	0.377	0.288	0.359	0.035			
			30	0.421	0.385	0.294	0.367	0.039	0.015	0.008	
6150	180	200%	0	0.508	0.465	0.365	0.446	0.068			17:05
6000	175		35	0.545	0.500	0.395	0.480	0.102	0.058	0.058	17:40
6150	180		65	0.570	0.522	0.417	0.503	0.122	0.046	0.040	18:10
6000	175		80	0.574	0.528	0.421	0.508	0.123	0.020	0.004	18:25
6000	175		105	0.578	0.531	0.424	0.511	0.137	0.007	0.034	18:50
6150	180		125	0.592	0.545	0.438	0.525	0.148	0.042	0.033	19:10
6050	175		865	0.629	0.581	0.473	0.561	0.189	0.003	0.003	11/15/2005 7:30
6050	175		955	0.628	0.583	0.474	0.562	0.189	0.000	0.000	9:00 AM
6000	180		1015	0.635	0.586	0.476	0.566	0.196	0.004	0.007	10:00 AM
5900	175		1075	0.637	0.588	0.479	0.568	0.198	0.002	0.002	11:00 AM
5800	170		1135	0.638	0.590	0.479	0.569	0.200	0.001	0.002	12:00 PM
5800	170		1200	0.639	0.590	0.481	0.570	0.201	0.001	0.001	1:05
5600	160	200%	1260	0.640	0.591	0.483	0.571	0.207	0.001	0.006	2:00
5500	160		1340	0.641	0.591	0.483	0.572	0.210	0.000	0.002	3:20
5500	160		1370	0.641	0.590	0.481	0.571	0.210	-0.002	0.000	3:50
5500	160		2300				0.570	0.221	0.000	0.001	11/16/2007 7:30
5500	160		2375				0.582	0.249	0.010	0.022	8:45
5475	160		2435				0.573	0.245	-0.009	-0.004	9:45
5475	160		3035				0.573	0.256	0.000	0.001	10:45
5500	160		3095				0.573	0.282	0.000	0.026	11:45
5500	160		3155				0.573	0.298	0.000	0.016	12:45
5500	160		3230				0.571	0.317	-0.002	0.015	1:55
5500	160		3255				0.571	0.320	0.000	0.007	2:20
5500	160		4695				0.570		0.000		11/17/2007 3:15



**STATIC PILE LOAD TEST**

Project Name 544 Union Ave  
 URS Project No. 11100051  
 Contractor Underpinning & Foundation skanska  
 Column No. \_\_\_\_\_  
 Pile No. TP-1R  
 Primary Measuring Device Dial gauges  
 Auxiliary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)			Average Settlement (in.)	Telltale Gauge Reading (in)	Settlement Rate (in./hr)	Settlement Rate (in./hr)	Remarks
				A	B	C					
5500	160		4770				0.568		-0.002		4:30
5500	160		4800				0.568		0.000		5:00
5000	140	200%	5970	0.635	0.591	0.481	0.569	0.200	0.000	0.010	11/18/2007 12:30
5000	140		6060	0.635	0.591	0.482	0.569	0.200	0.000	0.000	2:00
5000	140		7080				0.567	0.205	0.000	0.000	11/19/2007 7:00
5000	140		7140				0.568	0.204	0.001	-0.001	8:00
4950				0.637	0.592	0.480	0.570	0.207			9:00
4950							0.570	0.207			10:00
4925				0.638	0.593	0.481	0.571	0.208			11:00
4925							0.571	0.208			12:00
5000	140			0.639	0.593	0.481	0.571	0.209			13:00
5100							0.570	0.209			2:00
5100							0.570	0.209			2:30
5000	140			0.637	0.591	0.479	0.569	0.209			11/20/2007 7:00
3600	105	150%		0.548	0.505	0.391	0.481	0.209			7:40 AM
				0.546	0.504	0.391	0.480	0.208			7:55
				0.544	0.500	0.388	0.477	0.208			8:10
3250				0.542	0.499	0.387	0.476	0.208			8:25
2500	70	100%		0.499	0.458	0.346	0.434	0.208			8:40
				0.493	0.453	0.343	0.430	0.206			8:55
				0.491	0.450	0.340	0.427	0.199			9:10
2450				0.486	0.446	0.336	0.423	0.198			9:25
1300	35	50%		0.400	0.357	0.259	0.339	0.193			9:40
				0.396	0.350	0.257	0.334	0.190			9:55
1250				0.389	0.349	0.255	0.331	0.182			10:10
				0.385	0.347	0.254	0.329	0.182			10:25
				0.385	0.346	0.252	0.328	0.181			10:40
0	0	0%		0.245	0.221	0.140	0.202	0.163			10:40
				0.240	0.213	0.136	0.196	0.150			10:55
				0.237	0.209	0.132	0.193	0.147			11:15
				0.236	0.207	0.131	0.191	0.146			11:40
0	0	0%		0.232	0.206	0.127	0.188	0.145			11/21/2007 13:00

Project Name 544 Union Ave  
 URS Project No. 11100051  
 Contractor Underpinning & Foundation skanska  
 Column No. \_\_\_\_\_  
 Pile No. TP-2R  
 Primary Measuring Device Dial gauges  
 Auxiliary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)			Average Settlement (in.)	Telltale Gauge Reding (in)	Settlement Rate (in./hr)	Settlement Rate (in./hr)	Remarks
				A	B	C					
	0	0%		2	2	2					
1200	45	50%	1	1.849	1.906	1.839	0.135				
			4	1.848	1.906	1.839	0.136		0.007	0.000	
			10	1.847	1.905	1.839	0.136		0.007	0.000	
1800	67.5	75%	1	1.778	1.859	1.892	0.157				
			10	1.772	1.856	1.889	0.161		0.027	0.000	
2200	90	100%	1	1.729	1.815	1.753	0.234				
			4	1.724	1.811	1.751	0.238		0.073	0.000	
			10	1.721	1.809	1.75	0.240		0.020	0.000	
			30	1.716	1.801	1.745	0.246		0.018	0.000	
			50	1.716	1.801	1.743	0.247		0.002	0.000	
			75	1.713	1.799	1.743	0.248		0.004	0.000	
			120	1.711	1.798	1.742	0.250		0.002	0.000	
2800	112.5	125%	1		1.722	1.762	0.258	0.020			
			15	1.723	1.72	1.757	0.267	0.020	0.037	0.000	
			50	1.72	1.716	1.753	0.270	0.020	0.006	0.000	
			80	1.619	1.714	1.651	0.339	0.020	0.137	0.000	
			105	1.618	1.714	1.649	0.340	0.036	0.002	0.038	
			120	1.617	1.712	1.65	0.340	0.036	0.003	0.000	
3300	135	150%	1	1.545	1.644	1.574	0.412	0.051			
			6	1.538	1.638	1.571	0.418	0.051	0.064	0.000	
			13	1.538	1.636	1.569	0.419	0.053	0.011	0.017	
			19	1.538	1.634	1.568	0.420	0.055	0.010	0.020	
			30	1.538	1.633	1.566	0.421	0.055	0.005	0.000	
			45	1.53	1.631	1.564	0.425	0.057	0.016	0.008	
			65	1.529	1.631	1.563	0.426	0.057	0.002	0.000	
			80	1.529	1.629	1.561	0.427	0.063	0.005	0.024	
			100	1.529	1.628	1.56	0.428	0.074	0.002	0.033	
3800	157.5	175%	1	1.448	1.555	1.478	0.506	0.087			14:08
			5	1.433	1.542	1.462	0.521	0.109			14:20
			10	1.428	1.537	1.457	0.526	0.116			14:33
			30	1.424	1.534	1.455	0.529	0.119			14:51
			45	1.422	1.532	1.452	0.531	0.123			15:17
			90	1.419	1.53	1.451	0.533	0.126			15:38
			120	1.415	1.529	1.448	0.536	0.127			16:00
4100	171	190%	0				0.598	0.144			11/12/2007 16:08
			1				0.613	0.158	0.900	0.840	16:25
3900			2				0.619	0.165	0.360	0.420	16:40
4100			5				0.637	0.170	0.360	0.100	16:46
			10				0.645	0.177	0.096	0.084	16:55
			15				0.650	0.187	0.060	0.120	17:11
			30				0.654	0.191	0.016	0.016	17:31
			60				0.663	0.195	0.018	0.008	17:59
			90				0.665	0.195	0.004	0.000	18:30
4000			120				0.666	0.195	0.002	0.000	7:30 PM
			210				0.667	0.195	0.001	0.000	20:30
			270				0.668	0.195	0.001	0.000	9:00
3950			330				0.670	0.195	0.002	0.000	11/12/2007 22:00
3900			870				0.686	0.215	0.002	0.002	11/13/2007 7:00

Project Name 544 Union Ave  
 URS Project No. 11100051  
 Contractor Underpinning & Foundation skanska  
 Column No. \_\_\_\_\_  
 Pile No. TP-2R  
 Primary Measuring Device Dial gauges  
 Auxiliary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)			Average Settlement (in.)	Telltale Gauge Reding (in)	Settlement Rate (in./hr)	Settlement Rate (in./hr)	Remarks
				A	B	C					
				1.261	1.388	1.293	0.686	0.215			8:00 AM
4100			975				0.722	0.226	0.021	0.006	8:45
4100				1.211	1.339	1.24	0.737	0.244			9:30
4100			1080	1.204	1.333	1.233	0.743	0.249	0.012	0.013	11/13/2007 10:30
4100			1140				0.746	0.253	0.003	0.004	11:30
4100			1200				0.750	0.254	0.004	0.001	12:30
4100			1260				0.754	0.260	0.004	0.006	13:30
4300	180	200%	0				0.829	0.300			14:00
4300			35				0.853	0.322	0.041	0.038	14:30
4100			240				0.876	0.360	0.007	0.011	17:30
4000			310	1.071	1.202	1.097	0.877	0.360	0.001	0.000	11/13/2007 18:30
3600			1050	1.069	1.202	1.093	0.878	0.362	0.000	0.000	11/14/2007 7:00
4275			1080	1.057	1.185	1.063	0.898	0.368	0.040	0.012	7:00
4275			1110	1.051	1.171	1.041	0.912	0.385	0.028	0.034	8:00 AM
4100			1150	1.038	1.159	1.031	0.924	0.399	0.018	0.021	8:40 AM
4100			1200	1.038	1.158	1.025	0.926	0.405	0.003	0.007	9:30 AM
4200			1260	1.038	1.157	1.023	0.927	0.405	0.006	0.008	10:30
4200			1290	1.024		0.988	0.994	0.435	0.030	0.015	11:00
4200			1350	1.022		0.979	1.000	0.453	0.048	0.032	12:00
4200			1410	1.018		0.978	1.002	0.453	0.002	0.000	13:00
4200			1470	1.015		0.971	1.007	0.460	0.005	0.007	14:00
4200			1530	1.015		0.969	1.008	0.461	0.003	0.004	3:00 PM
4300			1590	0.982		0.912	1.053	0.505	0.045	0.044	4:00 PM
4300			1650	0.981	1.064	0.905	1.017	0.512	-0.036	0.007	5:00 PM
3650	150		1690	0.975	1.06	0.897	1.023	0.528	0.009	0.024	5:40
3850			1720	0.975	1.06	0.897	1.023	0.528	0.000	0.000	6:10
3850			1750	0.975	1.06	0.895	1.023	0.528	0.001	0.000	6:40
3900	160		2505	0.944	1.028	0.86	1.056	0.559	0.003	0.002	11/15/2007 7:15
3900			2565	0.937	1.018	0.854	1.064	0.570	0.008	0.011	9:00
3900			2625				1.064	0.573	0.000	0.003	10:00 AM
3900			2685	0.937	1.018	0.831	1.071	0.573	0.007	0.000	11:00 AM
3900			2745	0.937	1.018	0.851	1.065	0.577	-0.007	0.004	12:00 AM
3600			2805				1.066	0.581	0.001	0.004	1:00 PM
3600			2865				1.068	0.589	0.002	0.008	2:00 PM
3600	140		2940	0.934	1.013	0.847	1.069	0.592	0.001	0.002	3:18 PM
3400	140		2985				1.065	0.593	-0.005	0.001	4:00PM
3500			3915				1.064	0.586			11/16/2007 7:30
3500			3990				1.069	0.587			8:45
3600			4050				1.070	0.589			9:45
3675			4110				1.070	0.588			10:45
3700			4170				1.070	0.587			11:45
3725			4230				1.070	0.592			12:45
3725			4305				1.067	0.586			1:55
3725			4390				1.067	0.586			2:20
3700			5170				1.068	0.584			11/17/2007 3:15
3700			5245				1.068	0.584			4:30
3700			5290				1.068	0.584			5:15
3500			6430	0.931	1.010	0.858	1.067	0.584			11/18/2007 12:30
3500			6505	0.931	1.01	0.859	1.067	0.584			1:45
3500			7525				1.067	0.584			11/19/2007 7:00
3400			7585				1.066	0.584			11/19/2007 8:00
3400				0.931	1.01	0.859	1.067	0.584			9:00
3400							1.067	0.584			10:00
3400				0.931	1.01	0.859	1.067	0.584			11:00
3400							1.067	0.584			12:00
3500				0.931	1.01	0.858	1.067	0.584			1:00



**STATIC PILE LOAD TEST**

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Project Name 544 Union Ave  
 URS Project No. 11100051  
 Contractor Underpinning & Foundation skanska  
 Column No. \_\_\_\_\_  
 Pile No. TP-2R  
 Primary Measuring Device Dial gauges  
 Auxilliary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)			Average Settlement (in.)	Telltale Gauge Reading (in.)	Settlement Rate (in./hr)	Settlement Rate (in./hr)	Remarks
				A	B	C					
3500							1.067	0.584			2:00
3500							1.067	0.584			2:30
3500	140	200%		0.931	1.01	0.858	1.067	0.584			11/20/2007 7:00 AM
2600	105	150%		0.938	1.023	0.897	1.047	0.595			7:30
				0.939	1.025	0.899	1.046	0.595			7:45
				0.94	1.026	0.9	1.045	0.595			8:00
2800				0.94	1.026	0.9	1.045	0.595			8:15
1850	70	100%		1.008	1.098	0.978	0.972	0.595			8:30
				1.012	1.098	0.981	0.970	0.595			8:45
				1.014	1.098	0.982	0.969	0.595			9:00
				1.015	1.098	0.982	0.968	0.595			9:15
1000	35	50%		1.104	1.194	1.099	0.868	0.586			9:30
				1.105	1.196	1.101	0.866	0.583			9:45
				1.107	1.197	1.102	0.865	0.581			10:00
				1.108	1.197	1.103	0.864	0.581			10:15
				1.108	1.196	1.103	0.864	0.581			10:30
0	0	0%		1.245	1.342	1.36	0.684	0.525			10:30
				1.255	1.352	1.369	0.675	0.520			10:45
				1.261	1.354	1.371	0.671	0.518			11:00
				1.264	1.363	1.374	0.666	0.517			11:30
0	0	0%		1.278	1.369	1.387	0.655	0.506			11/21/2007 12:50 PM

APPENDIX D  
DISPLACEMENT DATA OF REACTION PILES

Project Name 544 Union Avenue  
 URS Project No. 11100056  
 Contractor Underpinning & Foundation Skanska  
 Column No. \_\_\_\_\_  
 Pile No. RP - A, B, C, & D (reaction piles of TP-1R)  
 Primary Measuring Device Dial gauges  
 Auxiliary Meas. Device mirror & wire

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)					Average (in.)	Telltale Gauge Reading (in.)	Auxiliary Reading (in.)	Remarks
				A	B	C		D				
						Left	Right					
0	0	0%		0.000	0.000	0.000	0.000	0.900				
1100	45	50%		0.010	0.006	0.001	0.004	0.902			11/12/2007 8:36	
1800	67.5	75%		0.015	0.019	0.003	0.009	0.905			8:45	
2200	90	100%		0.018	0.024	0.006	0.013	0.905			8:56	
				0.018	0.024	0.006	0.013	0.906			9:14	
				0.018	0.024	0.006	0.014	0.906			9:45	
				0.018	0.024	0.006	0.014	0.907			10:02	
				0.018	0.024	0.006	0.014	0.907			10:20	
				0.018	0.024	0.006	0.014	0.907			10:41	
				0.018	0.024	0.006	0.015	0.907			11:01	
2800	112.5	125%		0.028	0.033	0.010	0.022	0.908			11:08	
				0.028	0.033	0.010	0.023	0.910			11:31	
				0.028	0.033	0.011	0.023	0.910			12:05	
				0.028	0.033	0.011	0.023	0.910			12:56	
3300	135	150%		0.035	0.040	0.015	0.030	0.910			13:06	
				0.036	0.041	0.015	0.030	0.924			13:11	
				0.036	0.041	0.015	0.030	0.926			13:31	
				0.036	0.041	0.015	0.030	0.926			14:17	
				0.036	0.042	0.015	0.030	0.926			14:56	
3800	157.5	175%		0.041	0.048	0.015	0.030	0.926			15:10	
				0.042	0.048	0.018	0.035	0.926			15:20	
				0.042	0.048	0.019	0.036	0.926			15:43	
				0.042	0.048	0.019	0.036	0.926			16:17	
				0.042	0.048	0.019	0.037	0.930			16:55	
4100	175	195%		0.046	0.053	0.019	0.037	0.930			17:00	
4350	180	200%		0.049	0.056	0.019	0.042	0.930			17:22	
				0.049	0.056			0.930			18:00	
4100	175	195%		0.049	0.056			0.930			18:45	
				0.049	0.056	0.019	0.045	0.936			19:45	
				0.049	0.057	0.020	0.045	0.930			21:45	
											22:10	
4100	175	190%		0.049	0.057	0.020	0.048	0.935			11/13/2007 7:00	
4350	180	200%		0.049	0.057	0.020	0.048	0.935			8:00	
3800	158	175%		0.050	0.060	0.020	0.050	0.936			9:25 AM	
3700	155	175%		0.050	0.060	0.020	0.050	0.936			10:30 AM	
3800	158	175%		0.050	0.063	0.020	0.050	0.937			11:30 AM	
4000	170	190%		0.050	0.063	0.020	0.050	0.940			1:30 PM	
3400	140	155%		0.050	0.063	0.020	0.050	0.940			5:00 PM	
0	0	0%		0.000	0.000	0.000	0.000	0.000			11/14/2007 15:00	
1600	45	50%		0.010	0.005	0.001	0.004	0.003			3:00 PM	
2400	67.5	75%		0.018	0.010	0.005	0.008	0.006			3:10 PM	
3150	90	100%		0.025	0.014	0.005	0.014	0.010				
3850	112.5	125%		0.031	0.021	0.006	0.020	0.014			4:15 PM	
				0.040	0.027	0.006	0.025	0.018			4:30 PM	
6150	180	200%		0.047	0.032	0.008	0.029	0.023			5:05 PM	
6150	180	200%		0.058	0.041	0.008	0.032	0.031			6:00 PM	



**STATIC PILE LOAD TEST**

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Project Name 544 Union Avenue  
 URS Project No. 11100056  
 Contractor Underpinning & Foundation Skanska  
 Column No. \_\_\_\_\_  
 Pile No. RP - A, B, C, & D (reaction piles of TP-1R)  
 Primary Measuring Device Dial gauges  
 Auxiliary Meas. Device mirror & wire

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)				Average (in.)	Telltale Gauge Reading (in.)	Auxiliary Reading (in.)	Remarks	
				A	B	C						D
						Left	Right					
6050	180	200%		0.059	0.047	0.009	0.044	0.028			11/15/2007 7:45	
5900	175	195%		0.059	0.047	0.009	0.045	0.029			10:05 AM	
5800	170	190%		0.060	0.047	0.009	0.045	0.029			12:05 PM	
5600	165	185%		0.060	0.047	0.009	0.045	0.031			2:05 PM	
				0.060	0.048	0.009	0.045	0.031				
											11/16/2007	
5500	160	178%		0.060	0.048	0.009	0.045	0.031			7:45 AM	
5500	160	178%		0.060	0.050	0.009	0.005	0.032			12:45 PM	
5500	160	178%		0.061	0.050	0.010	0.047	0.034			11/17/2007 15:30	
4950	145	161%		0.061	0.053	0.012	0.049	0.034			11/19/2007 7:10	
5100	150	167%		0.061	0.053	0.012	0.049	0.035			2:00 PM	
5000	145	200%		0.061	0.053	0.012	0.049	0.035			11/20/2007 7:00	
3600	105	150%		0.048	0.042	0.012	0.040	0.030			7:40 AM	
				0.048	0.042	0.012	0.040	0.029				
2600	70	100%		0.042	0.036	0.012	0.034	0.026			8:40 AM	
				0.041	0.035	0.012	0.033	0.024			9:10 AM	
1300	35	50%		0.027	0.025	0.008	0.022	0.020			9:40 AM	
				0.026	0.025	0.008	0.022	0.019			10:10 AM	
				0.026	0.025	0.008	0.022	0.019			10:40 AM	
0	0	0%		0.011	0.015	0.005	0.012	0.011			10:40 AM	
				0.011	0.015	0.005	0.012	0.011			11:10 AM	
				0.011	0.015	0.005	0.012	0.011				
0	0	0%		0.010	0.014	0.004	0.011	0.010			11/21/2007 12:50	

Project Name 544 Union Avenue  
 URS Project No. 11100056  
 Contractor Underpinning & Foundation Skanska  
 Column No. \_\_\_\_\_  
 Pile No. RP-1,2,3,4 (Reaction Piles of TP-2R)  
 Primary Measuring Device dial gages  
 Auxiliary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube pile  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)					Average (in.)	Telltale Gauge Reading (in.)	Auxiliary Reading (in.)	Remarks
				RP1	RP3	RP2		RP4				
						Left	Right					
0	0	0%		0.000	0.000	0.000	0.000	0.000				
1100	45	50%		0.006	0.009	0.002	0.002	0.000			11/12/2007 7:50	
1800	67.5	75%		0.008	0.014	0.004	0.006	0.004			7:59	
2200	90	100%		0.011	0.016	0.005	0.010	0.006			8:08	
				0.011	0.017	0.005	0.010	0.006			8:16	
				0.011	0.017	0.005	0.010	0.006			8:45	
				0.011	0.018	0.005	0.010	0.008			9:10	
				0.011	0.018	0.005	0.010	0.007			9:30	
				0.011	0.018	0.005	0.011	0.007			10:05	
2800	112.5	125%		0.015	0.025	0.008	0.018	0.009			10:15	
				0.016	0.025	0.008	0.019	0.009			11:07	
				0.016	0.024	0.008	0.021	0.009			11:42	
3300	135	150%		0.021	0.030	0.010	0.026	0.010			12:19	
				0.021	0.030	0.012	0.026	0.010			12:35	
				0.021	0.030	0.012	0.026	0.010			13:20	
				0.021	0.030	0.012	0.028	0.010			13:59	
3800	157.5	175%		0.022	0.035	0.015	0.035	0.011			14:09	
				0.022	0.035	0.015	0.035	0.011			14:22	
				0.022	0.035	0.015	0.035	0.011			14:52	
				0.022	0.035	0.015	0.036	0.011			15:39	
				0.022	0.035	0.015	0.036	0.011			16:01	
4100	171	190%		0.024	0.040	0.017	0.041	0.012			16:10	
				0.024	0.040	0.017	0.041	0.012			16:27	
				0.024	0.040	0.017	0.043	0.012			16:40	
				0.024	0.040	0.017	0.043	0.012				
				0.024	0.040	0.017	0.043	0.012				
				0.024	0.040	0.018	0.044	0.033			21:00	
				0.024	0.040	0.018	0.044	0.034			7:00 11/13/2007	
3900	157.5	175%		0.024	0.040	0.018	0.046	0.034			8:00	
				0.024	0.041	0.018	0.048	0.034			9:00	
				0.025	0.041	0.018	0.048	0.034			10:30	
4100				0.025	0.041	0.018	0.048	0.034			11:30	
4300	180	200%		0.025	0.041	0.018	0.048	0.034			13:30	
4100				0.027	0.043	0.019	0.051	0.034			17:00	
4100				0.027	0.043	0.020	0.054	0.034			11/14/2007 9:00	
4200	180	200%		0.027	0.043	0.020	0.054	0.034			14:00	
3900	162	180%		0.027	0.044	0.020	0.054	0.034			11/15/2007 7:15	
3600				0.027	0.044	0.020	0.054	0.037			14:00	
3600	140	200%		0.025	0.042	0.021	0.054	0.036			11/16/2007 7:30	
3700				0.025	0.042	0.021	0.054	0.036			12:45	
3700				0.026	0.041	0.022	0.055	0.037			11/17/2007 15:30	
3500	140	200%		0.026	0.041	0.023	0.049	0.037			11/19/2007 7:00	
3500	140	200%		0.026	0.041	0.023	0.049	0.039			14:00	
3500	140	200%		0.026	0.041	0.023	0.050	0.039			11/20/2007 7:00	



**STATIC PILE LOAD TEST**

Page#

2/2

Project Name 544 Union Avenue  
 URS Project No. 11100056  
 Contractor Underpinning & Foundation Skanska  
 Column No. \_\_\_\_\_  
 Pile No. RP-1,2,3,4 (Reaction Piles of TP-2R)  
 Primary Measuring Device dial gages  
 Auxillary Meas. Device wire & mirror

Project Location Brooklyn, NY  
 Begin Date: 11/12/2007  
 End Date: 11/21/2007  
 Type of Pile Tapertube pile  
 Jack Serial No. \_\_\_\_\_  
 Gauge Serial No. \_\_\_\_\_  
 Design Load 70 tons (compression)

Jack Gage Reading (psi)	Pile Load (tons)	% of Design Load	Read Time (min)	Primary Readings (in.)					Average (in.)	Telltale Gauge Reading (in.)	Auxiliary Reading (in.)	Remarks
				RP1	RP3	RP2		RP4				
						Left	Right					
2600	105	150%		0.022	0.036	0.023	0.054	0.036			7:30 AM	
2600				0.022	0.035	0.023	0.054	0.034			8:20	
1850	70	100%		0.018	0.035	0.023	0.049	0.029			8:30 AM	
1850				0.018	0.035	0.023	0.049	0.029			9:02 AM	
1000	35	50%		0.012	0.035	0.019	0.041	0.023			9:30 AM	
1000				0.012	0.035	0.019	0.041	0.023			10:00 AM	
1000				0.012	0.035	0.019	0.041	0.023			10:30 AM	
0	0	0%		0.010	0.035	0.019	0.036	0.017				
				0.010	0.035	0.019	0.036	0.016			10:30 AM	
				0.008	0.035	0.019	0.036	0.016			11:00 AM	
											11:30 AM	
0	0	0%		0.009	0.035	0.020	0.036	0.015			11/21/2007 12:50	

**APPENDIX E**  
**MAT FOUNDATION RECOMMENDATION LETTER**

---



February 11, 2008

Mr. Terry Jacobs  
Tryad Group  
190 North 10<sup>th</sup> Street  
Brooklyn, NY 11211

**Subject: Mat Foundation Recommendation  
544 Union Avenue, Brooklyn, NY**

Dear Mr. Jacobs:

In our final geotechnical report (July 25, 2007) a mat foundation for Building B (otherwise known as the townhouse) was not recommended because of the very compressible and thick peat / organic clay layer located at a depth of approximately 15 ft. We have performed additional analyses to estimate the settlement of a mat foundation. The calculations are based on the soil pressure distribution provided by Yuriy Ryappo of Gene Kaufman Associates (GKA) on January 31, 2008. A modulus of subgrade reaction of 75 pounds per cubic inch (pci) was recommended to GKA for the analysis of the mat foundation.

The bottom of the mat foundation will have to be at the same depth as the bottom of the foundation of the adjacent building so that the adjacent walls and/or foundation are not loaded by the mat foundation. Based on the test pit information and the depth of the adjacent cellar, we have estimated that the bottom of the mat foundation will be at a depth of approximately 5 ft. Based on the calculations, it is estimated that the settlement will be on the order of 2 inches. Provided that the subsurface conditions underneath the building are uniform, it is anticipated that the settlements will be relatively uniform. The settlement is due to the compression of the peat / organic clay layer, which will occur very slowly with most of the settlement occurring after the building is constructed.

Based on discussions with the structural engineer and architect during a meeting on February 5, 2008, they stated that these settlements will not be detrimental to the performance of the building. Therefore, considering this, and provided that the total soil bearing pressure is consistent with the values given in the soil pressure distribution provided by GKA, the use of a mat foundation is acceptable from a geotechnical perspective. The bottom of the mat should be placed at the bottom of the adjacent building foundation and on a minimum of 6 inches of gravel. In addition, the subgrade soil should not be wet, muddy, or frozen prior to pouring the concrete. Considering that the groundwater is at a depth of approximately 4 to 5 ft below grade, dewatering will be required to obtain a stable subgrade. In accordance with the NYC Building Code, the subgrade is subject to controlled inspection.

URS Corporation  
201 Willowbrook Blvd.  
Wayne, NJ 07470  
(973) 785-0700  
(973) 785-0023 (fax)



Mr. Terry Jacobs  
The Tryad Group  
Page 2

Please contact me if you have any questions, or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas G. Thomann', written over a light-colored rectangular background.

Thomas G. Thomann, Ph.D., P.E.  
Vice President

cc: V. Navaratnam (URS)  
Y. Ryappo (GAK)  
G. Golino (Hudson Meridian)

# Appendix E



One Penn Plaza, Suite 600  
New York, NY 10119  
Phone: 212-736-4444  
Facsimile: 212-629-4249

# PHOTOGRAPHIC DOCUMENTATION

**CLIENT NAME:**  
544 Unioncon, LLC

**PROJECT NAME:**  
544 Union Avenue, Brooklyn, NY

**URS PROJECT:**

**Photo No.**  
1

**Date:**  
1/14/12

**Description:**

Looking northeast across 544 Union Avenue site from the southwest corner.



**Photo No.**  
2

**Date:**  
1/14/12

**Description:**

Groundwater sampling at temporary groundwater sampling point.





One Penn Plaza, Suite 600  
 New York, NY 10119  
 Phone: 212-736-4444  
 Facsimile: 212-629-4249

# PHOTOGRAPHIC DOCUMENTATION

**CLIENT NAME:**  
 544 Unioncon, LLC

**PROJECT NAME:**  
 544 Union Avenue, Brooklyn, NY

**URS PROJECT:**

**Photo No.**  
 3

**Date:**  
 1/16/12

**Description:**  
 Ambient air sample collection point in northeast corner of site.



**Photo No.**  
 4

**Date:**  
 8/27/11

**Description:**  
 544 Union site with stockpile soil that has been removed, looking southeast. Foundation piles are seen in the foreground and throughout the site.





One Penn Plaza, Suite 600  
New York, NY 10119  
Phone: 212-736-4444  
Facsimile: 212-629-4249

# PHOTOGRAPHIC DOCUMENTATION

**CLIENT NAME:**  
544 Unioncon, LLC

**PROJECT NAME:**  
544 Union Avenue, Brooklyn, NY

**URS PROJECT:**

**Photo No.**  
5

**Date:**  
8/27/11

**Description:**

544 Union Avenue site looking south. Stockpiled soil has been removed.



**Photo No.**  
6

**Date:**  
8/29/11

**Description:**

Northeast corner of 544 Union Avenue site showing foundation piles. Stockpiled soil has since been removed.



# Appendix F

**HEALTH AND SAFETY PLAN**

**REMEDIAL INVESTIGATIONS**

**FOR**

**UNDEVELOPED VACANT LAND  
538 AND 544 UNION AVENUE  
BROOKLYN, NEW YORK 11211**

Prepared for:

**Heatherwood Communities, Inc.  
1737 Veterans Highway  
Islandia, New York 11749**

Prepared by:

**URS Corporation  
201 Willowbrook Boulevard  
Wayne, New Jersey 07470**

**November 2011**

URS Project Number: 11140128 & 11140143

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- 1-2 544 Union Avenue – Proposed Boring Location Plan
- 3 Typical Decontamination Line, Level D/Modified Level D PPE
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## Appendices

### A URS Safety Management Standards

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- SMS 013 Excavation Safety
- SMS 014 Fire Protection and Prevention
- SMS 016 Hand Tools and Portable Equipment
- SMS 018 Heat Stress
- SMS 019 Heavy Equipment Operations
- SMS 021 Housekeeping
- SMS 024 Medical Screening and Surveillance
- SMS 026 Noise and Hearing Conservation
- SMS 029 Personal Protective Equipment
- SMS 030 Sanitation
- SMS 032 Work Zone Traffic Control
- SMS 034 Utility Clearances and Isolation
- SMS 042 Respiratory Protection
- SMS 043 Personal Monitoring (Industrial Hygiene)
- SMS 046 Subcontractor Health and Safety Requirements
- SMS 047 Biological Hazards
- SMS 049 Injury/Illness/Incident Reporting & Notifications
- SMS 055 Health, Safety and Environment Training
- SMS 056 Drilling Safety Guidelines
- SMS 059 Cold Stress
- SMS 065 Injury and Claims Management
- SMS 069 Manual Material Handling
- SMS 072 Behavior Based Safety
- SMS 084 Lone Worker

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B Material Safety Data Sheets/Safety Cards

C OSHA Information Poster

## Attachments

Attachment 1 - NYCDEP Spill Procedures

## Preface

---

This Health and Safety Plan (HASP) presents health and safety requirements and guidelines for the Remedial Investigations (the “RI”) being conducted around 538 and 544 Union Avenue, Brooklyn, New York (hereinafter, collectively referred to as the “Site”), specifically the work described in Section 4 of this HASP (the “Project”). This HASP has been prepared in compliance with applicable sections of Occupational Safety and Health Administration (OSHA) Regulations 29 Code of Federal Regulations (CFR) Part 1910 and 29 CFR Part 1926. This HASP has been prepared for the exclusive use of employees of URS Corporation (URS). This HASP shall be available at all times during field activities at the Site.

This HASP shall not be used for work activities other than those described in Section 4, nor shall it be modified or used after the expiration date (one year from date of issue) without written approval of the URS Project Manager and Health and Safety Manager (HSM). In addition, this HASP shall not be used by firms or persons not under contract to URS without written approval of URS. This HASP is not valid unless it is signed and dated by the Project Manager, HSM and Regional Health and Safety Manager (RHSM). Any modifications to this HASP require a written addendum and must be approved by the URS Project Manager and HSM.

URS subcontractors may use their own HASP if such a provision is contained in a written agreement with URS. General health and safety requirements in HASPs prepared by URS subcontractors must be as stringent as those contained in this HASP. URS Safety Management Standard (SMS) 046, Subcontractor Health and Safety Requirements, presents additional information on this subject (all SMSs referenced in this HASP are provided in Appendix A).

Contractors and URS subcontractors (hereinafter, all referred to as “Contractors”) involved in field activities who adopt this HASP for the protection of their employees are required to read the HASP and comply with its provisions. The adoption of this HASP does not relieve Contractors of their obligations to provide a safe working environment in accordance with all applicable Federal, State and local requirements including, but not limited to, OSHA Regulations 29 CFR Parts 1910 and 1926. Contractors are solely responsible for providing their employees with appropriate personal protective equipment and monitoring air quality; Contractors are solely responsible for actions taken by their personnel based on the readings.

The health and safety guidelines and requirements presented herein are based on a review of available information and an evaluation of potential hazards. This HASP outlines the health and safety procedures, and equipment required for work activities at this Site to reduce the potential for exposure to field personnel. Changing and/or unanticipated site conditions may require modification of this HASP to maintain a safe and healthful work environment. Any proposed changes to this HASP require a written addendum, which must be approved by the URS Project Manager and HSM. Under no circumstances will modifications to this HASP conflict with Federal, State or local health and safety requirements.

## List of Acronyms and Abbreviations

---

ANSI	American National Standards Institute
AOC	Area of Concern
bgs	Below Ground Surface
BNs	Base Neutral Compounds
BZ	Breathing Zone
CFR	Code of Federal Regulations
CGI	Combustible Gas Indicator
CIH	Certified Industrial Hygienist
CRZ	Contamination Reduction Zone
dB	Decibels
dBA	Decibels on the A-scale
DOT	Department of Transportation
DPT	Direct Push Technology
ESLI	End of Service Life Indicator
ext	Extension
eV	Electron Volt
EZ	Exclusion Zone
F	Fahrenheit
ft	Feet
GWQS	Ground Water Quality Standards
HASP	Health and Safety Plan
hr	Hour
HSM	Health and Safety Manager
J	Estimated Concentration
JSA	Job Safety Analysis
LEL	Lower Explosion Limit
mg/kg	Milligrams per kilogram
µg/L	Microgram per liter
MSDSs	Material Safety Data Sheets
NA	Not Analyzed
NIOSH	National Institute of Occupational Safety and Health
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
OSHA	Occupational Safety and Health Administration
OVM	Organic Vapor Monitor

## List of Acronyms and Abbreviations

---

PEL	Permissible Exposure Limit
PID	Photoionization Detector
PPE	Personal Protective Equipment
ppm	Parts per million
PVC	Polyvinyl Chloride
RHSM	Regional Health and Safety Manager
SI	Site Investigation
SMS	Safety Management Standard
SSO	Site Safety Officer
SVOCs	Semi-Volatile Organic Compounds
TAGM	Technical and Administrative Guidance Memorandum
TAL	Target Analyte List
TOGS	Technical and Operational Guideline Series
TP	Test Pit
URS	URS Corporation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

Project Name: Remedial Investigations  
Undeveloped Vacant Land

Project Number: 11140128 & 11140143

Project Location: 538 and 544 Union Avenue  
Brooklyn, New York

Client: Heatherwood Communities, Inc.  
Islandia, New York

URS Operating Unit: Wayne, New Jersey

URS Project Manager: Robert Wolff

URS Task Manager: Cary Friedman

Author of the HASP: Peter G. Gregory

Effective Dates: November 2011 to November 2012

## APPROVALS



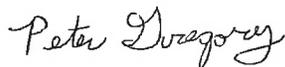
---

Robert Wolff  
Project Manager



---

Date



---

Peter G. Gregory  
Health and Safety Manager

---

11/23/11

---

Date



---

Benjamin J. Bertolotti, CIH  
Regional Health and Safety Manager

---

11/23/11

---

Date

This section describes the roles of the various positions on the Project as they pertain to health and safety. The names, responsibilities and authorities of key individuals are presented in Table 1.

Other URS personnel who might be involved in field activities include those listed below. All personnel named on this list are qualified to serve as SSOs.

- Abdelaziz, Mira
- Dascoli, Megan
- Friedman, Cary
- Olivo, Nicholas
- Reed, Mark T.
- Trabucco, Tammy

Other personnel may be assigned to the Project as well. Personnel working on the Project must be approved by the HSM and must meet the qualifications of OSHA Regulation 29 CFR Part 1910.120 and this HASP.

### 3.1 GENERAL SITE DESCRIPTION AND HISTORY

This section provides a general description and brief history of the two contiguous sites located at 538 and 544 Union Avenue, King's County, Brooklyn, New York. The information presented below is based upon previous environmental documentation available for URS review at the time of HASP preparation.

#### 3.1.1 538 Union Avenue

This property is currently unimproved vacant land totaling approximately 5,000-square feet (SF). The property is located along the eastern side of Union Avenue between Withers Street and Jackson Street. The Tax Map Identification for this property is Block 2741, Lots 7 & 8.

In August 2007, CA Rich Consultants, Inc. (CARC) conducted a Phase I ESA of the property. The August 2007 Phase I Report identified the following "Recognized Environmental Conditions (RECs)" and additional issues associated with the property:

- Numerous oil stains observed on the concrete floor and concrete block walls near the entrance of a former on-site, one-story warehouse building;
- Historical usage since development of the property has included a junk yard, automobile repair shop, and a manufacturing facility; and,
- The subject property is 'E' designated HAZMAT.

Based on these Phase I findings, CARC completed a Phase II Investigation at the property on April 4, 2008. The Phase II Investigation consisted of obtaining subsurface soil samples from six (6) separate soil borings that were advanced from the surface down to shallow groundwater throughout the site, approximately six (6) feet below grade, and the collection of three groundwater samples from three of the borings.

A total of 12 soil samples were collected and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, and TAL metals. The lithology reported by CARC was that unconsolidated fill materials, commonly occurring in the New York City area, underlay the site. Analytical results from this Phase II soil testing indicate that the SVOCs (i.e. benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene and phenol), pesticides (i.e. dieldrin and gamma-BHC) and metals (i.e. arsenic, cadmium, chromium, copper, lead, mercury and zinc) that were detected above NYSDEC TAGM values occurred at typical concentration ranges characteristic of "urban" fill. However, there were few SVOC exceedances in the soil detected at one location that were a few orders of magnitude above guidance. These elevated detections were reportedly related to the presence of ash beneath the site.

Chemical analysis of three groundwater samples revealed that the chlorinated solvents (i.e. 1,1,1-trichloroethane, 1,1-dichloroethane and 1,1-dichloroethene), metals (i.e. aluminum and iron) and pesticides (i.e. dieldrin and endrin) were detected slightly above NYSDEC TOGS. The VOCs detected were attributed to a regional up-gradient source.

### 3.1.2 544 Union Avenue

This property is currently unimproved vacant land totaling approximately 35,700-square feet (SF). The property is located along the eastern side of Union Avenue between Frost Street and Withers Street. The Tax Map Identification for this site is Block 2736, Lots 1, 9 & 48.

In May 2007, (CARC conducted a Phase I ESA of the property. The May 2007 Phase I Report identified the following “Recognized Environmental Conditions (RECs)” and additional issues associated with the property:

- Numerous oil stains, a white residue/powder and sumps/pits observed throughout a former on-site industrial building;
- Historical usage since development of the property has included an iron foundry in 1887 and continuous various industrial uses by others up through 2006. From 1947 to 2006, Beach Ross Company. A federal listed small quantity generator of hazardous wastes operated at the property; and,
- The subject property is ‘E’ designated HAZMAT.

Based on these Phase I findings, CARC completed a Phase II Investigation at the property on June 26, 2007. The Phase II Investigation consisted of obtaining subsurface soil samples from ten (10) separate soil borings that were advanced from the surface down to shallow groundwater throughout the site, approximately ten (10) feet below grade, and the collection of three groundwater samples from three of the borings.

A total of twenty (20) soil samples were collected and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, and TAL metals. The lithology reported by CARC was that unconsolidated fill materials, commonly occurring in the New York City area, underlay the site. Analytical results from this Phase II soil testing indicate that the SVOCs (i.e. benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene and phenol), pesticides (i.e. gamma-BHC) and metals (i.e. arsenic, barium, cadmium, calcium, copper, lead, magnesium, mercury, selenium and zinc) that were detected above NYSDEC TAGM values occurred at typical concentration ranges characteristic of “urban” fill. However, there was one Pb exceedances (27,000 mg/kg) in the soil detected at one location (SB-1) at 8-10 feet bgs that was an order of magnitude above guidance.

Chemical analysis of three groundwater samples revealed that the chlorinated solvents (i.e. 1,1,1-trichloroethane, 1,1-dichloroethane and chloroethane) and metals (i.e. arsenic, barium, cadmium, calcium, copper, lead, mercury, selenium and zinc) were detected slightly above NYSDEC TOGS. The VOCs detected were attributed to a regional up-gradient source.

**3.2 PROJECT OBJECTIVES**

The objective of this project is to obtain a Notice of Satisfaction from the NYCDEP Office of Environmental Remediation for submittal to the NYC Department of Buildings. In order to achieve this objective, Remedial Investigations (RI) will have to re-characterize site soils (the fill), complete a soil vapor screening study and conduct groundwater sampling for contaminants of concern. Refer to Figures 1-1 and 1-2 for Proposed Boring Location Maps for each site. Based upon RI results, a Remedial Action Plan (RAP) will be developed for utilization during construction, so all excavated soils are properly handled and disposed off-site. The overall objective is to obtain a notice to proceed with construction of an apartment building from the NYC Department of Buildings.

This HASP covers the following activities:

- Inspection of “direct push technology” (DPT) drilling methods conducted by a drilling contractor including: advancement of test borings and installation of temporary/permanent groundwater and soil vapor monitoring wells;
- Collection of soil samples from DPT drilling using manual sampling techniques;
- Purge and/or collection of groundwater samples from temporary well points and permanent monitoring well locations;
- Manage sampling residuals; and,
- Inspection of Interim Remedial Measures (IRMs) conducted by a remedial contractor including: soil “hot spot” excavations and post-excavation sampling.

This HASP does not cover any site activities other than those specifically described above. Other possible work activities not described above may be conducted after approval of an appropriate Addendum to this HASP by the HSM.

This HASP will expire on November 2012. Use of this HASP after this date to perform the work activities described herein or other activities in addition to those described herein, is not permitted. The expiration date may be extended by the HSM by preparation of an addendum to the HASP approved by the URS Project Manager and HSM after a review of the applicability of the HASP and addenda issued, if any, to actual site conditions encountered has been made by the HSM.

## 5.1 OVERVIEW

This HASP covers work that could potentially be performed as part of the Remedial Investigations. The specific tasks covered in this HASP are described in Section 4. This HASP does not provide for worker protection in confined spaces, or in places with limited egress or in excavations.

The work in this HASP is investigative in nature. It must be recognized that knowledge of the types of substances or chemicals that might be encountered, or the concentrations of chemicals that might be found, are obtained from previous studies in specific areas and from histories of activities and work practices at the Site. Based on a review of the available information pertaining to the Site, contaminants of concern were identified. Material Safety Data Sheets (MSDSs) or Safety Cards for these contaminants can be found in Appendix B along with MSDSs for materials to be brought to the Site as part of the Inspection.

## 5.2 HAZARD SUMMARY

This HASP considers work tasks that will be performed at the Site during the Inspection. A general assessment of the hazards has been made based on the work activities described in Section 4. The following potential hazards have been identified:

- inhalation of dusts;
- inhalation of volatile chemical constituents;
- skin and eye contact with chemical constituents;
- ingestion of chemical constituents;
- physical hazards associated with the use of heavy equipment;
- noise exposure;
- slip-trip-fall hazards;
- lifting hazards;
- weather hazards;
- drilling hazards;
- underground structures/obstructions/utilities;
- traffic hazards;
- use of personal protective equipment;
- heat stress;
- cold exposure;
- biological hazards;
- flammable hazards; and,
- electrical hazards.

Other hazards may be identified during work at the Site; these hazards, if any, will be addressed by an addendum to this HASP prepared by the HSM and authorized by the URS Project Manager and the HSM.

### 5.3 CHEMICAL HAZARDS

An analysis was performed to determine site-specific health and safety requirements to protect workers performing tasks outlined in Section 4. The analysis was performed by studying available sampling and site history information. Taken into account were the chemical constituents found during previous investigations, the toxicity and routes of exposure to workers, and the capabilities of field detection devices. This HASP has adopted the use of the “lowest allowable exposure limit” which is the most conservative of the exposure limits given by OSHA, the National Institute of Occupational Safety and Health (NIOSH), or the American Conference of Governmental Industrial Hygienists. Inhalation and dermal contact would be the primary routes of exposure. Ingestion is a secondary route of exposure.

#### 5.3.1 Chemical Hazards Due to Site Contaminants

Based on the results of previous investigations conducted at the Sites, field personnel might potentially be exposed to a number of different classes of contaminants, including:

- volatile aromatic compounds (e.g., chlorethane, 1,1-dichlorethane, 1,1-dichlorethene, and 1,1,1-trichloroethane);
- base neutral compounds (e.g., benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, and phenol);
- heavy metals (e.g., arsenic, barium, cadmium, calcium, copper, lead, magnesium, mercury, selenium and zinc); and,
- pesticides (e.g., dieldrin, gamma-BHC and endrin)

Each of these classes of compounds is discussed below.

##### Volatile Organic Compounds

Based on the results of the previous work activities performed for the Site and our understanding of the history of the Site, field personnel might also be exposed to a number of chlorinated solvents. Tetrachloroethene (PCE) is a commonly used chlorinated hydrocarbon in dry cleaning, textile processing, and other industrial processes. Common chlorinated hydrocarbons encountered during subsurface investigations in groundwater include breakdown products of PCE such as chlorethane, 1,1-dichlorethane, 1,1-dichlorethene, and 1,1,1-trichloroethane. Specific effects and toxicities vary widely, but the most common effects from the chlorinated hydrocarbons of intermediate toxicity are central nervous system depression, dermatitis and injuries to the liver.

##### Base Neutral Compounds

Properties for base neutral compounds (polynuclear aromatic hydrocarbons [PAHs]) generally correlate with molecular weight, or number of rings in the compound structure. Solubilities range from 34.4 mg/l for the two ring naphthalene to less than 0.01 mg/l for four and five ring compounds (e.g., chrysene and benzo(a)pyrene). Estimated sediment/water

partition coefficients similarly vary from about 100 for naphthalene to 10,000 to 100,000 for representatives of the four and five ring compounds. This trend can be expected to continue for higher molecular weight PAH compounds, although available data are limited. Vapor pressures are relatively low for PAH compounds. The largest reported vapor pressure is 0.05 mm Hg for naphthalene, decreasing to less than 10<sup>-6</sup> mm Hg for four ring and heavier compounds.

With the possible exception of the relatively soluble naphthalene, the PAH compounds are strongly sorbed to soils and sediments, and are generally found in the particulate phase of surface waters and in sediments. This property limits the groundwater mobility of the heavier PAH compounds.

PAH compounds in subsurface soil and ground water are quite persistent, since the potential removal processes for PAHs (i.e., volatilization, photolysis and biodegradation) will not occur at significant rates under typical subsurface conditions.

In summary, PAH compounds will, in general, be sorbed to soils, sediments and suspended particulate matter. PAHs may be removed from shallow surface waters by volatilization and photolysis. Significant biodegradation of the lighter PAH compounds may occur in surface soil and sediments. The PAHs bioconcentrate significantly, but can be metabolized and excreted thus limiting bioaccumulation. The lighter (two and three ring) PAH compounds, especially naphthalene, may show mobility in the aqueous phase; heavier PAH compounds have extremely limited mobility in groundwater. PAH compounds are quite persistent in subsurface soils and groundwater.

#### Heavy Metals

Heavy metals found in the environment are derived from a variety of sources including: natural weathering of the earth's crust, mining; soil erosion; industrial discharge; urban runoff; sewage effluent; pest or disease control agents applied to plants; air pollution fallout; etc. While some heavy metals found in the environment are essential nutritionally, other are not. The latter include some heavy metals that generally have a density greater than 5 g/cm<sup>3</sup>, and an atomic mass exceeding that of calcium. Most heavy metals are toxic because, as ions or in certain compounds, they are soluble in water and can be readily absorbed into plant or animal tissue. After absorption, these metals tend to bind to biomolecules such as proteins and nucleic acids, impairing their functions. The most prominent adverse effects of heavy metals involve the nervous system, hematopoietic system and kidneys.

#### Pesticides

Pesticide poisoning is an important occupational health issue because pesticides are used in a large number of industries. The organochlorine pesticides, like DDT, aldrin, and dieldrin are extremely persistent and accumulate in fatty tissue. Through the process of bioaccumulation (lower amounts in the environment get magnified sequentially up the food chain), large amounts of organochlorines can accumulate in top species like humans. There is substantial evidence to suggest that DDT, and its metabolite DDE, act as endocrine disruptors, interfering with hormonal function of estrogen, testosterone, and other steroid hormones. Certain organophosphates have long been known to cause a delayed-onset toxicity to nerve

cells, which is often irreversible. Several studies have shown persistent deficits in cognitive function in workers chronically exposed to pesticides. Newer evidence suggests that these pesticides may cause developmental neurotoxicity at much lower doses and without depression of plasma cholinesterase levels.

Most pesticide-related illnesses have signs and symptoms that are similar to common medical conditions, so a complete and detailed environmental and occupational history is essential for correctly diagnosing a pesticide poisoning. Most occupational exposures are caused by absorption through exposed skin such as the face, hands, forearms, neck, and chest. This exposure is sometimes enhanced by inhalation in settings including spraying operations in greenhouses and other closed environments, tractor cabs, and the operation of rotary fan mist sprayers. Exposure can be significantly reduced by protecting certain parts of the body where the skin shows increased absorption, such as the scrotal region, underarms, face, scalp, and hands.

### 5.3.2 Chemical Hazards Due to Materials Brought to Site

Sampling may be performed by “low flow” methods which employ nitrogen gas. Groundwater samples to be analyzed for metals will be preserved with nitric acid; groundwater samples to be analyzed for VOCs will be preserved with hydrochloric acid. In addition, personnel and/or equipment decontamination may be performed using trisodium phosphate or Alconox<sup>®</sup>. Finally, isobutylene (i.e., isobutene) gas will be used as a calibration standard for the photoionization detector.

Workers might potentially be exposed to gasoline, diesel fuel and other chemical substances related to the operation of drilling equipment at the Site. Asphalt plug and/or bentonite are typically used for monitoring well installations.

Sunscreen and/or insect repellent including products containing N,N-diethyl-meta-toluamide (i.e., DEET) or permethrin (e.g., Permanone<sup>®</sup>) may be used at the Site. The sunscreen and insect repellent that may be used by site workers contain chemicals that may pose a hazard to site personnel

MSDSs for the chemical constituents of concern and chemicals to be brought to the Site are provided in Appendix B. The chemicals which are brought to the Site to conduct work activities may be hazardous and subject to regulation under OSHA’s Hazard Communication Standard (i.e., 29 CFR 1910.1200). See URS SMS 002, Worker Right-to-Know (Hazard Communication), for additional information.

## 5.4 PHYSICAL HAZARDS

### Working with/near Heavy Equipment

There is a risk of physical injury resulting from contact with heavy equipment such as construction and drilling equipment. Field personnel should be aware of the presence of these hazards and take steps to avoid them. Workers must be careful to communicate with equipment operators regarding their location and should maintain a safe distance from

operating equipment at all times. Personnel should be aware of their location relative to heavy equipment and avoid being struck by equipment or being present in “pinch points.” Use of steel-toed work boots, protective eyewear and hard hats will be required while in all work areas. URS SMS 019, Heavy Equipment Operations, presents additional information on this subject.

#### Drilling Hazards

The primary responsibility during drilling safety is with the drilling contractor. URS employees are responsible for their own safety including recognizing and avoiding drill rig hazards. URS employees that observe a drill rig condition believed to be unsafe shall advise the drill rig operator of the unsafe condition.

URS geologists, environmental scientists, engineers or other field staff assigned to monitor drilling operations or collect soil samples should observe the following guidelines:

- require a meeting at project start-up regarding the drill rig operator’s responsibility for rig safety and any site- or equipment-specific safety requirements;
- set up any sample tables and general work areas for the URS field staff to the side of the drill rig (preferably 20 ft away) and not directly behind the drill rig; and,
- URS geologists, environmental scientists, engineers or other field staff shall not assist the drillers with the drilling equipment or supplies and shall not at any time operate the drill rig controls.

*Before moving a rig, the drill rig operator must do the following:*

- to the extent practical, walk the planned route of travel and inspect it for depressions, gullies, ruts and other obstacles;
- check the brakes of the truck/carrier, especially if the terrain along the route of travel is rough or sloped;
- discharge all passengers before moving on rough or steep terrain; and,
- engage the front axle (on 4x4 or 6x6 vehicles) before traversing rough or steep terrain.

After the drill rig has been positioned to begin drilling, all brakes and/or locks must be set before drilling begins. If the drill rig is positioned on a steep grade and leveling of the ground is impossible or impractical, the wheel of the transport vehicle should be blocked and other means of preventing the drill rig from moving or tipping over employed. URS SMS 056, Drilling Safety Guidelines, presents additional information on this subject.

#### Dust Hazards

Airborne particulates during drilling activities will not generate much dust. However, dust can have some degree of chemical constituents and inhalation of dust particles at high levels can constitute a respiratory hazard. If visible dust is observed in the breathing zone by the SSO, dust suppression techniques (such as spraying water onto exposed soil piles or work areas) will be used as required to reduce airborne dust concentrations.

Excavation Hazards

Excavations are anticipated during the work activities for this Site and will be performed by a remedial contractor. The remedial contractor will use their own site-specific HASP based upon a written agreement made with URS. The general health and safety requirements in their site-specific HASP must be as stringent as those contained in this HASP. Underground and aboveground utilities, adjacent structures or retaining walls, spoil layout, truck routes, and emergency procedures must be identified by the remedial contractor before work begins. The remedial contractor will be required to assign an excavation-competent person to the project. Documentation of this person's qualifications will be maintained in the project safety file. The excavation-competent person:

1. Has formal documentation of training as an excavation-competent person.
2. Must be physically located at the excavations at all times while work is in progress.
3. Is responsible for conducting daily inspections of excavations, adjacent areas, and protective systems prior to each shift.
4. Is responsible for inspection after every rainstorm or other potentially hazard-producing event.
5. Must have knowledge of soils and soil classification.
6. Understands design and use of protective systems.
7. Understands the requirements of the applicable regulations.
8. Has authority to stop work and take corrective actions when conditions change.
9. Has the ability to recognize and test hazardous atmospheres.

URS field personnel will only be observing excavations and trenching. When performing observations on an excavation or trench greater than 4 feet in depth, URS field personnel must remain at least more than 2 feet from the leading edge of the excavation and must **never** enter a trench or excavation. Post-excavation soil samples will be collected from soil collected in the backhoe bucket.

Noise Exposure

The primary noise hazard during the Investigation on-Site is from the operation of the drilling and heavy equipment. Work activities may also be conducted in proximity to active taxiways where a potential for high background noise levels from aircraft does exist. In accordance with OSHA Regulation 29 CFR 1910.95, hearing protection is required to be used when noise levels exceed 85 decibels on the A-scale (dBA) averaged over an 8-hour day; hearing protection is required to be worn for exposures of greater than 100 decibels (dB) for any length of time. In the absence of instrumentation, an appropriate rule of thumb is that when normal conversation is difficult at a distance of 2 to 3 ft, hearing protection is required. Contractors shall have hearing protection at the Site for use by their employees. Ear plugs and/or muffs will be worn at all times when URS personnel are within 25 ft of operating equipment. Hearing protection will also be worn in the vicinity of generators, concrete cutters and any other high noise emitting equipment. Personnel will wash their hands with soap and potable water prior to inserting earplugs to avoid initiating ear infections. URS SMS 026, Noise and Hearing Conservation, presents additional information on this subject.

### Slip-Trip-Fall Hazards

Slip-trip-fall hazards are common at field sites due to open holes; muddy, slippery or unstable surfaces; and equipment on the ground. Workers should exercise caution when working around the Site to avoid slip-trip-fall hazards. If there are holes or uneven terrain in the work area that could cause workers to slip, trip or fall, they must be covered, flagged or marked to warn workers. Slip-trip-fall hazards are greatly increased during work in or near water. If conditions become slippery, workers should take small steps with their feet pointed slightly outward to decrease the probability of slipping. Workers should watch where they are walking and, if possible, walk only in areas of good stability. While it is difficult to eliminate all slip-trip-fall hazards, implementing safe work practices, wearing proper footwear, and keeping the work area free of obstructions will reduce risk of injury. URS SMS 021, Housekeeping, provides additional information about this hazard.

### Lifting Hazards

Field operations often require the performance of laborious tasks such as lifting equipment such as portable generators, coolers filled with samples and sampling equipment. All employees must implement proper lifting procedures such as keeping the load close to the body and using leg muscles instead of back muscles to perform lifting tasks. Additionally, employees will not attempt to lift large, heavy or awkwardly shaped objects without assistance. Safe lifting procedures include:

- Get help when lifting heavy loads. Lift portable generators using a two-person lift.
- When moving heavy objects such as drums or containers, use a dolly or other means of assistance.
- Plan the lift. If lifting a heavy object, plan the route and where to place the object. In addition, plan communication signals to be used (e.g., “1-2-3-lift”).
- Wear sturdy work boots shoes that are in good condition and supply traction when performing lifts.
- Keep your back straight and head aligned during the lift, and use your legs to lift the load – do not twist or bend from the waist. Keep the load in front of you – do not lift or carry objects from the side.
- Keep the heavy part of the load close to your body to help maintain your balance.

See URS SMS 069, Manual Material Handling, for additional information on this subject.

### Weather

Weather conditions are an important consideration in planning and conducting site operations. Extremely hot or cold weather can cause physical discomfort, loss of efficiency and personal injury. Lightning may accompany storms, creating an electrocution hazard during outdoor operations. To eliminate this hazard, weather conditions must be monitored and work suspended during electrical storms.

Underground Structures/Obstructions/Utilities

Prior to initiating any drilling activities, the SSO will obtain utility clearances. The SSO is responsible for ensuring a safe work environment when working around electrical devices, pressurized utilities, gas, steam, water, sewage, and pipeline utilities. Pre-work walkthroughs will be performed with personnel familiar with the facility to identify any overhead, underground, and in-work area utilities such as electrical lines, gas lines, pipelines, and discharge of steam or hot liquids. These walkthroughs will minimize the chance for accidental contact with or damage to these utilities. Areas designated for intrusive investigation will be cleared of underground power cables and other utilities prior to the onset of work.

Subsurface work (i.e. drilling) will not be initiated until locations of underground utilities and similar obstructions are verified. Locations shown on as-built drawings must be confirmed with additional geophysical or other surveys.

The SSO will contact “One Call” service at least 2 working days prior to site activities to advise of the proposed work, and ask them to establish the location of the utility underground installations prior to the start of actual drilling and/or excavation. Utility clearances will be obtained for subsurface work on both public and private property. Clearances are to be in writing and signed by the party conducting the clearance. URS may also be required to contact a third party utility locate service to verify all locations prior to disturbance.

The markings of approximate locations of utilities will be protected and preserved until the markings are no longer required for safe and proper drilling. If the markings of utility locations are destroyed or removed before drilling commences or is completed, the SSO must notify the utility company or utility protection service to inform them that the markings have been destroyed.

Mechanical-assisted subsurface work (e.g., powered drill rig) will not be conducted within 5 feet (1.5 meters) of a confirmed or suspected utility or other subsurface structure. Minimum distances for mechanical-assisted subsurface work should be confirmed with the utility owner, as distances greater than this 5-foot minimum may be required.

Subsurface work within 5 feet (1.5 meters) of a confirmed or suspected utility or other subsurface structure must be done by hand (e.g., hand auger or shovel) to the point where the obstruction is visually located and exposed. Once the obstruction location is confirmed in this manner, mechanical-assisted work may commence. See URS SMS 034, Utility Clearance and Isolation, for additional information.

Overhead Hazards

Overhead power lines pose a danger of shock or electrocution if the power line is contacted or severed during site operations. Prior to conducting work in areas where overhead lines could be impacted, the appropriate utility company must be notified and information obtained regarding the line voltage and the minimum separation distance required for work in this area. Drilling work operations adjacent to overhead lines will not be initiated until operations are coordinated with utility officials. Operations adjacent to overhead lines are prohibited unless one of the following conditions is satisfied:

1. Power has been shut off and positive means (e.g., lockout/tagout) have been taken to prevent lines from being energized. In all cases, utility company personnel will certify in writing to the Site Manager or SSO that the overhead utilities have been deactivated and the certification will be retained in the project files. The Site Manager or SSO must also attempt to verify power shut off by checking that power is no longer available to the affected building or equipment.
2. Equipment, or any part of the equipment, cannot come within the following minimum clearance from energized overhead lines:

<b>Power Lines Nominal System (kilovolts)</b>	<b>Minimum Required Clearance (ft)</b>
0-50	10
51- 200	15
201-300	20
301-500	25
501-750	35
751-1000	45

See URS SMS 034, Utility Clearance and Isolation, for additional information about this subject.

#### Work Area Protection

As some project operations may be undertaken near roadways or parking areas, motor vehicles and trucks could pose a hazard. Consideration should be given to parking work vehicles within the coned area between the work area and oncoming traffic. Guidance on properly coning and flagging the work area is presented in URS SMS 032, Work Zone Traffic Control.

#### Use of Personal Protective Equipment

The personal protective equipment (e.g., protective clothing and air purifying respirators) which may be required for some activities for this Project places a physical strain on the wearer. When personal protective equipment (PPE) such as respirators, gloves and protective clothing are worn, visibility, hearing and manual dexterity are impaired. URS SMS 029, Personal Protective Equipment, presents additional information on this subject.

#### Heat Stress

Hot weather can cause physical discomfort, loss of efficiency and personal injury. Work which is conducted when temperatures exceed 70 degrees Fahrenheit (°F) may result in increased incidence of heat-related illness. The risk is increased for personnel who are required to don impermeable protective clothing during warm weather, which decreases the body's natural cooling processes. Fluids will be provided at regular intervals during the work periods in order to maintain adequate body fluid levels for the field personnel.

URS SMS 018, Heat Stress, presents additional information on this subject. This SMS describes heat stress identification, treatment, prevention and monitoring.

Cold Exposure

Cold weather can cause physical discomfort, loss of efficiency and physical injury. Persons working outdoors in temperatures at or below freezing may be frostbitten. Extreme cold for a short time may cause severe injury to the surface of the body, or result in profound generalized cooling, causing death. Areas of the body which have high surface area-to-volume ratio such as fingers, toes and ears are the most susceptible.

Exposure to cold working conditions can result in cold stress (i.e., hypothermia) and/or injury (frostbite) to hands, feet, and head. Hypothermia can result when the core body temperature drops below 96.8°F. Lower body temperature will be likely to result in dizziness, drowsiness, disorientation, slurred speech or loss of consciousness, with possible fatal consequences. Pain in the extremities may be the first warning of danger from cold stress. Shivering develops when the body temperature falls to 95°F. Hypothermia can be brought on by exposure to cold air, immersion in cold water, or a combination of both. The wind chill factor, which is the cooling power of moving air, is a critical factor in cold stress.

Workers must wear adequate insulating clothing if work is performed in temperatures below 40°F. At temperatures of 35.6°F or less, workers whose clothing becomes wet will be provided immediately with a change of clothing and, if necessary, treated for hypothermia. Treatment includes warming the victim (with skin-to-skin contact or by providing warm blankets or other coverings) and providing warm liquids for the victim to drink. Skin exposure will not be permitted at temperatures of -25°F or below.

If fine work is to be performed with bare hands for more than 10 to 20 minutes at temperatures below 60°F, provisions will be made for keeping the workers' hands warm. If equivalent chill temperatures fall below 40°F and fine manual dexterity is not required, gloves will be worn. Metal handles of tools will be covered with insulating material at air temperatures below 30°F.

If work is to be performed continuously in the cold when the wind chill factor is at or below 19°F, heated warming shelters (e.g., tents, trailers, vehicle cabs) will be made available nearby.

URS SMS 059, Cold Stress, presents additional information on this subject. This SMS presents the effects of cold exposure, and treatment, prevention and monitoring procedures.

## 5.5 BIOLOGICAL HAZARDS

Potential biological hazards include illnesses and/or injuries transmitted by plants, insects, animals and pathogenic agents. There are many plants, animals and insects that are potentially harmful to humans including ticks, poison ivy/poison oak, spiders, bees and wasps, mosquitoes and poisonous snakes.

Bloodborne pathogens include diseases that can be transmitted by contact with blood or other bodily fluids as well as contaminated items that may be encountered on the Site (e.g. used syringes). Universal precautions should be used when administering First Aid. Good hygiene practices and proper decontamination of nondisposable PPE will minimize potential for transmission of bloodborne pathogens.

During field work at the Site, personnel may encounter a wide variety of insects including bees, mosquitoes, ticks and spiders. Field personnel are encouraged to use insect repellent when insects are present. Stings of bees and wasps may cause serious allergic reactions in certain individuals. The SSO should be made aware of all personnel with known insect allergies or sensitivities before field work begins.

Ticks are parasites that feed on the blood of an animal/human host and can carry several severe diseases, the least bringing several days of fever and pain and the worst causing brain damage. Deer tick bites may result in the transmission of Lyme Disease. A characteristic rash may develop a few days to a few weeks after the bite of an infected tick. The rash generally looks like an expanding red ring with a clear center, but it can vary from a blotchy appearance to red throughout the rash. However, it is important to note that some victims never exhibit a rash. Lyme Disease symptoms include flu-like symptoms such as a headache, stiff neck, fever, muscle aches and/or general malaise. Long-term effects of Lyme Disease may include arthritis of the large joints, meningitis, neurological complications (such as numbness or tingling of the extremities, loss of concentration and memory retention or Bell's Palsy), withdrawal and lethargy, or cardiac symptoms. Site workers should use the following prevention tactics in accordance with URS SMS 047, Biological Hazards, contained in Appendix B. Other suggested behaviors to reduce the hazards posed by ticks include:

- avoid walking through brush, woods or grassy areas; try to avoid contact with plants if you must walk through these areas;
- dress in light-colored clothing to make adhering ticks more visible. Wear long-sleeved shirts and tuck pants into socks. Wear a hat and tie back long hair;
- use a tick repellent containing permethrin or DEET; and,
- perform self or assisted searches each day to check for ticks.

Pigeon nesting and roosting habits may result in an accumulation of excrement at some sites. Exposure to pigeon excrement can cause illness in humans. Of primary concern is the contracting of psittacosis which is a flu-like illness which can cause death in vulnerable individuals. All workers should avoid coming in contact with these materials and, if exposed to them, should thoroughly wash areas of contact as soon as possible.

Assume that all animals are dangerous. A person who is bitten by an animal may become infected by tetanus or rabies. Warm-blooded animals such as dogs, cats and rats can transmit rabies. Rabies can also be transmitted when the saliva of an infected animal contacts an open wound (even a scratch) or any normal body opening such as the mouth or eye.

URS SMS 047, Biological Hazards, presents additional information on this subject.

## **5.6 FLAMMABLE HAZARDS**

Flammable hazards are expected to be low during the course of this work based on the levels of flammable materials encountered during previous investigations at the Site and the nature of the work to be performed. However, as a precaution, air monitoring, as specified in Section 6, will be conducted during all work activities. URS SMS 014, Fire Prevention, presents additional information on this subject.

## 5.7 EXPOSURE ROUTES

The primary exposure pathways of concern for these identified contaminants are as follows:

### Inhalation of Dust

Several of the work activities to be performed have the potential for generating dust in the breathing zone. Dust suppression techniques will be used as required to reduce airborne exposures.

### Inhalation of Volatile Contaminants

Several VOCs may be present in the soil and groundwater. Previous experience during activities at this site and at other sites suggests that airborne concentrations of these contaminants during these activities will probably not exceed exposure limits during activities due to emissions from contaminated soil or groundwater, or gasoline or diesel fuel-powered equipment in open areas.

### Ingestion of Contaminants

Personnel may be exposed to accidental ingestion of contaminants by hand to mouth contact after contact with contaminated materials. Ingestion of contaminants will be controlled during work activities by prohibiting eating and smoking in the contamination reduction zone and exclusion zone and by requiring all field personnel to decontaminate themselves upon leaving the exclusion zone. Drinking of liquids will take place only after partial decontamination has taken place (except in a heat stress emergency situation).

### Skin and Eye Contact with Contaminants

Skin and eye contact with some of the contaminants at the Site or due to the operation of gasoline or diesel fuel-powered equipment may cause skin or mucous membrane irritation. Many of these contaminants can be absorbed into the bloodstream through the skin or eyes. Skin contact with potentially contaminated materials will be reduced by the wearing of personal protective clothing. Any body area which comes in contact with contaminants will be washed with soap and rinsed immediately. All field personnel will report any skin or eye contact symptoms to the SSO. The person will be treated by a physician and steps will be taken to eliminate similar exposures.

## 5.8 CONTROL OF EXPOSURE TO CHEMICAL HAZARDS

Potential hazards will be reduced by protecting against exposures to contaminants via utilization of appropriate personal protective equipment. Personal protective equipment to protect the body against contact with known or anticipated chemical hazards is divided into five levels of protection categories (i.e., Levels A, B, C, Modified D and D personal protective equipment) according to the degree of protection afforded. The initial levels of personal protective equipment to be used while performing the work activities described in Section 4 are discussed in Section 7, Site-Specific Health and Safety Requirements. If the personal protective equipment for any level of protection needs to be modified to be

appropriate for the specific hazard encountered, an appropriate addendum to this HASP must be prepared by the HSM.

Periodic air monitoring will be employed to assess respiratory hazards in the work zones for work activities as appropriate. Levels of protection can be upgraded or downgraded by the SSO if they are not appropriate; the HSM will be notified of any changes of levels of protection as soon as practical.

## **5.9 HAZARD ASSESSMENT BY TASK AND JOB SAFETY ANALYSES**

This section presents an evaluation of general risk by tasks from the particular hazards associated with working at the Site (i.e., chemical exposure and physical injury). Specific personal protective equipment requirements by task and task location based on these judgments as well as available information on chemical hazards and anticipated work activities are listed in Section 7.

Prior to any work being performed each day, based on the information provided in this HASP and relevant site-specific information for that day (e.g., weather conditions, other work being performed at the Site), the SSO shall prepare a Job Safety Analysis (JSA) for all tasks which are anticipated to be conducted that day. No work activity shall be performed unless a JSA for that work activity has been prepared and discussed with all site personnel. JSAs shall be reviewed and modified as necessary to ensure that all job hazards are identified and mitigated or controlled. The Job Safety Analysis forms for this project are provided in Section 11.

**5.9.1 Inspection of DPT Drilling Activities including Advancement of Test Borings and Installation of Temporary/Permanent Groundwater and Soil Vapor Monitoring Wells****5.9.1.1 General Hazards**

The following hazards will be a concern during this task:

**POTENTIAL HAZARD****ANTICIPATED RISK**

Inhalation of Dusts	low to moderate
Inhalation of Volatile Contaminants	moderate
Ingestion of Contaminants	moderate
Skin/Eye Contact with Contaminants	moderate to high
<b>Working with/near DPT Equipment</b>	<b>high</b>
Excavation Hazards	low
<b>Noise Exposure</b>	<b>high</b>
Slip-Trip-Fall Hazards	moderate to high
Lifting Hazards	moderate
Weather Hazards	moderate
Underground Utilities	moderate to high
Overhead Hazards	moderate to high
Use of Personnel Protective Equipment	low to moderate
Heat Stress	depends on ambient temperature
Cold Exposure	depends on ambient temperature
Biological Hazards	moderate
Flammable Hazards	moderate
Electrical Hazards	moderate

**5.9.1.2 Additional Task-Specific Hazards**

None.

**5.9.2 Collection of Soil Samples from DPT Drilling****5.9.2.1 General Hazards**

The following hazards will be a concern during this task:

**POTENTIAL HAZARD****ANTICIPATED RISK**

Inhalation of Dusts	low to moderate
Inhalation of Volatile Contaminants	moderate to high
Ingestion of Contaminants	moderate
Skin/Eye Contact with Contaminants	moderate to high
<b>Working with/near DPT Equipment</b>	<b>high</b>
Excavation Hazards	low
Noise Exposure	moderate to high
Slip-Trip-Fall Hazards	moderate to high
Lifting Hazards	moderate
Weather Hazards	moderate
Underground Utilities	low
Overhead Hazards	low
Use of Personnel Protective Equipment	moderate
Heat Stress	depends on ambient temperature
Cold Exposure	depends on ambient temperature
Biological Hazards	moderate
Flammable Hazards	low
Electrical Hazards	low

**5.9.2.2 Additional Task-Specific Hazards**

None.

**5.9.3 Purge and Collect Samples from Temporary Well Points and Permanent Monitoring Well Locations****5.9.3.1 General Hazards**

The following hazards will be a concern during this task:

**POTENTIAL HAZARD****ANTICIPATED RISK**

Inhalation of Dusts	low
Inhalation of Volatile Contaminants	moderate to high
Ingestion of Contaminants	moderate to high
Skin and Eye Contact with Contaminants	moderate to high
Working with/near DPT Equipment	moderate to high
Excavation Hazards	low
Noise Exposure	moderate to high
Slip-Trip-Fall Hazards	moderate to high
Lifting Hazards	moderate to high
Weather Hazards	moderate
Underground Utilities	low
Overhead Hazards	low to moderate
Use of Personnel Protective Equipment	moderate
Heat Stress	depends on ambient temperature
Cold Exposure	depends on ambient temperature
Biological Hazards	moderate
Flammable Hazards	moderate
Electrical Hazards	moderate

**5.9.3.2 Additional Task-Specific Hazards**

None.

**5.9.4 Manage Sampling Residuals****5.9.4.1 General Hazards**

The following hazards will be a concern during this task:

**POTENTIAL HAZARD****ANTICIPATED RISK**

Inhalation of Dusts	low to moderate
Inhalation of Volatile Contaminants	moderate to high
Ingestion of Contaminants	moderate
Skin and Eye Contact with Contaminants	moderate to high
Working with/near DPT Equipment	moderate to high
Excavation Hazards	low
Noise Exposure	moderate
Slip-Trip-Fall Hazards	moderate to high
Lifting Hazards	moderate to high
Weather Hazards	low to moderate
Underground Utilities	low
Overhead Hazards	low to moderate
Use of Personnel Protective Equipment	moderate
Heat Stress	depends on ambient temperature
Cold Exposure	depends on ambient temperature
Biological Hazards	low
Flammable Hazards	low
Electrical Hazards	low

**5.9.4.2 Additional Task-Specific Hazards**

None.

**5.9.5 Inspection of Interim Remedial Measures Conducted by a Remedial Contractor including Soil “Hot Spot” Excavations and Post-Excavation Sampling****5.9.5.1 General Hazards**

The following hazards will be a concern during this task:

**POTENTIAL HAZARD****ANTICIPATED RISK**

Inhalation of Dusts	moderate to high
Inhalation of Volatile Contaminants	moderate to high
Ingestion of Contaminants	moderate
Skin and Eye Contact with Contaminants	moderate to high
Working with/near Heavy Equipment	moderate to high
<b>Excavation Hazards</b>	<b>high</b>
Noise Exposure	moderate to high
Slip-Trip-Fall Hazards	moderate to high
Lifting Hazards	low
Weather Hazards	moderate
Underground Utilities	moderate to high
Overhead Hazards	moderate to high
Use of Personnel Protective Equipment	moderate
Heat Stress	depends on ambient temperature
Cold Exposure	depends on ambient temperature
Biological Hazards	moderate
Flammable Hazards	moderate
Electrical Hazards	moderate

**5.9.5.2 Additional Task-Specific Hazards**

**The remedial contractor will be required to assign an excavation-competent person to the project. When performing observations on an excavation or trench greater than 4 feet in depth, URS field personnel must remain at least more than 2 feet from the leading edge of the excavation and must never enter a trench or excavation.**

## 6.1 SAFETY TRAINING

Employees shall not participate in field activities until they have been trained to a level required by their job function and responsibility. Trainers shall have received a level of training higher than and including the subject matter of the level of instruction they are providing. All training and field experience shall be certified. Training requirements are discussed below.

All personnel working in any contamination reduction zone or exclusion zone exposed to hazardous substances, or health or safety hazards shall be thoroughly trained as specified in OSHA Regulation 29 CFR Part 1910.120(e). This training program will include:

### 40-Hour Initial Training

All field employees must have completed the 40-hour (hr) initial health and safety training required under OSHA Regulation 29 CFR Part 1910.120. They must receive an 8-hr annual refresher training thereafter.

### Three-Day On-Site Supervision

All field employees shall be required to receive a minimum of three-days of on-site training under the supervision of a trained and experienced supervisor. On-site time under supervision shall be documented.

### Site Supervisor

The Site Supervisor (URS Project Manager or designated alternate) must have completed the basic 40-hr training course, three days of on-site supervision, and at least 8 hours of specialized training on managing hazardous waste operations. The eight hours of specialized training shall include instruction covering the URS Health and Safety Program, employee training program, personal protective equipment program, spill containment procedures and health hazard monitoring procedures and techniques.

### Site Safety Officer

The SSO must have completed 40-hr training, 3-day on-site supervision and first aid training. A first aid refresher is required every three years. Any other on-site personnel trained to do first aid will be identified during the Daily Site Safety Briefings.

Personnel involved in any of the work activities designated for this project may also be required to meet other applicable OSHA Regulations or Standards.

OSHA Regulation 29 CFR 1910.120 require that special training be provided at the time of job assignment to personnel who may be exposed to unique or special hazards not covered by the initial 40-hr basic health and safety course. It is not anticipated that any unique or special hazards will be encountered during this project, other than those previously described; therefore, special training will not be needed. If unique or special hazards are unexpectedly encountered, specialized training must be provided.

Contractors must provide documentation and certificates indicating that their field personnel working within the contamination reduction zone or exclusion zone have successfully completed all the training requirements stipulated under OSHA Regulations 29 CFR Part 1910.120 and 29 CFR Part 1926 and that they have been successfully fit-tested within the previous 12 months for the brand, size and type of respirator to be used.

**An individual that either refuses to or cannot produce a record of course completion will be prohibited from participation in field activities. An individual that refuses to or cannot produce a satisfactory fit-test record will be prohibited from wearing respiratory protection.**

URS SMS 055, Health and Safety Training, presents additional information on this subject.

### 6.1.1 Safety Orientation Meeting

A safety orientation meeting will be conducted for all employees, including contractors, prior to the commencement of field activities. The following topics will be discussed at this meeting:

- names of health and safety personnel and alternates responsible for site health and safety;
- health and safety organization;
- hazards at the Site;
- exposure risk;
- required work procedures including, but not limited to, lockout and tagout, excavation safety, and confined space entry, as applicable;
- personal protective equipment to be used;
- respiratory protection;
- personnel and equipment decontamination procedures;
- air monitoring; and,
- emergency procedures.

All field personnel must be provided with and read a copy of this HASP. At the end of the meeting, attendees will be informally quizzed to assess their understanding of the health and safety requirements. They must sign a safety compliance agreement form stating they have read, understand and agree to comply with the provisions of the HASP. Anyone refusing to sign the form will be prohibited from working at the Site.

If a new employee, who has not gone through the site-specific safety orientation meeting is assigned to the Site, the SSO must present a similar briefing to the new employees before he/she participates in any field activities. All new employees must sign the safety compliance agreement form before beginning field work.

### 6.1.2 Daily Safety Briefings

During field operations, daily safety briefings must be held at the start of each work shift by the SSO to review and plan specific health and safety aspects of scheduled work. Topics discussed during these briefings will include site hazards, precautions, lockout and tagout procedures (as necessary), PPE, air monitoring, respiratory protection, decontamination and applicable procedures for the work activities to be conducted during that work shift. All site personnel who are following this HASP and working within the contamination reduction zone or exclusion zone are required to attend these briefings. Names and affiliations of individuals attending these briefings and items discussed must be documented by the SSO.

### 6.1.3 Site Inspections

The Site Manager or SSO is to conduct a daily site inspection prior to the start of each shift. It is the responsibility of the URS Project Manager or Site Manager to resolve discrepancies immediately, contacting the HSM, if necessary, for assistance. Inspections are to be documented and maintained at the Site until the completion of the Project, at which time they are placed in the project files.

### 6.1.4 Hazard Communication Program

Materials that are considered hazardous under the OSHA Communication Standard (i.e., OSHA Regulation 29 CFR 1910.1200) may be brought to the Site (e.g., acids for sample preservation). Field personnel, including Contractors, must comply with the requirements of the OSHA Hazard Communication Standard. MSDSs or Safety Cards must be available at the Site for all applicable materials. Data on these materials must be presented as part of the safety orientation meeting. The SSO is responsible for maintaining an MSDS/Safety Card file for these chemical constituents and for all materials which are brought to the Site. Personnel shall receive training for safe use of these materials during safety orientation meetings and daily site safety briefings, as required. URS SMS 002, Work Right-to-Know (Hazard Communication), presents additional information on this subject.

### 6.1.5 Site Security

- Access to the Site will be controlled.
- Only authorized personnel shall be permitted to enter work areas. No one shall enter the work area without appropriate authorization.
- All persons entering the work area shall be equipped with appropriate PPE.
- All personnel entering the contamination reduction zone or exclusion zone must be familiar with and abide by the HASP. All of these individuals must have signed the Health and Safety Plan Compliance Agreement form.

### 6.1.6 Underground Structures/Obstructions/Utilities

Before any intrusive work, a “call-before-you-dig” service will be requested to provide utility mark outs for the Site. Caution must be exercised whenever the possibility of encountering unexpected subsurface structures/obstructions/utilities exists. Before beginning intrusive activities, all available sources of information (e.g., site utility drawings, public utility drawings, construction drawings and contract documents) will be reviewed. Work will proceed only when identified subsurface structures/obstructions/utilities are clearly marked in the field. Controlled excavation will be performed to expose known structures/obstructions/utilities, until the area has been opened sufficiently to utilize mass excavating techniques. Borings or excavations will not be conducted at locations of close proximity to existing utilities until the area has been hand excavated or jetted to a depth of 4 ft, or as specified on the contract documents. If underground structures/obstructions/utilities are unexpectedly encountered, the area will be excavated using manual equipment until the nature of the obstruction is discerned and appropriate precautions taken. Additional information about this subject is contained in URS SMS 034, Utility Clearances and Isolation.

## 6.2 MEDICAL SURVEILLANCE

All employees involved in field activities shall be active participants in the URS medical surveillance program or the equivalent. All medical examinations and procedures shall be performed by or under the supervision of a physician who is board eligible or board certified in occupational medicine.

Before commencing any of the activities defined in Section 4, all personnel must take an entry medical examination and periodic medical examinations as required by OSHA Regulation 29 CFR 1910.120(f) as part of a medical surveillance program. Contractors involved in field activities must provide documentation of medical examinations for their employees.

Medical surveillance is a major component of all health and safety programs. It was established to monitor and promote the health of employees engaged in projects which have the potential for exposure to hazardous substances. Exposure to chemicals has the potential to cause adverse health effects although the use of recognized safety procedures and protective equipment substantially mitigates associated risks. In the event a potentially harmful exposure occurs, early detection of symptoms is extremely important to successful treatment. Thus, the medical surveillance procedures prescribed as part of this health and safety program must be followed by all relevant personnel without exception.

Medical surveillance provides a clinical base of information that is used to evaluate an employee’s fitness to work on a hazardous waste site, to identify anomalies in a person’s medical history that may be related to potential impaired health, and to evaluate a person’s capability to use respiratory protective equipment. This base of medical information includes personnel health history, exposure history, physical examination results, laboratory analyses and results of screening and special tests.

Medical examinations must include (at a minimum):

- Past medical history - on entry to the program, information concerning past occupational and personal as well as family history of disease.
- Present medical profile - all pertinent medical information regarding present state of health and during each year of field work in hazardous material projects.
- Exposure history - information concerning the cumulative duration of time spent on potentially hazardous sites, the primary toxic substances, and the levels of protection employed by each site.
- Kidney and liver function tests - possible exposure to aromatic hydrocarbons warrant examination of the liver enzymes and blood exams to evaluate kidney and liver function.
- Hematology - complete blood-forming function exams including complete blood count, white blood count, red blood count and hemoglobin exams.
- Urinalysis.
- Physical examination.
- Hearing test.
- Vision test.
- Pulmonary function test.

Optional tests, if recommended by the examining physician for this specific site, could include:

- Electrocardiogram.
- Radiography (X-ray Examinations).
- Special tests - medical information concerning the effects of exposure to specific contaminants.

The objectives of the medical surveillance component of the health and safety program are:

- Protect the health of employees assigned to work on sites containing potentially hazardous substances.
- Pre-assignment screening of employee's health to determine present status and to identify existing problems that may be aggravated by chemical exposure or physical stress.
- Monitor employee's health for early signs of work-related illness and employee suitability for further assignments on sites containing potentially hazardous substances.
- Evaluation and care of individuals with work-related illnesses or injuries.
- Satisfy the requirements of OSHA Regulation 29 CFR Part 1910.134 regarding respiratory protection and OSHA Regulation 29 CFR Part 1910.120 for hazardous waste workers.

Examining physicians will use information provided by the employee in the questionnaire, the examination results, and the results of laboratory tests to determine if any work restrictions (e.g., medical fitness to wear respiratory protection during work activities) or occupational health problems appear to be present. Contractors must provide documentation indicating that their field personnel working within any contamination reduction zone or exclusion zone are active participants in good standing in a medical surveillance program and are medically fit to wear a respirator.

**An individual that either refuses to or cannot produce documentation of active participation in good standing in a medical surveillance program or medical fitness to wear a respirator will be prohibited from participation in field activities or wearing of respiratory protection, respectively.**

URS SMS 024, Medical Screening & Surveillance, presents additional information on this subject.

### **6.3 INJURY/ILLNESS/INCIDENT REPORTING**

In the event of an injury or incident, the SSO will immediately notify the URS Project Manager and HSM. Types of injuries, illnesses or incidents considered reportable are as follows:

- illness resulting from chemical exposure or unknown causes;
- near misses;
- physical injury including scratches and/or abrasions;
- fire, explosions and flashes resulting from activities performed by URS or contractors;
- infractions of safety rules and requirements; and,
- unexpected chemical exposures.

Work will be suspended to correct the cause of the injury/illness/incident and to modify this HASP, as necessary.

A URS Injury/Illness/Incident Report form must be submitted to the URS Project Manager and HSM within 24 hours of occurrence. The URS Project Manager will be responsible for informing the Client of any accidents/illnesses/incidents reported by site personnel. URS SMSs 049, Injury/Illness/Incident Reporting & Notifications, and 065, Injury and Claims Management and present additional information on this subject.

### **6.4 VISITOR CLEARANCES**

All visitors entering the contamination reduction zone (CRZ) or exclusion zone (EZ) at the Site will be required to read and verify compliance with the provisions of this HASP. All visitors must provide their own personal protective equipment unless specifically authorized by the URS Project Manager to don URS-supplied personal protective equipment. Documentation of site visitor registration and training will be maintained on the Project Safety Log forms found in Section 11.

In the event that a visitor does not adhere to the provisions of the HASP, he/she will be requested to leave the Site. All nonconformance incidents will be recorded on the Project Safety Log form.

## **6.5 BUDDY SYSTEM**

Unless the requirements of URS SMS 084, Lone Worker, are strictly complied with, the “buddy system” will be used during all field activities. Under the “buddy system,” at no time will an individual enter or leave an EZ alone. Before entering an EZ, each individual will identify his/her “buddy.”

## **6.6 PROJECT SAFETY LOGS**

Project Safety Log forms (Section 11) will be maintained by the SSO throughout the Project and provided to the URS Project Manager after the Project is completed. Logged information shall include: (1) names of all URS, Client, visitor and Contractor personnel entering and leaving the Site each day, (2) dates each major field activity started and was completed, (3) air monitoring data, (4) description of unforeseen hazards and steps taken to mitigate these hazards, (5) summary of telephone conversations regarding health and safety, (6) safety infractions, if any, (7) accidents, near misses and injuries, if any, and (8) all other significant health and safety items.

## **6.7 CONTROLLED AREA**

A controlled area is defined as an area within which all entry and activities are regulated by URS because of activities underway in that area. Rationale for the establishment of a controlled area would include the need to control exposure of URS and non-URS personnel to any anticipated hazards, and to protect URS personnel from the consequences of non-URS operations at the Site.

Barricade tape and/or barricades will be used to delineate the controlled area for safety purposes around the work area. The barriers will be set in a 15-ft or greater (as necessary and/or practical) radius around the work area to provide sufficient maneuvering space for personnel and equipment. A short piece of barricade tape can be affixed to a secure upright (e.g., a drill rig mast or a vehicle antenna) to serve as an indicator of wind direction. A 5-ft wide opening in the barricades at the support zone (upwind of the work area) will serve as the personnel and equipment entry and exit point.

The personnel decontamination station will be established at this point if formal decontamination procedures are required. All entry and exit from the work area will be made at this opening to control potential sources of contamination; contaminated soil and debris must be confined to the work area.

At the end of the shift, all boring/sampling holes must be covered or otherwise secured. All cuttings and decontamination fluids are to be handled in accordance with relevant regulations and instructions from the URS Project Manager.

The Site Manager or SSO will determine an upwind evacuation area prior to each shift, and all personnel will be notified of its location. A horn or other signaling device will be used to signal an evacuation in the event of an emergency. Three blasts of the horn will be the signal to immediately stop work and proceed to the evacuation area.

## **6.8 WORK ZONES**

Field personnel will establish three work zones around each work activity: the exclusion zone, the contamination reduction zone and the support zone.

### **6.8.1 Exclusion Zone**

The EZ is the area where contamination is or may be present. All individuals entering this area must be approved by the SSO. Access control points will be established at the periphery of the EZ to regulate the flow of personnel and equipment into and out of the EZ. Initially, the EZ will extend a distance of 15 ft from the edge of intrusive activity unless conditions at the Site warrant either a larger or smaller distance as determined by the SSO. All persons entering the EZ will wear the applicable PPE. It is anticipated that EZ will be established at each individual area of intrusive work rather than encompass the entire Site.

### **6.8.2 Contamination Reduction Zone**

The CRZ is established outside the EZ to minimize the migration of contaminants from the EZ to clean or support areas, and to reduce the exposure potential of individuals leaving the EZ. All personnel must decontaminate as appropriate when leaving the EZ. A CRZ will be established adjacent to each individual area of intrusive work. The CRZ will be delineated by using warning tape, snow fence and/or traffic cones in addition to posting directions (to exit and enter the EZ) and signs, as appropriate, at the discretion of the SSO. No one will be permitted into the CRZ or EZ unless he/she is in full compliance with the requirements of this HASP.

### **6.8.3 Support Zone**

The support zone is the outermost part of the work area and is located in a clean area, preferably upwind and immediately outside of the CRZ, or in the on-site vehicles. Supplies, emergency equipment, vehicles and support personnel are located in the support zone. Normal work clothes are appropriate within this zone. The location of the support zone depends on factors such as accessibility, wind direction (if possible, it should be located upwind of the work area) and the presence of on-site resources (e.g., roads, shelters and utilities).

**6.9 FIELD ACTIVITIES****6.9.1 Personnel Requirements/Prohibitions**

- No running or “horseplay.”
- The required level of personal protective equipment must be worn by all on-site personnel.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of material is prohibited in the EZ and the CRZ; drinking of water, Gatorade® or equivalent fluids may occur in the CRZ at the discretion of the SSO. Fluids for consumption in the CRZ will be prepared outside the CRZ by a thoroughly decontaminated person and supplied to personnel inside the CRZ using disposal cup with lids and straws such that hand-to-mouth transfer of potential contaminants will be prevented.
- Smoking, carrying lighters and/or matches is prohibited in the EZ and in the CRZ.
- No contact lenses may be worn by personnel engaged in field work requiring respirators.
- No jewelry (including rings) may be worn by personnel engaged in field work except watches which will be disposed of if they become contaminated.
- Facial hair that interferes with a satisfactory fit of the respirator mask-to-face seal is not allowed on personnel required to wear air purifying respirators.
- Medicine and alcohol can increase the effects of exposure to toxic chemicals; personnel taking any prescribed drugs must inform the SSO of this fact. They shall not be assigned to operations where the potential for absorption, inhalation or ingestion of toxic substances exists unless specific approval has been obtained from a qualified physician. Alcoholic beverage intake will not be allowed during breaks.
- No person will enter the EZ alone.
- Safety devices on equipment must be left intact and used as designed.
- Equipment and tools will be kept clean and in good repair and used only for their intended purpose.
- Eye protection must be worn when any hammering or pounding may produce flying particles or slivers.
- Leather gloves must be worn when handling objects that may produce slivers (e.g., wooden stakes).
- Whenever possible, field personnel should work from a position upwind of sources of exposure to contaminants.

- All persons entering and/or working in the CRZ or EZ will read, sign and become familiar with this HASP. A copy of the HASP will be available at the Site through the SSO.
- Field personnel will not be allowed in the CRZ or EZ without the prior knowledge and consent of the SSO.
- Field personnel will use the “buddy system” (i.e., working in pairs) when in the CRZ or EZ unless the requirements of URS SMS 084, Lone Worker, are being followed. Buddies shall prearrange hand signals for communication. Visual contact shall be maintained between crew members at all times. Crew members must observe each other for signs of toxic exposure. Indication of adverse effects include, but are not limited to:
  - changes in complexion and skin discoloration;
  - changes in coordination;
  - changes in demeanor;
  - excessive salivation and pupillary response; or,
  - changes in speech pattern.

Also, employees shall inform each other of non-visual effects of toxic exposure such as:

- headaches;
  - dizziness;
  - nausea;
  - blurred vision;
  - cramps; or,
  - irritation of eyes, skin or respiratory tract.
- All field personnel will bring to the attention of the SSO or Site Manager any unsafe condition or practice associated with work activities that they are unable to correct themselves.
  - Contaminated PPE (e.g., respirators and boots), and other equipment and supplies will not be removed from the CRZ or EZ until they have been cleaned, or properly packaged and labeled.
  - Hands will be thoroughly cleaned prior to smoking, drinking, eating or other sanitation activities.
  - Team members must avoid unnecessary contamination (e.g., walking through known or suspected “hot” zones or contaminated puddles, kneeling or sitting on the ground, and leaning against potentially contaminated drums or equipment).
  - Legible and understandable precautionary labels shall be affixed prominently to containers of contaminated scrap, waste, debris and clothing.
  - Removal of contamination from protective clothing or equipment by blowing, shaking or any other means which disperses contaminants into the air is prohibited.
  - Containers shall be moved with proper equipment only. Containers shall be secured to prevent dropping or loss of control during transport.

- Emergency equipment shall be located in storage areas in readily accessible locations which will remain minimally contaminated in an emergency.

### 6.9.2 Contamination/Exposure Prevention

Ways in which on-site personnel may become contaminated include the following:

- being splashed by contaminated liquids while sampling or handling liquids;
- coming in contact with contaminated solids or liquids;
- walking through contaminated materials, either in solid or liquid state;
- being in contact with contaminated equipment;
- being in contact with contaminated solid substances in waste piles or on the soil surface;
- sitting or kneeling on the ground; and,
- being splashed by or coming into contact with analytical sample preservation chemicals and/or decontamination chemicals.

Field personnel will avoid becoming contaminated as much as possible.

Field personnel will avoid exposure to hazardous chemicals by strictly adhering to the required personal protective equipment and decontamination procedures.

Care will be taken to prevent equipment contamination as much as possible. Sampling and monitoring equipment will not be placed on contaminated surfaces. Monitoring equipment that cannot be easily decontaminated will be bagged, and the bag taped and secured around the instrument. Openings will be made in the bag for sample intake and exhaust ports.

### 6.9.3 Equipment Operation

The following information warrants extra attention regarding work around equipment (e.g., generators) and heavy materials:

- Use common sense.
- Hard hats, steel-toed work boots and safety glasses must be worn.
- Pay attention at all times.
- Maintain visual contact at all times.
- All mobile equipment must have backup alarms as specified by OSHA Regulation 29 CFR Part 1926.601.
- Only qualified persons are to operate equipment.
- Never walk directly in back of or to the side of mobile equipment without the operator's knowledge.

- Never use a piece of equipment unless you are familiar with the operation; this applies to light as well as heavy equipment.
- Hearing protection will be provided, if requested by an employee, and is required any time noise levels exceed 85 dBA (8-hour average) or 100 dB peak (impact/impulse).
- Be sure that underground and overhead power lines, sewer lines, gas lines and telephone lines have been identified and that they will not present a hazard in the work area.
- Wear high visibility vests during low light conditions and in areas subject to vehicular traffic. Additional information about working in traffic areas is presented in URS SMS 032, Work Zone Traffic Control.

All work involving hand tools and portable equipment must be performed in accordance with URS SMS 016, Hand Tools and Portable Equipment.

#### 6.9.4 Heavy Materials and Drum Handling Safety

The following are guidelines to follow when working with heavy materials:

- be aware of footing at all times;
- use chains, hoists, straps and any other equipment to safely aid in the moving or lifting of heavy objects/materials;
- use your legs, not your back;
- get help whenever in doubt about a material's weight; and,
- use the "buddy system."

Additional information concerning working with heavy materials is presented in URS SMS 069, Manual Material Handling.

#### 6.9.5 Safety Precautions when Sampling

All personnel engaged in sampling operations shall wear safety glasses or goggles, chemical-resistant steel-toed work boots and hard hats (if overhead hazards are present or whenever equipment, e.g., geoprobe rig or excavator is operating), and hearing and respiratory protection (if required). Because tools and equipment can create major hazards at sites, the following procedures are to be followed during these work activities:

- hard hats are required when working near overhead hazards and during drilling operations;
- goggles, safety glasses or face shields, as appropriate, will be worn when operating power tools;
- gloves are required to protect hands;
- no loose-fitting clothing, jackets with hoods, jewelry or free long hair is permitted near operating equipment;

- hands must be kept away from the moving parts of machinery when operating;
- a first-aid kit and appropriately-sized fire extinguisher will be available at all times;
- all crews will consist of at least two people, one of which will include a SSO or designated field team member, to monitor activities unless the requirements of URS SMS 084, Lone Worker, are being followed.
- no sampling will occur during impending electrical storms or when rain or icy conditions create a work hazard; and,
- keep clear of any overhead power lines.

### 6.9.6 Housekeeping

Housekeeping is a very important aspect of an investigation program and will be strongly stressed in all aspects of field work. Good housekeeping plays a key role in occupational health protection and is a way of preventing dispersion of dangerous contaminants. All work areas will be kept as clean as possible at all time and spills will be cleaned up immediately. Housekeeping will be the responsibility of all employees.

To minimize the spread of contamination beyond the work site, URS will implement a housekeeping program for field activities. The program will include:

- checking the work area at the end of each work day to ensure that tools, chemicals, etc. are properly secured and that all work is properly containerized;
- changing of wash and rinse water for hands, face and equipment when the water becomes visibly dirty; and,
- periodic (daily minimum) removal of all garbage bags and containers used to dispose of food products, plastic inner gloves and contaminated disposable clothing.

URS SMS 021, Housekeeping, presents additional information on this subject.

### 6.9.7 Sanitation

#### Potable Water

- An adequate supply of potable water will be provided.
- Portable containers used to dispense drinking water will be capable of being tightly closed and equipped with a tap. Water will not be “dipped” from the container.
- Containers used to distribute drinking water will be clearly marked and not used for any other purpose.
- When single service cups (to be used but once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups will be provided.

Non-Potable Water

- Outlets for non-potable water will be identified to clearly indicate that the water is unsafe and is not to be used for drinking, washing or cooking purposes.
- There shall be no cross-contamination (open or potential) between potable and non-potable water systems.

Toilet Facilities

Due to infrequent visitation of project personnel, a portable restroom is not required. Project personnel will seek restroom accommodations at local establishments. Portable hand washing capability is available on-site and shall be maintained by project personnel under oversight by the SSO

Toilet facilities shall be provided for employees as follows:

<u>Number of Employees</u>	<u>Minimum Number of Facilities</u>
20 or fewer	One toilet seat
More than 20, fewer than 200	One toilet seat and one urinal per 40 employees
More than 200	One toilet seat and one urinal per 50 employees

Food Handling

Food handling will not be permitted in the CRZ or EZ.

URS SMS 030, Sanitation, presents additional information on this subject.

**6.9.8 Notifications**

All field personnel must inform the SSO before entering the CRZ or EZ.

IF ANY PREVIOUSLY UNIDENTIFIED POTENTIAL HAZARDS ARE DISCOVERED DURING ANY FIELD WORK, LEAVE THIS AREA OF THE SITE IMMEDIATELY AND CONTACT THE SSO FOR FURTHER INSTRUCTIONS.

**6.9.9 OSHA Information Poster**

In accordance with the Occupational Safety and Health Act of 1970, a copy of the OSHA information poster must be present on all sites. This poster is provided in Appendix C. It should be posted at full size (11 inches x 17 inches) in the office trailer or other conspicuous area. If the Site does not have such a facility, it should be maintained in the field copies of the HASP.

**6.10 PERSONAL PROTECTIVE EQUIPMENT**

The level of PPE required for each of the tasks will be continually reevaluated as field work progresses. It is expected that there will be increases or decreases in the level of PPE

required for particular tasks. The PPE requirements for specific operations shall be agreed upon beforehand by the URS Project Manager, the HSM and the SSO. A document to that effect will be drawn up, dated and signed by the URS Project Manager and SSO. At site safety meetings, as required, the SSO shall inform field personnel of the PPE requirements and announce changes and justification for these changes. The HSM will publish a change to this HASP if PPE changes are permanent and if the HSM considers the changes substantive.

### **6.11 EMERGENCY EQUIPMENT**

The following emergency equipment will be available at each location of intrusive activity:

- first aid kit;
- first aid directions; and,
- fire extinguisher (10-pound ABC minimum).

### **6.12 PERSONNEL DECONTAMINATION PROCEDURES**

The SSO will be responsible for overseeing personnel decontamination. Personnel decontamination will be performed in a separate area from equipment decontamination. The CRZ will be located immediately outside the EZ. In this area, workers will:

- 1) wash and rinse outer gloves
- 2) wash and rinse outer boots or rubber boots (if required)
- 3) remove outer boots (if required)
- 4) remove outer gloves
- 5) remove Tyvek<sup>®</sup> coveralls (if required)
- 6) remove respiratory protection (if required)
- 7) remove inner gloves
- 8) wash and rinse hands and face

Decontamination procedures will be reviewed and revised, as necessary, by the SSO to be appropriate for the nature, level and extent of contamination. Decontamination for some work activities may be limited to visual inspection for contaminants prior to leaving work area.

Disposable PPE will be disposed of in drums located within the CRZ. The field activities described in this HASP are expected to be conducted over a time period not to exceed six months. If this situation changes at a later date and the planned field work is scheduled over a time period exceeding six months, showers will be made available to field personnel.

Personal decontamination procedures for personnel doffing Modified Level D/Level D PPE and Level C PPE are depicted in Figures 6 and 7, respectively.

### **6.13 LARGE EQUIPMENT AND VEHICLE, FIELD INSTRUMENT AND SMALL EQUIPMENT, AND OTHER EQUIPMENT DECONTAMINATION PROCEDURES**

#### **6.13.1 Decontamination of Large Equipment and Vehicles**

If determined to be necessary by the SSO, a decontamination pad will be constructed at the Site which will function as a washdown area for all large equipment and vehicles used in the EZ.

Large equipment and vehicles will be placed or driven onto the decontamination pad. Gross contamination will be removed through the use of shovels and/or brooms prior to large equipment and vehicles being washed with a high pressure, hot water washer, with cleaning agents being used on an as-needed basis to assist in the removal of contamination. All waters will drain to a collection basin.

Large equipment and vehicles will be held for a short period of time on the decontamination pad to allow for the wash water drippings and loose materials to be retained in the collection basin.

Personnel will don goggles and face shields while decontaminating large equipment and vehicles.

#### **6.13.2 Decontamination of Field Instruments and Small Equipment**

Field instruments should be decontaminated in accordance with the instructions of the manufacturer. Probes such as those used in pH and conductivity meters will be rinsed after each use with deionized water. When possible, instruments which are difficult to decontaminate (e.g., video cameras), may be protectively wrapped to reduce or eliminate the need for decontamination.

Small equipment will be decontaminated using appropriate portions of the personnel decontamination procedures.

#### **6.13.3 Decontamination of Other Equipment**

Generally only the tires of delivery trucks which have been in the EZ will need to be decontaminated (unless visual evidence of contamination is observed). This will be performed by spraying the tires and undercarriage with a high pressure, hot water washer, with cleaning agents being used on an as-needed basis to assist in the removal of contamination, before leaving the work area.

Only areas of large non-intrusive equipment (e.g., cranes) which have come into contact with potentially contaminated materials (e.g., tracks, undercarriage) require washing with a high pressure, hot water washer with cleaning agents being used on an as-needed basis to assist in the removal of contamination.

Personnel will don goggles and face shields during decontamination using a high pressure, hot water washer.

#### 6.14 DISPOSAL OF DECONTAMINATION FLUIDS

Decontamination fluids will be disposed of in accordance with all applicable Federal, State and local requirements.

#### 6.15 AIR QUALITY MONITORING INSTRUMENTATION

Air quality monitoring will be dependent on the specific operation, specific location and available data concerning that location. Personal air monitoring is conducted to provide real time warning of excessive exposure to contaminants and also to provide a characterization of personnel exposure for this work.

While performing field activities in the CRZ and EZ, air quality surveys must be performed and the results recorded. Several instruments which may be used to monitor air quality are discussed below:

- Photoionization Detector

The MiniRAE 2000 Model PGM Photoionization Detector (PID) with an 10.5 electron volt (eV) lamp or equivalent will be used to detect trace concentrations of certain organic gases and a few inorganic gases in the air. This PID was selected for the Project due to its ability to quantify the group of contaminants of concern at this Site (the ionization potential for other types of PIDs should be similar). A PID detects mixtures of compounds simultaneously. PID readings do not measure concentrations of any individual compound when a mixture of compounds is present. Concentrations of these chemical constituents are measured in parts per million (ppm).

The PID will be calibrated twice during each 8-hour work shift (i.e., before start of work and at the conclusion of work) using an isobutylene standard for calibration. Calibrations will be documented. PID readings must be measured in the breathing zone of the most highly exposed worker (i.e., closest to the source) at least each 30 minutes.

- Combustible Gas Indicator/Oxygen Meter

The Neotronics Exotox Model 40 Combustible Gas Indicator/Oxygen Meter (CGI) or equivalent will be used at the discretion of the SSO to measure the concentration of flammable vapors and gases, oxygen and carbon monoxide in the air during field activities. Flammable gas concentrations are measured as percentages of the Lower Explosion Limit (LEL). Oxygen content is measured as a percentage of total air. Carbon monoxide concentration is measured in ppm.

- Multigas Detector Tubes

Draeger Multigas Detector Tubes or equivalent will be used at the discretion of the SSO to detect and quantify the concentration of selected contaminants in air. The detector tubes to be employed must be sensitive in the concentration ranges in the OSHA Permissible Exposure Limit (PEL) range for those contaminants. It should be

realized that most “compound specific” detector tubes also detect other aromatic or aliphatic hydrocarbons; readings do not differentiate between which compounds are present.

The tube readings will be compared to OSHA PELs to determine what level of protection is required. If PID or readings are elevated when compared to background (i.e., 5 ppm or more above background) or if phase product and/or odorous material are detected.

The detector tube readings should be compared to OSHA PELs to determine which level of PPE is required. Information concerning the use of detector tubes, including the reasons for use, results of readings and actions taken, will be thoroughly documented in the Project Safety Log form.

- Personal Monitor for Aerosol and Dust

The MIE, Inc. Model PDM-3 MiniRam Personal Monitor for Aerosol and Dust or equivalent will be used at the discretion of the SSO to detect and quantify the concentration of aerosols and fugitive dust that may be created during work activities.

The Personal Monitor for Aerosol and Dust must be calibrated twice daily (i.e., before start of work and at the conclusion of work).

## 6.16 AIR QUALITY MONITORING PROGRAM

### 6.16.1 Air Quality Monitoring Locations and Frequency

Air quality monitoring will be initially performed using a PID or Personal Monitor for Aerosol and Dust (if necessary) at least each 30 minutes in the breathing zone of the most highly exposed worker (i.e., closest to the source) at the Site. All air quality measurements, with the exception of CGI measurements for flammable vapors and gases, should be made in the breathing zone of personnel who, in the opinion of the SSO, are most exposed to airborne contaminants. Measurements of flammable vapor and gas levels should be made in the vicinity of the nearest ignition source.

When air quality monitoring is performed using a CGI, measurements will be made at least every 30 minutes in areas where flammable conditions, oxygen deprivation or enrichment, and/or elevated levels of carbon monoxide may develop.

Air quality monitoring frequencies and locations using these and other instruments may be modified by the SSO based on actual field conditions.

### 6.16.2 Determination of Background Levels of Organic Vapors, and Aerosols and Fugitive Dust

Background levels for the purpose of evaluating PID and Personal Monitor for Aerosol and Dust readings will be taken at least twice per work shift (i.e., before start of work and at the conclusion of work). Background levels will be taken in an area free of contaminants. Once work at the Site commences, alterations may require relocation of the originally established

background measurement area. Although background measurements will be taken, air quality monitoring response levels, as shown in Table 2, are not to be effected by these measurements unless background contaminants are identified and an Addendum addressing this issue is prepared by the HSM.

### 6.16.3 Initial Levels of Protection and Air Quality Monitoring Response Levels

A number of response levels will be used during field work if airborne contaminants are encountered during air monitoring. The HSM will be notified as soon as possible of upgrading from the initial levels of protection. Initial Levels of Protection and response levels applying to the field activities covered by this HASP are contained in Table 2.

## 6.17 HEAT STRESS MONITORING

To ensure operational and personal safety of field personnel, initial heat stress monitoring for workers wearing protective clothing will be conducted based on the following table. Additional information on heat stress is included in URS SMS 018, Heat Stress.

<u>ADJUSTED TEMPERATURE</u>	<u>TIME INTERVALS FOR HEAT STRESS MONITORING</u>
90°F or above	After each 15 minutes of work
87.5 to 90°F	After each 30 minutes of work
82.5 to 87.5°F	After each 60 minutes of work
77.5 to 82.5°F	After each 90 minutes of work
72.5 to 77.5°F	After each 120 minutes of work

## 6.18 COLD STRESS MONITORING

Persons working outdoors in temperatures at or below freezing may be frostbitten. Areas of the body most susceptible are the extremities. Workers should be aware of loss of feeling in these areas. A more serious form of cold stress is hypothermia. This results when the body loses heat faster than it can produce it and can result in death. Cold stress procedures are discussed in URS SMS 059, Cold Stress.

## 6.19 WORK DURING DARKNESS

Work may be performed at times when low light conditions exist. If the level of lighting impacts safety of work operations, work must cease until appropriate procedures can be established. Adequate illumination (i.e., a minimum of 5 foot-candles throughout the work area) will be provided using lanterns and/or spotlights to enable personnel to conduct their work. Each work crew will consist of a minimum of two individuals.

All illumination will meet the requirements of OSHA Regulation 29 CFR Part 1910.120(m).

## 6.20 CONFINED SPACE WORK

Confined space entry is not anticipated for the work activities authorized by this HASP. Should actual work procedures require that confined spaces be entered, an addendum to this HASP must be prepared by the HSM and approved by the URS Project Manager and the HSM. This addendum will require that work be performed in accordance with all applicable OSHA regulations including OSHA Regulation 29 CFR Part 1910.146 and applicable URS SMSs.

## 6.21 HOT WORK

No hot work (e.g., use of torches or welders, and open flames) is anticipated to be necessary for the scope of work covered by this HASP. If hot work is required, an addendum to this HASP must be prepared in accordance with applicable URS SMSs.

## 6.22 MITIGATIVE MEASURES FOR CONTROL OF EMISSIONS

Based on previous experience at this site and at the similar sites, vapor emissions resulting from normal field operations, if they were to occur, are not anticipated to exceed the response levels. If the response levels are exceeded at any monitoring location, implementation of appropriate mitigative measures to suppress vapor emissions will be initiated. Appropriate mitigative measures may include ceasing operations until the exact cause of the emissions can be identified and corrected. Vapor control actions include vapor suppression foams, covering exposed soil piles with plastic sheeting, and/or spraying exposed soil piles with water.

Site activities may impact the local air quality through generation of fugitive dust. Fugitive dust emission control actions include minimizing the area of the Site which is subject to disturbance at any one time and limiting the movement of trucks and other equipment over exposed soil surfaces. During dry weather conditions, spraying water on unpaved areas subject to construction vehicle traffic may be used to help control dust. Attempts will be made to keep large paved areas clear of loose dirt which can be re-entrained into the air. The use of stone tracking pads at access points to the Site may also lessen the tracking of soil onto adjacent roadways.

## 6.23 SITE SECURITY, SITE CONTROL AND SITE EVACUATION PROCEDURES

In emergency situations, the following actions will be enforced:

- All personnel will report to a prescribed designated area as soon as possible. If access to that area is prohibited due to the nature of the emergency, all personnel will meet at a location upwind from the emergency. These areas will be designated by the SSO at the Daily Site Safety Briefing.
- Security and control of the work area will be the responsibility of the SSO. The SSO will coordinate the emergency situation with appropriate personnel and emergency responders (e.g., fire department, ambulance squad, haz-mat responders).

- If present, site security personnel will not permit any additional personnel (with the exception of emergency response personnel) from entering the work area.
- The SSO will communicate with supervisors during emergencies. Supervisors will then relay information to their employees. Two-way portable radios, if available, or audio and/or visual signals will be used to communicate the nature of the emergency and response actions.

## 6.24 URS SUBCONTRACTORS

Subcontractors retained by URS and its subsidiary companies must follow the requirements of URS SMS 046, Subcontractor Health and Safety Requirements. The provision of URS SMS 046 are applicable to the operations of URS-retained subcontractors and sub-subcontractors of any tier. URS SMS 046 does not apply to “third party” contractor operations where there is no subcontract relationship between the contractor and URS. Health and safety issues regarding “third party” contractor operations are governed by project-specific contracts and are not covered by URS SMS 046.

URS SMS 046 provides requirements for the pre-evaluation of “high risk” subcontractor safety programs. It also provides requirements on contractual risk management, subcontractor safety performance, and responsibilities of the URS Project Manager.

Completed Subcontractor Safety Evaluation forms (Attachment 46-1 to URS SMS 046) must be kept in the project files; in addition, a copy of this form must be submitted to the HSM prior to that subcontractor being contracted to perform work at the Site. If the subcontractor meets the requirements of URS SMS 046 as defined in the Subcontractor Evaluation Criteria (Attachment 46-2 of URS SMS 046), no additional verification is required. If a potential subcontractor does not meet URS SMS 046 safety requirements, a Subcontractor Variance Form (Attachment 46-3 of URS SMS 046) must be completed and submitted to the RHSM for review by the URS Project Manager. Once the variance has been approved by the RHSM, a copy of the approved form must be placed in the project files and provided to the HSM. This variance must be obtained prior to the subcontractor being retained by URS. Variances are site-specific; they are applicable to only a single project and the scope of work defined in the variance when it is approved (i.e., variances obtained for a subcontractor on a project may not be applied to a different project for that subcontractor even if the scope of work is similar or, even, identical).

To facilitate review of safety programs of potential subcontractors, a list of contractors which have previously submitted safety information is provided on the HSE website on The Source. To access this list, click on “Related Links”; the list may be found under “Subcontractor Safety PreQualification.”

## 6.25 BEHAVIOR BASED SAFETY

URS has implemented a behavior based safety program to enhance the performance of our Corporate HSE Programs. Behavior based safety is a process that provides a higher level of safety excellence by promoting proactive responses, building ownership and developing opportunities which relate to employee safety. A primary concept of behavior based safety is

that most accidents are due to unsafe behavior, and that behavioral changes may be made that significantly reduce accident risk. URS SMS 072, Behavior Based Safety, provided in Appendix B, provides additional information about this program. As stated in URS SMS 072, it is the responsibility of the URS Project Manager to implement the behavior based safety procedures. The URS Project Manager must mandate the implementation of safety observations to field personnel using the Behavior Based Safety Checklist (Attachment 72-1 of URS SMS 072); copies of completed checklists must be kept in the project files. If any “unsafe” observations are indicated on the checklist, a copy of that checklist must be provided to the HSM within two working days of the date of the observation.

## 7.1 INTRODUCTION

Site-specific health and safety requirements generally consist of protective equipment and decontamination procedures chosen according to the activity being performed and the potential contaminants in the area of the activity. Table 2 identifies activity-specific initial levels of protection and action levels for the investigatory activities planned at the Site.

The PPE specified in this HASP will be available to all field personnel. The following requirements will be followed in accordance with OSHA regulations:

- facial hair which interferes with the proper fit of air-purifying respirators must not be worn;
- wearers of contact lenses must also wear appropriate eye and face devices in a hazardous environment; and,
- eyeglasses which interfere with the proper fit of full-face respirators must not be worn.

## 7.2 PERSONAL PROTECTIVE EQUIPMENT

Selection of the PPE specified for the Project is based on a review of the identified or suspected hazards, routes of potential exposure to workers (i.e., inhalation, skin absorption, ingestion, and skin or eye contact) and the performance of the PPE in providing a barrier to these hazards. In addition, the choice of PPE has been reviewed to match the work requirements and task-specific conditions to provide adequate protection without causing unnecessary physical impairment to the worker.

### 7.2.1 Level D Personal Protective Equipment

Level D PPE may be used when the atmosphere contains no known hazard and when work functions preclude splashes, immersion or the potential for unexpected inhalation of or contact with hazardous levels of any chemical substance. Level D PPE consists of:

- cloth coveralls/work clothes;
- chemical resistant, steel-toed work boots; or steel-toed rubber boots; or rubber overboots or disposable boot covers over steel-toed work boots;
- American National Standards Institute (ANSI) Z87.1 – 2003 High Impact – compliant safety glasses (equipped with polycarbonate side shields) or goggles (hereinafter, safety glasses or goggles) when conducting, or in the vicinity of, any activity covered by this HASP;
- ANSI Z89.1 – 2003, Type I, Class E – compliant hard hat (hereinafter, hard hat) when physical hazard to head exists;
- Nitrile<sup>®</sup>-butadine rubber or polyvinyl chloride (PVC) gloves (when handling potentially contaminated soil, water or other material); well-fitting work gloves for clean tasks; and,

- ANSI S3.19 – 1974 – compliant hearing protection (i.e., ear plugs or ear muffs) of an appropriate Noise Reduction Rating (hereinafter, hearing protection) if noise levels exceed 85 dBA (eight hour average) or 100 dB peak (impact/impulse).

### 7.2.2 Modified Level D Personal Protective Equipment

Modified Level D PPE may be used in areas that normally can qualify for Level D PPE, but where a potential hazard requiring a minor upgrade in the level of protection may exist. Modified Level D PPE consists of:

- uncoated, polyethylene-coated or Saranex<sup>®</sup>-impregnated Tyvek<sup>®</sup> coveralls or equivalent;
- chemical-resistant, steel-toed rubber boots; or steel-toed rubber boots; or rubber overboots or disposable boot covers over steel-toed work boots;
- Nitrile<sup>®</sup>-butadiene rubber or PVC gloves; well-fitting work gloves for clean tasks;
- hard hat (when physical hazard to head exists);
- safety glasses or goggles (when conducting, or in the vicinity of, any activity covered by this HASP); and,
- hearing protection (i.e., ear plugs or ear muffs) if noise levels exceed 85 dBA (eight hour average) or 100 dB peak (impact/impulse).

### 7.2.3 Level C Personal Protective Equipment

Level C PPE consists of:

- polyethylene-coated or Saranex<sup>®</sup>-impregnated Tyvek<sup>®</sup> coveralls or equivalent;
- chemical-resistant, steel-toed rubber boots; or steel-toed rubber boots; or rubber overboots or disposable boot covers over steel-toed work boots;
- Nitrile<sup>®</sup>-butadiene rubber or PVC inner gloves;
- chemical-resistant Nitrile<sup>®</sup> outer gloves;
- half-face respirator with appropriate organic vapor/acid gas and/or particulate cartridges;<sup>(1)</sup>
- hard hat (when physical hazard to head exists); and,
- hearing protection (i.e., ear plugs or ear muffs) if noise levels exceed 85 dBA (8-hour average) or 100 dB peak (impact/impulse).

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<sup>(1)</sup> Cartridge selection (i.e., organic vapor/acid gas, particulate or organic vapor/acid gas/particulate combination filter cartridge) to be based on the results of air quality monitoring.

### 7.2.4 Limitations of Protective Clothing

The PPE ensembles selected for this Project are anticipated to provide protection against the types and concentrations of hazardous materials that may be encountered during field operations. However, no protective garment, glove or boot is resistant to all chemicals at any concentration; in fact, chemicals may continue to permeate or degrade a garment even after the source of the contamination is removed.

To obtain optimal usage from PPE, the following procedures are to be followed by all URS personnel:

- When using Tyvek<sup>®</sup> or equivalent coveralls, don a clean new garment after each rest break or at the beginning of each shift or when they become damaged or torn.
- Inspect all clothing, gloves and boots, both prior to and during use, for:
  - imperfect seams;
  - non-uniform coatings;
  - tears; and,
  - poorly functioning closures.
- Inspect reusable garments, boots, and gloves prior to and during use for:
  - visible signs of chemical permeation such as swelling, discoloration, stiffness or brittleness; and,
  - cracks or any signs of puncture or abrasion.

Reusable garments exhibiting any of these characteristics must be discarded.

### 7.2.5 Duration of Work Tasks

The SSO will establish the duration of work tasks in which personnel use PPE ensembles that include chemical protective clothing (including uncoated Tyvek<sup>®</sup> or equivalent coveralls). Variables to be considered include ambient temperature and other weather conditions, the capacity of individual personnel to work in the required level of PPE in heat and cold, and the limitations of specific PPE ensembles. Recommended rest breaks are as follows:

- 15 minutes midway between shift startup and lunch;
- lunch break (30 to 60 minutes); and,
- 15 minutes midway between lunch and shift end.

Rest breaks are to be taken in the support zone or other clean area after personnel have completed the decontamination process, including washing the hands and face with soap and water. Additional rest breaks will be scheduled according to heat stress monitoring protocols as described in SMS 18, Heat Stress.

### 7.3 RESPIRATORY PROTECTION PLAN

Air-purifying respirators provide respiratory protection to the wearer in atmospheres where limited concentrations of known contaminants are present. Cartridges were selected based on a knowledge of the concentration and type of contaminant to be encountered. At a minimum, cartridges must be replaced after each 8-hr work period or at any time when breakthrough is detected while in use.

The following checks must be performed before donning an air-purifying respirator:

- Exhalation valve - pull off plastic cover and check valve for debris or for tears in the valve which could cause leakage.
- Inhalation valves - screw off both cartridges and visually inspect valves for tears. Make sure that the inhalation valves and cartridge receptacle gaskets are in place.
- Make sure a protective lens cover is attached to the lens.
- Make sure you have the right cartridge.
- Make sure that the face piece harness is not damaged. The serrated portion of the harness can fragment which will prevent proper face seal adjustment.
- Make sure the speaking diaphragm retainer ring is hand tight.

To don respirator, fit facepiece on nose bridge making sure that you are able to breathe through the nose. Then swing bottom of facepiece into contact with the chin. When using elastic or rubber headbands, position headbands with longest straps above the ears and over the crown of the head and headbands with shortest straps below the ears around nape of the neck. When using cradle headband, position cradle headband around the crown of the head; position bottom headbands below the ears and around the nape of the neck. Then, adjust the straps for a comfortable fit by moving adjustment slides to lengthen or shorten straps. Adjust the straps just snug enough so that no air leaks around the facepiece. It is not necessary to pull the straps so tight that the respirator “digs” into the face.

**THE RESPIRATOR MUST BE SUBJECTED TO THE FOLLOWING FIT CHECK BEFORE EACH USE.**

Test respirator for leakage using a positive pressure method. Lightly place palm over exhalation valve cover. Exhale gently. A slight positive pressure should build up inside the respirator. If any leakage is detected around the facial seal, readjust head harness straps and repeat test until there is no leakage. If other than facial seal leakage is detected, the condition must be investigated and corrected before another test is made. A negative pressure test should also be performed. Lightly place palms over cartridges or filter holders. Inhale gently and the facepiece should collapse against the face. The respirator must pass the tightness tests before the respirator is used. The respirator will not furnish protection unless all inhaled air is drawn through suitable cartridges or filters.

For specific instructions on air-purifying respirators, consult the manufacturer’s directions.

### Respirator Selection

*Engineering controls and safe work practices (e.g., elimination of the source of contamination, ventilation equipment, working upwind, limiting exposure time) always must be the primary control for air contaminants. Respirators will be used if engineering or work practice controls are not feasible for controlling airborne exposures below acceptable concentrations and as an interim control measure while engineering or work practice controls are implemented.*

Once the need for respirators has been established, the respirators will be selected on the basis of the hazards to which the worker is exposed. Only NIOSH-approved respirators will be issued. Selection criteria established in OSHA Regulation 29 CFR 1910.134 have been used in determining respirator requirements for this Project.

**CAUTION:** *Air purifying respirators are not to be used where there is an oxygen deficiency. Only air-supplied respirators with an emergency escape cylinder or self-contained breathing apparatus will be worn when an oxygen deficiency exists.*

**CAUTION:** *No air purifying protection is available for certain gases. Be sure that the filter cartridge and type of respirator are appropriate for the type and concentration of gas in the environment in which you will be working.*

**CAUTION:** *A respirator does not protect against excessive heat or against a hazardous substance that can attack the body through the skin.*

Airborne contaminants have been evaluated based on the suspected contaminants of concern. The concentration of the airborne chemical hazard will be evaluated using direct-reading instruments to determine what type of respirator will be used.

### Fit Testing

A person wearing a respirator must be clean-shaven in the area of the face-piece seal. Long hair, sideburns and skullcaps that extend under the seal are not allowed. Glasses with temple pieces extending under the seal are not allowed for full-face respirators. Persons with facial conditions that prevent a proper seal are not allowed to wear a respirator until the condition is corrected. Facial conditions that may cause a seal problem include missing dentures, scars, severe acne, etc. Contact lenses may be worn with respiratory protection.

No individual will enter an area where the use of respiratory protective equipment is required unless the person has been fit tested within the last year. Fit testing will be performed in accordance with accepted fit test procedures defined in SMS 042, Respiratory Protection, a copy of which is to be maintained at the Site.

### Respirator Use Instructions

Only those employees who have been properly trained and qualified on the specific type of respirator to be worn may use respirators. No individual will enter an area where the use of respiratory protective equipment is required unless the person has been trained.

All employees whose job assignments require the use of respirators are trained in accordance with OSHA Regulation 29 CFR 1910.134 during initial 40-hour training and annual 8-hour refresher training for hazardous waste operations.

Hands-on training in inspecting and donning a respirator, including user seal checks, is also provided at the time of fit testing. Retraining is performed annually on each type of respirator worn by the individual. In addition, site-specific respirator training is provided during Daily Safety Briefings conducted by the SSO. Training records are kept in the employee's health and safety file.

A particulate respirator cartridge will be changed out when the wearer has difficulty breathing through the cartridge or, at least, daily. Chemical gas or vapor respirator cartridges will be changed out at least daily.

The fit of a chemical gas or vapor respirator will be rechecked and the cartridges will be changed if the wearer detects chemical odor or feels chemical irritation on the skin, both of which are indicators of leakage or cartridge breakthrough. Where available, an End-of-Service Life Indicator (ESLI) will be used on chemical respirator cartridges. Cartridges will be changed as soon as the ESLI indicates that the cartridge is saturated and no longer effective in absorbing airborne chemicals.

#### Respirator Inspection

The user will inspect respirators before and after each day's use. The inspection procedure for air-purifying respirators (full-face piece and half-face piece cartridge respirators) is as follows.

Examine the face piece for:

- excessive dirt;
- cracks, tears, holes or distortion from improper storage;
- inflexibility;
- cracked or badly scratched lenses (full-face only);
- incorrectly mounted eyeglass lenses or broken or missing mounting clips (full-face only); and,
- cracked or broken air-purifying element holder, badly worn threads or missing gaskets.

Examine the head straps or head harness for:

- breaks or cracks;
- broken or malfunctioning buckles; and,
- excessively worn serration on the headstraps, which may permit slippage.

Examine the two inhalation valves and the exhalation valve for:

- foreign material (e.g., hairs, particles);
- improper insertion of the valve body in the face piece;
- cracks, tears or chips in the valve body (particularly in the sealing surface); and,
- missing or defective exhalation valve covers.

Examine the air-purifying cartridge for:

- missing or worn cartridge-holder gasket;
- incorrect cartridge/canister for the hazard;
- incorrect cartridge installation, loose connections or cross threading in the holder; and,
- cracks or dents in the outside case or threads of the filter or cartridge/canister.

#### Cleaning of Respirators

Respirators assigned and worn by one individual must be dismantled and thoroughly cleaned and disinfected after each day's use. Visitors' respirators or respirators assigned to several individuals must be cleaned and disinfected after each use. A disinfectant spray or wipe is approved as a disinfectant between uses during the day but not for cleaning and sanitizing after each day's use. Care must be taken to prevent damage from rough handling during the cleaning procedure. After cleaning, respirators must be reassembled. The procedures for cleaning respirators follow:

- Washing: Disassemble and wash with a mild liquid detergent in warm water (not to exceed 110°F). A stiff bristle (not wire) brush may be used.
- Rinsing: Rinse in clean water (110°F maximum) to remove all traces of detergent. This is important to prevent dermatitis.
- Disinfecting: Thoroughly rinse or immerse in a sanitizer provided by the manufacturer. Alternatively, a weak chlorine bleach solution (1 milliliter of liquid bleach per liter of water) may be used.
- Final Rinsing: Rinse thoroughly in clean water (110°F maximum) to remove all traces of disinfectant. This is important to prevent dermatitis.
- Drying: Drain and dry by hanging by the straps from racks (take care to prevent damage) or by towel drying with clean, soft cloths or paper towels.

#### Maintenance of Respirators

Routine respirator maintenance, such as replacing missing valves, gaskets and nose cups, must only be performed by trained respirator users or a respirator manufacturer's representative. Only approved replacement parts must be used. The substitution of parts from a different brand or type of respirator is generally not possible, invalidates the technical

approval of the respirator, and is not permitted. Any respirator suspected of being defective must be removed from service and replaced.

#### Storage of Respirators

When not in use, respirators must be stored to protect them from dust, sunlight, heat, extreme cold, excessive moisture, damaging chemicals, and physical damage. Respirators must be stored in sealable (e.g., Ziplock<sup>®</sup> or twist-tie) reusable plastic bags between shifts.

The respirator storage environment must be clean, dry and away from direct sunlight. Onsite cabinets or cases are suggested. Storing bagged respirators in vehicles is discouraged because of the potential for damage from other materials or equipment.

The SSO will oversee the respirator maintenance program, including documentation of maintenance and repair.

The purpose of this section of the HASP is to address how field personnel will respond to on-site emergencies. The types of potential emergencies which are addressed by this HASP include:

- fires;
- chemical exposures to personnel; and,
- physical injuries to personnel.

After any emergency, the SSO will document in a detailed emergency summary report the nature of the emergency, causes for occurrence, chemical exposures or physical injuries to personnel, physical damage and emergency responses taken. This report will be in addition to the Injury/Illness/Incident Report. Copies of this report must be submitted to the URS Project Manager and the HSM within 24 hours of the emergency. The HSM will review this report as soon as possible and issue a critique of the response to the emergency within 48 hours of receiving the report; this critique will be distributed to all personnel receiving copies of the Injury/Illness/Incident Report. If this critique indicates that additional emergency response equipment, training, personnel or response procedures are required at the Site, these actions will be implemented as soon as possible.

## **8.1 EMERGENCY RECOGNITION AND PREVENTION**

### **8.1.1 Fires**

Fires are possible whenever flammable gases or vapors are present in proper concentrations and an ignition source is present. Construction equipment itself provides an ignition source. To prevent fires, a CGI as specified in Section 6 will be used at the discretion of the SSO to detect flammable concentrations of gases or vapors. Ignition sources (including construction equipment) will be turned off and the area evacuated if vapors or gases reach 10 percent of the LEL. Work will not resume until the SSO observes CGI flammable gas concentrations continuously below 10 percent of the LEL for 15 minutes or more.

### **8.1.2 Chemical Exposures**

Work will be performed in such a manner that exposure to contaminants through skin or eye contact, inhalation or ingestion is minimized. Work practices that will be followed to reduce chemical exposures include:

- PPE, as specified in Section 7, for the appropriate work activities and areas as defined by the SSO, will be used by all field personnel. An addendum to the HASP must be prepared by the HSM and authorized by the URS Project Manager and HSM in order to modify the PPE requirements.
- Keep hands away from face during work activities.
- Minimize all skin and eye contact with contaminants.

Early recognition of chemical exposure symptoms is essential to the prevention of serious chemical exposure incidents. Symptoms of exposure to the type of compounds potentially present at the Site include the following: fatigue; weakness; eye, nose or throat irritation; headache; dizziness; nausea; vomiting; malaise; tremors; aggressive confusion; cyanosis (i.e., blue color to skin); anemia and muscle spasms.

If a person experiences any of these symptoms or others, or recognizes any of the symptoms in a fellow worker, the person experiencing the symptoms will stop work and report his/her symptoms to the SSO. If the symptoms persist or appear to be damaging in any way, the SSO will make arrangements to have the individual taken to a hospital for medical treatment as soon as possible. If symptoms are serious, work activities in the area where the person was exposed will be discontinued until more is known about the incident.

### 8.1.3 Physical Injuries

Personnel should constantly look for potential safety hazards such as holes or ditches; precariously positioned objects such as drums or equipment that may fall; sharp objects such as nails, metal shards and broken glass; protruding objects at eye or head level; slippery surfaces; steep grades; uneven terrain or unstable surfaces such as walls which may cave in or flooring that may give way. Personnel will inform the SSO of any potential hazards identified so that corrective mitigative action can be taken.

## 8.2 EMERGENCY ALERTING PROCEDURES

In the event of an emergency, personnel will use the following hand signals where voice communications are not feasible:

<b>Signal</b>	<b>Definition</b>
Hands clutching throat	“Out of air/can’t breathe”
Hands on top of head	“Need assistance”
Thumbs up	“OK/I’m all right/I understand”
Thumbs down	“No/negative”
Arms waving upright	“Send back support”
Grip partner’s wrist	“Exit area immediately”

The SSO will use a portable radio or direct contact to alert the appropriate work groups when and if an emergency occurs. The SSO and any isolated work group will carry two-way radios if reasonable contact cannot be maintained. If radios fail, blast(s) from an alarm horn will be used to signal workers. The following signals will be used:

- one long blast .....evacuate area
- two short blasts .....localized problem (no danger to workers)
- two long blasts .....all clear
- three short blasts .....medical emergency

### 8.3 EMERGENCY TELEPHONE

If it is determined during the Safety Orientation Meeting that no individuals in a distinct work area possess a cell phone, the closest accessible telephone during working hours will be identified by the SSO prior to commencing field activities in that work area. When working in remote areas, a cell phone must be available. Emergency telephone numbers will be posted in URS field vehicle(s) and any field office trailer and will be available from the SSO present at all site activities.

### 8.4 EMERGENCY MEDICAL RESPONSE

The SSO will have the primary role in responding to all emergencies in the work area. All personnel present in the work area will contact the SSO in case of emergency. The SSO or designee must be present at the Site during all work activities in a CRZ or EZ. If reasonable contact cannot be maintained, the SSO will carry a two-way portable radio and each isolated work activity group will also have a two-way portable radio. If any emergency such as a fire, chemical exposure or physical injury occurs, the SSO will be immediately contacted. The SSO, or designee performing in this capacity, must have First Aid and bloodborne pathogens training, and be familiar with universal precautions. In cases of emergency response, all field personnel will take direction from the SSO. If the SSO or designee is not present or has been injured, the Site Manager will respond to emergencies.

To obtain emergency medical treatment and ambulance service at the Site, dial 911 (for cellular phones, be prepared to give the operator your name and location address). Other emergency telephone numbers are included in Table 3. This table will be maintained by the SSO and kept readily available in URS field vehicle(s) and any field office trailer. It will be revised and updated to reflect any and all new emergency information. The revised table will be approved by the URS Project Manager before distribution.

The SSO will have the primary role in responding to all emergencies in the work area. In the event of a serious personal injury requiring off-site medical attention, the injured person will first be moved outside the work zone where an attempt will be made to go through the decontamination procedures including removal of protective clothing. If a head, neck, back or spinal injury is suspected, the injured person will not be moved and an ambulance will be summoned.

#### 8.4.1 Emergency Decontamination Procedures

Decontamination of an injured or exposed worker will be performed only if decontamination does not interfere with essential medical treatment.

If decontamination can be performed: wash, rinse and/or cut off protective clothing and equipment and bag immediately.

If decontamination cannot be performed:

- wrap the victim in blankets or plastic sheeting to reduce contamination of other personnel;

- alert emergency and medical personnel to potential contamination; and,
- arrange to have the SSO or other personnel familiar with the incident and contaminants at the Site accompany the victim to the hospital.

#### 8.4.2 Physical Injury

In the event of physical injury, the following steps will be taken:

- evaluate the extent of injuries;
- summon emergency help as deemed necessary by the SSO or the SSO's designee;
- modify decontamination procedures as appropriate considering the actual levels of contaminants on the person, if any, and type or severity of injuries; and,
- apply First Aid.

**In case of a severe injury requiring immediate attention (e.g., a neck or back injury, victim is unconscious or a severe burn or laceration), dial 911 for emergency medical services. Other emergency telephone numbers are provided in Table 3.**

If the injury is clearly minor (e.g., a minor burn or cut), after decontamination, the injured individual may be driven to a First Aid Medical Services Facility. The First Aid Medical Services Facility selected for this project is Concentra Medical Center (see Table 3 for directions from the Site to the First Aid Medical Services Facility).

Medical attention must be sought regardless of how minor the injuries appear to be.

#### 8.4.3 Injury Due to Cold Exposure

First aid for frostbite consists of the following procedures:

- decontaminate victim;
- bring victim indoors and quickly rewarm the affected areas in water between 102° and 105°F;
- give victim a warm drink - not coffee, tea or alcohol;
- do not permit the victim to smoke;
- keep the frozen parts in warm water or covered with warm cloths for 30 minutes, even though the tissue will be very painful as it thaws;
- evaluate the injured areas and cover with sterile, soft, dry material;
- keep the victim warm and get immediate medical care;
- do not rub the frostbitten part;
- do not allow blisters to be broken;
- do not use ice, snow, gasoline or anything cold on frostbite;

- do not use heat lamps or hot water bottles to rewarm the part; and,
- do not place the affected part near a hot stove.

First Aid for exposure to cold (hypothermia) consists of the following procedures:

- decontaminate victim;
- bring victim into a warm area as quickly as possible;
- remove wet or cold garments;
- dry the person thoroughly;
- provide warm, dry clothing or covering;
- provide rapid but gentle rewarming;
- give victim a warm drink - not coffee, tea or alcohol; and,
- keep the victim warm and get immediate medical care.

## 8.4.4 Injury Due to Chemical Exposure

If it is suspected that a person has suffered from chemical exposure, the following procedures shall be undertaken:

- Skin Contact: Flush with water. Remove clothing, if necessary. Wash/rinse affected area for at least 15 minutes. Decontaminate and provide appropriate medical attention.
- Inhalation: Move person away from area; decontaminate and transport person to the hospital for medical attention.
- Ingestion: Decontaminate and transport person to the hospital for medical attention.
- Eye Contact: Irrigate with water for at least 15 minutes. Decontaminate and transport person to the hospital for medical attention.

## 8.4.5 Emergency Medical Services for Severe Injuries

Emergency telephone numbers are listed in Table 3. If emergency medical treatment is required, the following procedures will be taken:

- Call 911 (for cellular phones, be prepared to give the operator your name and location address) to request an ambulance.
- Contact the URS Occupational Nurse (Jeanette Schrimsher).

## 8.4.6 First Aid Medical Services Facility for Minor Injuries

If the injury is clearly minor (e.g., a minor burn or cut) contact the URS Occupational Nurse (Jeanette Schrimsher). After decontamination, the injured individual may be driven to the First Aid Medical Services Facility. **If there is any question of the severity of an injury,**

call for emergency medical services by dialing 911 (see Section 8.5.5, Contacting Emergency Services for Severe Injuries, immediately above, for additional information).

The First Aid Medical Services Facility selected for this project is as follows:

Concentra Medical Center  
1 Journal Square Plaza  
Jersey City, New Jersey  
(201) 656-7678

Directions to Concentra Medical Center from the Site site are presented in Table 3.

## 9.1 PURPOSE AND APPLICABILITY

This Discharge Prevention and Cleanup Plan (the “Plan”) provides procedures relating to discharge prevention of hazardous substances onto the lands and into the waters of the State of New York during field activities associated with this project and, if necessary, cleanup of such discharge. By definition a discharge is any intentional or unintentional action or omission resulting in the releasing, spilling, pumping, pouring, emitting, emptying or dumping of a hazardous substance onto the lands of the State and/or into its waters. A hazardous substance is defined as any substance designated in 40 CFR Part 302 (Designation, Reportable Quantities and Notification Requirements for Hazardous Substances Under the Comprehensive Environmental Response, Compensation and Liability Act of 1980).

In addition, the requirements of NYCDEP’s Environmental, Health & Safety Policies and Procedures, Volume 2, entitled “Spill Prevention, Environmental Release Reporting & Investigation” (hereinafter, the “NYCDEP Spill Procedures”) must be strictly adhered to at all times. Section 7, Bureau of Wastewater Treatment (BWT)-Protocol for Reporting Spills/Releases, of the NYCDEP Spill Procedures, presents BWT-specific procedures for reporting spills. The “All Other Sites (Non-BWS Sites)” section of Part B of the NYCDEP BEDC Emergency and Spill/Release Incident Reporting Protocols presents additional information about reporting spills. A copy of the NYCDEP Spill Procedures is provided in Attachment 1.

The NYCDEP Spill Procedures apply to all releases of petroleum, hazardous substances, wastewater/sewage or other pollutants on NYCDEP property or a field work locations, whether or not caused by NYCDEP activities or those of its contractors. The NYCDEP Spill Procedures do not apply to transportation accidents or other releases caused by third parties unrelated to NYCDEP water or wastewater operations in New York City or its watersheds although NYCDEP may respond to these incidents as part of its water supply protection New York City Hazmat technical support roles.

## 9.2 RESPONSIBILITIES

The URS Project Manager is responsible for ensuring that the Plan is implemented. The URS Project Manager will provide guidance to the Site Manager relating to compliance with the provisions of this Plan.

## 9.3 DISCHARGE CONTAINMENT AND CLEANUP

Procedures for discharge containment should be enacted immediately following a discharge event. Absorbent sheets and rolls, and booms can be used to contain the discharged hazardous substance on both land and water. Storm sewers or other access points to the subsurface should be protected with barrier materials and/or absorbent materials as soon as possible.

Listed below are a number of cleanup procedures which can be employed. The methods presented below should not be considered as “all inclusive.” Absorbent materials will be stored in a designated area at the Site. In selecting the appropriate method, keep in mind the

health and safety of personnel. In addition, consider the potential of a discharge emitting vapors or presenting a flammability hazard.

For discharges on a hard surface, mop with a commercial mop, apply absorbent material to the residue, and sweep clean. Alternatively, vacuum with an explosion proof wet vacuum. Place the residue in a Department of Transportation (DOT)-approved storage container.

For pooled discharges on a hard surface, pump the discharge into a DOT-approved container with an explosion proof centrifugal or vacuum pump. Alternatively, for large discharges, contact an environmental services company to remediate the discharge.

For non-pooled discharges on gravel or soil, apply absorbent and/or absorbent sheets to absorb as much of the product from the gravel or dirt as possible. Apply additional absorbent and/or absorbent sheets as required to recover the remaining contaminated material. Place the recovered product and saturated absorbent material in a DOT-approved container.

All residue recovered from the discharge cleanup will be disposed of in accordance with applicable Federal, State and local rules and regulations.

For quick response, as appropriate, the following discharge containment and cleanup materials will be maintained at a readily accessible location at the Site:

- squeegees;
- brooms;
- shovels;
- DOT-approved containers;
- a small explosion proof pump or wet vacuum unit (if deemed necessary by SSO);
- one or more of the following absorbents:
  - inorganic perlite (granular),
  - inorganic vermiculite (granular),
  - straw,
  - synthetic organic polypropylene sheets or rolls of absorbent material, and/or
  - loose sand;
- commercial mops; and,
- commercial absorbent and/or absorbent sheets.

#### **9.4 DISCHARGE NOTIFICATION REQUIREMENTS**

The responsibility for informing the required agencies in the event of a hazardous substance discharge is assigned to the URS Task Manager. All notifications must be made in strict accordance with the requirements of the NYCDEP Spill Procedures. Additionally, the URS Task Manager is responsible for initiating control and countermeasures relating to the discharge.

Any notification performed by a person responsible for a discharge must include the following information as a minimum:

- the name, title, affiliation, address and telephone number of the person reporting the discharge;
- the location of the discharge, with as much specificity as NYCDEP requested, and in any event with sufficient specificity to enable the NYCDEP to direct its agents and employees and any other person to the discharge site, including:
  - the name of the Site, the street address, the municipality and the county; and,
  - for discharges into water, the name of the water body, location of the discharge with reference to a fixed point or points, and a description of the area which the discharge may reach.
- the common name of the hazardous substance(s) discharged;
- an estimate of the quantity of each hazardous substance discharged, including best estimates if the quantities are unknown;
- the date and time at which the discharge began, the date and time at which the discharge was discovered, and, if the discharge has ended, the date and time at which it ended;
- the actions such person proposes to take to contain, clean up and remove the hazardous substance(s) discharged; and,
  - the name and address of any person responsible for the discharge.

**10.1 GENERAL**

Records shall be kept documenting the site safety program. Logs and records will be kept for training, safety meetings, injury/exposure and air monitoring data. A daily health and safety log will be maintained by the SSO. This log shall include a description of the field work being conducted, any changes in the operations, names of all personnel working at the Site, types of air monitoring equipment being used and how calibrated, air monitoring results, level of PPE being worn, accidents and injuries, and a description of any unusual occurrences or physical complaints.

**10.2 PERSONNEL RECORDS**

Records shall be kept for each on-site individual. Records include a medical clearance statement from a qualified physician, and fit test and training documentation. When site safety meetings are conducted, an attendance sheet, including topics discussed, must be kept.

The following forms must be completed, as appropriate, by the SSO:

- Equipment Calibration Log;
- Project Safety Log;
- Compliance Agreement Form;
- URS Injury/Illness/Incident Report;
- Safety Orientation Meeting/Daily Site Briefings Form; and,
- Job Safety Analysis Forms

The SSO will be responsible for completing the Equipment Calibration Log, the Project Safety Log, the URS Injury/Illness/Incident Report and the Site Safety Briefing Form. The SSO will also ensure that all URS and Contractor personnel working on the Site complete the Compliance Agreement Form, review the Job Safety Analysis Forms and sign the Site Safety Briefing Form. The URS Project Manager will be responsible for completing any accident or investigation information required by the Client. All completed forms will be provided to the URS Project Manager for placement in the project files.

Copies of these forms (with the exception of the URS Injury/Illness/Incident form which is contained in URS SMS 049) are provided on the following pages.

**EQUIPMENT CALIBRATION LOG**

Project Name: \_\_\_\_\_

Project No. \_\_\_\_\_

<b>DATE</b>	<b>TIME</b>	<b>INITIALS</b>	<b>INSTRUMENT</b>	<b>CALIBRATION SOLUTION OR GAS CONCENTRATION</b>	<b>ADJUSTMENTS REQUIRED AND COMMENTS</b>

Project \_\_\_\_\_

**PROJECT SAFETY LOG**

Date: \_\_\_\_\_ Logged by: \_\_\_\_\_

Weather: \_\_\_\_\_

Field Tasks: \_\_\_\_\_

URS Personnel (or contractors) working on site (name and affiliation):

URS Personnel (or contractors) working in exclusion zone:

Visitors to Site:

Air Quality Monitoring Measurements:

<u>Time</u>	<u>Instrument Parameter</u>	<u>Concentration</u>	<u>Locations</u>

Background:

Exclusion Zone:

Level of PPE: \_\_\_\_\_

Comments on other safety-related matters:

(including infractions, accidents, injuries, unusual occurrences, physical complaints)

**URS CORPORATION HEALTH AND SAFETY PLAN  
COMPLIANCE AGREEMENT FORM**

PROJECT: Remedial Investigations  
538 and 544 Union Avenue  
Brooklyn, NY 11211

CLIENT: Heatherwood Communities, Inc.  
Islandia, NY 11749

URS PROJECT NO.: 11140128 & 11140143

I, \_\_\_\_\_, have received a copy of the Health and Safety Plan (HASP) dated November 2011 for the above-referenced project to review. I have been given an opportunity to read the HASP and have my questions, if any, answered. I understand the HASP and agree to comply with all its provisions. I understand that I can be prohibited from working on the Project for violating any of the safety requirements specified in the HASP.

Signed:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company

**SAFETY ORIENTATION MEETING/DAILY SAFETY BRIEFING FORM**

Project Name \_\_\_\_\_

Project Number \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Location \_\_\_\_\_

Type of Work \_\_\_\_\_

**SAFETY TOPICS PRESENTED**

	Yes/No
Names and Responsibilities of Personnel	_____
Personal Protective Equipment	_____
Chemical Hazards	_____
Physical Hazards	_____
Biological Hazards	_____
Required Work Procedures	_____
Personal Protective Equipment	_____
Air Monitoring	_____
Personnel and Equipment Decontamination	_____
Respiratory Protection	_____
Emergency Procedures	_____
Other _____	_____

**ATTENDEES**

<u>Name (Printed)</u>	<u>Signature</u>
_____	_____
_____	_____
_____	_____
_____	_____

Meeting Conducted by: \_\_\_\_\_

Site Safety Officer: \_\_\_\_\_

## Initial Job Safety Analysis

JOB LOCATION	URS PERSONNEL ASSIGNED	DATES OF WORK
Remedial Investigations 538 and 544 Union Avenue Brooklyn, New York	Cary Friedman (SSO) Megan Dascoli	November 2011 - November 2012
<b>TASK DESCRIPTION:</b>		
Inspection of Geoprobe® Drilling Activities (i.e., advance test borings, collect soil samples and installation of temporary/permanent groundwater monitoring wells).		
<b>HAZARD DESCRIPTION:</b>		
<p><b>Physical Hazards Associated with Drilling Equipment</b> – There may be a risk of physical injury (e.g., crushing, pinch points) resulting from contact with drilling equipment.</p> <p><b>Noise Exposure</b> – Work activities may be conducted at locations with high noise levels from site operations (e.g., drilling).</p> <p><b>Chemical Hazards</b> – There maybe a risk of chemical exposures resulting from contact with contaminated dusts, liquids, vapors, mists or chemical constituents brought to the Site. Inhalation and dermal contact are generally the primary routes of exposure; ingestion is a secondary route of exposure.</p> <p><b>Slip-Trip-Fall Hazards</b> – Dangerous conditions may result from muddy, uneven and slippery surfaces and equipment/supplies in the vicinity of the work area.</p> <p><b>Traffic Hazards</b> – Traffic hazards may occur in work areas, especially when work activities are performed in highly trafficked areas (e.g., parking lots, roadways).</p> <p><b>Cold Stress Hazards</b> – Work may be performed during winter when ambient weather is expected to be cold and windy.</p> <p><b>Heat Stress Hazards</b> – Work may be performed during daylight hours in summer when ambient weather is expected to be warm and humid.</p> <p><b>Underground Structures/Obstructions/Utilities</b> – The proximal location of underground structures/obstructions/utilities may pose hazards (e.g., fire, explosion, exposure, electrical, environmental release) when intrusive activities are conducted.</p> <p><b>Overhead Hazards</b> – Overhead power lines may pose a shock or electrocution hazard if the power line is contacted or arcing occurs. Also, overhead piping carrying chemicals may be present.</p> <p><b>Hand Tool Hazards</b> – Physical hazards (e.g., cuts, pinch points) associated with the use of hand tools may cause injury.</p> <p><b>Biological Hazards</b> – Poisonous plants (e.g., poison ivy), insects (e.g., ticks, spiders) and feral animals (e.g., dogs) may be present at the Site.</p> <p><b>Weather Hazards</b> – Severe storms may develop which include lightning hazards and/or exacerbate other hazards (e.g., slip-trip-fall hazards).</p> <p><b>Radiant Energy Hazards</b> – Work activities may be conducted outside during periods of strong sunlight; even on cloudy days, exposure to radiant energy may occur.</p> <p><b>Lifting Hazards</b> – Field operations may require lifting heavy items (e.g., portable generators, sampling equipment and supplies, sample shuttles, boxes of soil samples, core boxes).</p> <p><b>Hazards to Public</b> – Work activities may be performed in or adjacent to publicly accessible areas.</p>		

## HAZARD CONTROLS:

- 1) An Initial Site Safety Orientation Meeting will be conducted by the URS Site Safety Officer (SSO) prior to conducting any fieldwork. Meeting topics will include the Job Safety Analysis, personal protective equipment requirements, working around heavy equipment, general and site-specific health and safety, site hazards, safe work procedures, releases to the environment, decontamination, air quality monitoring and emergency response. Topics discussed at this meeting and all attendees present will be documented by the SSO as described in the site-specific Health and Safety Plan (HASP). Thereafter, Daily Site Safety Briefings, covering the same topics as the Initial Site Safety Orientation Meeting (as necessary), will be conducted and documented by the SSO.
- 2) Check weather conditions before going to the Site. No work will be performed during “severe” weather conditions.
- 3) The SSO will determine whether any employee performing fieldwork has any special medical condition (e.g., allergy to poisonous plants, insects [especially bees]) that may need to be conveyed to emergency response personnel in case of an accident.
- 4) At least one member of each field team will carry a cellular telephone at all times. Individuals having cellular telephones will have ready access to emergency telephone numbers and directions to the First Aid Medical Facility.
- 5) All work activities will be performed in strict accordance with the requirements of the HASP prepared by URS. All aspects of the URS HASP must be understood by all site personnel and strictly adhered to.
- 6) Personnel will be aware of their location relative to heavy equipment and maintain a safe distance from operating equipment at all times.
- 7) While it is difficult to eliminate slip-trip-fall hazards, implementing safe work practices (e.g., good housekeeping), wearing proper footwear and keeping the work area free of obstructions will reduce the risk of injury.
- 8) The drilling contractor will call for a utility mark-out (e.g., “DigSafe” request) of all underground utilities at least 72 hours prior to field activities to identify underground utilities that may enter onto the Site. Documentation of this call must be provided to the URS SSO prior to the start of intrusive work and maintained on-site. URS will also request that a representative of the Client/Site Owner identify and mark-out the location of underground structures (e.g., utilities) at the Site.
- 9) Prior to conducting drilling operations adjacent to overhead power lines, work activities must be coordinated with the appropriate utility. The utility company will be notified and information will be obtained regarding line voltage and minimum separation distance required for work in this area. Operations adjacent to overhead lines will not be conducted unless the lines have been de-energized and positive means (e.g., lockout/tagout) have been taken to prevent lines from being energized.
- 10) Fluids will be provided regularly during the work periods in order to maintain adequate body fluid levels for field personnel to reduce heat stress hazards.
- 11) If work is to be performed continuously in the cold when the wind chill factor is at or below 19 degrees Fahrenheit, heated warming shelters (e.g., tents, trailers, vehicle cabs) will be made available nearby.
- 12) Consider erecting barriers (e.g., snow fencing, caution tape) to control public access to work areas.
- 13) Field personnel are encouraged to use insect repellent to reduce biological hazards.
- 14) Field personnel are encouraged to use sunscreen to reduce radiant energy hazards.

<b>PERSONAL PROTECTION EQUIPMENT</b>
<p>Personal Protective Equipment (PPE) – Potential hazards will be reduced by protecting against exposures to contaminants by using appropriate PPE. If site conditions require respiratory protection to be used, work should be stopped and the requirements to upgrade PPE should be evaluated. Hearing protection will be required when noise levels exceed 85 decibels (8-hr time weighted average) or are greater than 100 decibels at any given time. See Personal Protective Equipment Section of the HASP for additional information.</p>
<b>AIR QUALITY MONITORING</b>
<p>Air Quality Monitoring – The type and frequency of air quality monitoring for worker protection will be dependent on the specific operation, location and available data concerning the work activity being performed. Personal monitoring may be conducted to provide real-time measurements of exposure to Site contaminants. See Air Quality Monitoring Section of the HASP for additional information.</p>
<b>EMERGENCY RESPONSE PROCEDURES</b>
<p>Emergency Response Procedures – Emergency telephone numbers are provided in a table in the HASP. The table will be carried by the SSO and at least one member of each work team, and kept readily available in URS field vehicle(s) and all field trailers. The table will be revised and updated, as necessary, to reflect all new emergency information. The SSO will have the primary role in responding to all emergencies at the Site. All personnel present in the work area will contact the SSO in case of an emergency.</p> <p>If an injury is clearly minor (e.g., a minor burn or cut) contact the Health and Safety Representative and/or the URS Occupational Nurse (Jeanette Schrimsher). The injured individual should be driven to the Occupational Health Clinic. If emergency medical treatment is required, call 911 (for cellular phones, be prepared to give the operator your name and location address) to request an ambulance and then contact the URS Occupational Nurse (Jeanette Schrimsher).</p> <p>See Emergency Response Procedures Section of the HASP for additional information.</p>
<b>DISCHARGE PREVENTION AND CLEANUP PLAN</b>
<p>Discharge Prevention and Cleanup Plan – Procedures for discharge containment will commence immediately following a discharge event. Absorbent sheets, rolls, booms, etc. will be used to contain discharged substances as soon as possible. Storm sewer or other access points to the subsurface will be protected with barrier materials and/or absorbent materials as soon as possible. See Discharge Prevention and Cleanup Section of the HASP for additional information.</p>

**Project Manager**

**Approval:**

Robert Wolff

Name

Signature

URS Project Manager

Title

11/28/11

Date

**Health and Safety**

**Manager Approval:**

Peter Gregory

Name

Signature

URS Health and Safety

Representative

Title

11/28/11

Date

**Daily Review of Initial Job Safety Analysis**

This Initial Job Safety Analysis must be reviewed daily at the Daily Site Safety Briefing. Modifications, as indicated, to reflect actual field conditions must be documented herein and this form signed by the SSO. Add additional pages of this form as required.

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**Initial Job Safety Analysis**

<b>JOB LOCATION</b>	<b>URS PERSONNEL ASSIGNED</b>	<b>DATES OF WORK</b>
Remedial Investigations 538 and 544 Union Avenue Brooklyn, New York	Cary Friedman (SSO) Megan Dascoli	November 2011 - November 2012
<b>TASK DESCRIPTION:</b>		
Purging and Collect Samples of Groundwater from Temporary and Permanent Monitoring Wells		
<b>HAZARD DESCRIPTION:</b>		
<p><b>Hand Tool Hazards</b> – Physical hazards (e.g., cuts, pinch points) associated with the use of hand tools may cause injury.</p> <p><b>Chemical Hazards</b> – There maybe a risk of chemical exposures resulting from contact with contaminated dusts, liquids, vapors, mists or chemical constituents brought to the Site. Inhalation and dermal contact are generally the primary routes of exposure; ingestion is a secondary route of exposure.</p> <p><b>Slip-Trip-Fall Hazards</b> – Dangerous conditions may result from muddy, uneven and slippery surfaces and equipment/supplies in the vicinity of the work area.</p> <p><b>Traffic Hazards</b> – Traffic hazards may occur in work areas, especially when work activities are performed in highly trafficked areas (e.g., parking lots, roadways).</p> <p><b>Cold Stress Hazards</b> – Work may be performed during winter when ambient weather is expected to be cold and windy.</p> <p><b>Heat Stress Hazards</b> – Work may be performed during daylight hours in summer when ambient weather is expected to be warm and humid.</p> <p><b>Lifting Hazards</b> – Field operations may require lifting heavy items (e.g., portable generators, sampling equipment and supplies, sample shuttles, boxes of soil samples, core boxes).</p> <p><b>Biological Hazards</b> – Poisonous plants (e.g., poison ivy), insects (e.g., ticks, spiders) and feral animals (e.g., dogs) may be present at the Site.</p> <p><b>Weather Hazards</b> – Severe storms may develop which include lightning hazards and/or exacerbate other hazards (e.g., slip-trip-fall hazards).</p> <p><b>Radiant Energy Hazards</b> – Work activities may be conducted outside during periods of strong sunlight; even on cloudy days, exposure to radiant energy may occur.</p>		

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- 8) Fluids will be provided regularly during the work periods in order to maintain adequate body fluid levels for field personnel to reduce heat stress hazards.
- 9) Field personnel are encouraged to use insect repellent to reduce biological hazards.
- 10) Field personnel are encouraged to use sunscreen to reduce radiant energy hazards.

## PERSONAL PROTECTION EQUIPMENT

Personal Protective Equipment (PPE) – Potential hazards will be reduced by protecting against exposures to contaminants by using appropriate PPE. If site conditions require respiratory protection to be used, work should be stopped and the requirements to upgrade PPE should be evaluated. Hearing protection will be required when noise levels exceed 85 decibels (8-hr time weighted average) or are greater than 100 decibels at any given time. See Personal Protective Equipment Section of the HASP for additional information.

<b>AIR QUALITY MONITORING</b>
Air Quality Monitoring – The type and frequency of air quality monitoring for worker protection will be dependent on the specific operation, location and available data concerning the work activity being performed. Personal monitoring may be conducted to provide real-time measurements of exposure to Site contaminants. See Air Quality Monitoring Section of the HASP for additional information.
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<b>DISCHARGE PREVENTION AND CLEANUP PLAN</b>
Discharge Prevention and Cleanup Plan – Procedures for discharge containment will commence immediately following a discharge event. Absorbent sheets, rolls, booms, etc. will be used to contain discharged substances as soon as possible. Storm sewer or other access points to the subsurface will be protected with barrier materials and/or absorbent materials as soon as possible. See Discharge Prevention and Cleanup Section of the HASP for additional information.

**Project Manager Approval:**

Robert Wolff	_____	URS Project Manager	11/28/11
Name	Signature	Title	Date

**Health and Safety Manager Approval:**

Peter Gregory	_____	URS Health and Safety Representative	11/28/11
Name	Signature	Title	Date

**Daily Review of Initial Job Safety Analysis**

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**Initial Job Safety Analysis**

<b>JOB LOCATION</b>	<b>URS PERSONNEL ASSIGNED</b>	<b>DATES OF WORK</b>
Remedial Investigations 538 and 544 Union Avenue Brooklyn, New York	Cary Friedman (SSO) Megan Dascoli	November 2011 - November 2012
<b>TASK DESCRIPTION:</b>		
Residuals Management Activities		
<b>HAZARD DESCRIPTION:</b>		
<p><b>Lifting Hazards</b> – Field operations may require lifting heavy items (e.g., drums of purge water, drill cuttings, waste PPE).</p> <p><b>Cold Stress Hazards</b> – Work may be performed during winter when ambient weather is expected to be cold and windy.</p> <p><b>Heat Stress Hazards</b> – Work may be performed during daylight hours in summer when ambient weather is expected to be warm and humid.</p> <p><b>Slip-Trip-Fall Hazards</b> – Dangerous conditions may result from muddy, uneven and slippery surfaces and equipment/supplies in the vicinity of the work area.</p> <p><b>Hand Tool Hazards</b> – Physical hazards (e.g., cuts, pinch points) associated with the use of hand tools may cause injury.</p> <p><b>Chemical Hazards</b> – There maybe a risk of chemical exposures resulting from contact with contaminated dusts, liquids, vapors, mists or chemical constituents brought to the Site. Inhalation and dermal contact are generally the primary routes of exposure; ingestion is a secondary route of exposure.</p> <p><b>Weather Hazards</b> – Severe storms may develop which include lightning hazards and/or exacerbate other hazards (e.g., slip-trip-fall hazards).</p> <p><b>Biological Hazards</b> – Poisonous plants (e.g., poison ivy), insects (e.g., ticks, spiders) and feral animals (e.g., dogs) may be present at the Site.</p> <p><b>Radiant Energy Hazards</b> – Work activities may be conducted outside during periods of strong sunlight; even on cloudy days, exposure to radiant energy may occur.</p>		

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**Project Manager Approval:**

Robert Wolff		URS Project Manager	11/28/11
Name	Signature	Title	Date

**Health and Safety Manager Approval:**

Peter Gregory		URS Health and Safety Representative	11/28/11
Name	Signature	Title	Date

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## Initial Job Safety Analysis

JOB LOCATION	URS PERSONNEL ASSIGNED	DATES OF WORK
Remedial Investigations 538 and 544 Union Avenue Brooklyn, New York	Cary Friedman (SSO) Megan Dascoli	November 2011 - November 2012
<b>TASK DESCRIPTION:</b>		
Inspection of Interim Remedial Measures (IRMs) conducted by a remedial contractor, including soil “hot spot” excavations and/or post-excavation sampling.		
<b>HAZARD DESCRIPTION:</b>		
<p><b>Physical Hazards Associated with Heavy Equipment</b> – There may be a risk of physical injury (e.g., crushing, pinch points) resulting from contact with heavy equipment.</p> <p><b>Excavation Hazards</b> - URS field personnel will be observing excavations and trenching. When performing observations on an excavation or trench greater than 4 feet in depth, URS field personnel must remain at least more than 2 feet from the leading edge of the excavation and must <b>never</b> enter a trench or excavation.</p> <p><b>Noise Exposure</b> – Work activities may be conducted at locations with high noise levels from site operations (e.g., drilling).</p> <p><b>Chemical Hazards</b> – There maybe a risk of chemical exposures resulting from contact with contaminated dusts, liquids, vapors, mists or chemical constituents brought to the Site. Inhalation and dermal contact are generally the primary routes of exposure; ingestion is a secondary route of exposure.</p> <p><b>Slip-Trip-Fall Hazards</b> – Dangerous conditions may result from muddy, uneven and slippery surfaces and equipment/supplies in the vicinity of the work area.</p> <p><b>Traffic Hazards</b> – Traffic hazards may occur in work areas, especially when work activities are performed in highly trafficked areas (e.g., parking lots, roadways).</p> <p><b>Cold Stress Hazards</b> – Work may be performed during winter when ambient weather is expected to be cold and windy.</p> <p><b>Heat Stress Hazards</b> – Work may be performed during daylight hours in summer when ambient weather is expected to be warm and humid.</p> <p><b>Underground Structures/Obstructions/Utilities</b> – The proximal location of underground structures/obstructions/utilities may pose hazards (e.g., fire, explosion, exposure, electrical, environmental release) when intrusive activities are conducted.</p> <p><b>Overhead Hazards</b> – Overhead power lines may pose a shock or electrocution hazard if the power line is contacted or arcing occurs. Also, overhead piping carrying chemicals may be present.</p> <p><b>Hand Tool Hazards</b> – Physical hazards (e.g., cuts, pinch points) associated with the use of hand tools may cause injury.</p> <p><b>Biological Hazards</b> – Poisonous plants (e.g., poison ivy), insects (e.g., ticks, spiders) and feral animals (e.g., dogs) may be present at the Site.</p> <p><b>Weather Hazards</b> – Severe storms may develop which include lightning hazards and/or exacerbate other hazards (e.g., slip-trip-fall hazards).</p> <p><b>Hazards to Public</b> – Work activities may be performed in or adjacent to publicly accessible areas.</p> <p><b>Radiant Energy Hazards</b> – Work activities may be conducted outside during periods of strong sunlight; even on cloudy days, exposure to radiant energy may occur.</p>		

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- 8) The excavation contractor will call for a utility mark-out (e.g., “DigSafe” request) of all underground utilities at least 72 hours prior to field activities to identify underground utilities that may enter onto the Site. Documentation of this call must be provided to the URS SSO prior to the start of intrusive work and maintained on-site. URS will also request that a representative of the Client/Site Owner identify and mark-out the location of underground structures (e.g., utilities) at the Site.
- 9) Prior to conducting excavation operations adjacent to overhead power lines, work activities must be coordinated with the appropriate utility. The utility company will be notified and information will be obtained regarding line voltage and minimum separation distance required for work in this area. Operations adjacent to overhead lines will not be conducted unless the lines have been de-energized and positive means (e.g., lockout/tagout) have been taken to prevent lines from being energized.
- 10) Fluids will be provided regularly during the work periods in order to maintain adequate body fluid levels for field personnel to reduce heat stress hazards.
- 11) If work is to be performed continuously in the cold when the wind chill factor is at or below 19 degrees Fahrenheit, heated warming shelters (e.g., tents, trailers, vehicle cabs) will be made available nearby.
- 12) Field personnel are encouraged to use insect repellent to reduce biological hazards.
- 13) Field personnel are encouraged to use sunscreen to reduce radiant energy hazards.

<b>PERSONAL PROTECTION EQUIPMENT</b>
<p>Personal Protective Equipment (PPE) – Potential hazards will be reduced by protecting against exposures to contaminants by using appropriate PPE. If site conditions require respiratory protection to be used, work should be stopped and the requirements to upgrade PPE should be evaluated. Hearing protection will be required when noise levels exceed 85 decibels (8-hr time weighted average) or are greater than 100 decibels at any given time. See Personal Protective Equipment Section of the HASP for additional information.</p>
<b>AIR QUALITY MONITORING</b>
<p>Air Quality Monitoring – The type and frequency of air quality monitoring for worker protection will be dependent on the specific operation, location and available data concerning the work activity being performed. Personal monitoring may be conducted to provide real-time measurements of exposure to Site contaminants. See Air Quality Monitoring Section of the HASP for additional information.</p>
<b>EMERGENCY RESPONSE PROCEDURES</b>
<p>Emergency Response Procedures – Emergency telephone numbers are provided in a table in the HASP. The table will be carried by the SSO and at least one member of each work team, and kept readily available in URS field vehicle(s) and all field trailers. The table will be revised and updated, as necessary, to reflect all new emergency information. The SSO will have the primary role in responding to all emergencies at the Site. All personnel present in the work area will contact the SSO in case of an emergency.</p> <p>If an injury is clearly minor (e.g., a minor burn or cut) contact the Health and Safety Representative and/or the URS Occupational Nurse (Jeanette Schrimsher). The injured individual should be driven to the Occupational Health Clinic. If emergency medical treatment is required, call 911 (for cellular phones, be prepared to give the operator your name and location address) to request an ambulance and then contact the URS Occupational Nurse (Jeanette Schrimsher).</p> <p>See Emergency Response Procedures Section of the HASP for additional information.</p>
<b>DISCHARGE PREVENTION AND CLEANUP PLAN</b>
<p>Discharge Prevention and Cleanup Plan – Procedures for discharge containment will commence immediately following a discharge event. Absorbent sheets, rolls, booms, etc. will be used to contain discharged substances as soon as possible. Storm sewer or other access points to the subsurface will be protected with barrier materials and/or absorbent materials as soon as possible. See Discharge Prevention and Cleanup Section of the HASP for additional information.</p>

**Project Manager**

**Approval:**

Robert Wolff

Name

Signature

URS Project Manager

Title

11/28/11

Date

**Health and Safety**

**Manager Approval:**

Peter Gregory

Name

Signature

URS Health and Safety

Manager

Title

11/28/11

Date

**Daily Review of Initial Job Safety Analysis**

This Initial Job Safety Analysis must be reviewed daily at the Daily Site Safety Briefing. Modifications, as indicated, to reflect actual field conditions must be documented herein and this form signed by the SSO. Add additional pages of this form as required.

<u>Date</u>	<u>Changes to Initial Job Safety Analysis</u>	<u>Approval of Site Safety Officer</u>
/ /2011	<hr/> <hr/> <hr/>	<hr/> <p>(name/signature)</p>
-----		
/ /2011	<hr/> <hr/> <hr/>	<hr/> <p>(name/signature)</p>
-----		
/ /2011	<hr/> <hr/> <hr/>	<hr/> <p>(name/signature)</p>
-----		

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/ /2011	<hr/> <hr/> <hr/>	<hr/> <p>(name/signature)</p>
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1. American Conference of Governmental Industrial Hygienists, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
2. American Conference of Governmental Industrial Hygienists, Guide to Occupational Exposure Values.
3. National Institute for Occupational Safety and Health, Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities.
4. National Institute for Occupational Safety and Health, Pocket Guide to Chemical Hazards.
5. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Standard Operating Safety Guides, Publication 9285.1-03.
6. U.S. Occupational Safety and Health Administration, 29 CFR 1910 and 1926.

## **TABLES**

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## **TABLE 1: HEALTH AND SAFETY RESPONSIBILITIES AND AUTHORITIES**

### **URS GENERAL ENGINEERING DIVISION PRESIDENT: Gary Jandegian**

#### **Responsibilities**

monitor the implementation of the health and safety program; and,  
provide leadership and adequate resources for health and safety.

#### **Authority**

direct changes in the health and safety program; and,  
determine and implement personnel disciplinary actions, as required.

### **URS OPERATIONS MANAGER: Jack Spencer**

#### **Responsibilities**

provide leadership and adequate resources for health and safety;  
communicate regularly with the RHSM regarding health and safety; and,  
monitor the implementation of the health and safety program within the operations area of  
responsibility.

#### **Authority**

determine and implement personnel disciplinary actions, as required;  
appoint the RHSM in cooperation with the health and safety matrix manager; and,  
suspend work on a project that jeopardizes the health and safety of personnel.

### **URS HEALTH AND SAFETY DIRECTOR: Phillip L. Jones, CIH**

#### **Responsibilities**

administer the health and safety program;  
track health and safety regulations that affect URS;  
maintain records pertaining to medical surveillance, training, fit testing, chemical exposure and  
incidents;  
update URS Health and Safety Manual;  
manage the employee medical surveillance program;  
audit key aspects of health and safety program and report effectiveness;  
supervise RHSMs through a matrix management system; and,  
provide practice leadership for the occupational safety and hygiene practice.

#### **Authority**

implement improvements to the URS health and safety program;  
approve the health and safety qualifications of employees;  
approve or disapprove HASPs;  
establish employee training and medical surveillance procedures;  
suspend work on any project that jeopardizes the health and safety of personnel; and,  
determine the types of occupational safety and industrial hygiene services to be provided by  
URS.

**TABLE 1: HEALTH AND SAFETY RESPONSIBILITIES AND AUTHORITIES  
(continued)**

**URS REGIONAL HEALTH AND SAFETY MANAGER: Benjamin J. Bertolotti, CIH**

**Responsibilities**

direct the implementation of the health and safety program of the Operating Group and provide recommendations for improvement of the program;  
coordinate health and safety activities of the Operating Units in the Operating Group;  
determine need for project HASPs;  
maintain a high level of understanding regarding health and safety regulations affecting URS;  
review and approve HASPs;  
monitor implementation of HASPs;  
investigate reports of incidents or accidents and report to URS Health and Safety Director;  
provide employee health and safety training in the Operating Group;  
determine whether an accidental exposure or injury merits a change in the affected individual's work assignments and whether changes in work practices are required;  
coordinate Operating Units with regard to health and safety equipment needs; and,  
supervise HSMs through a matrix management system, in cooperation with the Operating Unit Managers.

**Authority**

approve or disapprove HASPs;  
direct Operating Unit HSM to prepare project HASPs;  
access and review project files;  
direct changes in personnel work practices to improve health and safety of employees;  
remove individuals from projects, if their conduct jeopardizes their health and safety or that of co-workers; and,  
suspend work on any project that jeopardizes the health and safety of personnel involved.

**URS PROJECT MANAGER: Robert Wolff**

**Responsibilities**

assure that projects are performed in a manner consistent with the URS health and safety program;  
assure that the project HASPs are prepared, approved and properly implemented;  
implement HASPs;  
assure that adequate funds are allocated to fully implement project health and safety; and,  
coordinate with the HSM on health and safety matters.

**Authority**

- assign HSM-approved SSO to project and, if necessary, assign a suitably qualified replacement;
- suspend field activities if health and safety of personnel are endangered, pending an evaluation by the HSM; and,  
suspend an individual from field activities for infractions of the HASP, pending an evaluation by the HSM.

**TABLE 1: HEALTH AND SAFETY RESPONSIBILITIES AND AUTHORITIES**  
(continued)

**OPERATING UNIT HEALTH AND SAFETY REPRESENTATIVE: Peter G. Gregory**

**Responsibilities**

administer the health and safety program within the Operating Unit;  
maintain a working understanding of key government health and safety regulations and URS health and safety policies;  
interface with Project Managers in matters of health and safety;  
report to RHSM on health and safety matters;  
develop or review, approve or disapprove project HASPs prior to submittal to the RHSM for review;  
conduct staff training and orientation on health and safety related activities;  
appoint or approve SSOs;  
monitor compliance with HASPs and conduct site audits;  
assist Project Managers in obtaining required health and safety equipment;  
approve personnel to work on hazardous waste management projects with regard to medical examinations, and health and safety training; and,  
answer employee questions and concerns regarding health and safety.

**Authority**

suspend work or otherwise limit exposures to personnel if health and safety risks are unacceptable;  
direct personnel to change work practices if existing practices are deemed to be hazardous to health and safety of personnel; and,  
remove personnel from projects, if their actions or conditions endanger their health and safety or the health and safety of co-workers.

**SITE SAFETY OFFICER: Cary Friedman**

**Responsibilities**

direct health and safety activities on-site;  
report immediately all safety-related incidents or accidents to the HSM and Project Manager;  
verify that URS and Contractor personnel working on-site have met current training and medical clearance requirements;  
determine that air quality monitoring equipment is used properly by URS personnel in accordance with manufacturer's instructions and that the monitoring results are properly documented and filed;  
coordinate with the URS Project Manager and HSM to identify URS personnel on-site for whom special personal protective equipment, exposure monitoring or work restrictions may be required;  
conduct safety meetings, as required;  
conduct daily site safety inspections;  
assist the Project Manager in all aspects of implementing the HASP and addenda, if any; and,  
maintain health and safety equipment on-site.

**Authority**

implement emergency procedures as required;

**TABLE 1: HEALTH AND SAFETY RESPONSIBILITIES AND AUTHORITIES  
(continued)**

temporarily suspend field activities if health and safety of personnel are endangered, pending further consideration by the HSM; and,  
temporarily suspend an individual from field activities for infractions of the HASP pending further consideration by the HSM.

**URS PROJECT PERSONNEL**

**Responsibilities**

take all reasonable precautions to prevent injury to themselves and to their fellow employees;  
perform only those tasks that they believe they can do safely and immediately reporting any accidents and/or unsafe conditions to the SSO or URS Project Manager;  
implement the procedures set forth in the HASP and reporting any deviations from the procedures described in that HASP to the SSO or URS Project Manager for action;  
notify the URS Project Manager and SSO of any special medical conditions (i.e., allergies) and seeing that all onsite URS personnel are aware of such conditions; and,  
reviewing the project-specific HASP and addenda, if any, and signing the Safety Plan Compliance Agreement.

**Authority**

all field personnel following this HASP have “stop work” authority in situations where they believe that injury to themselves, their fellow employees, Contractor or Client personnel or the public, and/or property damage may occur.

**TABLE 2: ACTIVITY-SPECIFIC INITIAL LEVELS OF PROTECTION AND ACTION LEVELS**

Location	Activity	Initial Level of Protection	Monitoring Requirements	Action Levels
Throughout Site	All work activities authorized in Section 4, Work Activities.	Level D PPE	Organic vapors using PID with 10.5 eV lamp	<p>&gt;5 ppm above background in the breathing zone (sustained reading): Go to Level C PPE (half-face APR)</p> <p>&gt;50 ppm in the breathing zone (sustained reading): Evacuate CRZ and EZ</p> <p>If free product is encountered, go to Modified Level D PPE</p>
			CGI	<p>Flammable gas reading &gt;10 percent LEL: Shut off all ignition sources. Do not resume work until the flammable gas readings are continuously below 10 percent LEL for 15 minutes or more. Notify the URS Project Manager and HSM as soon as possible.</p> <p>Oxygen reading &lt;19.5 percent or &gt;23.5 percent: Suspend work in immediate area and notify the Site Manager, URS Project Manager and HSM as soon as possible. Conduct air monitoring periodically to determine when work may be continued.</p> <p>Carbon monoxide reading &gt;25 ppm: Suspend work in immediate area and notify the Site Manager, URS Project Manager and HSM as soon as possible. Conduct air monitoring periodically to determine when work may be continued.</p>
			Personal Meter for Aerosol and Dust	<p>&gt;2.5 milligrams per cubic meter (mg/m<sup>3</sup>) (sustained reading): Go to Level C PPE</p> <p>&gt;10 mg/m<sup>3</sup> (sustained reading): Evacuate CRZ and EZ</p> <p>*If dust is generated from any ash material encountered in the subsurface, dust suppression methods should be implemented.</p>
			Detector Tube	<p>&gt;0.5 ppm: Go to Level C PPE</p> <p>&gt;5 ppm: Evacuate CRZ and EZ</p>

**TABLE 3: EMERGENCY TELEPHONE NUMBERS AND DIRECTIONS TO FIRST AID MEDICAL SERVICES FACILITY**

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**EMERGENCY TELEPHONE NUMBERS**

**Emergency Services**

Medical:	911
Fire:	911
Police:	911

\*For cellular phones, be prepared to give the operator your name and location address.

**First Aid Medical Services Facility**

Concentra Medical Center  
 1 Journal Square Plaza  
 Jersey City, New Jersey  
 (201) 656-7678

**Hospital Emergency Services**

Woodhull Hospital  
 760 Broadway  
 Brooklyn, NY 11206  
 (718) 963-8000

**Government**

National Response Center	(800) 424-8802
NYC Poison Control Center	(800) 222-1222 (212) 689-9014
Poison Control Center	(800) 962-1253

**Heatherwood Communities, Inc.**

Owner's Representative: John Petrocelli (631) 872-5295 (office)

**URS Corporation**

Project Manager: Robert Wolff	(212) 896-0185 (office) (347) 306-3914 (cell)
Site Safety Officer: Cary Friedman	(212) 896-0429 (office) (646) 739-0054 (cell)
Alternate Site Safety Officer: Megan Dascoli	(212) 896-0428 (office) (908) 623-0145 (cell)
Health and Safety Representative: Peter Gregory	(973) 785-0700 x326 (office) (973) 769-5120 (cell)
Regional Health and Safety Manager: Benjamin J. Bertolotti	(973) 777-3003 (office) (973) 572-3916 (cell)
Occupational Nurse: Jeanette Schrimsher	(512) 419-6440 (office) (512) 656-0203 (cell)

### **Spill/Discharge Notifications**

NYCDEP 24-hr Call Center	(212) 689-1520
NYSDEC Spill Response Hotline	(800) 457-7362
National Response Center	(800) 424-8802
NYCDEP Division of Emergency Response and Technical Assessment	(718) 595-4646
NYSDEC Help-Line	(518) 402-9549

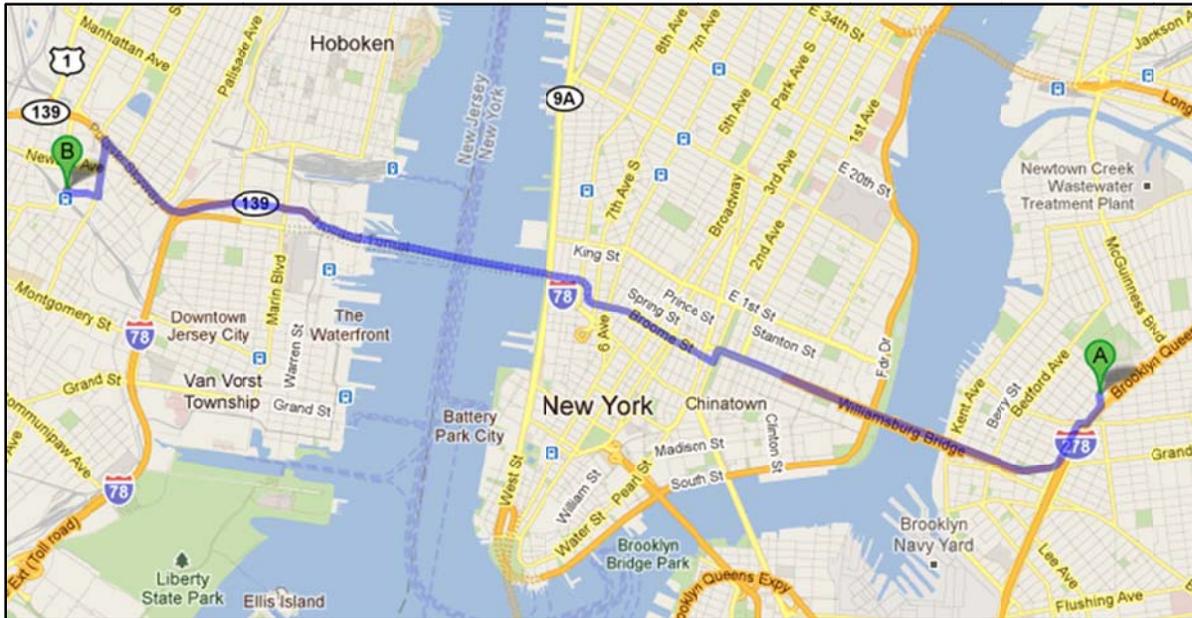
**\* Refer to Section 9 and Attachment 1 (NYCDEP Environmental, Health & Safety Policies and Procedures, Volume 2, entitled “Spill Prevention, Environmental Release Reporting & Investigation”), of this Health and Safety Plan for specific information about reporting and documenting spills.**

### **Zebra Environmental Drilling**

Dave Vines, Office Manager	(516) 596-6300 (office) (516) 318-9182 (cell)
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## DIRECTIONS TO FIRST AID MEDICAL SERVICES FACILITY

Directions to **Concentra Medical Center (1 Journal Square Plaza, Jersey City, NJ)** from the Site:

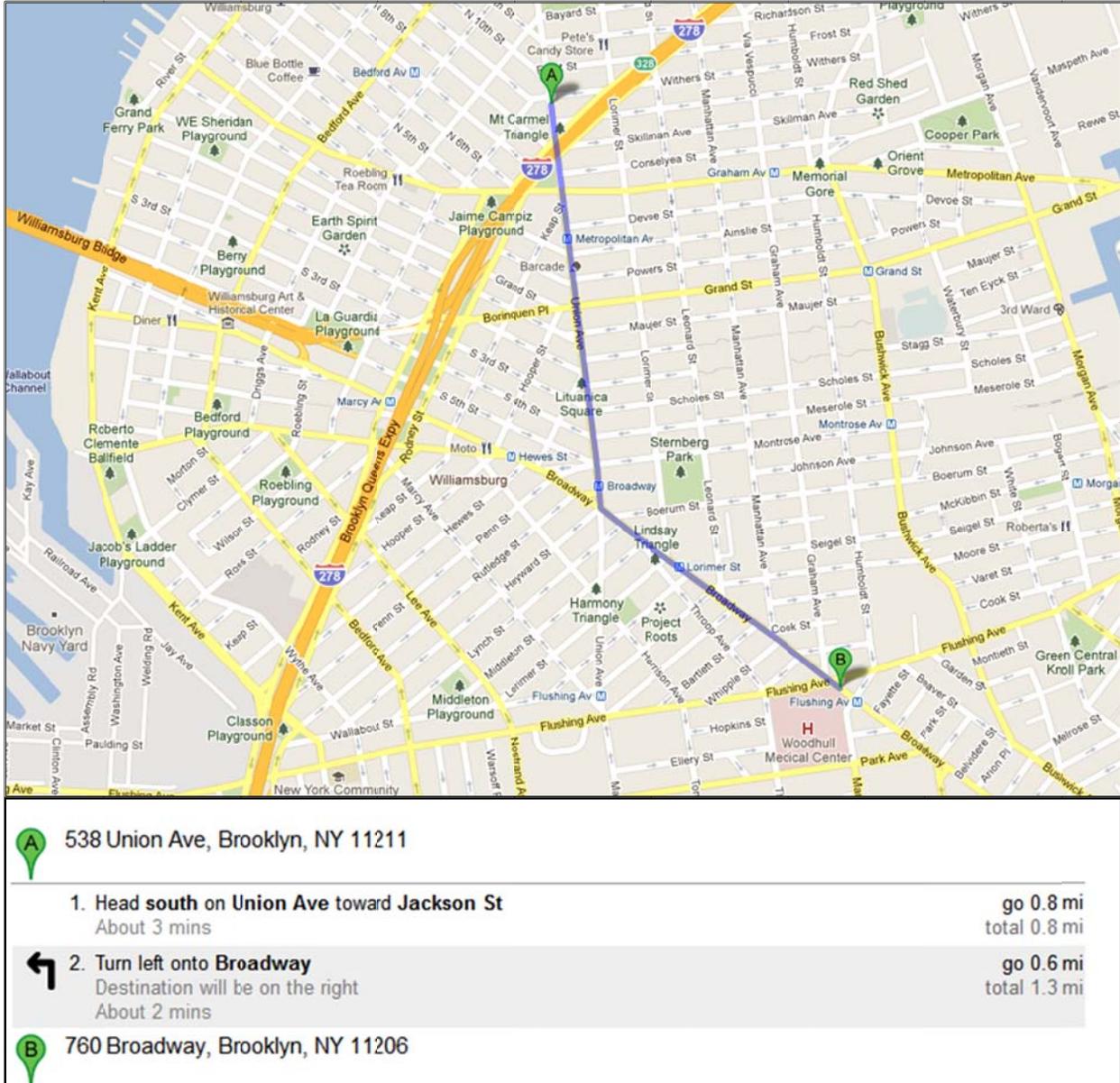


<b>A</b>	538 Union Ave, Brooklyn, NY 11211	
	1. Head south on Union Ave toward Jackson St	go 354 ft total 354 ft
➡	2. Take the 1st right onto Meeker Ave	go 0.1 mi total 0.2 mi
➡	3. Turn right onto Metropolitan Ave	go 240 ft total 0.2 mi
⬅	4. Take the 1st left onto Marcy Ave About 1 min	go 0.3 mi total 0.5 mi
↗	5. Slight right at Borinquen Pl	go 0.1 mi total 0.6 mi
	6. Take the ramp onto Williamsburg Bridge About 2 mins	go 1.5 mi total 2.2 mi
	7. Continue onto Delancey St About 1 min	go 0.4 mi total 2.5 mi
⬅	8. Turn left onto Chrystie St	go 381 ft total 2.6 mi
➡	9. Take the 1st right onto Broome St About 3 mins	go 0.6 mi total 3.2 mi
↙	10. Slight left onto Watts St About 1 min	go 0.2 mi total 3.4 mi
	11. Take the ramp onto I-78 W/Holand Tunnel Continue to follow I-78 W Entering New Jersey About 6 mins	go 2.5 mi total 5.9 mi
↗	12. Take the exit toward Kennedy Blvd/Jersey City	go 404 ft total 5.9 mi
	13. Merge onto Hoboken Ave About 2 mins	go 0.5 mi total 6.5 mi
⬅	14. Sharp left onto County Rd 617/Summit Ave About 2 mins	go 0.3 mi total 6.8 mi
➡	15. Turn right onto Pavonia Ave	go 0.2 mi total 7.0 mi
<b>B</b>	1 Journal Square Plaza, Jersey City, NJ 07306	

*ESTIMATED Driving Distance (Time): 7 miles (approx. 60 minutes in traffic)*

## DIRECTIONS TO HOSPITAL EMERGENCY SERVICES

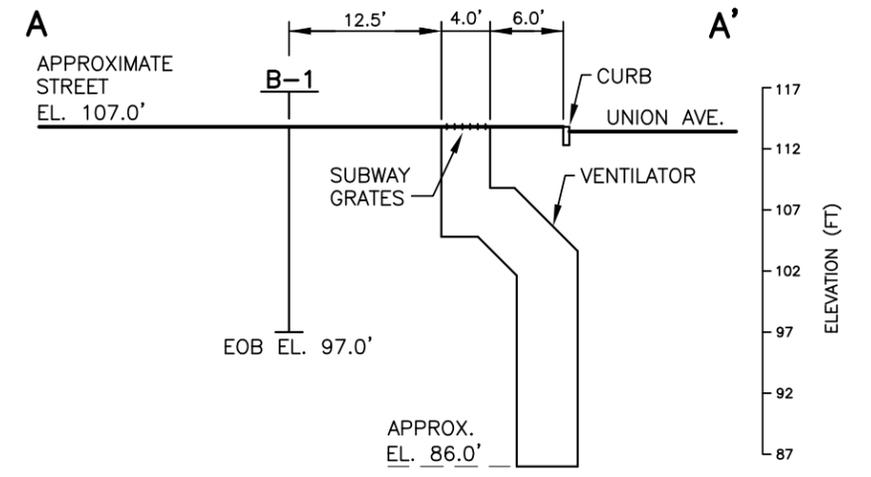
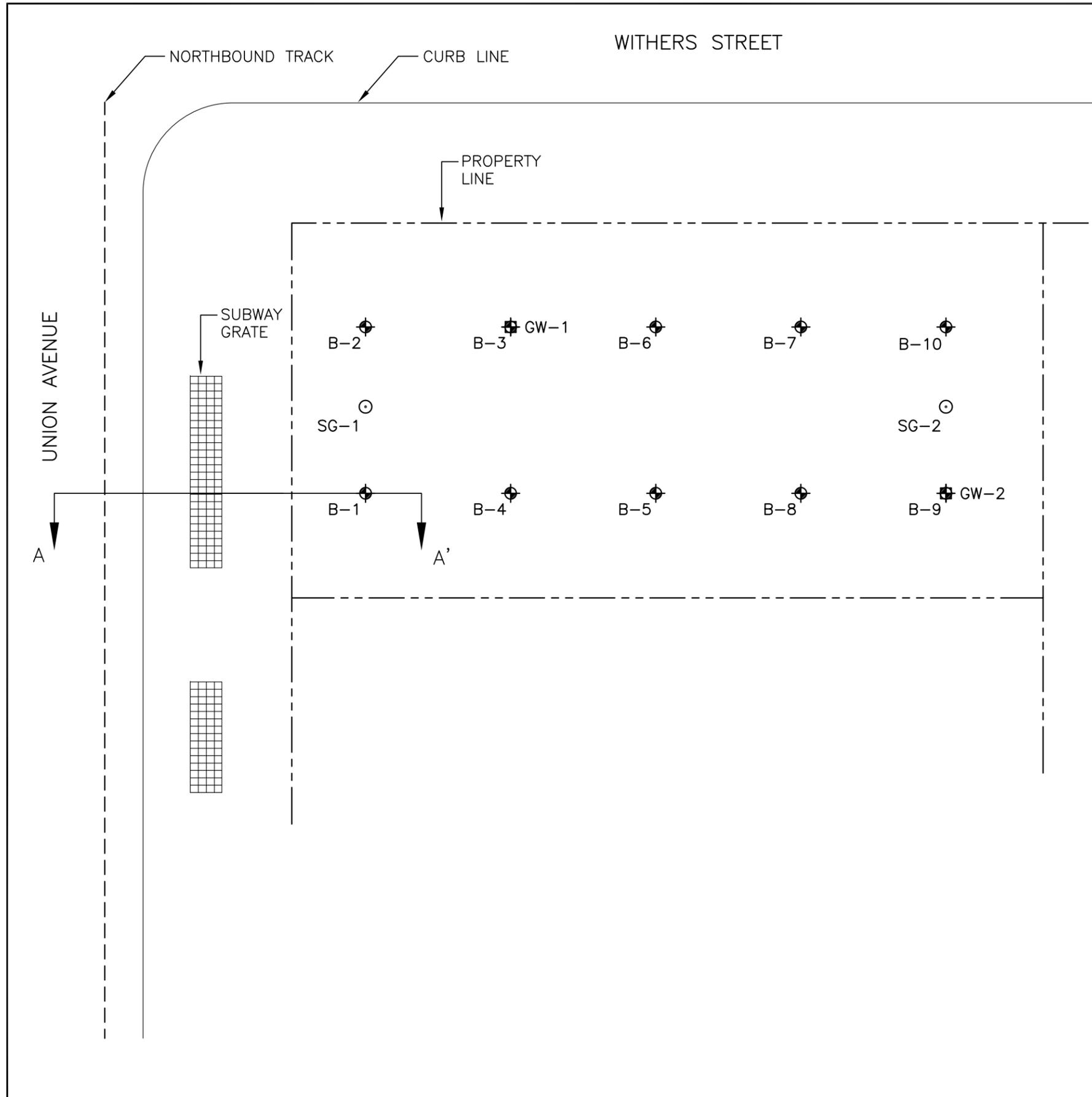
Directions to Woodhull Hospital (760 Broadway, Brooklyn, NY) from the Site:



**ESTIMATED Driving Distance (Time): 1.3 miles (5 minutes)**

**\*ONLY DRIVE INJURED PERSONNEL TO CONCENTRA MEDICAL CENTER OR WOODHULL HOSPITAL IF THE INJURY IS CLEARLY MINOR (E.G., A MINOR BURN OR LACERATION). IF THERE IS ANY QUESTION OF THE SEVERITY OF AN INJURY, CALL FOR EMERGENCY MEDICAL SERVICES BY CALLING 911 AND FOLLOWING THE PROCEDURES FOR EMERGENCY MEDICAL SERVICES FOR SEVERE INJURIES.**





CROSS SECTION A-A'



**LEGEND:**

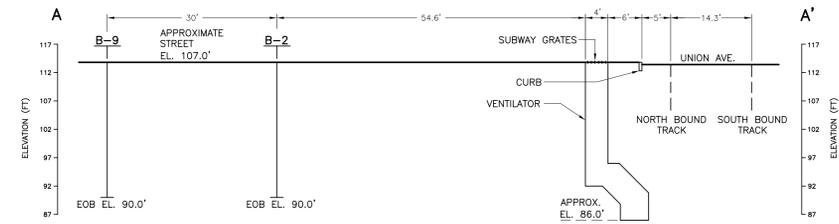
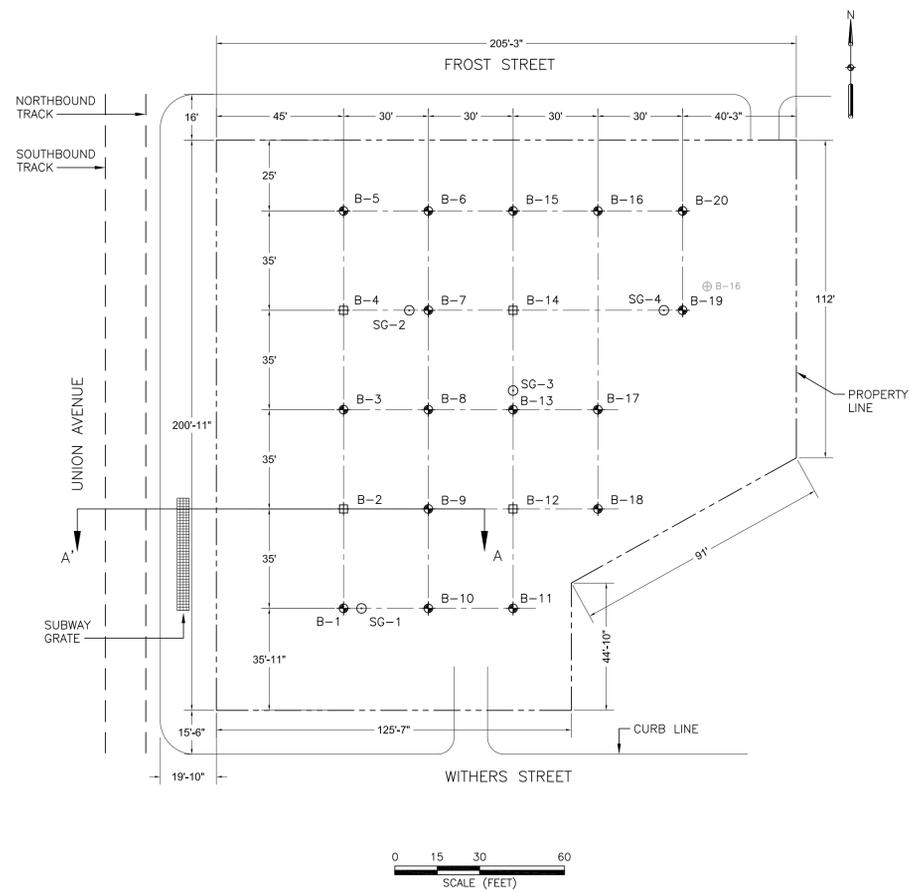
- B-17 PROPOSED SOIL BORING LOCATION
- SG-4 PROPOSED SOIL GAS POINT
- B-2 PROPOSED SOIL BORING LOCATION AND TEMPORARY GROUNDWATER POINT

**NOTE:**

BORINGS TO BE INSTALLED VIA TRACK MOUNTED GEOPROBE USING 2" x 5 FT. MACROCON



<b>PROPOSED BORING LOCATION PLAN</b> <b>538 UNION AVENUE</b>				
 WAYNE, NEW JERSEY				
DR. BY	KM	SCALE	AS SHOWN	DWG. NO. 40143001
CK'D. BY	KF	DATE	OCTOBER 31, 2011	PROJ. NO. 11140134
				FIG. NO. 1



CROSS SECTION A-A'



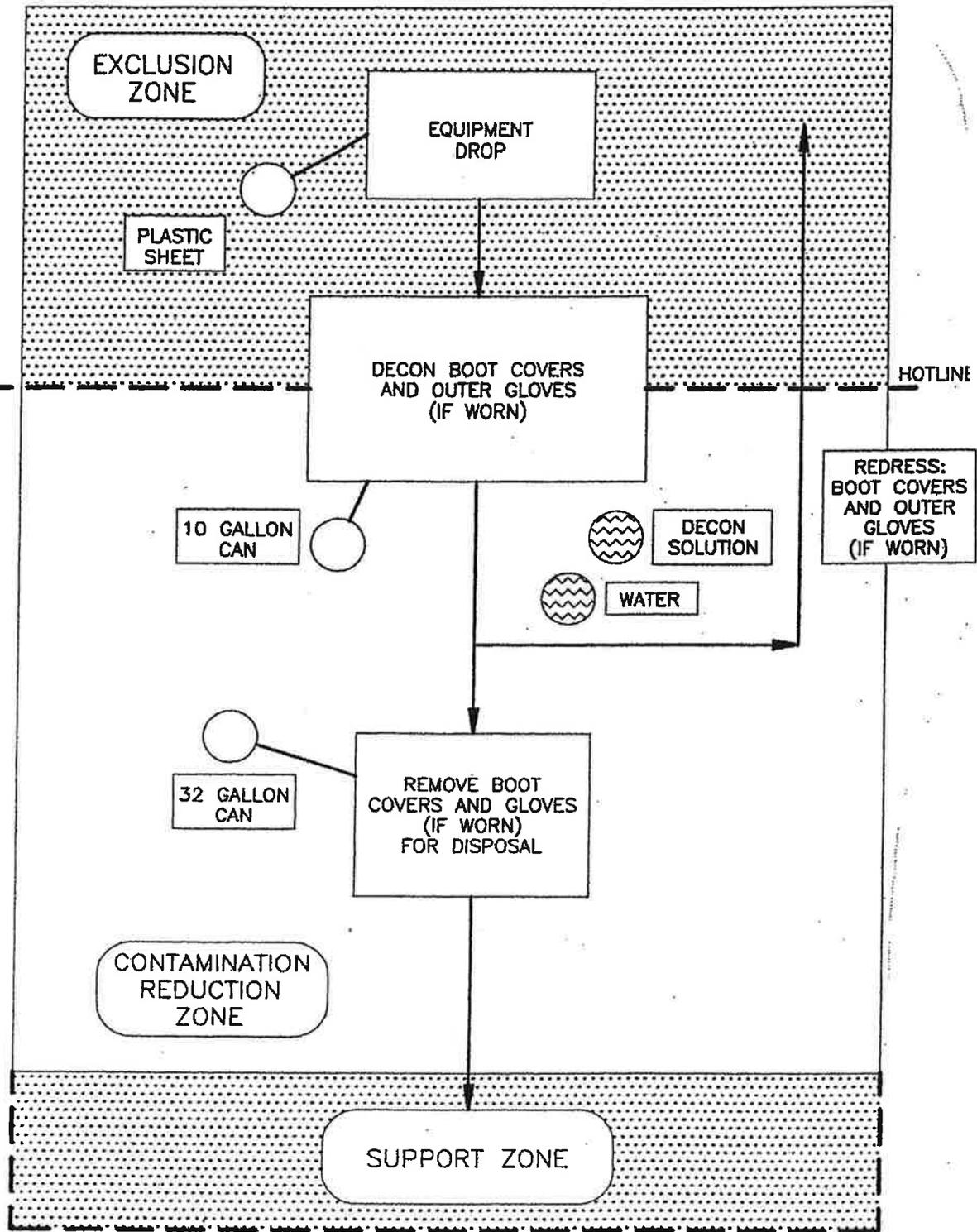
**LEGEND:**

- B-16 ⊕ BORING WILL BE INSTALLED IF TOOLING IS ABLE TO PENETRATE CONCRETE
- B-17 ⊕ PROPOSED BORING LOCATION
- SG-4 ⊕ PROPOSED SOIL GAS POINT
- B-2 ⊕ PROPOSED BORING LOCATION AND TEMPORARY GROUNDWATER POINT

**BORING PROCEDURES:**

1. ALL BORINGS WILL BE INSTALLED TO A MAXIMUM DEPTH OF 17 FT. BELOW GROUND SURFACE.
2. ALL BORINGS WILL BE INSTALLED USING A 6610 DT MODEL TRACK-MOUNTED GEOPROBE® DRILL RIG.
3. FOR EACH BORING, CONTINUOUS MACROCORE SOIL SAMPLES WILL BE COLLECTED. MACROCORE SAMPLES CONSIST OF A 2" x 5 FT. SAMPLE. THE MACROCORE SAMPLER IS A 3" x 5 FT. STEEL CYLINDER DRIVEN BY 1" x 5 FT. STEEL RODS.
4. ALL BORINGS WILL BE BACKFILLED WITH A BENTONITE SLURRY.
5. SOIL GAS POINTS WILL BE INSTALLED AT A MAXIMUM DEPTH OF 8 FT.
6. TEMPORARY GROUNDWATER POINTS WILL BE BACKFILLED THE SAME DAY OF INSTALLATION WITH A BENTONITE SLURRY AFTER A GROUNDWATER SAMPLE IS COLLECTED.

<b>PROPOSED BORING LOCATION PLAN</b> 544 UNION AVENUE BROOKLYN, N.Y. 11211			
<b>URS</b> WAYNE, NEW JERSEY			
DR. BY	KM	SCALE AS SHOWN	DWG. NO. 40128001
CK'D. BY	KF	DATE	NOVEMBER 7, 20011
		FIG. NO.	1

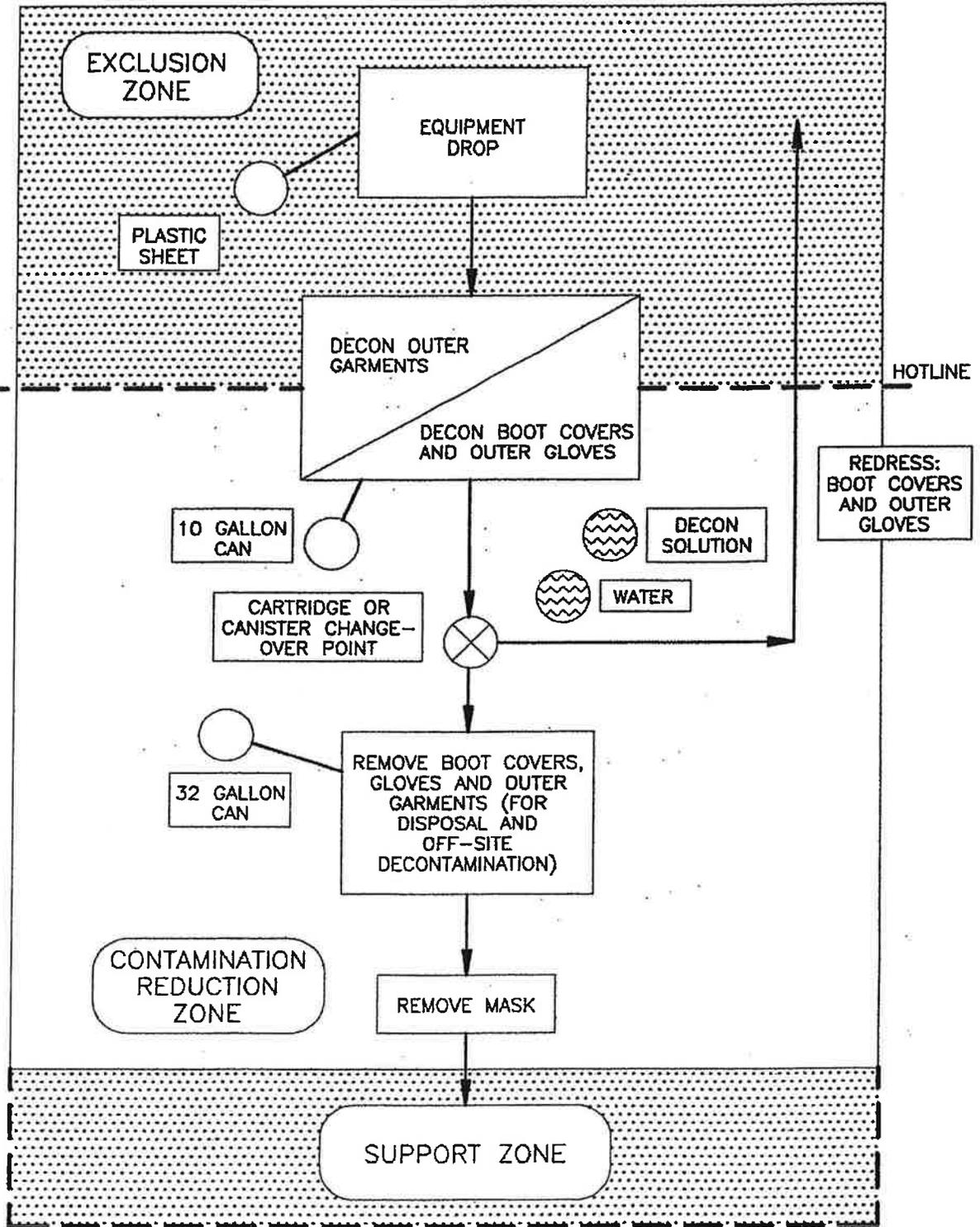


LEVEL D/MODIFIED LEVEL D PPE DECON LINE



WAYNE, NEW JERSEY

DR. BY	ET	SCALE	NONE	DWG. NO. 84959011	PROJ. NO. 19684959
CK'D. BY	MC	DATE	SEPT. 6, 2006	FIG. NO.	3



LEVEL C PPE DECON LINE



WAYNE, NEW JERSEY

DR. BY	ET	SCALE	NONE	DWG. NO.	8459012	PROJ. NO.	19684959
CK'D. BY	MC	DATE	SEPT. 6, 2006	FIG. NO.	4		

**APPENDIX A**  
**URS SAFETY MANAGEMENT STANDARDS**

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**URS SAFETY MANAGEMENT STANDARD 002  
HAZARD COMMUNICATION (WORKER RIGHT-TO-KNOW)**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Hazard Communication (Worker Right-to-Know)**

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### **1. Applicability**

This standard applies to the operations of URS Corporation and its subsidiary companies.

This standard is not applicable to chemical laboratory operations that are covered under 29 Code of Federal Regulations (CFR) 1910.1450 (Occupational Exposure to Chemicals in Laboratories).

### **2. Purpose and Scope**

The purpose of this Hazard Communication standard (also known as worker right-to-know program) is to provide URS personnel with information and training about safety and health hazards associated with the chemicals they may encounter in the workplace. This procedure describes how chemical safety hazards are communicated to URS personnel and how information is to be provided to employees of other companies working at the location. The requirements include steps to acquire this information, maintain the information, and train personnel in the hazard communication program.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager who directs activities at the facility, site, or project location. For office locations and large projects, this program may be incorporated into the general site orientation and training program or administered by project management.

### **4. Requirements**

#### **A. Hazardous Material Inventory**

Maintain a hazardous material inventory that lists all of the hazardous materials used at each workplace (i.e., office, field location). Use chemical names consistent with the applicable material safety data sheet (MSDS).

#### **B. Site-Specific Written Program**

A site-specific written program may be prepared as a stand-alone document or included within a site-specific health and safety plan. The program must cover hazardous materials in all physical forms (liquids, solids, gases, vapors, fumes, and mists); regardless of whether they are “contained.”

#### **C. Material Safety Data Sheets (MSDSs)**

**URS SAFETY MANAGEMENT STANDARD**  
**Hazard Communication (Worker Right-to-Know)**

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1. The safety representative will obtain an MSDS for each chemical before it is used. MSDSs will generally be received by the person ordering the product. MSDSs for products frequently used should be kept on file because additional copies may not be included in repeat shipments.
2. The safety representative will review each MSDS when it is received to evaluate whether the information is complete and to determine whether existing protective measures are adequate.
3. Each office or project location will assign a responsible person or department to maintain a collection of all applicable and relevant MSDSs in an area that is accessible by all employees at all times. An electronic database is an acceptable method of maintaining the MSDSs.
4. The assigned person or department will replace MSDSs when updated sheets are received and will communicate any significant changes to those who work with the chemical.
5. MSDSs are required for all hazardous materials brought on site by project personnel.
6. General household products to be used for their specific purpose, as well as food, drugs, and cosmetics brought into the workplace for employee consumption, are exempt, as are supplies in the first aid kit, such as isopropyl alcohol and antibacterial wipes.
7. Subcontractors bringing hazardous materials on to a site or project must submit MSDSs to the safety representative. The safety representative may restrict the use of certain hazardous materials on a site or project due to occupational health risk, hazardous physical properties of the material, or potential employee sensitivity to odor or irritating properties of the material.

D. Labels

Unless each container has appropriate labeling, label all chemical containers with the following information:

1. Product name and identity of the hazardous chemical(s).
2. Appropriate hazard warnings.

**URS SAFETY MANAGEMENT STANDARD**  
**Hazard Communication (Worker Right-to-Know)**

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3. Name and address of the chemical manufacturer, importer, or other responsible party.

Labels on incoming containers of hazardous materials will not be removed or defaced.

Labels are also required when a hazardous substance is transferred from a primary container to a secondary container. Labels on secondary containers must indicate the product name or the names of the hazardous substances contained therein, as well as related physical and health hazards and their associated target organs.

Labels may incorporate words, pictures, symbols, or combinations thereof to ensure the appropriate information is provided to the end user. Examples of acceptable labeling systems include the National Fire Protection Association (NFPA) Diamond, the Hazardous Materials Identification System (HMIS), the Chemical Hazard Identification and Training (CHIT) system, or similar.

**E. Hazardous Non-routine Tasks**

Periodically, employees are required to perform hazardous nonroutine tasks. Prior to starting work on such projects, each employee must be provided with information about hazards to which they may be exposed, as follows:

1. Specific chemical hazards.
2. Protective/safety measures that must be taken.
3. Measures that have been taken to lessen the hazards, including ventilation, respirators, presence of another employee, and emergency procedures.

**F. Informing Contractors/Subcontractors**

Provide other contractors/subcontractors working in the same area with the following information on chemicals used by or provided to URS personnel:

1. Names of hazardous chemicals to which they may be exposed while on the jobsite.
2. Precautions the employees may take to lessen the possibility of exposure by usage of appropriate protective measures, such as

**URS SAFETY MANAGEMENT STANDARD**  
**Hazard Communication (Worker Right-to-Know)**

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ventilation or isolation of the work. In some cases, as an administrative control measure, a task may be delayed to a time when a minimal number of employees are present in the area.

3. Location of MSDSs.

G. Training

1. Provide training to all employees who have the potential to be exposed to hazardous materials, on the following schedule:
  - a. At the time of the initial task assignment,
  - b. Whenever new chemicals are introduced into the workplace, or
  - c. More frequently where required by site-specific conditions or client-specific requirements.
2. This training will include the following:
  - a. Applicable regulatory requirements.
  - b. Location of the program, inventory, and MSDS.
  - c. Site-specific chemicals used and their hazards (chemical, physical, and health), including:
    1. General characteristics of chemicals
    2. Signs and symptoms of exposure
  - d. How to detect the presence or release of chemicals including the location, types, and usage of any portable and fixed monitoring or detection equipment and their associated alarms, where applicable.
  - e. Safe work practices and methods employees can take to protect themselves from chemical hazards, including the use of respiratory protection.
  - f. How to read an MSDS.
  - g. Site- or project-specific information on hazard warnings and labels in use at the location, if applicable.

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- h. Site-specific evacuation and rescue procedures in the event of chemical release, including the location of staging areas and personnel accounting procedures.
- 3. Document the training.
- 4. Where non-English-speaking workers are employed, arrange provisions for training in the appropriate language. International Chemical Safety Cards (see Section 6, ILO) may be used in conjunction with MSDS information to provide non-English-language information. MSDSs are required to be on site, but there is no requirement for the MSDSs to be in a language other than English.

## 5. Documentation Summary

The following documentation will be maintained in the project file:

- A. Chemical Inventory.
- B. MSDSs.
- C. Training records.
- D. Contractor/Subcontractor notifications.

## 6. Resources

- A. U.S. Occupational Safety and Health Administration (OSHA) General Industry Standards – Hazard Communication – 29 Code of Federal Regulations (CFR) [1910.1200](#)
- B. U.S. OSHA General Industry Standards – Occupational Exposure to Hazardous Chemicals in Laboratories – [29 CFR 1910.1450](#)
- C. U.S. OSHA Construction Standards – Hazard Communication – [29 CFR 1926.59](#)
- D. Mine Safety and Health Administration – Hazard Communication – [30 CFR 47](#)
- E. OSHA Administration Technical Links – [Hazard Communication](#)

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- F. National Paint and Coatings Association (NPCA) – [Hazardous Materials Identification System \(HMIS\) Version III](#)
- G. [National Fire Protection Association \(NFPA\) Standard 704](#) – Standard System for the Identification of Hazardous Materials for Emergency Response
- H. International Labour Organization (ILO) – International Chemical Safety Cards (information about 1613 chemicals in 18 languages).  
<http://www.ilo.org/public/english/protection/safework/cis/products/icsc/index.htm>
- I. Agency for Toxic Substances and Disease Registry (ATSDR) – Tox FAQs and Tox FAQs en Espanol, 2003. <http://www.atsdr.cdc.gov/toxfaq.html>

**7. Supplemental Information**

- A. [Hazard Communication Program – Template](#)
- B. [Hazard Communication Employee Training Program](#)



## **HAZARD COMMUNICATION PROGRAM**

### Table of Contents

- A. Purpose
- B. Identification of Hazardous Substances
- C. Container Labeling
- D. Material Safety Data Sheets (MSDS)
- E. Employee Training and Information
- F. Non-Routine Task Training
- G. Access to Information by Other Employees

### Appendices

- I. Hazard Communication Checklist
- II. Potentially Hazardous Substances
- III. List of Jobsite Hazardous Substances
- IV. Sample Letter to Suppliers to Obtain MSDS

**A. PURPOSE**

A-1 To protect the health and safety of our employees, URS Corporation has developed this Hazard Communication program.

1. As an organization we intend to provide information about chemical hazards and other hazardous substances, and the control of hazards via our comprehensive Hazard Communication Program, which includes container labeling, Material Safety Data Sheets (MSDS), and training.
2. This written Hazard Communication Program applies to all operations that MAY expose employees to hazardous substances because of normal work conditions or as the result of a reasonably foreseeable emergency.
3. This written Hazard Communication Program is available, upon request, to employees, their designated representatives and to appropriate representatives of state and/or federal safety and health agencies.

**A-2 Scope**

This program is part of URS Corporation's comprehensive health and safety program and shall be applied in conjunction with that overall program.

**A-3 Responsibilities**

1. The Project Manager is responsible for implementing and ensuring compliance with this written hazard communication program. The Hazard Communication checklist found in Appendix I is provided to assist the Project Manager in carrying out this responsibility.
2. The designated Project Safety Representative is responsible for coordinating and administering the program, in developing and assisting in the presentation of training materials and in providing technical assistance to project supervision.
3. Each Project Supervisor shall become familiar with the hazard communication procedures and shall supervise the application of these procedures to tasks for which they are responsible.
4. The Safety Manager is the designated safety professional for the project or office location and is responsible for providing technical assistance to the Project Supervisor or Safety Representative to implement the hazard communication program.

**B. IDENTIFICATION OF HAZARDOUS SUBSTANCES**

- B-1 "Hazardous Substances" are materials or mixtures that are or have physical or health hazards (See Appendix II for examples of potentially hazardous materials).
- B-2 "Exposure" is any situation arising from work conditions where an employee may ingest, inhale, absorb or otherwise come in contact with a hazardous substance.
- B-3 A master list and the MSDSs of all of the hazardous substances to which employees may be exposed on this jobsite shall be maintained in the project office (see Appendix III).

**C. CONTAINER LABELING**

- C-1 When hazardous substances are received, the project safety representative shall examine the containers to determine if the labels provide the following information (primary containers):
1. The identity of the hazardous substances they contain;
  2. Appropriate warnings of the physical and health hazards associated with those substances;
  3. The name and address of the chemical manufacturer or distributor.
- C-2 When hazardous substances are transferred into portable or secondary containers, the responsible Project Supervisor shall ensure that these containers are labeled with an extra copy, of the manufacturer's label or with a printed label that includes the information in one (1) and two (2) above.
- EXCEPTION: When an employee transfers a hazardous substance into a portable container for his/her own immediate use, within the work shift the portable container need not be labeled.
- C-3 Each Project Supervisor shall ensure that the labels on containers of hazardous substances are not removed or defaced, unless the containers are immediately relabeled with the information in C-1 above. The labels shall be written legibly in English. However, for non-English speaking employees information may be presented in their native language as well.
- C-4 Containers without complete labels or with defaced labels will not be used on the job.
- C-5 The Project Supervisor or Safety Representative shall review the jobsite labeling procedure at least quarterly and update as required.

**D. MATERIAL SAFETY DATA SHEETS (MSDS)**

- D-1 Material Safety Data Sheets (MSDSs) are documents that supply information about a particular hazardous substance or mixture. Manufacturers are required to provide MSDSs when the hazardous substances are sold to distributors or purchasers. In most cases, MSDSs are sent to the purchaser of the project (e.g. the procurement department or Project Supervisor) not the safety department.
- D-2 The Safety Manager / Project Safety Representative or Project Supervisor in coordination with the purchasing agent or project business manager, will be responsible for obtaining and maintaining the master sets of MSDSs and other information on all hazardous substances used (see sample letter in Appendix IV).
- D-3 The Project Safety Representative will review MSDSs for completeness. If an MSDS is missing or obviously incomplete, a new MSDS will be requested from the manufacturer. In some cases, MSDSs may be obtained on-line through the manufacturer's web site. The Project Safety Representative should review products for highly toxic or dangerous constituents prior to use and consult with the Safety Manager for any items considered hazardous or toxic.
- D-4 MSDSs are available to all employees in their work area for review during each work shift. If MSDSs are not available or new hazardous substance(s) in use do not have MSDSs, contact the Project Safety Representative immediately. Additional information such as chemical safety cards and the NIOSH Pocket Guide to Chemical Hazards may be used for additional information.
- D-5 Project Supervisors shall be alert to other employees (such as subcontractors) whose work on the jobsite may expose employees to additional hazardous substances. When it appears such exposure will occur, MSDSs for the substances must be obtained.
- D-6 When doing renovation or remodeling work, the Project Supervisor shall coordinate MSDSs of hazardous materials used by contractors. Contractors bringing hazardous materials on to a site or project must submit MSDSs to the Project Supervisor. The Project Supervisor should consult with the Safety Manager if there are any questions regarding hazardous constituents of products.

**E. EMPLOYEE TRAINING AND INFORMATION**

- E-1 Initial Orientation

Before starting work, each new employee must attend a health and safety orientation. Also, URS Corporation's on-line training program on Hazard Communication may be used as a component of the initial training but employees still require site specific information on hazards of chemicals in use, site specific spill and emergency procedures, and site specific labeling systems as described below.

- E-2 Training shall be provided before employees are assigned duties that may cause exposure to hazardous substances. Training shall also be given when new hazardous substances are introduced into the work area or when an MSDS is changed. In general, this training shall include:
1. Information on which hazardous substances are in the work area.
  2. How to read and interpret information on MSDSs and labels.
  3. Any physical or health hazards associated with the use of a hazardous substance or mixture being used in the work area.
  4. Proper precautions for handling, including specific procedures the company has implemented to protect workers from exposure such as personal protective equipment and work practices.
  5. Proper procedures for reporting of releases or threatened releases of hazardous substances.
  6. Emergency procedures for spills, fires, disposal and first aid.
  7. The methods and observations that can be used to detect the presence of a hazardous substance in the work place (odor, visual appearance or monitoring).
  8. The right of employees, their physicians or their collective bargaining agents to receive information on hazardous substances to which they may be exposed.
  9. The right against discharge or discrimination due to an employee's exercise of the rights afforded by law.
  10. The details of this written Hazard Communication Program; the availability and location of this written Hazard Communication Program and of MSDSs or other information.
- E-3 Hazard communication training must be documented.
- E-4 Additional training shall be provided as needed during the weekly safety and health training ("toolbox") meetings in order to emphasize the safe handling, use and storage of onsite hazardous substances.

**F. NON-ROUTINE TASK TRAINING**

- F-1 When employees are assigned to a non-routine task that may expose them to a hazardous substance for which they have not been trained, they shall be trained in the manner required by Section E.
- F-2 Some examples of non-routine tasks are:
- Confined space entry.
  - Tank cleaning.
  - Reactor vessels.
  - Repair of pipes or tanks containing hazardous substances.

Prior to starting work on such projects, each affected employee will be given information about the hazardous chemicals he or she may encounter during such activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and steps the jobsite is using to reduce the hazards, including ventilation, respirators, presence of another employee and emergency procedures including site specific warnings, evacuation routes, and assembly points.

**G. ACCESS TO INFORMATION BY OTHER EMPLOYERS**

- G-1 It is the responsibility of the Project Safety Representative or Project Supervisor to provide contractors and subcontractors with information about hazardous chemicals their employees may be exposed to on a jobsite and suggested precautions for the contractor's employees to follow to avoid exposure to hazardous conditions.
- G-2 Contractors and subcontractors on the job site with potential exposure or risk will be contacted before work is started, to gather and distribute information concerning any chemical hazard that they may bring or be exposed to, in areas that are under URS Corporation control.

**APPENDIX I****HAZARD COMMUNICATION CHECKLIST**

- \_\_\_\_\_ 1. Have we prepared a list of all the hazardous chemicals in our workplace?
- \_\_\_\_\_ 2. Are we prepared to update our hazardous chemical list?
- \_\_\_\_\_ 3. Have we obtained or developed a material safety data sheet for each hazardous chemical we use?
- \_\_\_\_\_ 4. Have we developed a system to ensure that all incoming hazardous chemicals are checked for proper labels and data sheets?
- \_\_\_\_\_ 5. Do we have procedures to ensure proper labeling or warning signs for containers that hold hazardous chemicals?
- \_\_\_\_\_ 6. Are our employees aware of the specific information and training requirements of the Hazard Communication Standard?
- \_\_\_\_\_ 7. Are our employees familiar with the different types of chemicals and the hazards associated with them?
- \_\_\_\_\_ 8. Have our employees been informed of the hazards associated with performing non-routine tasks?
- \_\_\_\_\_ 9. Do our employees understand how to detect the presence or release of hazardous chemicals in the workplace?
- \_\_\_\_\_ 10. Are employees trained about proper work practices and personal protective equipment in relation to the hazardous chemicals in their work area?
- \_\_\_\_\_ 11. Does our training program provide information on appropriate first aid, emergency procedures and the likely symptoms of overexposure?
- \_\_\_\_\_ 12. Does our training program include an explanation of labels and warnings that are used in each work area?
- \_\_\_\_\_ 13. Does the training describe where to obtain data sheets and how employees may use them?
- \_\_\_\_\_ 14. Have we worked out a system to ensure that new employees are trained before beginning work?
- \_\_\_\_\_ 15. Have we developed a system to identify new hazardous chemicals before they are introduced into a work area?
- \_\_\_\_\_ 16. Do we have a system for informing employees when we learn of new hazards associated with a chemical we use?
- \_\_\_\_\_ 17. Have the employees been advised of the consequences for failure to follow established procedures?
- \_\_\_\_\_ 18. Do we have a system to ensure Subcontractors are sharing information with one another, concerning the hazardous chemicals they have brought to the site?

**APPENDIX II****EXAMPLES OF POTENTIALLY HAZARDOUS MATERIALS THAT MAY BE  
FOUND ON URS CORPORATION  
CONSTRUCTION AND GENERAL INDUSTRY PROJECTS**

Acetone	Kerosene
Acetylene gas	Lead
Adhesives	Lime (calcium oxide)
Aluminum etching agent	Limestone
Ammonia	Lubricating oils
Anti-freeze	Lye (sodium hydroxide, potassium hydroxide)
Arsenic compounds	Magnesium
Asbestos	Metals (aluminum, nickel, copper, zinc, cadmium, iron, etc.)
Asphalt (Petroleum) fumes	Methanol (methyl alcohol)
Battery Fluids	Methyl ethyl ketone (2-butanone)
Benzene (and derivatives)	Motor oil additives
Bleaching agents	Muriatic acid (hydrochloric acid)
Carbon black	Naptha (coal tar)
Carbon monoxide (in cylinders)	Nitroglycerin
Caulking, sealant agents	Oxalic acid
Caustic soda (sodium hydroxide)	Ozone
Chromate salts	Paint remover
Chromium	Paint stripper
Cleaners	Paints/lacquers
Cleaning agents	Particle board
Coal tar pitch	Pentachlorophenol
Coal tar epoxy	Pesticides
Coatings	Photographic developers and fixers
Cobalt	Photogravure ink (copy machine)
Concrete curing compounds	Plastics
Creosol	Polishes for metal floors
Cutting oil (oil mist)	Propanol
De-emulsifier for oil	Putty Resins, epoxy/synthetics
Diesel gas, diesel oil	Sealers
Drywall	Shellac
Dusts (brick, cement block)	Solder, flux (zinc chloride, fluorides, etc.)
Enamel	Solder, soft (lead, tin)
Etching agents	Solvents
Ethyl alcohol	Sulfuric acid
Fiberglass, mineral wool	Thinner, paint/lacquer
Foam insulation	Tin
Freon 20, R20 (and others)	Transite
Gasoline (petrol, ethyl)	Turpentine, gum spirit, oil of turpentine
Glues	Varnishes
Graphite	Waterproofing agents
Greases	Waxes
Helium (in cylinders)	Welding Rods
Hydraulic brake fluid	Wood alcohol (methanol)
Hydrochloric acid	Wood preservative
Hydrogen (in cylinders)	Xylene
Inks	Zinc
Insulations	
Iron	

	<p>Health, Safety and Environment <b>HAZARD COMMUNICATION PROGRAM - TEMPLATE</b></p>	<p>SMS 002 NA Supplemental Information A Issue Date: February 2009 Revision 2: August 2010</p>
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### **APPENDIX III**

#### **LIST OF PROJECT SPECIFIC HAZARDOUS SUBSTANCES**

On the following page(s) is a current list of the specific hazardous substances and the manufacturer's name of the product known to be present at this jobsite.

This list uses the chemical name referenced on the MSDS. Specific information on each substance may be found on the MSDSs located in the project office.

	<p align="center"><b>Health, Safety and Environment</b> <b>HAZARD COMMUNICATION PROGRAM -</b> <b>TEMPLATE</b></p>	<p align="right">SMS 002 NA Supplemental Information A Issue Date: February 2009 Revision 2: August 2010</p>
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**APPENDIX IV**

**(PROJECT LETTERHEAD)**

Date

Product Manufacturer's Name  
Product Manufacturer's Address

Subject: Material Safety Data Sheet Requisition

Dear Manufacturer:

Please provide the following material safety data sheet(s):

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Thank you for your support and assistance in this matter.

Sincerely,

Requestor's Name  
Requestor's Address

This document presents information that can be used for hazard communication training.

This information has been developed based on groups (types) of hazardous substance(s) used and the common hazards associated with them.

For specific hazard information on each brand of material the MATERIAL SAFETY DATA SHEETS (MSDS) must be reviewed.

## **OVERVIEW OF THE HAZARD COMMUNICATION REGULATION**

The Hazard Communication Regulation is intended to ensure that both employers and employees are aware of the dangers associated with hazardous substances in their workplaces. The following information is a review of the specific requirements of a hazard communication program, including container labeling, MSDS and training.

## **WRITTEN HAZARD COMMUNICATION PROGRAM**

We have a written program that outlines how we will provide information and control your exposure to hazardous substances. This plan is available for your review during our training and at the project office for review during your work shift.

## **HAZARDOUS SUBSTANCES USED IN OUR WORKPLACE**

On this job, we use a variety of products. Many of these products contain one or more hazardous substances. Let's review the HAZARDOUS SUBSTANCE INVENTORY LIST in your work area.

## **READING LABELS AND MSDS**

**LABELS:** A product label on both the original and secondary containers should be reviewed prior to working with the material. Each label will have three important pieces of information you should be familiar with:

1. The identity of the Hazardous Substance.
2. Hazard Warnings.
3. Target Organs.

The label on the original container will also state the name and address of the manufacturer.

The label should act as a visual reminder of the information we have presented in this training session and of the information found in more detail on the MSDS. It is essential for your safety that you read the Hazard Warning and only use the Hazardous Substance(s) within the guidelines prescribed on the label. Questions concerning the label should be directed to your supervisor/foreman.

	<p align="center"><b>Health, Safety and Environment</b></p> <p align="center"><b>HAZARD COMMUNICATION</b></p> <p align="center"><b>EMPLOYEE TRAINING PROGRAM</b></p>	<p align="right">SMS 002 NA Supplemental Information B</p> <p align="right">Issue Date: February 2009 Revision 2: August 2010</p>
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**MATERIAL SAFETY DATA SHEETS (MSDS):** The MSDS is the primary means we will use to convey the necessary information about the hazards of the substances we use. The manufacturers and importers are responsible for providing us with the MSDS. The manufacturer must provide us with adequate information to use the substance safely.

## **PHYSICAL AND HEALTH HAZARDS OF THE HAZARDOUS SUBSTANCE(S) USED**

Employees are to be trained specifically about the hazards of the substances in their work areas. This may be done by specific Hazardous Substance(s) or by categories of hazards, but in any case, the employee is to be aware that information is available on the specific hazards of individual Hazardous Substances through MSDSs.

Employees may be trained using the common type or generic chemical group or by reviewing the specific MSDS as long as the training includes the following information:

1. Measures to protect employee from the hazards (i.e., work practices, engineering controls and the use of personal protective equipment).
2. The physical and health hazards of the Hazardous Substance(s).
3. Detection of release of the substance; emergency and first aid procedures.

## **EXAMPLE OF GENERAL HAZARDOUS SUBSTANCE GROUP TYPE TRAINING**

### **Product/Chemical Group: Hydrocarbon Solvents.**

**Health Effects – Effect of Overexposure:** High concentrations of solvent vapors are irritating to the eyes, nose, throat and lungs, may cause headaches and dizziness and sleepiness. Even higher levels may cause unconsciousness and may have other brain and central nervous system effects.

Prolonged or repeated liquid contact with the skin may cause defatting of the skin, leading to dryness, possible irritation and dermatitis (reddening and inflamed skin). Some solvents are absorbed right through the skin and the health effects are just as if the solvent vapor was inhaled.

Each organic solvent's possible long term health effects will vary; however, prolonged solvent exposures are related to possible liver, kidney and central nervous system and brain damage (NOTE: THE VARIETY OF SOLVENT TYPES SHOULD BE REVIEWED).

**Physical Hazards:** Hydrocarbon solvents are flammable and combustible and represent fire and explosion hazards if the materials are not handled correctly. Hydrocarbon solvents are generally stable and will not react violently with water. Review the MSDS section on Fire and Explosion Hazard information. Most solvents will vaporize rapidly and become airborne.

**Detection of Release:** Odor – Solvent vapor may produce an odor or cause your nose or eyes to be irritated, but do not depend on odor to warn you. Odor thresholds (lowest level that can be detected) for most solvents vary widely from person to person. Also, some solvents produce “olfactory fatigue” - the rapid loss of ability to smell the odor. However, odor can warn you of exposure to some solvents (confirm this with industrial hygiene monitoring).

Appearance – Most solvent vapors are invisible so do not rely on appearance to warn you for exposure.

Instrumentation – A variety of industrial hygiene instruments can be used to measure employee exposure. This equipment should be operated only by qualified personnel.

**Emergency Response – For Flammable Solvents:** If the material is spilled or leaks, shut-off and eliminate all sources of ignition. Recover the free product by adding absorbents to the spill. Minimize breathing vapors and skin contact. Ventilate the area by opening windows and doors. Follow the established hazardous waste disposal procedures.

**Exposure Control:** Protective Equipment, Engineering Controls and Proper Work Practices:

- Protective Equipment – Use chemical-resistant gloves, aprons or clothing if prolonged or repeated skin contact may occur. Use splash goggles and face shield when eye or face contact may occur. Use approved respiratory protective equipment as established by our Safety Program (NOTE: if needed, a review of the respiratory protective program may be appropriate).
- Engineering Controls/Work Practices – Ventilation is to be used when it is necessary to prevent build-up of vapors from both a health or fire and explosion concern. Keep containers closed when not in use. Do not handle or store near heat or sources of ignition or strong oxidants. No smoking, burning or welding is permitted near the flammable vapors. Use the bonding and/or grounding system when transferring materials. Most solvents will vaporize rapidly and become airborne.

## **APPROPRIATE EMERGENCY AND FIRST AID PROCEDURES**

Eye contact – If splashed into the eyes, flush with water for 15 minutes or until irritation subsides. If irritation continues, call a physician.

Skin contact – In case of skin contact, remove any contaminated clothing and wash skin thoroughly with water and soap.

Inhalation – If overcome by vapors, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation.

Ingestion – If ingested, DO NOT induce vomiting, call emergency medical aid immediately.



## HAZARDOUS PROPERTIES OF CHEMICALS TRAINING

Chemicals are a part of every aspect of our lives. A minute does not go by that we do not use something that contains chemicals, or chemicals were used in the manufacturing process. The chemicals you use in the work place only present potential health and physical hazards when they are mishandled, improperly used, incompatible mixtures combined, improperly stored or labeled.

Depending upon the chemical and the level of exposure, health hazards can vary from minor skin irritations to serious chemical burns, nerve damage, different forms of cancer and even death. Physical damage may include fires, explosions, property and environmental damage.

Hazard awareness is recognizing and understanding the potential injuries and illnesses or physical damage the chemicals can cause. The communication of this information is essential for your being aware of, understanding and respecting the potential hazards. This knowledge is important for the decisions you make concerning how you use the chemicals and the safe work practices you follow.

Remedial action response personnel may be exposed to a number of substances that are hazardous because of their properties. These properties can be summarized into three broad categories:

- a. physical/chemical
- b. biological
- c. radiological

It should be noted that many hazards may be present at any one time. It is important to understand the fundamentals of each of these properties and their relationships so that effective safety practices may be employed to reduce the risk to the public and remedial response personnel. Some hazards that may be encountered at this work site are toxic substances, flammable materials, explosive materials, corrosive materials, biological agents, excessive noise, heat or cold stress, oxygen deficient work areas, and radioactive materials.

### PHYSICAL/CHEMICAL PROPERTIES

Physical hazards. Chemical compounds possess inherent properties, which determine the type and degree of the hazard they represent. Evaluating risks of an incident depends on understanding these properties and their relationship to the environment.

- a. Solubility. The ability of a solid, liquid, gas or vapor to dissolve in a solvent is solubility. An insoluble substance can be physically mixed or blended in a

solvent for a short time but is unchanged when it finally separates. The solubility of a material is important when determining its reactivity, dispersion, mitigation and treatment.

- b. Density. The density of a substance is its mass per unit volume, commonly expressed in g/cc.
- c. Specific gravity. Specific gravity is the ratio of the density of a substance to the density of water. If the specific gravity of a substance is greater than 1 it will sink in water. The substance will float in water if its specific gravity is less than 1.
- d. Vapor density. The vapor density is the density of a gas compared to the density of air. If the density of a gas is greater than that of air then the gas will tend to pocket and settle into the lowest points. If the vapor density is close to air or lower than air then the gas will disperse. If the vapor or gas displaces oxygen in the low spots then it can become an asphyxiant problem. If the gas or vapor is an explosive, when it pockets it will become an explosive hazard.
- e. Flashpoint. If the ambient temperature in relation to the material of concern is right, then it may give off enough vapor at its surface to allow ignition by an open flame or spark. The minimum temperature at which a substance produces sufficient flammable vapors to ignite is its flashpoint. If the vapor does ignite, combustion can continue as long as the temperature remains at or above the flashpoint. The relative flammability of a substance is based on its flashpoint. An accepted relation between the two is:

Highly flammable:	Flashpoint <100°F
Moderately flammable:	Flashpoint >100°F & <200°F
Relatively inflammable:	Flashpoint >200°F
- f. Chemical Hazards. Hazardous conditions that may exist because of the chemical nature of substances may be summarized as fire hazards, explosive hazards, corrosive hazards, and chemical reactivity.

### **Fire Hazards**

- a. Combustibility: Combustibility is the ability of a material to act as a fuel, that is, to burn. Materials that can be readily ignited and sustain a fire are considered to be combustible, while those that cannot are called noncombustible. Three elements are required for combustion to occur: fuel, oxygen, and heat. The concentration of the fuel and the oxygen must be high enough to allow ignition and maintain the burning process. Combustion is a chemical reaction that requires heat to proceed. Heat is supplied by the

ignition source and is maintained by the combustion, or it must be supplied from an external source. The relationship of these three fire components can form a triangle. If one leg of the triangle is removed, then the fire can be extinguished. For example, water applied to a fire removes the heat, thereby extinguishing the fire. When a material generates enough heat by itself to self-ignite and combust, spontaneous combustion occurs, either as a fire or explosion (e.g., diesel greater than 140 degrees Fahrenheit is combustible.)

- b. Flammability: Flammability is the ability of a material (liquid or gas) to generate a sufficient concentration of combustible vapors under normal conditions to be ignited and produce a flame. It is necessary to have a proper fuel-to-oxygen (oxygen) ratio (% fuel in air) to allow combustion. A flammable material is considered highly combustible if it can burn at ambient temperatures. But a combustible material is not necessarily flammable because it may not be easily ignited or the ignition maintained. Pyrophoric materials will ignite at room temperature in the presence of a gas or vapor or when a slight friction or shock is applied.

The substances listed below are easily ignited (pyrophorics), require little oxygen to support combustion, have low flammability limits and explosive limits and a wide flammable and explosive range.

**Flammable liquids**

Aldehydes  
Ketones  
Amines  
Ethers  
Aliphatic Hydrocarbons  
Aromatic Hydrocarbons  
Alcohols  
Nitroaliphatics

**Flammable solids**

Phosphorus  
Magnesium Dust  
Zirconium Dust  
Titanium Dust  
Aluminum Dust  
Zinc Dust

**Water Reactive Flammable Solids**

Potassium  
Sodium  
Lithium

**Pyrophoric Liquids**

Organometallic compounds  
Dimethyl Zinc  
Tributyl Aluminum

Some of the hazards related to fires and explosions can cause physical destruction due to shock waves, heat, and flying objects. Secondary fires can be created as well as other flammable conditions. Toxic or corrosive compounds may also be released to the surrounding environment as well.

**Explosives**

An explosive is a substance, which undergoes a very rapid chemical transformation producing large amounts of gases and heat. The gases

produced, for example, nitrogen, oxygen, carbon monoxide, carbon dioxide, and steam, due to the heat produced, rapidly expand to velocities exceeding the speed of sound. This creates both a shockwave (high pressure front) and noise. The main categories of explosives are listed below.

High or detonating – produces a shock wave followed by combustion.

Primary high explosive – detonation occurs in a short time. Examples: lead azide, mercury fulminate, and lead styphnate.

Secondary high explosive – needs a booster to detonate. Examples: Tetryl, cyclonite, dynamite and TNT

Low or deflagrating – Explosive rate very fast. Combustion followed by a shock wave. Examples: smokeless powder, magnesium, and molotov cocktail.

### **Corrosive Hazards**

Corrosion is a process of material degradation. Upon contact, a corrosive material may destroy body tissues, metals, plastics, and other materials. Corrosivity is the ability of material to increase the hydrogen ion concentration of a material or to transfer electron pairs of or from itself or another material. A corrosive material is a reactive compound or element that produces a destructive chemical change in the material it is acting on. Common corrosives are:

#### **Halogens**

Bromine  
Chlorine  
Fluorine  
Iodine

#### **Acids**

Acetic acid  
Hydrochloric acid  
Hydrofluoric acid  
Nitric acid  
Sulfuric acid

#### **Bases (Caustics)**

Potassium Hydroxide  
Sodium Hydroxide

Skin irritation and burns are typical results when the body contacts an acidic or basic corrosive material.

The measure of an acid or a base is the pH scale. The pH scale ranges from 0 to 14 with a pH <7 being acidic and a pH >7 being basic. The lower the pH of the acid the more acidic is the material, and the higher the pH of the base the more basic the material. A pH of 7 is considered neutral.

### **Chemical Reactivity**

- a. Reactivity hazards. A reactive material is one that undergoes a chemical reaction under specified conditions. Generally, the term “reactive hazard” is used to refer to a substance that undergoes a violent or abnormal reaction in

the presence of water or under normal ambient atmospheric conditions. Among this type of hazard are the pyrophoric liquids that will ignite in air at or below normal room temperature in the absence of added heat, shock, or friction, and the water-reactive flammable solids that will spontaneously combust upon contact with water.

The most common reactive mixture in construction is found in gas welding or brazing. Acetylene gas mixes with oxygen to provide an extremely powerful reaction in the form of a very intense flame.

- b. Compatibility. If two or more hazardous materials remain in contact indefinitely without reaction, they are compatible. Incompatibility, however, does not necessarily indicate a hazard. For example, acids and bases (both corrosive) react to form salts and water, which may not be corrosive.

The compatibility of materials must be determined before the materials are used or stored. Some examples of incompatibilities are sulfuric acid and plastics (toxic gas or vapor is produced), acids and metal (flammable gas or vapor is produced), chlorine and ammonia (chlorine gas is created, toxic gas). There are many other incompatibilities that may be found. Check to make sure that the materials used for a project are compatible.

All of the hazards listed above will be found on the material safety data sheet (MSDS). The MSDS is a short technical report that provides you with the known hazards of a specific material. The MSDS explains how to properly use the material, handle any problems related to the material and how to store the material. Know what the MSDS says for the materials that you work with.

All materials should have a label on them. This is the first and easiest place to look to see if a material is hazardous. Labels should tell you any precautions that must be taken when handling the material. Read the label on the materials that you use and abide with the cautions and warnings. If a material is not properly labeled, notify your supervisor so that the problem is corrected.

## **BIOLOGICAL HAZARDS**

Biological agents are living organisms that can cause sickness or death to exposed individuals. Biological hazards can cause infection or disease to persons who are exposed.

Biological hazards may involve plants or animals including microorganisms. Biological hazards, such as disease causing agents, may be present at a hazardous waste site or involved in a spill. Like chemical hazards, they can be dispersed throughout the environment via wind and water.

Many biological agents require a carrier to inoculate a person. For instance, rabid rodents at a landfill may be a biological hazard. Deer carry ticks that may have Rocky Mountain Spotted fever; prairie dogs will not.

The same personnel protective requirements for a response to a chemical hazard apply to biological hazards. Body coverings and respiratory protective equipment might have to be utilized. Especially important is the need to maintain personnel cleanliness. Before eating, drinking or smoking residual contamination should be washed off.

## **BIOHAZARDS**

Biohazard training will be provided to employees as per the blood borne pathogen program on biohazardous materials.

## **HAZARDOUS MATERIAL PROTECTION**

The routes of exposure for hazardous materials include the following:

- Inhalation – Breathing contaminated air (e.g. welding fumes.)
- Skin Absorption – Contact with harmful liquids, gases, solids or contaminated clothing, equipment, medications, cosmetics, etc. A good example is solvents. Materials can also enter through an open wound.
- Ingestion – Eating or drinking contaminated foods, water or medications. (Remember food and cigarettes can become contaminated by your unwashed hands, gloves, equipment. Good hygiene practices are very important.)
- Injection – A contaminated material can be injected into some part of the body.

Protection from potentially hazardous materials include the following:

- Use good personal hygiene. This is the simplest control measure to chemical hazards.
- Know what protective equipment is required for the specific job you are doing. Ask your supervisor what risks you might encounter and what hazardous substances you are working with.
- Know what potential explosive and or flammable conditions may exist with the job you are doing.
- Have all confined spaces checked for explosives, hydrogen sulfide, carbon monoxide, and oxygen deficiency. Know what hazards are involved with confined spaces.
- Know where emergency equipment is located and how to use it. For example know where the nearest fire extinguisher is from your work area.

- Know the standard operating procedures for rescue and emergency situations.
- Know the proper method for decontamination when working with hazardous materials.
- Use the buddy system when at all possible. Keep communication lines open when working with hazardous materials.
- Stay out of contaminated areas if you are not properly trained, equipped, or authorized to enter. Do not take chances with life-threatening materials or situations.

### **PERSONAL PROTECTIVE EQUIPMENT**

Different types of protective equipment will be required depending on the substances to be handled, the existing conditions, and the particular situation. Personal protective equipment includes a variety of special suits, hard hats, goggles, face shields, aprons, boots, gloves, and respirators. Each is designed to protect you from certain hazards. It is important for you to know the advantages and disadvantages of all the equipment you may use or need. Use all equipment as instructed and follow all written procedures for the specific equipment.

### **STANDARD OPERATING PROCEDURES FOR EMERGENCY SITUATIONS**

Standard operating procedures exist for any unexpected event such as an accident, fire, explosion, etc.

If you know or suspect that you have been contaminated with a hazardous substance, **TELL YOUR SUPERVISOR**. You should know the general symptoms of over-exposure to toxic substances. These include:

- Irritation of skin, eyes, nose, throat, or respiratory tract
- Changes in complexion or skin discoloration
- Headache
- Difficulty in breathing
- Nausea
- Dizziness or light-headedness
- Excessive salivation (drooling)
- Lack of coordination
- Blurred vision
- Cramps and/or diarrhea
- Changes in behavior patterns

You should know the location of emergency eyewash and shower facilities.

	<p style="text-align: center;">Health, Safety and Environment</p> <p style="text-align: center;"><b>HAZARD COMMUNICATION EMPLOYEE TRAINING PROGRAM</b></p>	<p style="text-align: right;">SMS 002 NA Supplemental Information B</p> <p style="text-align: right;">Issue Date: February 2009 Revision 2: August 2010</p>
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Before you enter, and periodically while you are working in confined spaces such as tanks, crawl spaces, ditches, etc., the air in the space should be tested by a qualified individual for oxygen content, explosive levels, gases, and contamination of hazardous materials.

Understand the site emergency response procedures and know the locations of response equipment before the need arises. If you must rescue someone, use proper precautions and protective equipment. **DO NOT BECOME A CASUALTY YOURSELF.** Move the affected person from the hazardous exposure if possible. Get help and follow emergency rescue procedures.

For spills and leaks of hazardous materials limit the leak or spill as quickly as possible. Small spills should be cleaned up immediately. If a valve must be closed to prevent a spill from continuing then do so. If the spill is large, or your skin, eyes or clothing are contaminated, leave the work area immediately. Wash eyes, skin, and clothes off with lots of water to remove the material. Get to fresh air. Notify your foreman or supervisor as soon as it is safe for you to do so. Unless you have special training and the proper protective equipment, do not try to clean up large spills yourself.

If a corrosive material is splashed in your eyes or on your skin and clothes, deal with it immediately. Wash the affected area with plenty of water (at least 15 minutes with a continuous stream). Remove any contaminated clothing. Get to fresh air if you feel burning in the nose, throat or lungs. Do not vomit if you have swallowed a corrosive material. Drink large quantities of water to dilute the material, and seek immediate medical attention.

## **EXAMPLES OF HAZARDOUS MATERIALS POSSIBLY FOUND ON SITE**

### **SOLVENTS**

Solvents are among the most common toxic materials in the workplace. Many processes, mixing and cleaning, use or give off solvent vapors. They are also used as thinners in paints and adhesives. Solvents vary in their toxicity from practically non-toxic materials such as the alcohols, ketones, halogenated solvents, to the very toxic such as dimethyl acetamide, methyl acrylate and other materials. Some solvents are also flammable or reactive.

Solvents can cause irritations to the eyes and skin when in high concentrations. Most will dissolve the protective layer of oils on the skin and leave it looking white in the small cracks. They should never be used to clean the skin; if there is a problem with contamination, some form of glove or barrier cream should be used to protect the skin. The early signs of overexposure often include headaches, dizziness, nausea and other related symptoms.

## **METALS AND SOLID PARTICULATES**

Examples: Babbitt metal, cadmium, galvanized metal, lead, manganese, nickel, zinc

Metals and other particulate solids can be toxic and are usually given off when welding or grinding. Some, like gypsum dust are only nuisance dusts, while others, like zinc fume from welding cause flu-like symptoms. Others, like asbestos have been linked to cancer and other chronic diseases. Dusts can irritate the skin and be ingested with food, drinks or smoking materials if they aren't washed off the hands and removed from clothing. They may also be carried home to family members and cause problems there if they are not washed off before leaving the work area.

When the welding, brazing, grinding or cutting of metal is performed, care should be taken to avoid breathing the fumes or dusts. Local exhaust ventilation should be used to reduce your exposure. If fumes and dust cannot be controlled with exhaust ventilation, appropriate approved respirators should be used. Approved safety goggles and gloves should be worn when working with metals. Gloves may be necessary to prevent skin sensitization and dermatitis.

## **ACIDS**

Examples of acids found on URS Corporation sites are sulfuric acid (used in water treatment plants and found in batteries), hydrochloric acid, and nitric acid. Acids are considered corrosives and cause material degradation. Acids destroy tissues, metals and other materials. Acids can cause skin irritations in the form of rashes or other types of dermatitis, and more severe problems such as skin or eye burns. When working with acids proper eye and face protection should be worn as well as hand protection.

## **LUBRICANTS, COOLANTS AND MACHINE OILS**

Lubricants, coolants and machine oils are common in construction sites. There are three types: petroleum based (straight oils), water based, and synthetic fluids that contain no oils. Many cutting oils contain additives to inhibit corrosion, prevent bacterial growth and permit high temperature operation. The fumes and mist from cutting operations can be irritating to the eyes and lungs. Skin exposure can result in acne-like conditions and can cause other problems. Avoid breathing mist and fumes and use gloves and aprons to minimize contact with materials.

## **GASES**

Examples: Acetylene, ammonia, carbon dioxide, carbon monoxide, freon, oxygen, hydrogen, liquefied petroleum gas, propane

Gases present a range of problems. Some, like nitrogen, are simple asphyxiates. They prevent the body from getting enough oxygen by displacing it from the air stream. Some are chemically hazardous, like carbon monoxide, or nitrous oxide, which cause poisoning of the body systems. Some are very toxic, like arsine and phosphine. Some are very reactive and should be dealt with in very careful manners. Other gases, like hydrogen, oxygen and acetylene are explosives and must be treated with great care. Chains and stands should secure all compressed gas cylinders at all times, and only the proper fittings should be used. Liquefied and petroleum gases are extremely flammable and considered simple asphyxiates.

## **PLASTICS, EPOXIES AND POLYMERS**

Plastics, epoxies and polymers are a growing group of industrial chemicals. Materials such as polystyrene, polypropylene, acrylates, vinyl, and polyurethane are but a few. Although most of these materials are not toxic in their final form, where they are being molded, extruded, laid up, there can be significant hazards. When burned, these materials can be very hazardous.

## **CLEANERS**

Cleaners contain acid, alkalis, aromatics, surfactants, petroleum products, ammonia and hypochlorite. Because of these ingredients these materials are considered to be irritants, and can be harmful to you if swallowed or inhaled. Many may cause eye, nose, throat, and skin and lung irritation. Some cleaners are flammable and burn easily. Others may be caustic or corrosive and cause severe skin burns. Because many cleaners used in the job area are consumer products commonly found in our homes, you may underestimate the hazard they pose. Protect yourself from these hazards by reading the labels and following the recommended precautions. Wear gloves and eye protection. Avoid inhaling the vapors and mists. Wash your hands and face thoroughly before eating, drinking or smoking.

Specific emergency procedures for each chemical will be detailed on that cleaner's material safety data sheet. In general, if a cleaning chemical gets into your eyes, flush the eyes with clean running water for at least 15 minutes, then seek medical attention. If the chemical gets on your skin, wash the area of contact and seek medical attention.

Do not mix two cleaning chemicals together, unless specifically told to do so by your supervisor. For example, the dangerous gas, chlorine, will be created if you mix bleach and ammonia or bleach and drain cleaner together.

Examples: Abrasive cleaners, bleach, drain cleaner, general purpose cleaning spray, germicide, and glass cleaner, metal cleaner, rug and upholstery cleaners, stain remover.

## FUELS

Examples: Diesel oil, gasoline, propane, kerosene

The primary hazard posed by fuels is obviously, fire. Fuels are either flammable or combustible. Whether flammable (a material which is easily ignited and burns with extreme rapidity) or combustible (a material capable of fueling a fire), they should be handled with care.

Proper storage and transport of fuels in approved, self-closing, safety containers is extremely important and should be strictly adhered to at all times. When filling portable containers with flammable materials they should be properly grounded and bonded to the container to prevent ignition from static electricity.

Store gasoline in containers marked "gasoline". Store kerosene in containers marked "kerosene". Never use kerosene containers for the transport or storage of gasoline.

Excessive skin contact with fuels can result in dermatitis. Some petroleum products have been shown to cause skin tumors. Inhalation of fuel vapors over a long period of time can cause central nervous system depression, and may aggravate any existing respiratory problems that may exist. Ingestion of fuels can cause poisoning. Do not induce vomiting. If fuels get in your eyes, rinse with clean water for at least 15 minutes and seek medical attention.

## LABELING

Proper labeling of all chemical containers is another excellent control measure to chemical hazards. Container labels give the name of the chemical in the container, the name/address of the manufacturer and a hazard warning statement and/or graphic hazard statement that warns you of possible dangers. Read the label on all materials with which you work.

Examples of hazard warning statements:

- Danger, will cause death if swallowed
- Warning, causes eye irritation, harmful if swallowed
- Caution, avoid contact with skin and avoid breathing of vapors

Labels and their warnings should be taken seriously since they provide you with the first clue to the hazards posed to your health and safety. They also give information on personal protective equipment required, emergency response and first-aid steps in case of an exposure, proper procedures in case of a spill and emergency phone numbers.

## **MSDS**

Material safety data sheets, if read and followed, are a powerful means of controlling chemical exposures. Chemical manufacturers are required to provide MSDSs for the chemicals they produce or import. The purpose of the MSDS is to communicate information on the recommended safe use and handling procedures for that chemical.

MSDS may look different, yet the Occupational Safety and Health Administration (OSHA) requires that all MSDS must provide certain categories of information about the chemical substance or mixture:

- Material identification (physical and chemical)
- Hazardous ingredients
- Emergency and first aid procedures
- Recommended control measures
- Physical and health hazards
- Safe handling procedures
- Date of preparation/revision
- Manufacturer's name, address, and phone number
- Primary routes of entry
- National Toxicological Program (NTP) or Annual Report on Carcinogens from the International Agency for Research on Cancer

**MATERIAL SAFETY DATA SHEETS  
THEY ANSWER YOUR QUESTIONS ABOUT THE CHEMICALS YOU WORK WITH**

What product/chemical is this MSDS for?



NFPA RATING  
HEALTH = 1  
FLAMMABILITY = 2  
REACTIVITY = 0

**Material Safety Data Sheet**  
May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

**U.S. Department of Labor**  
Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072 T-525

**IDENTITY (As Used on Label and List)**  
**BUG & TAR REMOVER LIQUID, T-525**

Note: Blank spaces are not permitted, if any item is not applicable, or no information is available, the space must be marked to indicate that.

How much of this material can I be safely exposed to?

**Section I**

Manufacturer's Name <b>TURTLE WAX, INC.</b>	Emergency Telephone Number <b>NA</b>
Address <b>5655 WEST 73RD STREET</b>	Telephone Number for Information <b>(708) 563-3600</b>
<b>CHICAGO, IL 60638</b>	Date Prepared <b>7/1/90</b>
	Signature of Preparer (optional)

What Chemicals are contained in this material?

**Section II - Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits (Recommended)	% (optional)
PETROLEUM DISTILLATES (CAS #64475-85-0)	5 MG/M <sup>3</sup>	5 MG/M <sup>3</sup>	NA	15.0%
PETROLEUM DISTILLATES (CAS #92045-37-9)	5 MG/M <sup>3</sup>	5 MG/M <sup>3</sup>	NA	10.0%
MONOCYCLIC TERPENES (CAS #8006-64-2)	100 PPM	100 PPM	NA	7.0%

How do I recognize this material? Things to know for storage and

**Section III - Physical/Chemical Characteristics**

Boiling Point	NA	Vapor Pressure (mm.Hg.)	NA	Vapor Density (AIR = 1)	NA
Specific Gravity (H <sub>2</sub> O = 1)	0.932	Melting Point	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water	40%				
Appearance and Odor	WHITE WATERY EMULSION. ODOOR: SOLVENT.				

What should I do to prevent this material from catching fire? How do I put it out?

**Section IV - Fire and Explosion Hazard Data**

Flash Point (Method Used)	110°F TCC	Flammable Limits	NA	LDNA	UEL NA
Extinguishing Media	CARBON DIOXIDE, CHEMICAL FOAMS, WATER SPRAY				
Special Fire Fighting Procedures	NA				
Unusual Fire and Explosion Hazards	NA				

Are there conditions or materials that should not come in contact with the product?

**Section V - Reactivity Data**

Stability	Unstable	Conditions to Avoid	
	Stable	X	NA
Incompatibility (Materials to Avoid)	NA		
Hazardous Decomposition or Byproducts	NA		
Hazardous Polymerization	May Occur	Conditions to Avoid	
	Will Not Occur	X	NA

(Reproduce locally)

OSHA 174, Sept. 1985



## HAZARD COMMUNICATION TRAINING QUESTIONS

NAME: \_\_\_\_\_ LOCATION: \_\_\_\_\_

1. Container labels must:
  - A. Give directions to the manufacturing plant.
  - B. Give price of the product.
  - C. Notify the user of the physical and health hazards.
  - D. Provide translation in Spanish.
  
2. What is a MSDS?
  - A. Main Statistical Data Service.
  - B. Material Safety Data Sheet.
  - C. New accident reporting system.
  - D. Both A and C.
  
3. What are the requirements of the Hazard Communication Standard?
  - A. Chemical inventories.
  - B. Container labeling.
  - C. Negotiations for purchase price of chemicals.
  - D. MSDSs.
  - E. Employee Training.
  - F. All of the above except C.
  
4. What is one way to determine if a chemical has been spilled or released in your work area?
  - A. When you smell something out of the ordinary.
  - B. By reading the MSDS and being knowledgeable of the chemical appearance and odor.
  - C. Call somebody.
  - D. Both A & B.
  
5. How can you protect yourself from chemical exposures?
  - A. Personal protective equipment and proper work practices.
  - B. Stay upwind of vapors and gases.
  - C. Use proper ventilation.
  - D. All of the above.
  
6. What are the main examples of chemicals found on site?
  - A. Solvent, fuel, metals, lubricants, gases.
  - B. Toxic, flammable, corrosive, reactive, pressurized.
  - C. Physical properties and health effects.
  - D. The good, the bad and the ugly.
  
7. New and transferred employees must be trained on the hazards of their new work area.
  - A. True
  - B. False

8. A MSDS provides what?
  - A. Supervisor guide to acid unloading.
  - B. Engineering data.
  - C. Health, safety and first-aid information.
  - D. Chemical process checklist.
  
9. Where is your site-specific Hazard Communication program located?
  - A. Accident Prevention Manual.
  - B. Employee Handbook.
  - C. Budget Manual.
  - D. MSDS Book.
  
10. A new chemical used in your area is always considered a new hazard.
  - A. True
  - B. False
  
11. If a MSDS is not available for the chemical you are using, you should?
  - A. Notify your supervisor.
  - B. Call the manufacturer.
  - C. Contact the Safety Department.
  - D. Nothing, most chemicals are safe.
  - E. Both A & C.
  
12. Labeling systems use words, graphics, geometric shapes, and colors to warn you of any possible danger to your health and safety, and to tell you about safe work practices you need to follow when handling chemicals.
  - A. True
  - B. False
  
13. A flammable chemical is a liquid with a flashpoint:
  - A. Of 2,000 degrees Fahrenheit
  - B. Below 100 degrees Fahrenheit
  - C. At freezing
  - D. All of the above
  
14. Using the ANSI labeling system, which represents the most serious hazard?
  - A. Caution
  - B. Warning
  - C. Danger
  - D. Beware
  
15. Chemicals can enter the body through:
  - A. Breathing them in
  - B. Contact with body openings
  - C. Both A and B
  - D. None of the Above

16. If you are not familiar with a chemical, you should check the Material Safety Data Sheets.
- A. True
  - B. False
17. A primary/original container label for a chemical must include:
- A. The chemical name
  - B. The chemical manufacturers or importer's name and address
  - C. Warnings of its hazardous content
  - D. All of the above
18. A container label should be checked only if you do not know the contents of the container.
- A. True
  - B. False
19. If a label is torn or missing, you should report it right away to the proper personnel at your facility.
- A. True
  - B. False
20. The Hazard Communication Standard is also referred to as the Right to Know Standard.
- A. True
  - B. False
21. A material safety data sheet is required for all hazardous materials in your facility.
- A. True
  - B. False
22. Safe work practices require a complete understanding and respect for the potential hazards.
- A. True
  - B. False
23. The written emergency response plan contains the procedures to take in the event of an emergency.
- A. True
  - B. False

**HAZARD COMMUNICATION TRAINING QUESTIONS  
ANSWER SHEET**

1. Container labels must:
  - A. Give directions to the manufacturing plant.
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18. A container label should be checked only if you do not know the contents of the container.
- A. True
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- A. **True**
  - B. False
20. The Hazard Communication Standard is also referred to as the Right to Know Standard.
- A. **True**
  - B. False
21. A material safety data sheet is required for all hazardous materials in your facility.
- A. **True**
  - B. False
22. Safe work practices require a complete understanding and respect for the potential hazards.
- A. **True**
  - B. False
23. The written emergency response plan contains the procedures to take in the event of an emergency.
- A. **True**
  - B. False

**URS SAFETY MANAGEMENT STANDARD 013**  
**EXCAVATION**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Excavation**

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### **1. Applicability**

This standard applies to operations where URS Corporation and subsidiary companies perform trenching and excavation activities, and/or where URS employees are exposed to hazards associated with trenching and excavation activities.

### **2. Purpose and Scope**

The purpose of this standard is to protect personnel from the hazards associated with excavation and trenching activities.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

#### **A. Competent Person**

Where potential employee exposure to hazards associated with the excavation (e.g., entrapment, falls greater than 4 feet (1.2 meters), cave-ins, etc.) can reasonably be anticipated, an excavation-competent person must be on site. The excavation-competent person:

1. Has formal documentation of training as an excavation-competent person.
2. Must be physically located at the excavation site at all times while work is in progress.
3. Is responsible for conducting daily inspections of excavations, adjacent areas, and protective systems prior to each shift.
4. Is responsible for inspection after every rainstorm or other potentially hazard-producing event.
5. Must have knowledge of soils and soil classification.
6. Understands design and use of protective systems.
7. Understands the requirements of the applicable regulations.

## **URS SAFETY MANAGEMENT STANDARD**

### **Excavation**

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8. Has authority to stop work and take corrective actions when conditions change.
9. Has the ability to recognize and test hazardous atmospheres.
10. If URS hires a subcontractor to perform excavation or trenching activities, the subcontractor will be required to assign an excavation-competent person to the project. Documentation of this person's qualifications will be maintained in the project safety file.

#### **B. Preliminary Planning**

1. Underground and aboveground utilities, adjacent structures or retaining walls, spoil layout, truck routes, and emergency procedures must be identified before work begins.
2. When the excavation or trench approaches the estimated location of underground utilities, the exact location will be determined by methods identified in SMS 034 – Utility Clearance and Isolation.

#### **C. Access/Egress**

1. Entry into an excavation or trench should not be made unless absolutely necessary.
2. If personnel enter an excavation or trench that is 4 feet (1.2 meters) deep or more, ladders, steps, ramps, or other safe means of access and egress must be provided, and located at intervals of 25 feet (7.6 meters) or less of lateral travel. If a ladder is used, the ladder must extend 3 feet (0.9 meter) above the original surface of the ground.
3. In excavations and trenches that employees may be required to enter, excavated or other material must be effectively stored and retained at least 2 feet (0.6 meter) or more from the edge of the excavation. As an alternative to this clearance requirement, barriers or other effective retaining devices may be used in lieu thereof in order to prevent excavated or other materials from falling into the excavation.
4. Surface crossing of trenches by personnel or vehicles should not be made unless absolutely necessary. When necessary, the following conditions must be met:

## **URS SAFETY MANAGEMENT STANDARD**

### **Excavation**

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- a. Vehicle crossings must be designed by and installed under the supervision of a registered professional engineer.
  - b. Walkways or bridges must have a minimum clear width of 20 inches (50.8 centimeters [cm]), be equipped with standard guardrails, and extend a minimum of 24 inches (61 cm) past the surface edge of the trench.
5. When performing excavation oversight or observation on an excavation/trench greater than 4 feet (1.2 meters) in depth, personnel must remain at least more than 2 feet (0.6 meter) from the leading edge of the excavation.

#### D. Soil Classification

When sloping, benching, or installed protective systems are used, soil classification of each rock and soil deposit must be classified by a competent person. Soil and rock will be classified as one of the following: stable rock, Type A soil, Type B soil, or Type C soil. The classification will be based on the results of at least one visual analysis and one manual analysis, such as soil plasticity dry strength, thumb penetration, pocket penetrometer, or hand-operated shear vane. In the event that soil classification requires additional technical expertise, the competent person will consult with a registered professional engineer. (See Supplemental Information A – Soil Classification.)

#### E. Protective Systems

1. Employees in excavations deeper than 4 feet (1.2 meters) must be protected by means of properly designed protective systems.
2. Protective systems for excavations or trenches deeper than 20 feet (6.1 meters) must be designed and stamped by a registered professional engineer.
3. Protective systems must have the capacity to resist all loads that are intended or could reasonably be expected to be applied or transmitted to the system.
  - a. Sloping and Benching
    - When personnel are required to work in trenches or excavated areas, all slopes must be excavated to at least the angle of repose, or otherwise safely supported to prevent cave-ins.

## **URS SAFETY MANAGEMENT STANDARD**

### **Excavation**

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- The determination of the angle of repose and design of the supporting system must be based on careful evaluation of pertinent factors such as: depth of cut; possible variation in water content of the material while the excavation is open; anticipated changes in materials from exposure to air, sun, water, or freezing; loading imposed by structures, equipment, overlying material, or stored material; and vibration from equipment, blasting, traffic, or other sources. (See Supplemental Information B – Angles of Repose – Simple Slopes.)
- The slopes and configurations of sloping and benching systems for excavations 4 feet (1.2 meters) to 20 feet (6.1 meters) deep will be selected and constructed by the employer or his designee, and must be in accordance with the following requirements.
- Soil must be analyzed by a competent person to determine the soil or rock type. The maximum allowable slope for each soil or rock type is identified in the table below.

<b>Soil or Rock Type</b>	<b>Maximum Allowable Slope (Horizontal: Vertical)</b>
Stable Rock	Vertical 90°
Type A	¾:1 or 53°
Type B	1:1 or 45°
Type C	1½: 1 or 34°

- Soil classification is not required if 1½:1 (Horizontal:Vertical) or 34° slope is used. If this slope is greater than 1½:1 (Horizontal:Vertical) or 34°, a soil classification must be made. The excavation must comply with one of the following three options.
  - Option I – Maximum allowable slope, and allowable configurations for sloping and benching systems will be determined in accordance with the conditions and requirements in Supplemental Information A – Soil Classification; and Appendix B – Sloping and Benching.
  - Option II – Designs of sloping or benching systems will be selected by using tabulated data based on soil

**URS SAFETY MANAGEMENT STANDARD**  
**Excavation**

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conditions. These tables must be calculated and prepared by a registered professional engineer. The plan must be stamped by a registered professional engineer, and this information must be documented and filed on site.

- Option III – A registered professional engineer must design the sloping and benching system and stamp the plan. This information must be documented and filed on site.

Excavations with sloping and benching in excess of 20 feet deep must be designed and stamped by a registered professional engineer.

b. Timber and Aluminum Hydraulic Shoring for Trenches

Designs of support systems, shield system, and other protective systems will be selected and constructed by the employer or their designee, and must be in accordance with one of four options.

- Option I – Designs using Appendices A, C, and D (see 29 Code of Federal Regulations [CFR] 1926 Subpart P). Shoring in trenching will be determined using conditions and requirements of Supplemental Information A – Soil Classification; Appendix C – Timber Shoring; and Appendix D – Aluminum Hydraulic Shoring.
- Option II – Designs of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data will be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer (i.e., trench jacks, hydraulic). This information must be filed on site.
- Option III – Designs using other tabulated data. Designs of support systems, shield systems, or other protective systems will be selected from and be in accordance with tabulated data. This information must be filed on site.
- Option IV – Design by registered professional engineer. Support systems, shield systems, and other protective

**URS SAFETY MANAGEMENT STANDARD**  
**Excavation**

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systems not using Option I, II, or III must be approved and stamped by a registered professional engineer.

- c. Alternatives to Timber Shoring
- Portable trench boxes or sliding trench shields may be used for the protection of personnel in lieu of a shoring system or sloping. Where such trench boxes or shields are used, they must be designed, constructed, and maintained in a manner that will provide protection equal to or greater than the sheeting or shoring required for the trench.
  - Trench boxes require placement using portable lifting equipment such as backhoes or other tractor-like devices. The job hazard analysis will consider the hazards of lifting and placement of the trench boxes, including the proper use of chains, stability of the mobile equipment, swing radius protection for load, and load rating for the lifting device.
  - Trench shields and boxes must either be pre-manufactured with listed load ratings, or designed, stamped, and constructed under the direction of a registered professional engineer.
- d. Protective systems designed to protect employees in excavations deeper than 20 feet (6.1 meters) must be designed and stamped by a registered professional engineer.
- e. Excavations must be clearly identified and barricaded to keep unauthorized individuals out.
- f. Walkways, runways, and sidewalks must be kept clear of excavated material or other obstructions, and no sidewalks should be undermined unless shored to carry a minimum live load of one 125 pounds (56.6 kilograms) per square foot.
- g. If it is necessary to place heavy objects or operate heavy equipment on a level above and near any excavation, the side of the excavation must be sheet piled, shored, and braced as necessary to resist the extra pressure due to such superimposed loads.

**URS SAFETY MANAGEMENT STANDARD**  
**Excavation**

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F. Hazardous Atmospheres and Confined Spaces

1. In excavations or trenches greater than 4 feet (1.2 meters) deep where an oxygen deficient (<19.5 percent) or flammable (>10 percent Lower Explosive Limit [LEL]) or other potentially toxic environment could be expected to exist, the atmosphere of the excavation must be monitored before workers enter the excavation. Air monitoring must be conducted before personnel enter an excavation or trench, and then periodically to ensure that the atmosphere remains safe. Monitoring will be conducted at a minimum of three vertical depths of the excavation to detect potentially stratified gas layers (e.g., propane has a density 1.55 times that of normal air and will accumulate in the lower depths of an open trench).
2. The frequency of air monitoring will be increased if equipment used in or near the excavation or trench may alter the atmosphere where personnel are working. All air monitoring must be documented and maintained in the project safety files.
3. Attended emergency rescue equipment, such as a breathing apparatus, a safety harness and line, basket stretcher, etc., must be readily available where adverse atmospheric conditions may exist or develop in an excavation or trench.
4. Excavations or trenches may qualify as confined spaces. When this occurs, compliance with SMS 010 – Confined Spaces, is required.

G. Water Accumulation

1. Employees will not work in excavations where water is accumulating unless adequate precautions have been taken to protect employees. Personnel must exit excavations and trenches during rainstorms.
2. De-watering equipment must be installed and monitored by a competent person.
3. Diversion ditches, dikes, or other suitable means will be used to prevent water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation.

## **URS SAFETY MANAGEMENT STANDARD**

### **Excavation**

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4. Excavations and trenches must be inspected by a competent person after each rain event and before personnel are permitted to re-enter the excavation or trench.

#### H. Excavation and Trenching Permit

1. An Excavation/Trenching Permit (Attachment 013-1 NA) must be completed prior to all excavation or trenching activities.
2. The Excavation and Trenching Permit must be completed and signed by all applicable parties as indicated on the permit.
3. Excavation and Trenching Permits may be valid for up to 1 week.

#### I. Daily Inspections

1. Daily inspections must be made (Attachment 013-2 NA) of excavations and trenches. Where potential employee exposure to hazards associated with the excavation (e.g., entrapment, falls greater than 4 feet (1.2 meters), cave-ins, etc.) can reasonably be anticipated, these inspections must be made by a competent person.
2. Inspections must be conducted daily before the start of work, after every rainstorm, after other events that would increase hazards such as snowstorm, thaw, earthquake, or dramatic change in weather, and when fissures, tension crack, sloughing, undercutting, water seepage, bulging at the bottom or other similar conditions occur.
3. If evidence of possible cave-ins or slides is apparent, all work in the excavation or trench must cease until the necessary precautions have been taken to safeguard the personnel.

#### J. Excavating at Potential MEX/UXO Sites

1. If the project site is suspected of munitions and explosives of concern (MEC) or unexploded ordinance (UXO) contamination, the UXO team will conduct a reconnaissance and MEC/UXO avoidance to provide clear access routes to each site before excavation crews enter the area.
2. MEC/UXO sites with planned excavation activities will not be conducted until a complete plan for the site is prepared and/or approved by the URS UXO Safety Officer. MEC/UXO avoidance

## **URS SAFETY MANAGEMENT STANDARD**

### **Excavation**

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must be conducted during excavation operations on known or suspect MEC/UXO sites (SMS 039).

#### K. Training/Briefings

1. Conduct and document daily safety briefings for all employees associated with excavation activities. Discuss excavation hazards, protective measures, and work practices that will be applicable to the day's activities.

### **5. Documentation Summary**

The following information will be maintained in the project file:

- A. Competent person qualifications.
- B. Excavation and Trenching Permit(s).
- C. Daily inspections by an excavation-competent person.
- D. Air monitoring records.

### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Standard [Excavations](#) 29 CFR 1926, Subpart P
  1. Appendix B, [Sloping and Benching](#)
  2. Appendix C, [Timber Shoring](#)
  3. Appendix D, [Aluminum Hydraulic Shoring](#)
  4. Appendix E, [Alternatives to Timber Shoring](#)
- B. U.S. OSHA Technical Links – [Trenching and Excavation](#)
- C. [SMS 010](#) – Confined Space Entry
- D. [SMS 034](#) – Utility Clearance and Isolation
- E. [SMS 039](#) – Munitions Response / Munitions and Explosives of Concern
- F. [Attachment 013-1 NA](#) – Excavation/Trenching Permit
- G. [Attachment 013-2 NA](#) – Daily Excavation/Trench Inspection Form

**URS SAFETY MANAGEMENT STANDARD**  
**Excavation**

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**7. Supplemental Information**

- A. [Soil Classification](#)
- B. [Angle of Repose – Simple Slopes](#)



EXCAVATION / TRENCHING PERMIT

Authorization No.: \_\_\_\_\_ Date and Time Permit Valid: \_\_\_\_\_

Competent Person: \_\_\_\_\_ Date and Time Permit Expires: \_\_\_\_\_

Project Name: \_\_\_\_\_ Excavation/Trench Location: \_\_\_\_\_

Description or Job Special Procedures:

<b>ESTIMATED DIMENSIONS:</b> DEPTH = _____ TOP = W _____ L _____ BOTTOM = W _____ L _____	<b>SOIL TYPE:</b> <input type="checkbox"/> Stable Rock <input type="checkbox"/> Type A <input type="checkbox"/> Type B <input type="checkbox"/> Type C <input type="checkbox"/> Avg. Compression Strength _____ tsf <input type="checkbox"/> Compressed Strength Data _____
<b>SOIL ANALYSIS METHOD(S) USED:</b> <input type="checkbox"/> Visual <input type="checkbox"/> Manual <input type="checkbox"/> Tabulated Data	<b>MANUAL TEST USED:</b> <input type="checkbox"/> Plasticity <input type="checkbox"/> Dry Strength <input type="checkbox"/> Ribbon <input type="checkbox"/> Thumb Penetration <input type="checkbox"/> Pocket Penetrometer <input type="checkbox"/> Dry Testing <input type="checkbox"/> Other
<b>SOIL CHARACTERISTICS:</b> <input type="checkbox"/> Cemented <input type="checkbox"/> Cohesive <input type="checkbox"/> Layered <input type="checkbox"/> Fissured <input type="checkbox"/> Granular <input type="checkbox"/> Plastic <input type="checkbox"/> Dry <input type="checkbox"/> Moist <input type="checkbox"/> Saturated <input type="checkbox"/> Submerged	<b>UTILITIES:</b> <input type="checkbox"/> One Call Service Notified <input type="checkbox"/> Utilities Marked by Public Utilities <input type="checkbox"/> Property Owner Contacted <input type="checkbox"/> Utility Drawings Reviewed <input type="checkbox"/> Private Utility Located Utilized
<b>PROTECTIVE SYSTEMS:</b> Protective systems for excavations/trenches deeper than 20 feet (6.1 meters) must be designed and approved by a registered professional engineer.	<b>LIST OF KNOWN OBSTRUCTIONS:</b> <input type="checkbox"/> Electrical <input type="checkbox"/> Telephone <input type="checkbox"/> Water <input type="checkbox"/> Sewer <input type="checkbox"/> Stream <input type="checkbox"/> Alarm <input type="checkbox"/> Drain <input type="checkbox"/> Process <input type="checkbox"/> Footings <input type="checkbox"/> Pilings <input type="checkbox"/> Concrete Encasement <input type="checkbox"/> Other
<b>SLOPING/BENCHING:</b> <input type="checkbox"/> Vertical (90°) <input type="checkbox"/> 3/4 :1 (53°) <input type="checkbox"/> 1:1 (45°) <input type="checkbox"/> 1 1/2:1 (34°) <input type="checkbox"/> 2:1 (26°) <input type="checkbox"/> Other	<b>OTHER:</b> <input type="checkbox"/> Means of Egress Required <input type="checkbox"/> Confined Space Permit Required
<b>SHORING:</b> <input type="checkbox"/> Timber <input type="checkbox"/> Aluminum Hydraulic <input type="checkbox"/> Trench Shield <input type="checkbox"/> Trench Box <input type="checkbox"/> Designed Protection System	<b>OTHER:</b> <input type="checkbox"/> Means of Egress Required
<b>SPECIAL INSTRUCTIONS and WORK INSTRUCTIONS</b>     	



**EXCAVATION / TRENCHING PERMIT**

All unsafe conditions must be corrected prior to excavation entry. If any hazardous conditions are observed, the excavation must be evacuated immediately, and no one is allowed to re-enter until corrective action has been taken.

**Signature and Dates**

	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Excavation Competent Person	_____	_____	_____
Client Representative (if applicable)	_____	_____	_____
Site Supervisor	_____	_____	_____
HSE Representative	_____	_____	_____
Registered Professional Engineer (if applicable)	_____	_____	_____
Project Manager	_____	_____	_____
Subcontractor Rep	_____	_____	_____
Equipment Superintendent	_____	_____	_____
Field Engineer	_____	_____	_____
Other	_____	_____	_____



**Health, Safety and Environment**  
**DAILY EXCAVATION / TRENCH**  
**INSPECTION FORM**

Attachment 013-2 NA

Issue Date: July 2000  
Revision 5: December 2009

Competent Person: \_\_\_\_\_

Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

Excavation Location: \_\_\_\_\_

Rainfall Amounts 24 Hours Previous: \_\_\_\_\_

**Access/Egress**

Is access and egress located within 25 feet (7.6 meters) of entrants?  Yes  No  Not Applicable

If ladders are used, do they extend 3 feet (0.9 meter) beyond the top of the excavation?  Yes  No  Not Applicable

**Soil Characteristics**

Is any water seepage noted in trench walls or bottom?  Yes  No  Not Applicable

Are pumps in place, or available if needed?  Yes  No  Not Applicable

Is there evidence of significant fracture planes in soil or rock?  Yes  No  Not Applicable

Are there any zones of unusually weak soils or materials not anticipated?  Yes  No  Not Applicable

Have tension cracks been observed along the top on any slopes?  Yes  No  Not Applicable

Are there any noted dramatic dips or bedrock?  Yes  No  Not Applicable

Is there any evidence of caving or sloughing of soil since the last inspection?  Yes  No  Not Applicable

**Protective Systems**

Are slopes cut at design angle of repose?  Yes  No  Not Applicable

Is the shoring system installed in accordance with the design?  Yes  No  Not Applicable

Is the shoring being used secure?  Yes  No  Not Applicable

Does the design include an adequate safety factor for equipment being used?  Yes  No  Not Applicable

Is traffic being adequately kept away from the excavation/trenching operation?  Yes  No  Not Applicable

Are hydraulic shores pumped to design pressure?  Yes  No  Not Applicable

Is vibration from equipment or traffic too close to the trenching operation?  Yes  No  Not Applicable

Are trench box(s) certified?  Yes  No  Not Applicable

**Hazardous Atmosphere & Confined Spaces**

Is the hazardous atmosphere testing being conducted on a regular basis?  Yes  No  Not Applicable

Have rescue procedures been established, and is equipment immediately available?  Yes  No  Not Applicable



**Health, Safety and Environment**  
**DAILY EXCAVATION / TRENCH**  
**INSPECTION FORM**

Attachment 013-2 NA

Issue Date: July 2000  
Revision 5: December 2009

**Miscellaneous**

- Are utility markings in place?  Yes  No  Not Applicable
- Are trees, boulders, or other hazards located in the area?  Yes  No  Not Applicable
- Are barricades or covers in place and in good condition?  Yes  No  Not Applicable
- Is excavated material and equipment at least 2 feet (0.6 meter) from the edge of the excavation?  Yes  No  Not Applicable
- Are all short-term trench(es) covered within 24 hours?  Yes  No  Not Applicable
- Are GFCIs used on all temporary electrical cords?  Yes  No  Not Applicable
- Is the excavation within the original scope of the excavation permit?  Yes  No  Not Applicable
- Is a valid excavation permit executed for the excavation/trenching activity?  Yes  No  Not Applicable

**Notes:**

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"I hereby attest that the following conditions existed and that the following items were checked or reviewed during this inspection."

All unsafe conditions must be corrected prior to excavation entry. If any hazardous conditions are observed, the excavation must be immediately evacuated, and no one is allowed to re-enter until corrective action has been taken.

**Daily Excavation/Trenching Inspection Completed By:**

\_\_\_\_\_

**COMPETENT PERSON**

\_\_\_\_\_

**Date**

**SOIL CLASSIFICATION****"Type A" soils**

Cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144kPa) or greater. Examples of cohesive soils are clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A.

However, no soil is Type A if:

1. The soil is fissured;
2. The soil is subject to vibration from heavy traffic, pile driving, or similar effects;
3. The soil has been previously disturbed;
4. The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
5. The material is subject to other factors that would require it to be classified as a less stable material.

**"Type B" soils**

1. Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or
2. Granular cohesionless soils including angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
3. Previously disturbed soils except those which would otherwise be classed as Type C soil.
  - a. Soil that Dry rock that is not stable; or
  - b. Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

**"Type C" soils**

1. Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less;
2. Granular soils including gravel, sand, and loamy sand;
3. Submerged soil or soil from which water is freely seeping;
4. Submerged rock that is not stable, or
5. Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.



**SOIL CLASSIFICATION**

Soil Texture	Visual detection of particle size and general appearance of the soil	Squeezed in hand and pressure released		Soil ribboned between thumb and finger when moist.
		When Air Dry	When Moist	
Sand	Soil has a granular appearance in which the individual grain sizes can be detected. It is free flowing when in a dry condition.	Will not form a cast and will fall apart when pressure is released.	Forms a cast, which will crumble when lightly touched.	Cannot be ribboned.
Sandy Loam	Essentially a granular soil with sufficient silt and clay to make it somewhat coherent. Sand characteristics predominate.	Forms a cast, which readily falls apart when lightly touched.	Forms a cast, which will bear careful handling without breaking.	Cannot be ribboned.
Loam	A uniform mixture of sand, silt and clay. Grading of sand fraction quite uniform from coarse to fine. It is mellow, has somewhat gritty feel, and yet is smooth and slightly plastic.	Forms a cast, which will bear careful handling without breaking.	Forms a cast, which can be handled freely without breaking.	Cannot be ribboned.
Silt Loam	Contains a moderate amount of the finer grades of sand and only a small amount of clay over half of the particles are silt. When dry it may appear quite cloddy which readily can be broken and pulverized to a powder.	Forms a cast, which can be freely handled. Pulverized it has a soft flour-like feel.	Forms a cast, which can be freely handled. When wet, soil runs together and puddles.	It will not ribbon but it has a broken appearance, feels smooth and may be slightly plastic.
Silt	Contains over 80% of silt particles with very little fine sand and clay. When dry, it may be cloddy, readily pulverizes to powder with a soft flour-like feel.	Forms a cast, which can be handled without breaking.	Forms a cast, which can be freely handled. When wet, it readily puddles.	It has a tendency to ribbon with a broken appearance, feels smooth.
Clay Loam	Fine textured soil breaks into hard lumps when dry. Contains more clay than silt loam. Resembles clay in a dry condition; identification is made on physical behavior of moist soil.	Forms a cast which can be handled freely without breaking.	Forms a cast, which can be handled freely without breaking. It can be worked into a dense mass.	Forms a thin ribbon, which readily breaks, barely sustaining its own weight.
Clay	Fine textured soil breaks into very hard lumps when dry. Difficult to pulverize into a soft flour-like powder when dry. Identification based on cohesive properties of the moist soil.	Forms a cast which can be freely handled without breaking.	Forms a cast, which can be handled freely without breaking.	Forms long, thin flexible ribbons. Can be worked into a dense, compact mass. Considerable plasticity.
Organic Soils	Identification based on the high organic content. Muck consists of thoroughly decomposed organic material with considerable amount of mineral soil finely divided with some fibrous remains. When considerable fibrous material is present, it may be classified as peat. The plant remains or sometimes the woody structure can easily be recognized. Soil color ranges from brown to black. They occur in lowlands. In swamps or swales. They have high shrinkage upon drying. Table 1. –Field Method for identification of soil texture			

**ANGLE OF REPOSE**

**FOR SLOPING OF SIDES OF EXCAVATIONS LESS THAN 20 FEET DEEP**

Note: Clays, Silts, Loams  
or Non-Homogenous  
Soils Require Shoring  
or Bracing

The Presence of  
Ground Water Requires  
Special Treatment

Examples\*

**Type A Soils:**

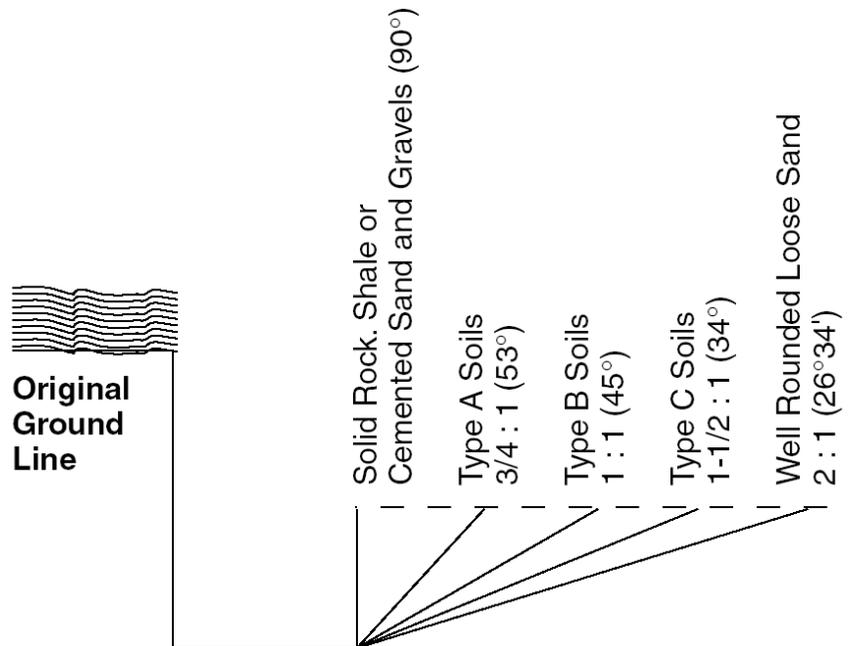
Clay, silt clay, sandy clay  
clay loam, caliches,  
and hardpan

**Type B Soils:**

Angular gravel, silt,  
silt loam, sandy loam,  
unstable dry rock

**Type C Soils:**

Gravel, sand and loamy  
sand, submerged  
soil and rock, and  
layered soils



**REFERENCE:**

OSHA Safety and Health Standards 1926  
Appendix A and B to Subpart P

**URS SAFETY MANAGEMENT STANDARD 014  
FIRE PROTECTION AND PREVENTION**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Fire Protection and Prevention**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies.

### **2. Purpose and Scope**

The purpose of this standard is to reduce/eliminate potential fire hazards in the workplace and to provide for a rapid, effective response should a fire occur.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location. At project sites controlled by contractors or building owners, some of these responsibilities may be covered by building/facility owners or owner agents.

### **4. Requirements**

#### **A. Fire Protection**

1. A fire protection program will be developed and followed throughout all phases of work.
  - a. Access to available firefighting equipment will be maintained at all times.
  - b. Firefighting equipment will be inspected monthly and maintained in operating condition. Defective equipment will be immediately replaced.
  - c. Fire extinguishers that out of service or discharged will be immediately tagged, removed from service, and replaced.
  - d. Firefighting equipment will be conspicuously located and not obstructed from view in the workplace.
  - e. Where and when required or necessary, the project manager will provide a trained and equipped firefighting organization (fire brigade) to assure adequate protection.
2. A temporary or permanent water supply (sufficient volume, duration, and pressure) required to properly operate the firefighting equipment will be made available as soon as combustible materials accumulate.

**URS SAFETY MANAGEMENT STANDARD**  
**Fire Protection and Prevention**

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- a. Where underground water mains are to be provided, they will be installed, completed, and made available for use as soon as practicable.
- b. Fire Hose and Connections
  - i. One hundred feet, or less, of 1.5-inch (3.75-cm) hose, with a nozzle capable of discharging water at 25 gallons (95 liters) or more per minute, may be substituted for a fire extinguisher rated not more than 2A 20BC in the designated area, provided the hose line can reach all points in the area.
  - ii. If fire hose connections are not compatible with local firefighting equipment, the project manager will provide adapters or equivalent to permit connections.
  - iii. During demolition involving combustible materials, charged hose lines supplied by hydrants, water trucks with pumps, or equivalent will be made available.
- c. Fixed Firefighting Equipment
  - i. Sprinkler Protection
    - Where URS is involved in the construction of a facility in which automatic sprinkler protection is required, the installation of the sprinklers will closely follow the construction, and sprinklers will be placed into service as soon as practicable.
    - Where URS is involved in the demolition or alteration of a facility, existing automatic sprinkler installations should be retained in service as long as reasonable. Only authorized persons will permit the operation of sprinkler control valves. Modification of sprinkler systems to permit alterations or additional demolition should be expedited so that the automatic protection may be returned to service as quickly as possible. Sprinkler control valves will be checked daily, at the close of work/business, to ascertain that the protection is in service.

**URS SAFETY MANAGEMENT STANDARD**  
**Fire Protection and Prevention**

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ii. Standpipes

In all structures requiring standpipes or where standpipes exist in structures being altered, they will be maintained to always be ready for fire protection use. Conspicuously marked standpipes will be provided with connections on the outside of the structure (at the street level). Each floor will be equipped with at least one standard hose outlet.

iii. Fire Alarm Devices

- An alarm system (e.g., telephone system, siren) will be established to alert both the employees on the site and the local fire department of an emergency.
- The alarm code and reporting instructions will be conspicuously posted at phones and at all employee entrances.

iv. Fire Cutoffs

- In new construction, firewalls and exit stairways required for the completed buildings will be given construction priority. Fire doors, with automatic closing devices, will be hung on openings as soon as practicable.
- Fire cutoffs will be retained in buildings undergoing alterations or demolition until operations necessitate their removal.

d. Jobsite Requirements

- i. Material storage areas will be equipped with fire extinguishers adequate for their size, construction, and the material stored therein.
- ii. Welding, cutting, grinding, and burning will not be done within 25 feet (7.6 meters) of any material fuel storage area. Fire extinguishers will be provided at the site of welding operations.

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- iii. Flammable materials will be stored as far as possible from the working area, at least 25 feet (7.6 meters). Safety cans will be used when handling and transporting fuel, gas, and other flammables.
- iv. Extinguishers are to be adequately maintained.
- v. The telephone number of the nearest organized firefighting group is to be displayed at jobsite telephones.

3. Fire Extinguishing Equipment

a. Extinguisher Requirements

Use only UL-listed extinguishers. Mark extinguishers and extinguisher locations, indicating the suitability of each extinguisher for a particular classification of fire.

b. Building and Occupancy Hazard Protection

Requirements for fire extinguisher protection are divided into two categories: building protection and occupancy hazard protection. Provide for extinguishing equipment to protect both the building structure (if it is combustible) and the occupancy hazards inside it.

- i. For building protection, provide fire extinguishers rated for Class A fires or greater, as required by applicable building codes.
- ii. For protection against occupancy hazards, provide fire extinguishers rated for Class A, B, C, or other fire potential as appropriate. Requirements may vary from section to section within a single building. Determine the occupancy hazards, as well as the proper ratings of necessary fire extinguishers, of each room or section. Classify rooms or sections as light hazard, ordinary hazard, or extra hazard. See Supplemental Information B for additional details and assistance in determining extinguisher requirements.

c. Extinguisher Placement

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- i. Place extinguishers in conspicuous locations, along normal paths of travel, and near exits. If the extinguishers are not readily visible, use wall markings, signs, or lights to identify their locations.
- ii. Ensure that extinguishers are readily accessible. Keep the space in front of and below extinguishers clear at all times. The floor area beneath extinguishers may be marked as a reminder to keep the area clear.
- iii. Hang extinguishers on hangers, brackets, or other equipment furnished by the manufacturer, or place them on shelves. If an extinguisher weighs less than 40 pounds (18.1 kg), the top of the extinguisher will not be more than 5 feet (1.5 meters) above the floor. If an extinguisher weighs equal to or more than 40 pounds (18.1 kg), it will not be more than 3.5 feet (1.1 meters) above the floor. The clearance between the bottom of the extinguisher and the floor will never be less than 4 inches (10.2 cm).
- iv. Provide the appropriate number and types of fire extinguishers for operations being performed. Refer to Supplemental Information A for guidance.

d. Inspection

Properly trained personnel will inspect extinguishers at least monthly. The monthly inspection will include the following items at a minimum:

- i. Location.
- ii. Rating.
- iii. Access.
- iv. Visibility.
- v. Operating instructions.
- vi. Seals.
- vii. Tamper indicators.

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viii. Fullness.

ix. Physical condition.

Attach inspection tags to each extinguisher indicating the dates of purchase, inspection, testing, and recharging, and the initials of the inspector. In addition to the tag, a colored tape may be used to indicate that an extinguisher has been inspected.

Fire extinguishers must be inspected annually by a qualified fire services contactor.

e. Testing and Maintenance

- i. Establish periodic testing programs to ensure that extinguishers are in proper operating condition. Only properly trained personnel (preferably fire extinguisher vendors) should maintain extinguishers.
- ii. At the conclusion of testing or maintenance work, attach a tag to the extinguisher showing the date and the signature of the person who performed the service.

f. Testing Intervals

- i. Each year, recharge soda acid and foam extinguishers, and weigh others according to the manufacturer's instructions. Inspect the body, hose, and nozzle of the extinguisher, and examine the dry powder. Note: Testing is not necessary for stored pressure units unless a loss of pressure or other conditions indicates a need; however, units mounted in vehicles or otherwise subject to mechanical packing should have their powder examined.
- ii. Every five years, test the pressure parts of all extinguishers except Halon 1301 extinguishers; dry chemical extinguishers with braised-brass, mild steel, or aluminum shells; and dry-powder extinguishers for metal fires.

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- iii. Every six years, empty dry-chemical, stored-pressure extinguishers and examine working parts for operability.
- iv. Every 12 years, test the pressure parts of Halon 1301 extinguishers; dry-chemical extinguishers with braised-brass, mild steel, and aluminum shells; and dry-powder extinguishers for metal fires.

g. Employee Training

- i. Where fire extinguishers are provided for employee use, training will be provided on general principles of portable fire extinguishers, including stages of fires and classes of fire extinguisher. The emphasis should be on hazards of fighting a fire during the initial phases of a fire.
- ii. Personnel designated to use firefighting as part of a site Emergency Action Plan must have training in the use of appropriate equipment. Training must be conducted prior to initial assignment and annually thereafter or whenever there is a change in the Emergency Action Plan or new equipment is introduced.

B. Fire Prevention

1. General

- a. Develop an Emergency Preparedness Plan as outlined in SMS 003 – Emergency Preparedness Plan.
- b. Conduct evacuation drills at least annually.
- c. Maintain good housekeeping to reduce fire hazards and to provide safe routes of egress should a fire occur.
- d. Conduct periodic workplace inspections to identify fire hazards such as unnecessary accumulation of combustibles (including paper and boxes), unnecessary storage of flammables, and sources of ignition.

2. Ignition Hazards

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- a. Electrical wiring and equipment for light, heat, or power purposes will be properly installed.
  - b. Equipment powered by internal combustion will be located with the exhausts positioned away from combustible materials. When the exhausts are piped outside the building under construction, a clearance of at least 6 inches (15 cm) will be maintained between piping and combustible material.
  - c. Smoking is prohibited at or in the vicinity of operations that constitute a fire hazard. Such areas will be conspicuously posted as follows: "NO SMOKING OR OPEN FLAME."
  - d. Portable, battery-powered lighting equipment, used in connection with the storage, handling, or use of flammable gases or liquids, will be approved for the hazardous locations. For more information, see SMS 015 – Flammable and Combustible Liquids and Gases.
  - e. The nozzles of air, inert gas, and steam lines or holes used in the cleaning or ventilation of tanks and vessels containing hazardous concentrations of flammable gases or vapors will be bonded to the tank or vessel shell. Bonding devices will not be attached or detached while hazardous concentrations of flammable gases or vapors exist.
3. Temporary Buildings
- a. Temporary buildings will not be erected where the location adversely affects any means of employee exit.
  - b. Temporary buildings, located within another building or structure, will be of noncombustible construction or combustible construction having a fire resistance rating of not less than 1 hour.
  - c. Temporary buildings, located other than inside another building and not used for handling and storage of flammable or combustible liquids, flammable gases, explosives, or blasting agents, or similar hazardous occupancies, will be located at a distance of not less than 10 feet (3 meters) from another building or structure. Groups of temporary buildings, not exceeding 2,000 square feet (186 square meters) in total, will be considered a single temporary building.

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4. Open Yard Storage

- a. Combustible materials will be stored with regard to the stability of piles and in no case higher than 10 feet (3 meters).
- b. Driveways between and around combustible storage piles will be at least 15 feet (4.6 meters) wide and maintained free of accumulations of rubbish, equipment, or other articles or materials. Driveways will be spaced to produce a maximum grid system unit of 50 feet (15.2 meters) by 150 feet (45.7 meters).
- c. The entire storage site will be kept free from accumulations of unnecessary combustible materials. Weeds and grass will be maintained, and procedures will be established for periodic cleanup of the entire area.
- d. The method of piling combustible materials will be solid and in orderly regular piles. No combustible material will be stored outdoors within 10 feet (3 meters) of a building or structure.
- e. Portable fire extinguishing equipment, suitable for the fire hazard involved, will be provided at convenient, conspicuously accessible locations in the yard area. Portable fire extinguishers, rated not less than 2A:20BC, will be placed to assure that the maximum travel distance to the nearest unit will not exceed 100 feet (30.5 meters).

5. Indoor Storage

- a. Storage will not obstruct, or adversely affect, means of exit.
- b. Materials will be stored, handled, and piled with regard to their fire characteristics.
- c. Noncompatible materials, which may create a fire hazard, will be segregated by a barrier having a fire resistance of at least 1 hour.
- d. Materials will be piled to minimize the spread of fire internally and to permit convenient access for firefighting. Stable piling will be maintained at all times. Aisle space will be

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maintained to safely accommodate the widest vehicle used within the building for firefighting purposes.

- e. A clearance of at least 36 inches (90 cm) will be maintained between the top level of the stored material and the sprinkler deflectors.
- f. Clearance will be maintained around lights and heating units to prevent ignition of combustible materials.
- g. A clearance of 24 inches (60 cm) will be maintained around the fire door's path of travel, unless a barricade is provided, in which case no clearance is needed. Material will not be stored within 36 inches (90 cm) of a fire door.

C. Temporary Heating Devices

1. Ventilation

- a. Fresh air will be supplied in sufficient quantities to maintain the health and safety of employees. Where natural means of fresh air supply are inadequate, mechanical ventilation will be provided.
- b. Heaters used in confined spaces necessitate that special care be taken to provide sufficient ventilation to ensure proper combustion, maintain the health and safety of workmen, and limit temperature increase in the area.

2. Clearance and Mounting

- a. Temporary heating devices will be installed to provide clearance to combustible materials not less than the amount shown in the following table:

<b>Minimum Clearance in inches (cm)</b>			
<b>Heating Appliance</b>	<b>Sides</b>	<b>Rear</b>	<b>Chimney Connector</b>
Room heater, circulating type	12 (30)	12 (30)	18 (45)
Room heater, radiant type	36 (90)	36 (90)	18 (45)

- b. Temporary heating devices that are listed for installation with lesser clearance than specified in the previous table must be

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installed in accordance with the manufacturer's specifications.

- c. Heaters not suitable for use on wood floors will not be set directly upon them or other combustible materials. When such heaters are used, they will rest on suitable heat-insulating material or concrete at least 1 inch (2.5 cm) thick or equivalent. The insulating material will extend beyond the heater 2 feet (60 cm) or more in all directions.
- d. Heaters used near combustible tarpaulins, canvas, or similar coverings will be located at least 10 feet (3 meters) from the coverings. The coverings will be securely fastened to prevent ignition or upsetting of the heater due to wind action on the covering or other material.

#### 3. Stability

When in use, heaters will be set horizontally level, unless otherwise permitted by the manufacturer's instructions.

#### 4. Solid Fuel Heaters

Solid fuel heaters are prohibited in buildings and on scaffolds.

#### 5. Oil Fired Heaters

- a. Flammable liquid-fired heaters will be equipped with a primary safety control to stop the flow of fuel in the event of flame failure. Barometric or gravity oil feed will not be considered a primary safety control.
- b. Heaters designed for barometric or gravity oil feed will be used only with integral tanks.
- c. Heaters specifically designed and approved for use with separate supply tanks may be directly connected for gravity feed, or an automatic pump, from a supply tank.

## **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Emergency Action Plans.

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- B. Fire extinguisher inspection logs.
- C. Employee training documentation.
- D. Site audits.
- E. Evacuation drills.

#### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Standard – [Means of Egress](#) – 29 Code of Federal Regulations (CFR) 1910, Subpart E
- B. U.S. OSHA Standard – [Exit Routes, Emergency Action Plans, and Fire Prevention Plans](#) – 29 CFR 1910.38
- C. U.S. OSHA Standard – [Fire Protection](#) – 29 CFR 1910, Subpart L
- D. U.S. OSHA Software – [Fire Safety Advisor](#)
- E. U.S. OSHA Construction Standard – [Fire Protection and Prevention](#) – 29 CFR 1926.150, Subpart F
- F. National Fire Protection Association – Standard for Portable Fire Extinguishers – [NFPA 10](#)
- G. International Code Council – [International Fire Code](#)
- H. [SMS 003](#) – Emergency Preparedness Plan
- I. [SMS 015](#) – Flammable and Combustible Liquids and Gases

#### **7. Supplemental Information**

- A. [Fire Classifications](#)
- B. [General Fire Extinguisher Requirements](#)

	<p style="text-align: center;"><b>Health, Safety and Environment</b></p> <p style="text-align: center;"><b>FIRE CLASSIFICATIONS</b></p>	<p style="text-align: right;">SMS 014 NA Supplemental Information A Issue Date: February 2009</p>
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## **A. Fire Classifications**

Fires are classified as Class A, B, C, D, or Special, depending upon the types of materials involved. These classifications are defined as follows:

1. Class A – Fires in ordinary combustible materials such as wood, cloth, paper, trash, rubber, and plastic.
2. Class B – Fires in flammable liquid, oil, grease, tar, oil-base paint, lacquer, and flammable gas.
3. Class C – Fires involving energized electrical equipment or systems, resulting in the extinguishing media conducting electricity. When electrical equipment or systems are de-energized, extinguishers for Class A or B fires can be used safely.
4. Class D - Fires involving combustible metals such as magnesium, titanium, zirconium, lithium, potassium, and sodium. Specialized techniques, extinguishing agents, and extinguishing equipment have been developed to control and extinguish fires of this type. Generally, do not use normal extinguishing agents on metal fires. In such fires, there is the danger of increasing the intensity of the fire because of a chemical reaction between some extinguishing agents and the burning metal.
5. Special - Fires that involve certain combustible metals or reactive chemicals require, in some cases, special extinguishing agents or techniques.

## **B. Extinguisher Classifications and Ratings**

All types of extinguishers are not equally effective against all classifications of fires. Therefore, extinguishers are rated according to the classification and size of the fires against which they are effective. Extinguisher ratings are found on the extinguisher label. A rating consists of a letter indicating the classification of fire on which the extinguisher is effective and a rating number indicating the relative extinguishing effectiveness. The significance of the rating number varies with the classification of fire for which the extinguisher is rated. The following rating criteria are used:

1. For extinguishers rated for Class A fires, the rating number indicates relative effectiveness, the higher the number, the more effective the extinguisher. The minimum recommended rating for extinguishers rated for Class A fires is 2A.

	<p style="text-align: center;"><b>Health, Safety and Environment</b></p> <p style="text-align: center;"><b>FIRE CLASSIFICATIONS</b></p>	<p style="text-align: right;">SMS 014 NA Supplemental Information A Issue Date: February 2009</p>
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2. For extinguishers rated for Class B fires, the rating number represents the average size (in square feet) of the fire the extinguisher could put out.
3. No number is used for extinguishers rated for Class C fires, because Class C fires are essentially either Class A or B fires involving energized electrical wiring and equipment.

### **C. Hazard Classifications**

The materials in a building or area present hazards of varying potential. These hazards are classified. As follows:

1. Light or Low Hazard – A room or area where, considering the amount of combustible material or flammable liquids present, fires of small size should be anticipated (e.g., change trailers, toilet trailers, and general storage).
2. Ordinary or Moderate Hazard – A location where, considering the amount of combustibles or flammable liquids present, fires of moderate size should be anticipated (e.g., temporary construction offices and most shops).
3. Extra or High Hazard – A location where, considering the amount of combustibles or flammable liquids present, fires of severe magnitude should be anticipated (e.g., carpenter shops and storage areas for flammable liquids and lumber).

## 1. Fire Extinguishers – General

The following are **minimum** requirements for fire extinguisher placement in office buildings, construction facilities, support buildings, and/or buildings under construction. In some cases, client requirements may be more stringent, in which case the client’s requirements supersede the guidelines below.

### Extinguisher Requirements for Class A Hazards

Rating Shown on Extinguisher	Maximum Travel Distance to Extinguishers in Feet (m)	Maximum Area to be Protected per Extinguisher		
		Light Hazard sq. ft. (m <sup>2</sup> )	Ordinary Hazard sq. ft. (m <sup>2</sup> )	Extra Hazard sq. ft. (m <sup>2</sup> )
1-A	-	-	-	-
2-A	75 (23)	6,000 (557)	3,000 (279)	-
3-A	75 (22.9)	9,000 (836)	4,500 (418)	3,000 (279)
4-A	75 (22.9)	11,250 (1,045)	6,000 (557)	4,000 (372)
6-A	75 (22.9)	11,250 (1,045)	9,000 (836)	6,000 (557)
10-A	75 (22.9)	11,250 (1,045)	11,250 (1,045)	10,000 (929)
20-A	75 (22.9)	11,250 (1,045)	11,250 (1,045)	11,250 (1,045)
40-A	75 (22.9)	11,250 (1,045)	11,250 (1,045)	11,250 (1,045)

### Extinguisher Requirements for Class B Hazards

Type of Hazard	Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers in Feet (m)
Light	5-B	30 (9.1)
	10-B	50 (15.2)
Ordinary	10-B	30 (9.1)
	20-B	50 (15.2)
Extra	40-B	30 (9.1)
	80-B	50 (15.2)

### **Extinguisher Requirements for Class C Hazards**

Class C extinguishers are required wherever energized electrical equipment is located. Since a Class C fire itself is either Class A or Class B (involving ordinary combustible material, flammable liquids, or flammable gases), the extinguishers are sized and located as for a Class A or B hazard.

### **Types of Extinguishers Approved for Types of Hazards**

<b>Class A Hazards</b>	<b>Class B Hazards</b>	<b>Class C Hazards</b>
Cartridge-operated water or antifreeze	Carbon dioxide*	Carbon dioxide
Stored pressure water or antifreeze	Dry chemical	Dry chemical
Wetting Agent Foam	Multipurpose dry chemical (ABC)	Multipurpose dry chemical (ABC)
Loaded stream	Halon 1301	Halon 1301
Multipurpose dry chemical (ABC)	Halon 1211	Halon 1211
Pump tank water or antifreeze (Halon 1211)		

\*Certain sizes are not classified or acceptable to meet requirements.

## **2. Hot Work**

A minimum of one fire extinguisher, rated at least 20BC, must be provided for each hot work location. The extinguisher should be conspicuously positioned no more than 10 feet (3.04 meters) from the hot work. Refer to SMS 020- Hot Work”.

## **3. Motorized Construction Equipment**

At least one portable fire extinguisher, rated at least 20BC, must be provided on each piece of motorized construction equipment.

## **4. Temporary Construction/Work Trailer**

A minimum of one fire extinguisher, rated at a minimum of 2A, must be provided for each temporary construction/work trailer.

**URS SAFETY MANAGEMENT STANDARD 016  
HAND TOOLS AND PORTABLE EQUIPMENT**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Hand Tools and Portable Equipment**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies in which hand tools and/or portable powered equipment, including chain saws; brush cutters, powder-actuated tools, and similar high-hazard implements are used.

### **2. Purpose and Scope**

The purpose of this standard is to provide procedures for the safe use and handling of hand tools and portable powered equipment. SMS 064 – Hand Safety provides additional information on the safe use of hand tools.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site or project location.

### **4. Requirements**

#### **A. General**

1. Keep hand and power tools in good repair and use them only for the task for which they were designed. Use tools only in accordance with the manufacturer's recommendations.
2. Remove damaged or defective tools from service. Affix a "Do Not Use" tag (or similar) to the tool until repairs are made or the tool is destroyed.
3. Provide employees using hand tools or portable powered equipment with personal protective equipment (PPE) and train employees in the use of PPE required for the operation being undertaken.
4. Keep surfaces and handles clean and free of excess oil and grease to prevent slipping.
5. Do not carry sharp tools in pockets; this practice may cause puncture wounds.
6. Clean tools and return to a suitable toolbox, room, rack, or other storage area upon completion of a job.
7. Before applying pressure, ensure that wrenches have a good bite.

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### **Hand Tools and Portable Equipment**

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- a. Brace yourself by placing your body in the proper position so that that you will not fall in case the tool slips.
  - b. Make sure hands and fingers have sufficient clearance in the event the tool slips.
  - c. Always pull on a wrench, never push.
8. When working with tools overhead, place tools in a holding receptacle or secure when not in use to prevent them from falling.
  9. Do not leave tools in or on passageways, access ways, walkways, ramps, platforms, stairways, or scaffolds where they can create a tripping hazard.
  10. Do not throw tools from place to place or from person to person, or drop tools from heights.
  11. Use nonsparking tools in atmospheres with fire or explosive characteristics.
  12. Inspect all tools prior to start-up or use to identify any defects.
  13. Powered hand tools should not be capable of being locked in the ON position, except as noted elsewhere in this standard.
  14. Require that all power-fastening devices be equipped with a safety interlock capable of activation only when in contact with the work surface.
  15. Ensure that all portable powered tools designed to accommodate guards are equipped with such when in use.
  16. Do not allow loose clothing, long hair, loose jewelry, rings, and chains to be worn while working with power tools.
  17. Do not use cheater pipes.
  18. Make provisions to prevent machines from automatically restarting upon restoration of power (see SMS 023 – Lockout and Tagout Safety).
  19. Where URS issues tools to its employees, the supervisor is responsible for the safe condition of tools and equipment.

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20. Where workers furnish their own tools, their tools must conform to the requirements demanded for safety and efficiency. The supervisor has the responsibility to regularly inspect these tools for defects.

**B. Electrical Power Tools**

1. Electric-power-operated tools will be either of the approved double-insulated type or grounded in accordance with the National Electric Code.
2. The use of the electric cord for hoisting or lowering electric tools is an unsafe practice and will not be permitted.
3. All handheld powered drills, tappers, fastener drivers, horizontal, vertical, and angle grinders with wheels greater than 2 inches (5.1 centimeters) in diameter, disc sanders, belt sanders, reciprocating saws, saber saws, and other similar operating powered tools will be equipped with a momentary contact ON/OFF control and may have a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.
4. All other handheld powered tools such as circular saws, chain saws, and percussion tools without positive accessory holding means will be equipped with a constant pressure switch that will shut off the power when the pressure is released (i.e., "dead man" switch).

**C. Grinding Tools**

1. Inspect work rests and tongue guards for grinders.
  - a. Work rest gaps should not exceed  $\frac{1}{8}$  inch (3 mm).
  - b. Tongue guard gaps should not exceed  $\frac{1}{4}$  inch (6 mm).
2. Do not adjust work, guards, or tool rests while the grinding wheel is moving.
3. Inspect the grinding wheel for cracks, chips, defects, or excessive wear. Remove from service if any defects are found.
4. Wear goggles when grinding. A clear full face shield may be worn with the goggles.

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5. Do not use the side of a grinding wheel unless the wheel is designed for side grinding.
6. Always stand to the side of the blade, never directly behind it.
7. Use grinding wheels only at their rated speed.
8. Grinding aluminum is prohibited.
9. For operations in the United Kingdom:
  - a. No grinding wheels exceeding 55 mm are to be used.
  - b. All wheels are to be marked with their safe maximum speed.
  - c. Abrasive wheels will be operated only by personnel who have been specifically trained and specified competent by URS.
  - d. Abrasive wheels will be operated only by persons specified as competent, under the abrasive wheel regulations.
  - e. Abrasive wheels must be operated only if the manufacturer's guard is fitted and they are in good working order.

#### D. Power Saws

1. Require that circular saws are fitted with blade guards.
2. Inspect each day prior to use. Remove damaged, bent, or cracked saw blades from service immediately.
3. Require that table saws are fitted with blade guards and a splitter to prevent the work from squeezing the blade and kicking back on the operator.
4. Require guards that cover the blade to the depth of the teeth on hand-held circular saws. The guard should freely return to the fully closed position when withdrawn from the work surface.

#### E. Woodworking Machinery

**URS SAFETY MANAGEMENT STANDARD**  
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1. Do not leave woodworking tools running when unattended.
2. Keep the operating table and surrounding area clear of debris.
3. Do not use compressed air to remove dust and chips from woodworking machinery.
4. Locate the ON/OFF switch to prevent accidental start-up. The operator must be able to shut off the machine without leaving the workstation. Safety goggles and kickback aprons should be provided for and worn by operators. Respirators or local exhaust ventilation may also be necessary based on the type of material being cut or sanded.
5. Guard planers and joiners to prevent contact with the blades throughout the full length of the cutting area.
6. Ensure that band saw blades are fully enclosed except at the point of operation.
7. Require that swing cut-off saws have a guard completely covering the upper half of the saw.
8. Require that circular cross-cut and rip saws are provided with a hood guard, splitter, and anti-kickback device. The hood should adjust itself automatically to the thickness of and remain in contact with the material being cut. All circular saws will be provided with a hood guard.
9. Ensure that exposed parts of the saw blade under the table are properly guarded.
10. Equip all swing cutoff and radial saws that are drawn across a table with limit stops to prevent the saw from traveling beyond the edge of the table.
11. Hold the material being cut firmly against a back guide or fence and cut with a single, steady pass.
12. Cut green or wet material slowly and with caution. Check all material being cut for nails, hard knots, etc.
13. Use a push stick when:

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- a. The cutting operation requires the hands of the operator to come close to the blade.
  - b. Small pieces are being machined.
14. When cutting long stock, provide extension tables and a helper to assist the operator.
15. Adjust saw blades so they clear only the top of the cut.
16. Automatic feed devices should be used whenever feasible.
17. When drills are used:
- a. Take care to prevent clothing from being wound around the drill. Wear sleeves buttoned at the wrist or short-sleeved shirts.
  - b. Clamp or hold down material being drilled to prevent spinning with the drill.
  - c. If the bit is long enough to pass through the material, provide against damage and injury.
  - d. Secure magnetic drills with a chain or rope to prevent falling. Label cord connections to prevent unplugging.
18. When sanders are used:
- a. Move sanders away from the body.
  - b. Because dust may create an explosion hazard, guard against open flames and sparks.

**F. Pneumatic Tools and Equipment**

1. Require that pneumatic tools have:
- a. Tool retainers to prevent the tool from being ejected from the barrel during use.
  - b. Safety clips, chains, tie wires, or other retaining devices to secure connections between tool/hose/compressor to prevent whipping in case of disconnection or failure.

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2. Do not lay hose in walkways, on ladders, or in any manner that presents a tripping hazard.
3. Never use compressed air to blow dirt from hands, face, or clothing.
4. Do not use compressed air for cleaning purposes unless the pressure is reduced to 30 pounds per square inch (psi) or less. This rule does not apply for concrete form, mill scale, green cutting, and similar cleaning operations. Proper respiratory, hand, eye, and ear protection must be worn.
5. Never raise or lower a tool by the air hose.
6. Shut off the pressure and exhaust from the line before disconnecting the line from any tool or connection.

#### G. Powder-Actuated Fastener Tools

1. Use powder-actuated tools that comply with the requirements of the American National Standards Institute (ANSI)/American Society of Safety Engineers (ASSE) Standard A10.3 – 2006 – Powder-Actuated Fastening Systems.
2. Assess local and state regulations governing the use of these tools to ensure compliance.
3. Use only individuals who have been trained by a manufacturer's representative and possess the proper license to operate, repair, service, and handle powder-actuated tools.
4. With each tool, the manufacturer or supplier should furnish a detailed instruction manual covering the application, operation, and maintenance of the tool. The manufacturer's recommendation for size of charge, stud unit, or pin, and for specific application must be followed explicitly by the operator.
5. Keep cartridges or shells in the original containers, in separate metal containers, or in the carrying case provided with the tool, and then stored in locked containers. Keep cartridges of varied charges or forces segregated from each other.

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### **Hand Tools and Portable Equipment**

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6. Take precaution, as defined by the manufacturer, in the event of a misfire.
7. Provide information from the manufacturer on the safe use, testing, and maintenance of each type of tool in each tool kit.
8. Never use a powder-actuated tool in a flammable or explosive atmosphere.
9. Require the use of goggles or a full face shield as well as safety glasses during operation of powder-actuated tools.
10. Use only tools that are provided with a shield or muzzle guard. This shield or guard should be of a size, design, and material that will effectively confine flying particles and prevent escape of ricocheting studs and pins.
11. Ensure that powder-actuated tools are not able to be fired unless the tool is pressed against the work surface.
12. Always handle powder-actuated tools like firearms, with hands clear of the muzzle and barrel pointed away from all persons, especially when the tool is being closed or assembled after loading.
13. Ensure that the tool is not able to fire if the tool is dropped when loaded.
14. Ensure that firing the tool requires two separate operations, with the firing movement being separate from the motion of bringing the tool to the firing position.
15. Provide signs and barricades when shooting into walls or floors with personnel working on the other side.
16. Never fire into easily pierced or soft substrates or into materials of unknown resistance to piercing. In these situations, there is potential for the fastener to penetrate and pass through, creating a flying projectile hazard. If penetration of these materials is required, the material should be backed with a box of wood or sand at least four inches (10 cm) thick and of adequate area.
17. Do not use powder-actuated tools in reinforced concrete if there is the possibility of striking the rebar.

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18. Do not use powder-actuated tools on cast iron, high carbon, heat treated steel, or armor plate, thin slate, marble, glass, live rock, glazed brick or tile, terra cotta, or other brittle substances, or where the composition is unknown.
19. Do not fire studs closer than three inches (7.5 cm) from the edge or corner when being used on brick or concrete. Do not fire studs closer than ½ inches (1.25 cm) from the edge when being used on steel.
20. Never load and leave a powder-actuated tool unattended. It should be loaded only prior to its intended firing. Use only studs or pins specifically designed for the tool.
21. Test tools each day prior to loading by testing safety devices according to the manufacturer's recommended procedure.
22. Inspect, clean, and store powder-actuated tools in a safe place at the end of each day. No tool will be stored loaded. Store tools with the barrels removed or breech open.
23. At the manufacturer's recommended intervals, the tool will be completely dismantled and carefully inspected for wear on the safety devices by a qualified person familiar with the tool. Worn parts will be replaced before the tool is used again. It is recommended that factory-authorized service representatives be utilized for inspection, repair, and parts replacement, where possible.

#### H. Chain Saws

1. Approval by the HSE manager is required for all use of chain saws.
2. Inspect the saw prior to each use and periodically during daily use.
3. Never cut above chest height.
4. Require that the idle is correctly adjusted on the chain saw. The chain should not move when the saw is in the idle mode.
5. Start cutting only after a clear escape path has been made.

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6. Shut the saw off when carrying through brush or on slippery surfaces. The saw may be carried no more than 50 feet (15 meters) while idling.
  7. Require applicable protective gear. This will include, but is not limited to:
    - a. Logger's safety hat.
    - b. Safety glasses and face shield.
    - c. Steel-toed boots.
    - d. Protective leggings.
    - e. Hearing protection.
    - f. Work gloves.
  8. Inspect saws to ensure that they are fitted with an inertia break and hand guard.
  9. *Never* operate a chain saw when fatigued.
  10. Do not allow others in the area when chain saws are operated.
  11. Make sure there are no nails, wire, or other imbedded material that can cause flying particles.
  12. Do not operate a chain saw that is damaged or improperly adjusted, or is not completely and securely assembled. Always keep the teeth sharp and the chain tight. Worn chains should be replaced immediately.
  13. Keep all parts of your body away from the saw chain when the engine is running.
  14. For all operations, only personnel specifically trained and certified as competent by URS may operate chain saws.
- I. Hand-Operated Pressure Equipment
1. Direct pressure equipment such as grease guns, and paint and garden sprayers away from the body and other personnel in the area. The person operating any equipment

## **URS SAFETY MANAGEMENT STANDARD**

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such as this, which has a potential for eye injury, must wear protective goggles.

2. The noise produced when using certain types of pressure equipment may require the use of hearing protection.
3. Never allow the nozzle of a pressurized tool to come in contact with any body parts while operating. There is potential for injection of a chemical directly into the user's body, resulting in severe injury or death.

#### J. Gasoline-Powered Tools

1. Never pour gasoline on hot surfaces.
2. Never fuel around an open flame or while smoking.
3. Shut down the engine before fueling.
4. Provide adequate ventilation when using in enclosed spaces.
5. Use only Underwriters Laboratories (UL) - or FM-approved safety cans to transport flammable liquids. The use of unapproved containers for gasoline is strictly prohibited.
6. Label gasoline containers in compliance with Hazard Communication requirements, indicating the chemical and physical hazards of the product.

#### K. Inspection

Inspect all hand tools on a regular basis. Immediately remove defective tools from service, and tag or destroy them to prevent further use.

### **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Site briefings regarding tool use.
- B. Records of tools removed from service.
- C. Copies of powder-actuated tool licenses (as applicable).

## **URS SAFETY MANAGEMENT STANDARD**

### **Hand Tools and Portable Equipment**

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D. Tool inspection documentation.

#### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Standard – [Hand and Portable Power Tools](#) – 29 Code of Federal Regulations (CFR) 1910, Subpart P
- B. U.S. OSHA Standard – [Construction Tools – Hand and Power](#) – 29 CFR 1926, Subpart I
- C. American National Standards Institute ([ANSI](#))/[American Society of Safety Engineers \(ASSE\) Standard A10.3 – 2006](#) – Powder-Actuated Fastening Systems
- D. [National Association of Demolition Contractors](#)
- E. United Kingdom – ['Provision and Use of Work Equipment' Regulations 1998](#)
- F. Australia/New Zealand Standards – Powder-Actuated Handheld Fastening Tools - AS/NZS 1873.1:2003 Australian/New Zealand Standards – [Hand-held Motor-operated Electric Tools – AS/NZS 60745.1:2003](#)
- G. [SMS 023](#) – Lockout and Tagout Safety
- H. [SMS 064](#) – Hand Safety

**URS SAFETY MANAGEMENT STANDARD 018**  
**HEAT STRESS**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Heat Stress**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies on projects where ambient (not adjusted) temperatures exceed 70 degrees Fahrenheit (°F) (21 degrees Celsius [°C]) for personnel wearing chemical-protective clothing, including impermeable protective clothing such as Tyvek or Saranex coveralls, and 90°F (32°C) for personnel wearing standard permeable work clothes. Permeable clothing refers to clothes of standard cotton or synthetic materials. Note that certain governmental entities require heat stress prevention techniques be implemented at lower temperatures or whenever outdoor work is conducted. Always consult local regulations to determine if more stringent standards apply.

### **2. Purpose and Scope**

The purpose of this standard is to protect project personnel from the effects of heat-related illnesses.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

A. The project Health and Safety Plan will address heat stress control when temperatures identified in Section 1 of this standard are anticipated.

This standard introduces three different means of monitoring for heat stress conditions: Wet Bulb Globe Temperature (WBGT), Humidex Based Heat Response and Physiological Monitoring. These methods can be used separately or in conjunction. For employees wearing chemical-protective clothing, physiological monitoring (Section D) is the most effective approach, because evaporative cooling capability is limited.

B. Heat stress is influenced by air temperature, radiant heat, and humidity. The WBGT is a useful index of the environmental contribution to heat stress. Because WBGT is only an index of the environment, the contributions of work demands, clothing, and state of acclimatization must also be accounted for, as described in the following steps.

1. Monitor ambient temperatures and conduct heat stress monitoring in accordance with the project Health and Safety Plan. Revise the heat

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**Heat Stress**

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stress monitoring and controls if there are any reports of discomfort due to heat stress.

2. Monitor temperatures in each unique environment in which workers perform work (e.g., take WBGT measurements inside truck cabs for truck drivers, and take separate WBGT measurements in the outdoor area where field employees work, etc.). Follow manufacturer’s instructions on proper use of the WBGT.
3. Determine if individual workers are acclimatized or un-acclimatized. Full heat acclimatization requires up to 3 weeks of continued physical activity under heat-stress conditions similar to those anticipated for the work. Its loss begins when the activity under those heat-stress conditions is discontinued, or when there is a sustained increase in temperatures of 10 °F (5.6 °C) or more, and a noticeable loss occurs after 4 days. A worker can be considered acclimatized for the purpose of this procedure when they have been exposed to the site conditions (including level of activity) for 5 of the last 7 days.
4. Determine the approximate workload of each worker or group of workers. The following examples can be used for comparison:

**Table 1**  
**Examples of Activities within Workload Categories**

Categories	Example Activities
Resting	Sitting quietly
	Sitting with moderate arm movements
Light	Sitting with moderate arm and leg movements
	Standing with light work at machine or bench while using mostly arms
	Using a table saw
	Standing with light or moderate work at machine or bench and some walking about
Moderate	Scrubbing in a standing position
	Walking about with moderate lifting or pushing
	Walking on level at 6 Km/hr while carrying 3 Kg weight load
Heavy	Carpenter sawing by hand
	Shoveling dry sand
	Heavy assembly work on a non-continuous basis
	Intermittent heavy lifting with pushing or pulling (e.g., pick-and-shovel work)
Very Heavy	Shoveling wet sand

5. Determine the approximate proportion of work within an hour during a typical shift. Typically, the initial work schedule will be 60 minutes of work

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**Heat Stress**

per hour (100 percent work) with a small break in the morning and afternoon, as appropriate, and a 30-minute lunch break mid-day.

6. Compare the WBGT values measured in 4.B.1 to the screening criteria values in the following table, using the determinations made in 4.B.3 through 4.B.5.

**Table 2**  
**SCREENING CRITERIA FOR HEAT STRESS EXPOSURE**  
**(WBGT Values in °F /°C)**

Work Cycle (60 min/ hour)	Acclimatized				Unacclimatized			
	Light Work	Mod. Work	Heavy Work	Very Heavy Work	Light Work	Mod. Work	Heavy Work	Very Heavy Work
100% Work	85.1/ 29.5	81.5/ 27.5	78.8/ 26.0	N/A	81.5/ 27.5	77.0/ 25.0	72.5/ 22.5	N/A
75% Work 25% Rest	86.9/ 30.5	83.3/ 28.5	81.5/ 27.5	N/A	84.2/ 29	79.7/ 26.5	76.1/ 24.5	N/A
50% Work 50% Rest	88.7/ 31.5	85.1/ 29.5	83.3/ 28.5	81.5/ 27.5	86/ 30	82.4/ 28	79.7/ 26.5	77/25
25% Work 75% Rest	90.5/ 32.5	87.8/ 31	86/ 30	85.1/ 29.5	87.8/ 31	84.2/ 29	82.4/ 28	79.7/ 26.5

- a. If the measured WBGT is *less than* the table value, there is little risk of excessive exposure to heat stress, and work can continue. Continue to monitor ambient conditions with the WBGT. However, if there are reports of the symptoms of heat-related disorders, then the analysis of little risk should be reconsidered.
- b. If the measured WBGT is *greater than* the table value, institute heat stress controls, including a work-rest cycle, and perform physiological monitoring as described in section D of this standard.
- c. Because of the physiological strain associated with very heavy work among less fit workers regardless of WBGT, values are not provided in Table 1 for continuous work. Physiological monitoring should always be implemented under these conditions.
- d. For workers wearing cloth coveralls (e.g., Nomex fire resistant clothing), add 3.5 to the measured WBGT. For impermeable clothing, such as Tyvek or Saranex, the WBGT procedures cannot be used. For these situations, workers should begin physiological monitoring as soon as the temperature in the work area exceeds 70°F (21°C).

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### **Heat Stress**

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#### C. Humidex Based Heat Response

1. The Humidex method is a simplified way of protecting workers from heat stress which is based on the WBGT to estimate heat strain. It is an equivalent scale intended to express the combined effects of warm temperatures and humidity. Humidex is used as a measure of perceived heat that results from the combined effect of excessive humidity and high temperature.
2. This method requires only a local air temperature and relative humidity value. Monitoring must continue throughout the day for changing conditions. Identify a representative location where measurements can be taken. Measurements should be recorded at least hourly when ambient temperatures and 90°F (32°C) for personnel wearing normal permeable work clothes.
3. Specific procedures to complete the Humidex Based Heat Response Plan are included in Attachment 018-1 NA – Humidex Worksheet.

#### D. Physiological Monitoring

Physiological monitoring provides a means to assess the effectiveness of the heat stress controls (training, hydration, work-rest cycles, etc.) that are in place. Based on the results of physiological monitoring and self-assessment, work-rest cycles can be adjusted to more effectively control heat stress by shortening the work period, or to allow for longer work periods if workers are recovering adequately during rest breaks.

1. Perform physiological monitoring as soon as the employee stops working and begins their break (rest). Perform *physiological monitoring at least every hour*. Base rest breaks on the results of the monitoring, workers' self-assessment, and professional judgment.
  - a. Example 1: If the WBGT is 85°F (29.4°C) or less for acclimatized, light-duty workers, they can work 60 minutes per hour (100 percent work), and they need only take their regularly scheduled breaks.
  - b. Example 2: If the WBGT is greater than 85°F (29.4°C) for acclimatized, light-duty workers, physiological monitoring must be performed, and workers' work-rest cycles must be adjusted as described below.
2. Have workers assess themselves and their body's reaction to the heat and work conditions (self-assessment), and report any signs or symptoms of

## **URS SAFETY MANAGEMENT STANDARD**

### **Heat Stress**

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heat illness. These can include nausea or dizziness, heat cramps, extreme thirst, or very dark urine.

3. Based on the results of the physiological monitoring and on the workers' self-assessments, the work period may be adjusted as follows:
  - a. The work period may be *increased* (generally, by 5- to 10-minutes intervals, up to a maximum of 4 hours) if the results of the first 2 hours of the physiological monitoring and the workers' self-assessments indicate that workers *are* recovering adequately (see below), and on the judgment of the Health and Safety Technician.
  - b. The work period *must be decreased* if the results of the physiological monitoring and the workers' self-assessment indicate that workers are NOT recovering adequately (see below).
4. Perform physiological monitoring
  - a. The worker or the Health and Safety Technician must measure and record body temperature and pulse rate as described below. Use SMS 018-2 NA – Heat Stress Monitoring Record as a tool.
5. Body Temperature Monitoring
  - a. Monitor body temperature to determine if employees are adequately dissipating heat buildup. Ear probe thermometers which are adjusted to oral temperature (aural temperature) are convenient and the preferred method of measurement. Determine work/rest regimen as follows:
    - i. Measure oral body temperature at the end of the work period. Oral body temperatures are to be obtained prior to the employee drinking water or other fluids.
    - ii. If temperature exceeds 99.6°F (37.5°C), shorten the following work period by 1/3 without changing the rest period.
    - iii. If, at the next rest period, temperature still exceeds 99.6°F (37.5°C), the worker should not be allowed to continue work until repeated temperature measurements are in the acceptable range (i.e., less than 99.6°F). Do not leave the worker alone during the recovery time. Watch for signs of heat illness and be prepared to implement emergency response as necessary.

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- iv. Do not allow a worker to wear impermeable PPE when his/her oral temperature exceeds 100.6°F (38.1°C).
  - b. Have employees assess themselves and their body's reaction to the heat and work conditions, and report any signs or symptoms of heat stress, including, but not limited to, feeling nauseous or dizzy, skin rash or skin irritation, muscle cramps, weakness or fatigue, extreme thirst, dizziness, blurred vision, headache, or very dark urine.
6. Pulse Rate Monitoring
- a. Take the radial (wrist) pulse as early as possible in the rest period and determine the worker's heart rate in beats per minute. The heart rate is determined by counting the pulse for ten seconds and multiplying the number by 6 to get the beats per minute. Record this as P1.
  - b. Wait 2 minutes and repeat the pulse measurement. Record this as P2.
  - c. If P1 is greater than or equal to 110 beats per minute (bpm) and if (P1 – P2) is less than or equal to 10 bpm (indicating that workers are not recovering adequately), shorten the next work cycle by 1/3 without changing the rest period.
  - d. At the next rest period, if P1 is still equal to or greater than 110 bpm, and if (P1 – P2) is still less than or equal to 10 bpm, shorten the following work cycle by 1/3 without changing the rest period.
  - e. At the third rest period, if P1 is still equal to or greater than 110 bpm and (P1 – P2) is still less than or equal to 10 bpm, the worker should not be allowed to continue work until repeated pulse measurements are in the acceptable range (i.e., P1 is less than 110 bpm and (P1 – P2) is greater than 10 bpm). Do not leave the worker alone during the recovery time. Watch for signs of heat illness and be prepared to implement emergency response as necessary.
- E. Record monitoring results and worker's self-assessments on Attachment 018-2 NA – Heat Stress Monitoring Record.
- F. Investigate the use of auxiliary cooling devices in extreme heat conditions.
- G. Conduct briefings for employees regarding health hazards and control measures associated with heat stress whenever conditions require the implementation of heat stress monitoring. Review the information provided in Supplemental Information A.

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- H. Provide cool water and electrolyte replacement drinks as described in Supplemental Information A.
- I. Allow employees who are not accustomed to working in hot environments appropriate time for acclimatization, as described in Supplemental Information A.
- J. Provide break areas as described in Supplemental Information A.

#### **5. Documentation Summary**

The following information will be maintained in the project file:

- A. Heat Stress Monitoring Records
- B. Employee Safety Briefing Verification Forms

#### **6. Resources**

- A. NIOSH – [Working in Hot Environments \(Publication No. 86-112\)](#), 1986
- B. NIOSH – Criteria for a Recommended Standard for Occupational Exposures to Hot Environments ([Publication No. 86-113](#)), 1986
- C. ACGIH – [Documentation of the Threshold Limit Values and Biological Indices, 2003](#)
- D. AFL-CIO Building Trades Division – [Heat Stress in Construction](#)
- E. Occupational Health Clinics for Ontario Worker, Inc. – [Humidex Based Heat Response Plan](#)
- F. [Attachment 018-1 NA](#) – Humidex Worksheet
- G. [Attachment 018-2 NA](#) – Heat Stress Monitoring Record

#### **7. Supplemental Information**

- A. [Heat Stress Informational Supplement](#)



**HUMIDEX WORKSHEET**

**Step 1:** On the Humidex table below, look up the temperature on the left (Celsius is located below RH>) and the relative humidity (RH) on the top. Determine the Humidex value.

F	RH>	100%	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	45%	40%	35%	30%	25%	20%	
108	42													55	52	50	48	46	
106	41													55	53	51	48	44	
104	40												55	53	51	49	47	43	
102	39										55	53	51	49	47	45	43	41	
100	38	<b>Step 1 - Determine HUMIDEX VALUE</b>									54	53	51	49	47	45	43	42	40
99	37								54	52	51	49	47	45	44	42	40	38	
97	36				57	55	53	52	50	49	47	45	44	42	40	39	37	37	
95	35			56	54	53	51	50	48	47	45	43	42	40	39	37	36	36	
93	34	56	55	53	52	51	49	48	46	45	43	42	40	39	37	36	34	34	
91	33	55	54	53	51	50	48	47	46	44	43	41	40	39	37	36	34	33	
90	32	53	51	50	49	48	46	45	44	42	41	40	38	37	36	34	33	32	
88	31	50	49	48	47	45	44	43	42	40	39	38	37	35	34	33	32	30	
86	30	48	47	46	44	43	42	41	40	39	37	36	35	34	33	31	30	29	
84	29	46	45	43	42	41	40	39	38	37	36	35	33	32	31	30	29	28	
82	28	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	
81	27	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	
79	26	39	38	37	36	35	34	33	33	32	31	30	29	28	27	26	25	24	
77	25	37	36	35	34	33	33	32	31	30	29	28	27	26	26	25	24	23	

**Step 2:** Place the Humidex value into the Heat Index Adjustment Table below. Determine the applicable adjustments based on the given work or task.

**Heat Index Adjustment Table**

<b>Step 2 - Risk Factor Adjustment</b>		
Write in value	What is the HUMIDEX value from the table in Step 1?	
<b>Radiant Heat</b>		<b>Adjustment</b>
	Working in full-sun	Add 2
	Working in ½ or partial sun or weak radiant heat source	Add 1
	Working near very hot equipment surfaces or processes	Add 2
<b>Clothing: Pick One Only</b>		
	Short/long sleeve shirt and pants – no overalls	None
	Overalls (e.g., Nomex suit)	Add 3
	Double layer overalls	Add 5
Stop	Impermeable clothing	Perform Physiological Monitoring
<b>Acclimatization</b>		
	Have been working at least 5 of last 7 days in heat stress conditions.	Subtract 4
<b>Work Load &amp; Miscellaneous Factors</b>		
	Light Work (Standing, slow walking)	Subtract 2
	Medium Work (Walking about with moderate lifting or pushing)	None
	Heavy Work (Shoveling dry sand, carrying 50 lbs)	Add 2
	Very Heavy Work (Shoveling wet sand)	Add 3
<b>TOTAL – Compare to Heat Index Response Plan</b>		

**Step 3:** Compare adjusted Heat Index Total to the Heat Index Response Plan table to obtain guidance for work/rest.

Heat Index Response Plan\*

TOTAL NUMBER	Final Step 3 - HEAT INDEX Response
30-33	alert & information & water
34-37	warning & increase water
38-39	75% work - 25% rest & monitor for signs of heat stress
40-41	50% work - 50% rest & monitor for signs of heat stress
42-44	25% work - 75% rest & monitor for signs of heat stress
45+	Perform Physiological Monitoring

\* Percent work and rest/recovery are on a per hour basis. Adjustments and subsequent work/rest cycle recommendations are rough guidelines only. No heat stress prediction scheme can replace monitoring of symptoms or a health care practitioners advice in the case of individuals with special medical conditions or predisposing circumstances for heat related illness. Always pay attention to the way workers are feeling. Recuperate if fatigued, nauseated, dizzy or thirsty.



## HEAT RASH

Heat rash (prickly heat) may result from continuous exposure to heat or humid air. It appears as red papules (elevated skin lesion), usually in areas where the clothing is restrictive, and gives rise to a prickly sensation, particularly as sweating increases. It occurs in skin that is persistently wetted by un-evaporated sweat. The papules may become infected unless treated.

**First Aid for Heat Rash** - To prevent heat rash, shower after work, dry off thoroughly, and put on clean, dry underwear and clothes. Try to stay in a cool place after work. If, in spite of this, you develop heat rash, see your physician.

## HEAT CRAMPS

Heavy sweating with inadequate electrolyte replacement causes heat cramps. Signs and symptoms include:

- Muscle spasms.
- Pain in the hands, feet and abdomen.

**First Aid for Heat Cramps** - Leave the work area, and rest in a cool, shaded place.

Mild heat cramps can be treated by drinking beverages that contain salt or eating salty food. Severe heat cramps are treated with fluids and salts given intravenously.

Once the spasms disappear, you may return to work. Taking adequate breaks and drinking electrolyte replacement drink should prevent the cramps from returning.

## HEAT EXHAUSTION

Heat exhaustion occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include:

- Pale, cool, moist skin.
- Heavy sweating.
- Dizziness.
- Nausea.
- Fainting.
- Headache.
- Blurred vision.
- Vomiting.

The key here is that the victim is still sweating, so the cooling system is still working; it's just under severe stress. The body core temperature may be elevated, but not higher than 104°F (40°C). It is important to recognize and treat these symptoms as soon as possible, as the transition from heat exhaustion to the very hazardous heat stroke can be quite rapid.

**First Aid for Heat Exhaustion** – Treatment involves replacing fluids (rehydration) and salts and removing the person from the hot environment. If symptoms are mild, sipping cool, slightly salty beverages every few minutes may be all that is needed. Removing or loosening clothing and applying wet cloths or ice packs to the skin also aid cooling.

## **HEAT STROKE**

Heat stroke is the most serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels, typically at or above 104°F (40°C). Immediate action must be taken to cool the body before serious injury and death occurs. Competent medical help must be obtained. Signs and symptoms are:

- Red, hot, usually dry skin.
- Lack of or reduced perspiration (lack of perspiration may be masked for those wearing chemical protective clothing since perspiration from earlier in the day will be present).
- Nausea.
- Vomiting.
- Dizziness and confusion.
- Strong, rapid pulse.
- Coma.

### **First Aid for Heat Stroke - THIS IS A MEDICAL EMERGENCY! SUMMON MEDICAL ASSISTANCE IMMEDIATELY!**

While awaiting transportation to the hospital, a person should be wrapped in cold, wet bedding or clothing; immersed in a lake, stream, or cool bathtub; or cooled with ice. At the hospital, body cooling is usually accomplished by removing the clothes and covering the exposed skin with water or ice. To speed evaporation and body cooling, a fan may be used to blow air on the body. Body temperature is measured frequently, often constantly. To avoid overcooling, cooling is stopped when the body temperature is reduced to about 102°F (38°C).

## **HEAT STRESS PREVENTION**

The best approach to avoiding heat-related illness is through preventative heat stress management.

**Rest areas** - A relatively cool, shaded area must be provided for breaks when ambient temperatures exceed 70°F (21°C) and workers are wearing chemical protective clothing (including uncoated Tyvek), or if temperatures exceed 80°F (26°C) and workers are wearing "Level D" coveralls or work clothes. For hazardous waste sites, the rest area should be located in the support zone adjacent to the contamination reduction zone, situated so that part of it is in the decon area so workers can take breaks without going through full decon. If shade is not available, shaded areas shall be constructed. This same type of canopy can be set up to shade personnel performing various types of work in hot weather. Cooling measures other than shade (e.g., misting, air conditioned break areas, air conditioned

	<p style="text-align: center;"><b>Health, Safety and Environment</b></p> <p style="text-align: center;"><b>HEAT STRESS</b> <b>INFORMATIONAL SUPPLEMENT</b></p>	<p style="text-align: right;">SMS 018 NA Supplemental Information A</p> <p style="text-align: right;">Issue Date: February 2009 Revision 2: August 2010</p>
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vehicles, etc.) can be used in lieu of shade provided it can be demonstrated that they are at least as effective in cooling employees. Employees should have access to these rest areas at break times and at any other time when suffering from heat illness or believing a preventive recovery period is needed.

**Liquids** - Encourage employees to drink plenty of cool plain water and electrolyte replacement drinks. Supplementing water with cool electrolyte replacement drinks, such as Gatorade, Squench or Quik-kick (drink), is helpful to employees who tend to sweat a lot. Do not use "community cups"; use paper cups. Employees should have access to potable drinking water equivalent to one quart of water per employee per hour during the shift. Less water can be available at the start of the shift provided it is effectively replaced when required.

Have workers drink 16 ounces (0.5 liters) of drink before beginning work, such as in the morning and after lunch. At each break, workers should drink 8 to 16 ounces (0.25 to 0.5 liters). Employees should not wait until they are thirsty to drink.

Discourage the use of alcohol during non-working hours, and discourage the intake of coffee during work hours, as these make heat stress control more difficult.

**Acclimatization** - This is the process by which your body "gets used to" hot work environments. This is achieved by slowly increasing workloads. Start at 50 percent capacity on day one, and increase by 10 percent per day; on day six, you'll be at 100 percent. You don't lose acclimatization over a weekend, but it'll start to decrease after three to four days. If you don't do hot work for a week, the acclimatization is gone. You don't have to do full shift hot work to achieve or retain acclimatization; a minimum of 100 minutes of continuous hot work exposure per day is adequate.

**Auxiliary Cooling** - Auxiliary cooling is usually obtained by providing workers with a specially-designed vest, which is worn under the protective clothing, but over any underclothing. These vests typically provide cooling via one of two methods: the use of ice or other frozen media, or the use of a vortex cooler. Each method has its advantages and disadvantages.

The frozen media vest requires a means for freezing the media, and the media (usually water or "blue ice") will melt, requiring replacement.

The vortex cooler tends to cool more uniformly. Instead of frozen media, this vest uses the expansion of compressed air to cool the wearer. The drawback is the compressed air requirement, but this is negated when the wearer is already using an airline respirator supplied by a compressor. A vortex cooler should not be supplied from air cylinders, as this will draw down the cylinders rapidly.

Auxiliary cooling should be considered when the following conditions exist:

- Ambient temperature over 80°F (26°C).
- Workers are wearing impermeable garments (i.e., Tyvek, Saranex, Chemrel, etc.).
- It is desirable to have long work shifts with minimum interruption.

**URS SAFETY MANAGEMENT STANDARD 019  
HEAVY EQUIPMENT OPERATIONS**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Heavy Equipment Operations**

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### **1. Applicability**

This standard applies to the operations of URS Corporation and its subsidiary companies where heavy equipment is in operation by URS employees or subcontractors.

### **2. Purpose and Scope**

The purpose of this standard is to require that heavy equipment is operated in a safe manner; that the equipment is properly maintained; and that ground personnel are protected. Heavy equipment includes construction and mining equipment such as backhoes, excavators, skid steers, graders, loaders, dozers, tractors, cranes, drills, and draglines.

In addition to this standard, refer to SMS 038 – Cranes and Derricks; and SMS 056 – Drilling Safety.

Military related vehicles and equipment (e.g., tanks) are not covered under this standard.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

#### **A. Authorized Operators**

1. Evaluate operators through documented experience (resume), and as appropriate, a practical evaluation of skills. Supplemental Information A through G, or a similar method, may be used for evaluating operators.
2. Allow only qualified operators to operate equipment. Trainees may operate equipment under the direct supervision of a trainer.
3. Prohibit equipment from being operated by any personnel who have not been specifically authorized to operate it.
4. Maintain a list of operators for the project, and the specific equipment that they are authorized to operate.

**URS SAFETY MANAGEMENT STANDARD**  
**Heavy Equipment Operations**

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5. Require operators to use seatbelts at all times in all equipment and trucks.
6. Except where allowed by the manufacturer, prohibit personnel other than the operator from riding in or on the equipment unless additional seating (with seatbelts) is provided by the manufacturer. In some cases, a trainer may ride in a cab not equipped with additional seating when training activities are being conducted.
7. Operators must maintain three points of contact whenever mounting and dismounting a piece of equipment.
8. Brief operators on the following rules of operation:
  - a. Operators are in control of their work area.
  - b. Equipment must be operated in a safe manner and within the constraints of the manufacturer's Operation Manual.
  - c. Operators must stop work whenever unauthorized ground personnel or equipment enter their work area, and only resume work when the area has been cleared.
  - d. Operators must not use mobile phones while operating heavy equipment.

**B. Ground Personnel**

1. Require that URS ground personnel or ground personnel interacting with URS heavy equipment operations have received training, and comply with the following rules of engagement:
  - a. Wear high-visibility protective vests when in work areas with any operating equipment.
  - b. Stay outside of the swing zone or work area of any operating equipment.
  - c. No standing or working in the equipment operator's blind spots.
  - d. Ground personnel may only enter the swing or work area of any operating equipment when:

## **URS SAFETY MANAGEMENT STANDARD**

### **Heavy Equipment Operations**

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1. They have attracted the operator's attention and made eye contact.
  2. The operator has idled the equipment down, placed it in neutral, grounded engaging tools, and set brakes.
  3. The operator gives the ground personnel permission to approach.
- e. Ground personnel must never walk, or position themselves between, any fixed object (e.g., working face, highwall) and operating equipment, or between two operating pieces of equipment.

#### C. Equipment

1. Maintain operation manuals at the site for each piece of equipment that is present on the site and in use.
2. Require that operators have read or been trained on the manual for the equipment, and operate the equipment within the parameters of the manual and this standard.
3. Require that all equipment is provided with roll-over protection systems (ROPS). Tracked excavators, road trucks, and drills are exempt from ROPS requirements, but must have a cab that provides protection from overhead hazards.
4. Verify that seatbelts are present and functional in all equipment.
5. Prohibit the use of equipment that has or had cab glass (per the manufacturer's specifications) that is cracked, broken, or missing.
6. Require that backup alarms are functional on all trucks and equipment. Tracked excavators must have bi-directional alarms, or the operator must be provided with a spotter whenever tracking in either direction.
7. Require all extensions such as buckets, blades, forks, etc., to be grounded when not in use.
8. Require brakes to be set and wheels chocked or equivalent (when applicable) when not in use.

**URS SAFETY MANAGEMENT STANDARD**  
**Heavy Equipment Operations**

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9. Require fire extinguishers to be placed on all vehicles or equipment as required, and inspected by the operator prior to each shift. Monthly inspection and service records will be maintained in the project office, if not kept on the extinguishing equipment.
10. Require that all haulage vehicles, whose payload is loaded by means of cranes, power shovels, loaders, or similar equipment, has a cable shield and/or canopy adequate to protect the operator from shifting or falling material. If protection is not available for the operator, the operator must leave the vehicle and wait in a designated safe location until it is loaded.
11. Require that a locking device be provided that will prevent the accidental separation of towed and towing vehicles on every fifth-wheel mechanism and two-bar arrangement.
12. Require that trip handles for tailgates of dump trucks and heavy equipment be arranged so that when dumping, the operator will be in the clear.
13. Require that motors and engines are shut off during fueling or maintenance operations. Ensure proper grounding/bonding between equipment and fuel vehicle prior to fueling operations. During fueling operations, ensure the fuel nozzle remains in contact with the tank and no smoking or open flame is present in the immediate area.

D. Subcontractor Equipment

1. Require that no unsafe vehicles or equipment be allowed in construction areas. Where compliance is refused, the project manager or his or her designate should be notified immediately.
2. Require that subcontractor employees follow established safety procedures in operation, inspection, and maintenance of vehicles and equipment.
3. Require that URS supervisors visually observe the subcontractors' vehicles and equipment, and report any unsafe conditions or practices to the project manager. Equipment not in compliance with applicable safety standards is prohibited.

**URS SAFETY MANAGEMENT STANDARD**  
**Heavy Equipment Operations**

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E. Safe Operation

1. All vehicles transporting material or equipment on public roads must comply with local laws pertaining to weight, height, length, and width. Obtain any permits required for these loads.
2. Prohibit operating Company-owned, leased, or rented vehicles or equipment while under the influence of alcohol or illegal drugs.
3. Require seatbelts to be worn for all operators, drivers, and passengers for company owned or leased vehicles and equipment.
4. Do not drive equipment into an unsafe area. This includes areas of construction where unnecessary tire, steering, or body damage could result, or where soil conditions are not adequate to support the equipment.
5. Do not smoke on, in, or within 50 feet (15 meters) of vehicles hauling fuel oils, gasoline, or explosives.
6. Do not ride with arms or legs outside of the truck body, in a standing position on the body, on running boards, or seated on side fenders, cabs, cab shields, rear of truck bed, or on the load.
7. Do not drive any vehicle at a speed greater than is reasonable and proper, with due regard for weather, traffic, intersections, width, and character of the roadway, type of motor vehicles, and any other existing condition.
8. Oilers, apprentices, and other operators will not be allowed to operate equipment unless authorized by the project manager or general superintendent.
9. Do not operate any equipment beyond its safe load or operational limits.
10. Keep all employees clear of loads about to be lifted, or suspended loads.
11. Outfit equipment operated in hazardous atmosphere environments with the proper safety equipment (e.g., spark arrestors).
12. Utilize equipment with enclosed cabs where feasible or accessible. Where use of equipment with enclosed cabs is not feasible or said

## **URS SAFETY MANAGEMENT STANDARD**

### **Heavy Equipment Operations**

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equipment is not accessible, require that operators use eye protection in accordance with potential airborne hazards present.

#### F. Inspection and Maintenance

1. Require operators to inspect equipment daily (or before each shift), using Attachment 019-1 NA or equivalent.
2. Prohibit use of equipment deemed to be unsafe, as determined by daily inspection, until required repairs or maintenance has been completed.
3. Conduct maintenance as prescribed by the manufacturer in the Operation Manuals for each piece of equipment.
4. During maintenance and repair, require that:
  - a. Motors are turned off, unless required for performing maintenance or repair.
  - b. All ground-engaging tools are grounded or securely blocked.
  - c. Controls are set in a neutral position.
  - d. Brakes are set.
  - e. Electrically driven equipment is installed with provision for tagging and locking out the controls while under repair.
  - f. Manufacturer's requirements for maintenance and repair are followed.
5. Provide and use a safety tire rack, cage, or equivalent protection when inflating, mounting, or dismounting tires installed on split rims, or rims equipped with locking rings or similar devices.
6. Maintenance records for any service, repair or modification which affects the safe performance of the equipment must be maintained and reasonably available to operator and maintenance personnel.

#### **5. Documentation Summary**

The following information will be maintained in the project file:

- A. Operator qualifications.

## **URS SAFETY MANAGEMENT STANDARD**

### **Heavy Equipment Operations**

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- B. Daily Equipment Inspection Logs, Attachment 019-1 NA, or equivalent.
- C. Site briefing documentation for operator rules and ground personnel "rules of engagement".

#### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Standard – [Motorized Vehicles and Mechanized Equipment](#) – 29 Code of Federal Regulations (CFR) 1926, Subpart O
- B. U.S. Mine Safety and Health Administration – [30 CFR 48](#) – Training and Retraining Miners
- C. U.S. Mine Safety and Health Administration – [30 CFR 56](#) Subpart H – Loading, Hauling, and Dumping
- D. U.S. Mine Safety and Health Administration – [30 CFR 56](#) Subpart M – Machinery and Equipment
- E. U.S. Mine Safety and Health Administration – [30 CFR 77](#) Subpart E – Safeguards for Mechanical Equipment
- F. U.S. Mine Safety and Health Administration – [30 CFR 77](#) Subpart K – Ground Control
- G. U.S. Mine Safety and Health Administration – [30 CFR 77](#) Subpart Q – Loading and Haulage
- H. [National Association of Demolition Contractors](#) – Safety Manual
- I. [SMS 038](#) – Cranes and Derricks
- J. [SMS 056](#) – Drilling Safety
- K. [Attachment 019-1 NA](#) – Equipment Inspection Form

Note: The above regulatory resources are for U.S. operations only.

#### **7. Supplemental Information**

- A. [Backhoe Operator Skill Evaluation](#)
- B. [Scraper Operator Skill Evaluation](#)

**URS SAFETY MANAGEMENT STANDARD**  
**Heavy Equipment Operations**

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- C. [Bulldozer Operator Skill Evaluation](#)
- D. [Dump Truck Operator Skill Evaluation](#)
- E. [Roller/Compactor Skill Evaluation](#)
- F. [Front-End Loader Operator Skill Evaluation](#)
- G. [Grader Operator Skill Evaluation](#)
- H. [Excavator Operator Skill Evaluation](#)
- I. [Water Truck Operator Skill Evaluation](#)



**Health, Safety and Environment**  
**DAILY HEAVY EQUIPMENT**  
**SAFETY INSPECTION CHECKLIST**

Attachment 019-1 NA  
 Issue Date: June 1999  
 Revision 7: September 2011

Equipment ID No: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Equipment Name: \_\_\_\_\_ Employee No.: \_\_\_\_\_

Beg. Hours: \_\_\_\_\_ End Hours: \_\_\_\_\_ Date: \_\_\_\_\_

**INSTRUCTIONS:** Each shift must inspect all applicable items indicated. If an unsatisfactory condition is observed, suspend operation of the equipment and report the unsatisfactory condition to the site supervisor immediately.

ITEM INSPECTED	CHECK IF SATISFACTORY	COMMENTS	CORRECTED BY	DATE
Equipment Operating Manuals Available	<input type="checkbox"/>			
Falling Object Protective Structure (FOP)	<input type="checkbox"/>			
Roll-Over Protection Structure (ROP)	<input type="checkbox"/>			
Seat Belts	<input type="checkbox"/>			
Operator Seat Bar(s)	<input type="checkbox"/>			
Side Shields, Screens, or Cab	<input type="checkbox"/>			
Lift-Arm Device	<input type="checkbox"/>			
Grab Handles	<input type="checkbox"/>			
Back-up Alarm – Working	<input type="checkbox"/>			
Lights	<input type="checkbox"/>			
Guards	<input type="checkbox"/>			
Horn	<input type="checkbox"/>			
Windshield Wipers	<input type="checkbox"/>			
Glass, Mirrors	<input type="checkbox"/>			
Anti-Skid Tread Clear of Mud	<input type="checkbox"/>			
Safety Signs (i.e., counterbalance swing area)	<input type="checkbox"/>			
Fire Extinguisher	<input type="checkbox"/>			
General Condition	<input type="checkbox"/>			
Fuel Connection	<input type="checkbox"/>			
Oil (fuel and no leaks)	<input type="checkbox"/>			
Clear of Extra Materials	<input type="checkbox"/>			
Controls Function Properly	<input type="checkbox"/>			
Hydraulic System (full and no leaks)	<input type="checkbox"/>			
Parking Brake	<input type="checkbox"/>			
Lift Arm and Bucket	<input type="checkbox"/>			
Tires/Tracks	<input type="checkbox"/>			
Steering	<input type="checkbox"/>			
Breathing Air System	<input type="checkbox"/>			
Blast Shields	<input type="checkbox"/>			
Flammable Atmosphere Protective Equipment	<input type="checkbox"/>			
Quantity of Fuel Added	<input type="checkbox"/>			
Quantity of Oil Added	<input type="checkbox"/>			

**Operator Signature** \_\_\_\_\_



**Health, Safety and Environment**  
**BACKHOE OPERATOR SKILL EVALUATION**

SMS 019 NA  
Supplemental Information A  
Issue Date: February 2009  
Revision 2: August 2010

Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

This equipment is used primarily for excavation, although it may occasionally be used for other miscellaneous tasks for which crane or stick type equipment is required.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts, leaks; oil, hydraulic and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tires if applicable g) Glass, wipers h) Gauges, including temperature, oil, and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Excavating techniques a) Benching, sloping b) Spoil removal from side wall c) Back filling operations d) Aware of surroundings and personnel near the swing radius of boom	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Can arrange controls and boom for travel	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Speed in relation to terrain (controlled speed)	<input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Stock piling with front end bucket	<input type="checkbox"/> Yes <input type="checkbox"/> No
7)	Loading truck bed with bucket	<input type="checkbox"/> Yes <input type="checkbox"/> No
8)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Set all park brakes d) Lower bucket to ground e) Perform a general walk around looking for items for maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No



Health, Safety and Environment  
**SCRAPER OPERATOR SKILL EVALUATION**

SMS 019 NA  
Supplemental Information B  
Issue Date: February 2009  
Revision 2: August 2010

Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Drives a tractor to pull a steel bowl-like or box-like scoop (scraper), mounted on wheels, which scrapes up earth and transports it to a designated place; manipulates a series of levers to lower cutting edge of the scraper into the ground, to raise cutting edge when scraper is full, and to empty scraper.

STEPS	KEYPOINTS	SATISFACTORY
1.	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluids and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tires g) Glass, wipers h) Gauges, including temperature, oil, air and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.	Loading techniques a) Use of apron b) Use of cutting edge c) Pump loading etc	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.	Shifting and hauling	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.	Rough cut and fill	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.	Spreading material	<input type="checkbox"/> Yes <input type="checkbox"/> No
7.	Fine grading	<input type="checkbox"/> Yes <input type="checkbox"/> No
8.	Obtaining compaction	<input type="checkbox"/> Yes <input type="checkbox"/> No
9.	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Lower apron d) Lower bowl to the ground e) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No



Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Operates a large tractor with a concave steel blade or push block mounted in front of the chassis to level, distribute and push earth. This equipment may be used to push earth carrying equipment. At times a ripper attachment is used for ripping the earth prior to loading the scraper. Operator regulates height of blade or push block from ground and may help in necessary adjustments to equipment as needed.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluid and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tracks g) Glass, wipers h) Gauges, including temperature, oil, air and fuel i) Audible horn v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Pushing techniques a) Use of push blade b) Loading of push load equipment	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Use of ripper shanks	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Rough cut and fill	<input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Spreading material	<input type="checkbox"/> Yes <input type="checkbox"/> No
7)	Fine grading	<input type="checkbox"/> Yes <input type="checkbox"/> No
8)	Obtaining compaction by tracking in material	<input type="checkbox"/> Yes <input type="checkbox"/> No
9)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Lower rippers d) Lower blade to the ground e) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No



Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Drives a heavy-duty gasoline or diesel-powered truck used in hauling material to fill areas or dump sites. The truck is either a tandem rear axle type, or is a tractor truck, single or tandem axle, pulling a trailer. May service and make necessary adjustments for proper operation of equipment.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluid and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational (1) Brakes (2) Lights (3) Back-up alarms (4) Hand rails & ladders (5) Seat belts (6) Tires (7) Glass, wipers (8) Gauges, including temperature, oil, air and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Truck Weighing a) Tare weights b) Gross Weights	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Loading Techniques a) Parking into load patterns b) Bed preparation for material	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Shifting and Hauling	<input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Stockpiling	<input type="checkbox"/> Yes <input type="checkbox"/> No
7)	Backing with the use of mirrors	<input type="checkbox"/> Yes <input type="checkbox"/> No
8)	Dumping/Spreading Material a) Fill material b) Base course material c) Surface materials d) Asphalt e) Lowers truck bed (dump trucks) or dump chutes (belly dumps)	<input type="checkbox"/> Yes <input type="checkbox"/> No
9)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Use park brake d) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No



Health, Safety and Environment  
**ROLLER / COMPACTOR OPERATOR  
SKILL EVALUATION**

SMS 019 NA  
Supplemental Information E  
Issue Date: February 2009  
Revision 2: August 2010

Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Operates a self-propelled gasoline or diesel machine, which has steel wheels used to compact earth fills, flexible bases and all types of materials. Rollers are also used for compaction to achieve a desired or specified density. Rides on the machine platform and moves lever and pedals or throttles to control and guide machine.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluid and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tires, if applicable g) Glass, wipers h) Gauges, including temperature, oil, air and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Rolling techniques to obtain compaction a) Use of controls b) Vibratory controls c) Turns and maneuvers d) Aware of surroundings	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Rolling patterns a) Staggered patterns with other rollers	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No



Health, Safety and Environment  
**FRONT END LOADER  
OPERATOR SKILL EVALUATION**

SMS 019 NA  
Supplemental Information F  
Issue Date: February 2009  
Revision 2: August 2010

Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Operates a rubber tire or crawler type tractor with an attached bucket on front end. Moves a lever to raise and lower and dump contents of bucket. Machine is used to load materials from stockpiles, excavation, loading trucks.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluid and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tires g) Glass, wipers h) Gauges, including temperature, oil, air and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Loading techniques a) Use of bucket and controls b) Crowding the pile c) Pump loading, etc. d) Loading patterns e) Loading trucks f) Loading scrapers	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Control handling of contaminated soils	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Shifting and hauling	<input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Stockpiling	<input type="checkbox"/> Yes <input type="checkbox"/> No
7)	Mixing and moisture conditioning	<input type="checkbox"/> Yes <input type="checkbox"/> No
8)	Feeding crusher	<input type="checkbox"/> Yes <input type="checkbox"/> No
9)	Rough cut and fill	<input type="checkbox"/> Yes <input type="checkbox"/> No
10)	Spreading material	<input type="checkbox"/> Yes <input type="checkbox"/> No
11)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Lower bucket to the ground d) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No



Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Rides in control cab of grader and moves levers and hand wheels to guide machine and regulate the scraper blade. Blade is mounted on a carrying and turning circle at the front of the machine. Equipment is used to level or mix soils and aggregates to grade and to lay asphalt and flexible base materials.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluid and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tires g) Glass, wipers h) Gauges, including temperature, oil, air and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Leveling and scraping techniques a) Use of levers b) Use of cutting edge c) Controlling front wheel tilt d) Controlling crab motion	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Shifting and traveling with loaded moe board	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Rough cut and fill	<input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Spreading material	<input type="checkbox"/> Yes <input type="checkbox"/> No
7)	Fine grading	<input type="checkbox"/> Yes <input type="checkbox"/> No
8)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Lower moe board to the ground d) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No



Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Operates a rubber tire or crawler type tractor with an attached bucket on front end. Moves a lever to raise and lower and dump contents of bucket. Machine is used to load materials from stockpiles, excavation, loading trucks.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluid and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tires g) Glass, wipers h) Gauges, including temperature, oil, air and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Loading techniques a) Use of bucket and controls b) Crowding the pile c) Pump loading, etc. d) Loading patterns e) Loading trucks f) Loading scrapers	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Control handling of contaminated soils	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Shifting and hauling	<input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Stockpiling	<input type="checkbox"/> Yes <input type="checkbox"/> No
7)	Mixing and moisture conditioning	<input type="checkbox"/> Yes <input type="checkbox"/> No
8)	Feeding crusher	<input type="checkbox"/> Yes <input type="checkbox"/> No
9)	Rough cut and fill	<input type="checkbox"/> Yes <input type="checkbox"/> No
10)	Spreading material	<input type="checkbox"/> Yes <input type="checkbox"/> No
11)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Lower bucket to the ground d) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No



Health, Safety and Environment  
**WATER TRUCK OPERATOR  
SKILL EVALUATION**

SMS 019 NA  
Supplemental Information I  
Issue Date: September 2011

Date \_\_\_\_\_ Employee Name \_\_\_\_\_ Supervisor \_\_\_\_\_

Description:

Drives a pull type or truck type water truck. Waters roads, fills, and cut areas to suppress dust.

STEPS	KEYPOINTS	SATISFACTORY
1)	Demonstrated abilities a) Pre-shift inspection check list i) Check equipment for loose bolts and leaks; check oil, air, hydraulic fluid and water ii) Make sure area around the equipment is clear of people and other equipment iii) Check for fire extinguisher iv) Make sure that the following equipment is operational a) Brakes b) Lights c) Back-up alarms d) Hand rails & ladders e) Seat belts f) Tires g) Glass, wipers h) Gauges, including temperature, oil, air and fuel v) Notify supervision of any equipment that is not operational vi) The operator can park or side line a piece of equipment that is unsafe to operate if it poses a danger or hazard to employees or property	<input type="checkbox"/> Yes <input type="checkbox"/> No
2)	Identification of equipment controls	<input type="checkbox"/> Yes <input type="checkbox"/> No
3)	Loading Techniques a) Minimizes spillage b) Uses chocks or turns into berm	<input type="checkbox"/> Yes <input type="checkbox"/> No
4)	Shifting and Hauling	<input type="checkbox"/> Yes <input type="checkbox"/> No
5)	Properly applies water to ramps/corners	<input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Backing with the use of mirrors	<input type="checkbox"/> Yes <input type="checkbox"/> No
11)	Parking and shut down procedures a) Equipment line-up i) Straight line ii) Allow easy access for service b) Turn off all accessories c) Use park break d) Perform a general walk around looking for maintenance items	<input type="checkbox"/> Yes <input type="checkbox"/> No

**URS SAFETY MANAGEMENT STANDARD 021**  
**HOUSEKEEPING**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Housekeeping**

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### **1. Applicability**

This standard applies to the operations of URS Corporation and its subsidiary companies.

### **2. Purpose and Scope**

The purpose of this standard is to ensure proper housekeeping in office locations, on construction sites, and fixed work facilities to prevent cross contamination of hazardous materials, fires, and injuries resulting from slips, trips and falls.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility or site.

### **4. Requirements**

#### **A. General**

1. Require tools, materials, extension cords, hoses, and other equipment to be stowed at the end of the day. These materials must not be strewn about the site in a manner that may cause tripping or other hazards while in use.
2. Clear general waste, scraps, debris, and rubbish from work areas, passageways, and stairs in and around the facility on a daily basis. Do not throw or drop materials from upper levels to lower levels or to the ground unless disposal areas are provided and the area below is barricaded or secured.
3. Provide metal or other approved containers in adequate numbers to handle waste and rubbish disposal.
4. Garbage (including solid or liquid wastes), refuse, and hazardous waste such as caustics, acids, and toxic materials must be stored in approved and covered containers. Containers must be appropriately labeled as to contents. SMS 009 – Corrosive and Reactive Materials and SMS 017 – Hazardous Waste Operations, provide additional information on hazardous materials.
5. Store supplies and generated wastes or scrap in locations away from walkways and in a manner that will not trip workers. Maintain

**URS SAFETY MANAGEMENT STANDARD**  
**Housekeeping**

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stored materials in safe, neat stockpiles for ease of access and to prevent collapse or falling.

6. Keep weeds and vegetation away from stockpiled materials and walkways.
  7. Maintain flooring, stairways, gangways, access ways, and walkways in a clean, dry, and smooth condition.
  8. Ensure that oil, grease, water, ice, or other hazardous materials that may cause slipping or fire hazards are removed promptly.
  9. Ensure employees are trained in appropriate waste disposal procedures.
  10. Identify a member of line management (typically a site supervisor or foreman) with the responsibility of ensuring proper waste disposal and storage requirements are followed.
- B. Regularly inspect the work area for slip and trip hazards.
1. Office and trailer locations – Inspect work areas at least quarterly. Use the inspection sheet provided as Attachment 021-1 NA.
  2. Field sites – Inspect sites at least biweekly. Use the inspection sheet provided as Attachment 021-1 NA.
  3. Field sites performing aircraft and vehicle maintenance – Inspect the sites weekly if sanding, drilling, grinding, and/or painting operations are conducted. Use the inspection sheet provided as Attachment 021-2 NA.
  4. For European operations, the Workplace Inspection Checklist - Attachment 021-3 NA must be completed monthly.
- C. Thoroughly investigate all injuries resulting from slips, trips, and falls on site. Correct those housekeeping conditions contributing to injuries.
- D. Project management personnel shall address the following issues in project pre-planning:
1. Estimate the types and quantities of waste or scrap generated during site-specific project activities.

## **URS SAFETY MANAGEMENT STANDARD**

### **Housekeeping**

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2. Identify any needs for specialized containers or waste disposal services.
  3. Coordinate waste disposal options with the client.
  4. Identify any hazards associated with handling or storage of waste or scrap and determine if control measures, including engineering, administrative controls, or personal protective equipment, are required.
  5. Identify waste or scrap handling and storage procedures that will minimize impacts to site personnel, client operations, and the environment.
  6. Identify waste segregation criteria, as well as opportunities for recycling.
- E. For operations involving work with hazardous materials (including metals associated with aviation maintenance activities), the manager directing activities of the facility or site will assure that:
1. Eating, drinking, and smoking areas are removed from the work areas. Hand washing stations shall be available nearby for employees entering the eating and smoking areas.
  2. Resting, eating and smoking areas will be kept clean.
  3. Work areas will be cleaned to remove accumulated contaminants. Working surfaces, including workbenches, desks, and other lateral working surfaces, will be wiped down daily with an appropriate cleaner (soap, solvent, or oxidizing agent). Walking surfaces will be cleaned to remove accumulated contaminants weekly or more often.

### **5. Documentation Summary**

The following information will be maintained in the project file:

- A. Completed Inspection Sheets.

### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Standard – [Sanitation – 29 Code of Federal Regulations \(CFR\) 1910.141](#)

**URS SAFETY MANAGEMENT STANDARD**  
**Housekeeping**

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- B. U.S. OSHA Standard – [Walking and Working Surfaces – 29 CFR 1910.22.](#)
- E. [SMS 009](#) – Corrosive and Reactive Materials
- F. [SMS 017](#) – Hazardous Waste Operations
- G. [Attachment 021-1 NA](#) – Housekeeping Inspection Sheet
- H. [Attachment 021-2 NA](#) – Special Housekeeping Inspection Sheet - Sanding, Drilling, Grinding, and Painting
- I. [Attachment 021-3 NA](#) – Workplace Inspection Checklist



**Building or Location:** \_\_\_\_\_

**Inspection Conducted by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Check Yes, No, or NA for Not Applicable.

### General Site Housekeeping

- 1. Do not block exits or emergency equipment.  Yes  No  NA
- 2. Do not leave equipment or materials lying on the ground.  Yes  No  NA
- 3. Keep storage areas free from the accumulation of materials that constitute trip hazards.  Yes  No  NA
- 4. Remove scrap materials and other debris from work area.  Yes  No  NA
- 5. Remove combustible scrap and debris by safe means at regular intervals.  Yes  No  NA
- 6. Store oily rags in metal cans with tight fitting lids. Remove oily rags at the end of the day.  Yes  No  NA

### Visibility

- 7. Ensure that halls, stairways and walkways are well lit.  Yes  No  NA
- 8. Ensure that well designed light switches are present in areas where walkways are not always lighted.  Yes  No  NA
- 9. Ensure that dust, smoke or steam does not create poor visibility.  Yes  No  NA
- 10. Ensure that glare from floodlights or windows does not create poor visibility in work areas.  Yes  No  NA

### Stairs

- 11. Ensure that handrails are tight and at the proper level.  Yes  No  NA
- 12. Ensure that handrails extend past the top and bottom step.  Yes  No  NA
- 13. Ensure that white or yellow strips are painted on the first and last step for better visibility. (Not an OSHA requirement – recommendation only).  Yes  No  NA
- 14. Ensure that steps are not rough or defective.  Yes  No  NA
- 15. Ensure that stair treads are wide enough and risers consistently spaced.  Yes  No  NA
- 16. Ensure that stairs are free of obstructions.  Yes  No  NA

### Floor Conditions

- 17. Ensure that floors of every workroom are clean, and so far as possible, in a dry condition.  Yes  No  NA
- 18. Ensure that floors are not oily, overly waxed, or polished.  Yes  No  NA
- 19. Where wet floors or processes are present, provide proper drainage and false floors, mats, or other dry standing places.  Yes  No  NA
- 20. Finish floor surfaces with non-slip coatings where spills are likely.  Yes  No  NA
- 21. Ensure that floors and passageways are free from protruding nails, splinters, holes, or loose boards.  Yes  No  NA
- 22. Ensure that floors are free of holes and depressions.  Yes  No  NA
- 23. Ensure that aisles or pathways are wide enough for easy passage and for carrying objects (48 inches is recommended).  Yes  No  NA



HOUSEKEEPING INSPECTION SHEET

- 24. Ensure that ramps are covered with non-slip surfaces or matting.  Yes  No  NA
- 25. Keep carpets or rugs free from loose or frayed edges that may catch boots or shoes.  Yes  No  NA
- 26. Keep walkways free from extension cords, air hoses and cables.  Yes  No  NA
- 27. Keep pathways free from boxes, containers, machine parts, or other tripping hazards.  Yes  No  NA

**Ground Conditions**

- 28. Ensure that trip hazards are not present.  Yes  No  NA
- 29. Ensure that fall hazards are not present.  Yes  No  NA
- 30. Ensure that holes or changes in ground elevation are either filled or guarded.  Yes  No  NA
- 31. Ensure that muddy walkways are filled with gravel to reduce slipping.  Yes  No  NA
- 32. Ensure that all employees who work in wet or greasy conditions wear slip resistant footwear.  Yes  No  NA

**Equipment**

- 33. Ensure that vehicle steps are of adequate size, surface placement for safe dismounting.  Yes  No  NA
- 34. Ensure that hand grips or ladders are adequate for getting into and out of equipment.  Yes  No  NA
- 35. Ensure that ladders have been checked for damage and removed from service if found unsafe.  Yes  No  NA

**Identify areas that need attention and describe the corrective actions to be implemented:**

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**I certify that the above inspection was performed to the best of my knowledge and ability, based on the conditions present on:**

\_\_\_\_\_

\_\_\_\_\_  
Signature



**Health, Safety and Environment**  
**SPECIAL HOUSEKEEPING INSPECTION SHEET**  
**Sanding / Drilling / Grinding / Painting**

Attachment 021-2 NA

Issue Date: June 1999  
Revision 5: August 2010

**Week Ending:** \_\_\_\_\_

**Checklist Completed by:** \_\_\_\_\_

The following checklist will be used as a guide and is considered the minimum housekeeping requirement for work areas where sanding, drilling, and grinding operations on aircraft and vehicles are performed. Dust from sanding/drilling/grinding on aircraft and vehicles contain metals, chemical coatings, and paint-based contaminants that can accumulate on work areas and flat surfaces. Good housekeeping practices throughout the work area are the key to mitigating this hazard.

	<b>Mon</b>	<b>Tues</b>	<b>Wed</b>	<b>Thurs</b>	<b>Fri</b>	<b>Sat</b>	<b>Sun</b>
1. Remove all metal grindings and dust from sanding or grinding areas using a vacuum equipped with a HEPA filter.	<input type="checkbox"/>						
2. Remove contaminants on top of flat surfaces with HEPA-filter-equipped vacuum. <i>Do not use fox-tails or low pressure air to blow dust off work benches, work areas or clothes.</i>	<input type="checkbox"/>						
3. Wipe down surfaces of workbenches with damp rags using water and a surface-active cleanser. (A weekly requirement, more often if needed)	<input type="checkbox"/>						
4. Sweep floors daily, without creating dust clouds. Wet mop work area floors. (A weekly requirement using water and a surface-active cleanser).	<input type="checkbox"/>						
5. Wipe down all other surfaces (besides the workbench) where dust collects using damp rags. (A bi-weekly requirement).	<input type="checkbox"/>						
6. Monitor personnel to ensure no drinking or eating occurs in the industrial work areas.	<input type="checkbox"/>						
7. Monitor personnel recognizing the hazards of cross contamination. Ensure all personnel are washing their hands before eating, drinking, or smoking on breaks.	<input type="checkbox"/>						

**Identify areas that need attention and describe the corrective actions to be implemented:**

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<b>URS</b>	<b>Health, Safety and Environment</b>	Attachment 021-3 NA
	<b>WORKPLACE INSPECTION CHECKLIST</b>	Issue Date: June 1999 Revision 5: August 2010

To be filled in as directed by the **quarterly procedures checklists** (see attached).

- Where no problems have been identified, place a tick in the appropriate box under the date of the inspection.
- Where a problem has been identified, log this into the HSE and Quality Improvement Database (European Operations only) so that Corrective Action can be put in place.

Office:	Inspected By:									Year:			
Month:	J	F	M	A	M	J	J	A	S	O	N	D	
Date of Inspection:													
1. Accident book (UK)	<input type="checkbox"/>												
2. Fire	<input type="checkbox"/>												
3. Entrances and doors	<input type="checkbox"/>												
4. Workstations & equipment	<input type="checkbox"/>												
5. Restricted areas	<input type="checkbox"/>												
6. Steps/staircases/ladders	<input type="checkbox"/>												
7. Floors	<input type="checkbox"/>												
8. Electrical Equipment	<input type="checkbox"/>												
9. Lighting	<input type="checkbox"/>												
10. Temperature	<input type="checkbox"/>												
11. Building services	<input type="checkbox"/>												
12. Ventilation	<input type="checkbox"/>												
13. Toilet facilities	<input type="checkbox"/>												
14. Kitchens	<input type="checkbox"/>												
15. General cleanliness	<input type="checkbox"/>												
16. Chemical substances	<input type="checkbox"/>												
17. Refuse facilities	<input type="checkbox"/>												
18. First Aid	<input type="checkbox"/>												
19. Access roads and car parks	<input type="checkbox"/>												
20. Lifts	<input type="checkbox"/>												
21. Display Screen Equipment	<input type="checkbox"/>												
22. Systems of Work	<input type="checkbox"/>												
23. Water	<input type="checkbox"/>												
24. Electrical Installation	<input type="checkbox"/>												
25. H&S Meetings/Notices	<input type="checkbox"/>												

<b>URS</b>	<b>Health, Safety and Environment</b>	Attachment 021-3 NA
	<b>WORKPLACE INSPECTION CHECKLIST</b>	Issue Date: June 1999 Revision 5: August 2010

### QUARTERLY OFFICE CHECKS - GUIDANCE NOTES/CHECKLISTS

To help in the completion of the "Workplace Inspection Checklist" the following brief notes summarise some of the most important aspects. Individual offices may need to modify them to deal with their particular arrangements.

The aspects are listed below in the same order as on the Form.

<b>1. Accident Book (UK)</b>	
<b>Location</b>	During the walk round inspection of the office, investigate the cause of any entries made during the previous month.
<b>Reporting</b>	All accidents/injuries dangerous occurrences known to have occurred in the property during the past month to be adequately reported.
<b>Check Site</b>	Employees to have easy access to the accident book whenever necessary.
<b>2. Fire</b>	
<b>Fire Doors Fire Exits</b>	All fire doors and exits to be closed, unobstructed and easy to open.
<b>Fire Extinguishers</b>	On hooks/brackets provided.
<b>Records</b>	Check that weekly fire alarm test is being carried out and that fire alarm system is being maintained
<b>3. Entrances and Doors</b>	
<b>Entrances</b>	Doors and doorways not obstructed by any article or substance. Doormats/doorsteps securely fixed and not constituting a tripping hazard.
<b>Doors</b>	Doors and gates secure on their hinges or sliding runners. Glazing panels on 2-way doors not covered over. Fire doors not fastened or wedged open. Fire doors able to completely close from fully open, automatically.
<b>4. Workstations and Equipment</b>	
<b>Workstations</b> (NB: Includes maintenance tools, equipment, printing equipment, etc.)	Workstation furniture and work equipment safe, clean and in a good state of repair. Workstation furniture and work equipment suitable for the person using it and for the work they are doing.
<b>Equipment</b>	To meet requirements of Safety System.
<b>5. Restricted Areas</b>	
<b>Access Secured</b>	Doors securely locked. Unauthorised access impossible by normal (unforced) means.
<b>Keys</b>	Keys not accessible to unauthorised persons.
<b>6. Steps, Staircases and Ladders</b>	
<b>Structure</b>	Treads and handrails secure and in good repair.
<b>Tripping</b>	Carpets/coverings untorn and secure. Edge strips well fixed. Steps and staircases free from litter. Stairs and landings clear of any unnecessary obstructions.
<b>Slipping</b>	Surfaces of steps not slippery. Spillages have been properly cleaned up.
<b>Lighting</b>	All stairs adequately lit so that the edges of each step can be clearly seen.
<b>Cleanliness</b>	All steps/staircases clean and free from dust dirt and litter.
<b>Ladders</b>	<u>No part of ladder damaged or weakened.</u> Securely positioned/fixated at base and top to prevent slipping, moving or falling of ladder when in use, or held by another person stationed at the foot of the ladder, at a slope of approximately 75°.

<b>URS</b>	<b>Health, Safety and Environment</b>	Attachment 021-3 NA
	<b>WORKPLACE INSPECTION CHECKLIST</b>	Issue Date: June 1999 Revision 5: August 2010

	Inspection Record available
<b>7. Floors</b>	
<b>Tripping</b>	All floor coverings even, level and securely fixed down. No obstructions in thoroughfares, which could cause people to trip or fall.
<b>Slipping</b>	Where floor surfaces are being polished, suitable signs warning of the slipping hazard are being displayed. Spillages have been properly cleaned up.
<b>Cleanliness</b>	All floors are clean and free from dust, dirt and litter.
<b>8. Electrical Equipment</b>	
<b>Electrical Equipment</b>	Working satisfactorily Undamaged in any way. All used in a proper and safe manner.
<b>Wiring</b>	No exposed wires or circuitry.
<b>Portable Electric Equipment</b>	Checked in accordance with SMS 012.
<b>9. Lighting</b>	
<b>Lamps, Light Fittings and Switches</b>	All lamps working satisfactorily and providing suitable light intensity. Light fittings are suitably orientated for task/ activity. Not damaged in any way, securely fixed and clean.
<b>10. Temperature</b>	
<b>Services Functioning</b>	Air conditioning and heating systems operating as and when required.
<b>Air Temperature</b>	No complaints of low or high temperatures from the building occupants (offices should be >16°C after first hour).
<b>Draughts</b>	No unacceptable draughts around doors, windows or grilles or through fixed or broken openings.
<b>Thermometers</b>	One thermometer to be provided for each floor.
<b>11. Building Services Equipment</b>	
<b>Indications of Malfunctioning Building Services Equipment:</b>	Leaks of water, oil or gas. Presence of unfamiliar noises. Presence of unfamiliar smells. Non-operation of important components. Gauges showing abnormal readings.
<b>12. Ventilation</b>	
<b>Indications of Inadequate Ventilation Rates:</b>	Presence of strong odours. Very high temperatures in summer. Condensation problems. Draughts.
<b>13. Toilet Facilities</b>	
<b>Hygienic</b>	WCs, urinals, floors, hand basins, taps and door handles kept clean.
<b>Tidy</b>	Toilet areas not used for storage or food/drink preparation. Litter-free and bins (including sanitary) regularly emptied.
<b>Well Stocked</b>	Sufficient and suitable provision of toilet paper and soap.
<b>Well Maintained</b>	Mechanical hand drying facilities fully operational, if provided. Towels clean, if provided. WC's, urinals, hand basins and taps in good order and functioning properly.
<b>Ventilation</b>	Mechanical ventilation is operational, ie. providing and/or extracting air. Problems evidenced by strong odours and/or lack of air movement. Windows and/or grilles open satisfactorily.

<b>URS</b>	<b>Health, Safety and Environment</b>	Attachment 021-3 NA
	<b>WORKPLACE INSPECTION CHECKLIST</b>	Issue Date: June 1999 Revision 5: August 2010

<b>14. Kitchens</b>	
<b>Housekeeping</b>	Kitchen area not being used for any other purpose than the preparation and consumption of food and drink, e.g. storage of cleaning materials. Kept clean and tidy.
<b>Hygiene</b>	No signs of infestation by insects or rodents. No signs of stale or rotten foodstuffs.
<b>Appliances</b>	Sharp kitchen implements suitably stored. All appliances in good working order.
<b>15. General Cleanliness</b>	
<b>Building Fabric</b>	Walls, floors, etc. clean and free from dust. Paint or plaster not flaking off walls or ceilings.
<b>Furniture</b>	Furniture clean and free from dust.
<b>Windows</b>	Windows not excessively dirty.
<b>Tidiness</b>	Corridors, fire escapes, electrical switch cupboards, etc. kept free of litter and are not used for storage.
<b>Cleaning Materials</b>	Suitable provision of cleaning chemicals and personal protective equipment, eg. gloves; cleaning chemicals are suitable stored.
<b>16. Chemical Substances</b>	
<b>Storage and Labelling of Chemicals</b>	Chemicals in secure, undamaged and clearly labelled containers. Chemicals stored so that they are not liable to fall or damage either themselves or other materials. Chemicals kept within locked cupboard/room if required.
<b>17. Refuse Facilities</b>	
<b>Well Maintained</b>	Bins and other refuse facilities in good state of repair.
<b>Clean and Tidy</b>	Waste facilities not overflowing. All refuse is being regularly collected. Area around waste facilities kept clean and tidy. Refuse bags/bins not presenting an obstruction or tripping hazard to the public or employees.
<b>18. First Aid</b>	
<b>First Aid Box</b>	First aid box fully stocked with listed items. First aid box contains guidance on the treatment of injured people. First aid box situated in the correct appointed location. Drugs, creams or ointments should not be available for use by employees, visitors or tenants (e.g. Aspirin).
<b>First Aider/Appointed Person</b>	At least one "appointed person" to be available during the designated working day times when people are at work, to administer first aid assistance and/or call an ambulance.
<b>First Aid Notices</b>	Check that first aid notices giving location of first aid box and name and location of appointed persons are up-to-date.
<b>19. Access Roads and Car Parks</b>	
<b>Access and Egress</b>	No obstructions to the safe and easy passage of vehicles throughout the property's traffic routes. All vehicle parking bays free from obstructions. In areas where vehicles and pedestrians circulate, the lines of sight available to both are not obscured. Gates/barriers in full working order and not presenting a risk to health and safety. Any fire escape route through a garage or car park not blocked by vehicles.
<b>Signage</b>	Signs directing traffic or pedestrians in place, visible, and, where possible to assess, being adhered to.
<b>Cleanliness</b>	Car-parking areas clean and tidy.

<b>URS</b>	<b>Health, Safety and Environment</b>	Attachment 021-3 NA
	<b>WORKPLACE INSPECTION CHECKLIST</b>	Issue Date: June 1999 Revision 5: August 2010

<b>20. Lifts</b>	
<b>Lifts</b>	Doors fully operational.
	No obvious signs of damage.
	Emergency phone operational.
	No unusual sounds when operating.
	Maintained in a clean condition and free from litter.
	Inspection Certificates
<b>21. Display Screen Equipment (See also SMS 054 and Attachment 054-1)</b>	
<b>Lighting</b>	Visual conditions for the task satisfactory, no glare from lights/sunlight, no shadowing and the screen easy to read.
<b>Noise</b>	Minimal nuisance from printers and heating/ventilation units
<b>Posture</b>	Operator able to adjust equipment in order to maintain good posture.
<b>Furniture</b>	Furniture and work equipment clean and in good repair.
<b>Training and Information Packages</b>	Information to be provided close to the workstation on the use of computer package(s), adjustment of display screen equipment and furniture, maintaining a good working posture.
<b>Risk assessment</b>	Completed by the main user and Office Safety Supervisor and satisfactory.
<b>22. Systems of Work and Work Equipment</b>	
<b>Working Methods and Work Equipment</b>	Safe working procedures established and being adhered to.
	Manufacturers instructions for the equipment used are being followed. Equipment working efficiently and in good repair.
	Appropriate protective clothing is being used, if necessary.
	Tools are properly stored when not in use, and safety carried especially when used at a height.
<b>Permits to Work</b>	In hazardous places/situations (eg. Roof work), permit to work system in place and being adhered to.
<b>23. Water</b>	
<b>Little-used Outlets</b>	Flush (run) any little-used hot and cold outlets for minimum of 3 minutes each month (5 minutes if very distant from storage).
<b>Hot Water Supplies</b>	Producing hot (>50°C) and not scalding (<65°C) water.
<b>24. Electrical Installation</b>	
<b>Electrical Equipment</b>	Working satisfactorily
	Undamaged in any way.
	All used in a proper and safe manner.
<b>Wiring</b>	No exposed wires or circuitry.
<b>Installation</b>	Tested every 5 years and certified by Competent Person
<b>25. H&amp;S Meetings/Notices</b>	
<b>Management Meetings</b>	Attend Management Meetings at which H&S is discussed. The Meeting should discuss as a minimum: Updates to Safety Management System, Accidents/Incidents, Results of Audits, Corrective actions, Project-related H&S and any issues raised by the Office Safety Supervisor and Representative of Employee Safety.
<b>H&amp;S Committee Meetings</b>	Attend H&S Committee Meetings and ensure record of meeting is made available to employees.
<b>Meetings with Representative of Employee Safety (UK)</b>	Meet monthly with the Representative of Employee Safety and record any items of concern.
<b>Notices</b>	All legally required notices such as H&S Law Poster (UK), H&S Committee Record, Insurance (UK), and URS material (4sight banner, Lessons Learned, etc.) on display.

**URS SAFETY MANAGEMENT STANDARD 024  
MEDICAL SCREENING AND SURVEILLANCE**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Medical Screening and Surveillance**

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### **1. Applicability**

This standard applies to the operations of URS Corporation and its subsidiary companies for employees assigned to work environments where there is a potential for exposure to chemical, biological, and/or physical hazards.

Individuals will be selected for medical screening based on regulatory standards, project health and safety plan (HASP), assessments, the expected use of personal protective equipment (PPE), and client contract requirements.

### **2. Purpose and Scope**

The purpose of this standard is to prevent occupational illness and injury by early identification of exposure-related health effects before they result in disease. Medical examinations will be performed to determine whether employees are capable of safely performing assigned tasks, to verify that protective equipment and controls are effectively providing protection, and to comply with government regulations. Included are provisions for emergency medical consultation and treatment.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

The Occupational Health Manager (OHM) is responsible for development and administration of this program in coordination with the URS Medical Service Provider (MSP). The OHM will maintain current injury and illness data, and participate with corporate, division, regional, country, or strategic business unit Health, Safety, and Environment (HSE) Managers in evaluation of this program. The MSP will provide occupational medicine oversight for the program and will approve medical surveillance protocols.

Locations in the United States and Canada will follow all requirements of this program.

International locations will follow sections B.1, 2, 3, 5, 6, 7, and 8; G.3; and H.1 of this program.

## **URS SAFETY MANAGEMENT STANDARD**

### **Medical Screening and Surveillance**

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#### **4. Requirements**

##### **A. Selection of program participants**

1. The Medical Surveillance Evaluation (MSE) form – Attachment 024-2 NA provides the primary guidance for determining whether medical screening is required for an employee and the frequency of periodic exams. The MSE is to be completed by the employee and his or her supervisor at the time of hire for any employee who may work outside an office environment. At each annual performance review, the MSE is to be reviewed for accuracy. Other reviews are required whenever there is a change in job tasks.
2. Additional site- or project-specific biological monitoring or toxicological screening may be required in addition to this program's scheduled core exams. These medical tests will be specified by the project-specific HASP and will be authorized by the MSP on the exam appointment protocol. Note: See Section D.2 if the employee will have an initial assignment at a HAZWOPER site.

##### **B. Types of medical screening and surveillance exams**

1. A baseline or preassignment baseline exam will be conducted prior to the start of work assignments requiring medical surveillance.
2. Periodic exam schedules are established by the MSP using the following criteria:
  - a. Employees performing the following types of work will receive annual exams: construction activities in the exclusion zone of HAZWOPER sites; field work activities in the exclusion zone of HAZWOPER sites for 30 or more days per year; or projects involving exposure to materials regulated by the Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) at or above established action levels.
  - b. Employees performing the following types of work will receive biennial exams: field work activities at HAZWOPER sites less than 30 days per year; waste disposal activities; non-HAZWOPER environmental sampling; or chemistry laboratory, pilot plant projects, or bench-scale operations for 30 or more days per year.

## **URS SAFETY MANAGEMENT STANDARD**

### **Medical Screening and Surveillance**

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3. Employees currently participating in an examination program will receive exit exams when they leave their work assignment as identified in the Exit Exam Determination – Attachment 024-6 NA. In the event an employee declines the exit exam, the employee will be requested to sign a Waiver of Exit Medical Surveillance Exam – Attachment 024-7 NA.
4. Department of Transportation (DOT) exams will be conducted biennially when an employee is assigned to drive a vehicle with a gross weight rating of more than 10,000 pounds or a placarded vehicle of any size used to transport hazardous chemicals. DOT exam certification can be added to a routine baseline or periodic exam protocol when scheduling with the MSP.
5. When noise levels in the employee's work environment equal or exceed an 8-hour time-weighted average of 85 decibels as measured on the A-scale (dBA), annual audiograms will be performed. For employees involved in construction activities or construction management, enrollment in this program will be required if more than 50% of their time is spent in an active construction area and working in an area with posted noise hazards.
6. Individual radiation dose monitoring will be conducted as required by the site-specific HASP with approval by a Radiation Safety Officer. Personal dosimetry (film badges) is typically required; however, depending on the specific radiation hazard, additional monitoring or scans may be required.
7. To determine an employee's ability to wear a respirator, a medical evaluation will be performed before an employee is fit tested or assigned to wear a respirator.
8. Employees assigned to work in environments with airborne concentrations of asbestos fibers at or above the established action level (OSHA, MSHA, state, or other applicable regulations) will receive asbestos-specific baseline and annual exams. Exit exams will be performed if an exam has not been performed within the previous 6 months or if an employee has medical complaints related to potential asbestos exposure.
9. Blood sampling and monitoring for lead and other heavy metals will be conducted every 6 months until two consecutive blood

## **URS SAFETY MANAGEMENT STANDARD**

### **Medical Screening and Surveillance**

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samples/analyses are acceptable. An employee with elevated heavy metal blood levels should be temporarily assigned to a task with minimal exposure, pending medical clearance. Sampling and monitoring will be performed every 2 weeks during the reassignment period. Employees will be notified of results within 5 days when levels are not acceptable. Medical Removal Protection benefits may apply in this situation.

10. Urine samples may be collected for some heavy metal exposures such as cadmium and mercury. Samples must be collected within 30 days of assignment to any task with potential for exposure to cadmium or other heavy metals. Medical monitoring results will be used to assess worker exposure and exposure control methods.
11. Medical monitoring will also be required to assess potential worker health risk to other chemical hazards, including polyaromatic hydrocarbons (PAHs), pesticides, benzene, chlorinated solvents, crystalline silica, and other chemical hazards as identified in prejob hazard analysis. The MSP will be consulted to determine necessary testing protocols and acceptance levels. The physician's opinion letter will be used to determine the worker's ability to perform the specified task and to wear PPE necessary to accomplish the task in a safe manner.
12. Skin exposures to hazardous chemicals with "Skin" notation will be evaluated case by case in consultation with the MSP. Allergic and hyper-sensitivity symptoms will be evaluated by the MSP as required.

#### C. Exam protocols

1. The Medical Screening and Surveillance Exam Protocol – Attachment 024-3 NA identifies the medical exam components of this program.
2. Evaluation will be confidential and provided during normal hours. Employees will be offered the opportunity to discuss the results of the evaluation with the MSP. All exam results are considered personal and confidential information, and will not be stored in any unsecured records not transmitted without the employee's permission.

**URS SAFETY MANAGEMENT STANDARD**  
**Medical Screening and Surveillance**

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D. Scheduling of exams

1. The Office or Project Manager, usually with assistance from the local HSE Representative, is responsible for contacting the MSP when baseline, exit, and project-specific exams are required. The MSP maintains an employee scheduling database for tracking periodic exams and will contact the employee for scheduling during the month the exam is due. These steps are detailed in the Medical Surveillance Exam Process – Attachment 024-4 NA.
2. Employees hired with an initial assignment to work at a HAZWOPER site whose work duties require passing a physical exam or who have an essential job function of wearing a respirator will receive a job offer contingent upon passing a preassignment baseline exam. See HAZWOPER and Respirator Preassignment Baseline Exam Protocol – Attachment 024-5 NA.
3. In the event of an urgent business need, a temporary clearance to begin work the day of the exam may be requested at the time a baseline exam is scheduled through the MSP. The temporary clearance will be issued by the local physician and will be good for up to 14 days or until the MSP physician's final clearance is received, whichever comes first.
4. If an exam becomes due during an employee's pregnancy, it is advised to defer the exam until after delivery and the employee returns to work from family/medical leave status.

E. Exam Follow-Up

1. Following each exam, the MSP will issue a physician's written opinion (Health Status Medical Report), which will include any medical restrictions and address the employee's ability to use personal protective equipment, to the HSE Representative. See Exam Follow-Up Procedures – Attachment 024-8 NA.
2. The MSP will mail the exam invoice to the Local Office HSE Representative, who will either approve the charge and forward the invoice to the accounts payable department for payment or forward the charge to the manager responsible for the employee for charge assignment and payment. (Medical exams that are part of this program are provided to URS employees at no cost to the employee.)

## **URS SAFETY MANAGEMENT STANDARD**

### **Medical Screening and Surveillance**

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3. The MSP will mail a confidential letter detailing the results of the exam to the employee at his or her home address within 30 days of the exam date.

#### F. Emergency Medical Care

1. Preplanning is essential for a prompt and proper response to a medical emergency. Site-specific emergency procedures will be provided in the site HASP. Suggested preplanning actions are provided in SMS 065 – Injury Management. See Field First Aid Kit Supply List – Attachment 024-9 NA for recommended supplies. The contents of the first aid kit will be checked prior to being sent out to each site/project and periodically thereafter to ensure that the expended items are replaced.
2. A MSP occupational physician can be reached 24 hours a day for phone consultation at WorkCare™ (1-800-455-6155).
3. A workers' compensation claim should be filed by URS Occupational Health Nurses with Sedgwick CMS (1-866-566-1915) for an injured employee who receives professional medical care or who is disabled from working beyond the initial date of injury.
4. To comply with OSHA reporting regulations, the OHM or the applicable corporate, regional, country, or SBU HSE Manager should be notified immediately if there is a work-related hospitalization or death.

#### G. Medical Records

1. Medical records include records concerning an employee's health status that is made or maintained by a physician, nurse or other health care professional. Medical records are maintained and preserved in confidential, locked files in the custody of the MSP for at least the duration of employment plus 30 years. Only information regarding the employee's ability to perform the job assignment will be provided to company representatives.
2. Employees in medical monitoring programs are notified initially, and annually thereafter, of the existence, location and ability to access medical records maintained by the MSP. Upon request, each employee (or designated representative) will have access to the employee's medical record. Prior to the release of health information to the employee (or designated representative), a

## **URS SAFETY MANAGEMENT STANDARD**

### **Medical Screening and Surveillance**

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specific written consent must be signed by the employee. Records will be provided in a reasonable time and manner at no cost to the employee.

3. International records (excluding the United States and Canada) will be maintained in-country at the local clinic.
4. Projects that use local clinics or employer/client clinics may store records at that site, but at the termination of the project, all employee medical records must be transferred to long-term records retention or forwarded to WorkCare™.
5. Subcontractors and vendors are expected to maintain their own employee records and reports, but the employee physician's opinion letters will be available for inspection and verification of compliance.
6. If in the event, URS ceases operations, medical records will be transferred to the successor employer. If no successor employer is available, records will be transferred to the National Institute for Occupational Safety and Health.

#### H. Program evaluation

1. The OHM and corporate, regional, country, or SBU HSE Managers will evaluate this program annually and as needed. Issues to review include program efficacy and efficiency, employee satisfaction, and cost-effectiveness.
2. The MSP will prepare an Annual Medical Trending Report specifying the number and types of exams performed and anonymous statistical exam results in group data format.
3. Each employee is mailed a Post-Exam Evaluation by the MSP. Employee feedback regarding the clinic, medical staff, and exam procedures are reviewed, and corrective actions are identified and taken as needed.

## **5. Documentation Summary**

The following documentation will be maintained in the office / project file:

- A. Medical Surveillance Evaluation.

## **URS SAFETY MANAGEMENT STANDARD**

### **Medical Screening and Surveillance**

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B. Health Status Medical Report.

#### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Technical Links – [Medical Screening/Surveillance](#)
- B. [U.S. OSHA Publication 3162](#) – Screening and Surveillance: A Guide to OSHA Standards, 1999
- C. [SMS 065](#) – Injury Management
- D. [Attachment 024-1 NA](#) – WorkCare™ Medical History Questionnaire
- E. [Attachment 024-2 NA](#) – Medical Surveillance Evaluation
- F. [Attachment 024-3 NA](#) – Medical Screening and Surveillance Exam Protocol
- G. [Attachment 024-4 NA](#) – Medical Surveillance Exam Process
- H. [Attachment 024-5 NA](#) – HAZWOPER and Respirator Preassignment Baseline Exam Protocol
- I. [Attachment 024-6 NA](#) – Exit Exam Determination
- J. [Attachment 024-7 NA](#) – Waiver of Exit Medical Surveillance Exam
- K. [Attachment 024-8 NA](#) – Exam Follow-Up Procedures
- L. [Attachment 024-9 NA](#) – First Aid Kit Supply List

## Medical History Questionnaire

- Baseline       Annual/Biennial  
 Exit             Other

Employee Name: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Office: \_\_\_\_\_  
Date: \_\_\_\_\_



# Medical History Questionnaire

### Your Instructions

- Location of your exam will be listed on your Appointment Protocol.
- Please have your Supervisor or Health & Safety Professional complete the Job Profile on the inside flap of this page if you do not know the responses.
- See your Supervisor or Health & Safety Professional for directions to the clinic. Please bring the completed exam packet and your Appointment Protocol.
- If lab work is ordered, do not eat for 8 hours prior to exam. (Water and unsweetened juice or black decaffeinated coffee is allowed. Dry toast if you have an afternoon appointment.)
- Avoid all alcohol consumption for 24 hours prior to the exam.
- Avoid loud noise exposure for 14 to 16 hours before the exam.
- If you wear contact lenses, please do not insert them on the day of the exam. Bring a pair of glasses.
- If you use hearing aids, please bring them to the clinic.
- Your employer is responsible for the cost of this exam. It is important to be on time for your appointment.
- If you cannot attend your appointment, please call (800) 455-6155 to cancel, or your employer may be charged.

**Please answer all the questions in this booklet.  
If you have any questions, please call 1-800-455-6155.**

**Making Health Count**

**I. Instructions**

Your supervisor must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the healthcare professional who will review it.

Has your employer told you how to contact the healthcare professional who will review this questionnaire? Yes  No

This questionnaire is used to gather information about your health and physical condition, both now and in the past. This information will be used to determine if you can safely perform the duties of your job. This exam is not intended to substitute for care provided by your personal physician. Results of the exam will be sent to your home address. The results of the examination are kept confidential.

**Print the following information:**

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Home Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email Address: \_\_\_\_\_ Social Security # : \_\_\_\_\_

Sex:  Male  Female Date of Birth: \_\_\_\_\_ Age: \_\_\_\_\_

Race:  Hispanic or Latino  White  Asian  Black or African American

American Indian or Alaska Native  Native Hawaiian or Other Pacific Islander

Two or More Races (Not Hispanic or Latino)

Position: \_\_\_\_\_ Site Location: \_\_\_\_\_ Date Employed: \_\_\_\_\_

What is the phone number (including area code) at which you can be reached by the healthcare professional who reviews this questionnaire? \_\_\_\_\_

What is the best time to reach you? From: \_\_\_\_\_  AM  PM To: \_\_\_\_\_  AM  PM

**Read and sign this Consent for Release of Medical Records:**

I hereby authorize **WorkCare** to release in confidence to \_\_\_\_\_ (company) and/or its subsidiaries medical information, including but not limited to the results of medical evaluations, physical examinations or medical testing, as it specifically pertains to my medical qualification to perform the stated Job Duty consistent with the applicable requirements of OSHA, MSHA. I further authorize the examining physician and/or clinic to release to WorkCare any medical information related to my medical or physical condition. You have a right to receive a copy of this authorization.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**II. Complete This Entire Section**

**Job Profile**

If you have questions regarding this Job Profile, please discuss with your supervisor in order to complete this section.

**Job Duty/Title:**

Indicate your job title: \_\_\_\_\_

*(Example: Driller, Engineer, Environmental Scientist, etc.)*

Indicate your job duty: \_\_\_\_\_

Indicate the time you spend in each area:

Field \_\_\_\_\_ % Office \_\_\_\_\_ % Travel \_\_\_\_\_ %

**Physical Requirements:**

Are there any specific physical demands of the job that are important? (Examples: Lifting, carrying)

If yes, please describe: \_\_\_\_\_

Yes  No

**Protective Equipment:**

Is clearance for the use of respiratory equipment needed?

Escape only (no rescue)       Emergency rescue only

Is there specific safety equipment (beyond hard hat, gloves, boots, and appropriate clothing) that is used in the safe performance of this job?

If yes, please describe: \_\_\_\_\_

Yes  No   
 Yes  No

1. **Please Check the Following Types of Respiratory Protective Equipment Used**

✓		Duration	Frequency	Temperature Extremes	Humidity
<input type="checkbox"/>	Half Face Piece Air Purifying Respirator				
<input type="checkbox"/>	Full Face Piece Air Purifying Respirator				
<input type="checkbox"/>	Powered Air Purifying Respirator				
<input type="checkbox"/>	Self-Contained Breathing Apparatus				
<input type="checkbox"/>	Air Line Respirator				

2. Is it possible that you will be required to wear Level A protection at any time? (SCBA, fully encapsulated suit, chemical resistant gloves & boots.)

Yes  No

3. Is it possible that you will be required to wear Level B protection at any time? (SCBA, chemical resistant clothing, chemical resistant gloves & boots.)

Yes  No

4. Describe significant potential chemical exposures: \_\_\_\_\_

5. Will you be working under hot conditions (temperatures exceeding 77 °F)?

Will you be working under humid conditions?

Will you be working at high altitudes?

Describe the work you'll be doing while you're using your respirator(s):

Yes  No   
 Yes  No   
 Yes  No

6. Describe any special or hazardous conditions you might encounter when you're using your respirator(s). (For example, confined spaces, life-threatening gases):

7. During the period in which you use the respirator(s), is your work effort:

a. Light (less than 200 kcal per hour) *Example: Sitting while mailing or filing; performing light assembly work, etc.*

Hours per shift: \_\_\_\_\_

Yes  No

b. Moderate (200 to 350 kcal per hour) *Example: Transferring a moderate load (about 35 lbs.) at trunk level; pushing a wheel barrel with a heavy load, etc.*

Hours per shift: \_\_\_\_\_

Yes  No

c. Heavy (above 350 kcal per hour) *Example: Lifting a heavy load (about 50 lbs.) from the floor to your waist; shoveling, etc.*

Hours per shift: \_\_\_\_\_

Yes  No

8. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (e.g. rescue, security):

9. Are there any substances that you cannot work with?

Describe: \_\_\_\_\_

Yes  No

III.

Review of Systems

Answer "Yes" if you currently have any of these symptoms/conditions and/or have had them significantly in the past. List date when first occurred.

		Yes	No	Date
1.	A. Fever	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Chills	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Weight loss	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Loss of energy/fatigue	<input type="checkbox"/>	<input type="checkbox"/>	
2.	A. Poor vision	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Color blindness	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Double vision	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Eye injury	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Cataract	<input type="checkbox"/>	<input type="checkbox"/>	
	F. Glaucoma	<input type="checkbox"/>	<input type="checkbox"/>	
	G. Do you wear glasses or contacts?	<input type="checkbox"/>	<input type="checkbox"/>	
3.	A. Ear infection	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Mastoid surgery	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Hearing loss	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Sore throat	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Frequent hoarseness	<input type="checkbox"/>	<input type="checkbox"/>	
	F. Dental problems	<input type="checkbox"/>	<input type="checkbox"/>	
4.	A. Allergies	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Sinus trouble	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Hay fever	<input type="checkbox"/>	<input type="checkbox"/>	
5.	A. Tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Asthma & breathing difficulties	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Lung collapse	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Pneumonia	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>	
	F. Persistent or severe colds	<input type="checkbox"/>	<input type="checkbox"/>	
	G. Persistent or severe coughs	<input type="checkbox"/>	<input type="checkbox"/>	
	H. Chest surgery	<input type="checkbox"/>	<input type="checkbox"/>	
	I. Wheezing	<input type="checkbox"/>	<input type="checkbox"/>	
	J. Emphysema	<input type="checkbox"/>	<input type="checkbox"/>	
	K. Bronchitis	<input type="checkbox"/>	<input type="checkbox"/>	
6.	A. High blood pressure	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Heart murmur	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Enlarged heart	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Heart disease/failure	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Rheumatic fever	<input type="checkbox"/>	<input type="checkbox"/>	
	F. Heart palpitations	<input type="checkbox"/>	<input type="checkbox"/>	
	G. Irregular heart beat	<input type="checkbox"/>	<input type="checkbox"/>	
	H. Heart attack	<input type="checkbox"/>	<input type="checkbox"/>	
	I. Chest pain	<input type="checkbox"/>	<input type="checkbox"/>	
7.	A. Varicose veins	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Stroke	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Leg ulcers	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Swelling of ankles	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Leg pain when walking	<input type="checkbox"/>	<input type="checkbox"/>	
8.	A. Anemia	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Leukemia	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Sickle cell disease	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Other blood disease	<input type="checkbox"/>	<input type="checkbox"/>	
9.	A. Diabetes	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Thyroid problems	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Cancer or tumors	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Heat related illness	<input type="checkbox"/>	<input type="checkbox"/>	
10.	A. Rash/dermatitis	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Bruise easily	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Psoriasis	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Wart/mole change	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Eczema/Acne	<input type="checkbox"/>	<input type="checkbox"/>	

		Yes	No	Date
11.	A. Headaches	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Head injury	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Neck Injury	<input type="checkbox"/>	<input type="checkbox"/>	
12.	A. Birth defect	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Frequent backaches	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Back surgery	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Disc disease	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Back injury or strain	<input type="checkbox"/>	<input type="checkbox"/>	
	F. Back x-rays	<input type="checkbox"/>	<input type="checkbox"/>	
	G. Chiropractic treatments	<input type="checkbox"/>	<input type="checkbox"/>	
	H. Arthritis/Rheumatism	<input type="checkbox"/>	<input type="checkbox"/>	
	I. Knee problems	<input type="checkbox"/>	<input type="checkbox"/>	
	J. Swollen joints	<input type="checkbox"/>	<input type="checkbox"/>	
	K. Amputation	<input type="checkbox"/>	<input type="checkbox"/>	
13.	L. Broken Bones Type:	<input type="checkbox"/>	<input type="checkbox"/>	
	M. Dislocations	<input type="checkbox"/>	<input type="checkbox"/>	
	N. Carpal tunnel syndrome	<input type="checkbox"/>	<input type="checkbox"/>	
	O. Repetitive strain extremities	<input type="checkbox"/>	<input type="checkbox"/>	
	A. Ulcers	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Colitis	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Diarrhea (frequent)	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Stomach problems	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Vomiting	<input type="checkbox"/>	<input type="checkbox"/>	
F. Bloody bowel movements	<input type="checkbox"/>	<input type="checkbox"/>		
14.	G. Hepatitis/Abdominal liver enzymes	<input type="checkbox"/>	<input type="checkbox"/>	
	H. Cirrhosis	<input type="checkbox"/>	<input type="checkbox"/>	
	I. Yellow jaundice	<input type="checkbox"/>	<input type="checkbox"/>	
	J. Gallbladder trouble	<input type="checkbox"/>	<input type="checkbox"/>	
	A. Epilepsy/seizures	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Fainting spells	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Loss of consciousness	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Dizziness or vertigo	<input type="checkbox"/>	<input type="checkbox"/>	
15.	E. Frequent exhaustion	<input type="checkbox"/>	<input type="checkbox"/>	
	F. Trouble with nerves	<input type="checkbox"/>	<input type="checkbox"/>	
	G. Frequent worry/depression	<input type="checkbox"/>	<input type="checkbox"/>	
	A. Kidney trouble/stones	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Bladder trouble	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Kidney/bladder surgery	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Blood in urine	<input type="checkbox"/>	<input type="checkbox"/>	
16.	E. Difficulty urinating	<input type="checkbox"/>	<input type="checkbox"/>	
	A. Venereal disease	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Infertility/difficulty conceiving	<input type="checkbox"/>	<input type="checkbox"/>	
17. Female	C. Children with birth defects	<input type="checkbox"/>	<input type="checkbox"/>	
	A. Irregular period/painful menstruation	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Hysterectomy	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Are you pregnant?	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Difficulty becoming pregnant	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Date of last menstrual period	Date:		
	F. Date of last pelvic/pap smear	Date:		
	G. Date of last mammogram	Date:		
	H. Breast lumps	<input type="checkbox"/>	<input type="checkbox"/>	
	I. Breast discharge	<input type="checkbox"/>	<input type="checkbox"/>	
18. Male	J. Repeated miscarriages	<input type="checkbox"/>	<input type="checkbox"/>	
	A. Inability to have an erection	<input type="checkbox"/>	<input type="checkbox"/>	
	B. Discharge or bleeding from the penis	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Abnormal testicular self examination	<input type="checkbox"/>	<input type="checkbox"/>	
	D. Prostate problems	<input type="checkbox"/>	<input type="checkbox"/>	

Describe any "Yes" responses by number: \_\_\_\_\_

Are you currently unable to perform any type of activity?  Yes  No Describe: \_\_\_\_\_

**III.****Social History****Yes      No**

1. Do you now or in the past month ever smoked cigarettes?  Yes  No
2. Have you ever smoked cigarettes in the past?  Yes  No
3. If you now smoke or have smoked in the past, how many years total have you smoked? \_\_\_\_\_
4. If you now smoke or have smoked in the past, how many packs/day do/did you smoke on average?
 

<input type="checkbox"/> Less than one-half	<input type="checkbox"/> Two	<input type="checkbox"/> Three
<input type="checkbox"/> One	<input type="checkbox"/> Two and one-half	<input type="checkbox"/> More than three
<input type="checkbox"/> One and one-half		
5. Do you use any one of the following tobacco products?
 

<input type="checkbox"/> Pipe tobacco	<input type="checkbox"/> Snuff	<input type="checkbox"/> None
<input type="checkbox"/> Smokeless tobacco	<input type="checkbox"/> Cigars	
6. Do you regularly drink alcoholic beverages?  Yes  No
7. If yes, how many drinks, beers or glasses of wines do you drink daily?
 

<input type="checkbox"/> Less than 1	<input type="checkbox"/> 3-4	<input type="checkbox"/> 7-8
<input type="checkbox"/> 1-2	<input type="checkbox"/> 5-6	<input type="checkbox"/> More than 8
8. Do you exercise strenuously for at least 45 min.?
 

<input type="checkbox"/> Daily	<input type="checkbox"/> 1 time a week	<input type="checkbox"/> Never
<input type="checkbox"/> 3 times a week	<input type="checkbox"/> Rarely	
9. Do you feel frustrated, stressed or uptight?
 

<input type="checkbox"/> Daily	<input type="checkbox"/> 1 time a week	<input type="checkbox"/> Never
<input type="checkbox"/> 3 times a week	<input type="checkbox"/> Rarely	
10. Do you eat greasy or fatty foods?
 

<input type="checkbox"/> Daily	<input type="checkbox"/> 1 time a week	<input type="checkbox"/> Never
<input type="checkbox"/> 3 times a week	<input type="checkbox"/> Rarely	

**V.****Past Medical History****For Annual or Exit Exam – Indicate if There Has Been a Change Since Last Exam**

1. Are you currently being treated for illness or injury?  Yes  No
2. Have you been treated for persistent illness or injury?  Yes  No
3. Describe any "yes" responses: \_\_\_\_\_
4. Please list hospital admissions:    If none, check here 

Year	Reason for Hospitalization
_____	_____
_____	_____
_____	_____
5. Please list allergies to any medication, food, clothing, bee stings or other substances: \_\_\_\_\_
6. How many days of work did you miss in the last 12 months due to your health? \_\_\_\_\_
7. Have you ever pursued a compensation claim or received disability payment for an occupational injury or disease?  Yes  No
8. Have you ever been turned down for life insurance?  Yes  No
9. Have you ever had injuries from an auto accident?  Yes  No

## VI. Current Medications

Fill out the following questions for any exam type.

When was your last tetanus immunization booster? Month: \_\_\_\_\_ Year: \_\_\_\_\_

Do you currently have prescriptions for drugs or medications?  Yes  No

Have you ever been addicted to drugs?  Yes  No

Describe: \_\_\_\_\_

Have you ever abused prescription medication?  Yes  No

Describe: \_\_\_\_\_

### Do you take any of the following medications regularly?

Heart medicine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Aspirin	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Thyroid medicine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Blood pressure medicine	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Oral medicine for diabetes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Diuretic (Water pill)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Insulin for diabetes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Medicine for seizures	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Nerve or sleeping pill	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Allergy/Asthma medications	<input type="checkbox"/> Yes	<input type="checkbox"/> No

## VII. Family History

Fill out the following questions for any exam type. Indicate change since last exam.

**Father:**  Living List Diseases: \_\_\_\_\_ If deceased, cause of death: \_\_\_\_\_

**Mother:**  Living List Diseases: \_\_\_\_\_ If deceased, cause of death: \_\_\_\_\_

**Brother:**  Living List Diseases: \_\_\_\_\_ If deceased, cause of death: \_\_\_\_\_

**Sister:**  Living List Diseases: \_\_\_\_\_ If deceased, cause of death: \_\_\_\_\_

Has any member of your immediate family had any of the following?

Cancer	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Diabetes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Nervousness	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Mental Illness	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Tuberculosis	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Rheumatism	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Kidney Disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Heart Disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No			

Continue to Next Section on  
Following Page ►

**This Page is to Be Completed Only As Initial or Post Offer Exams**

**VIII. Past Job History**

List All Jobs Ever Held Starting With Your First – Include Part Time And Volunteer Work

Name Of Employer	From Mo/Yr	To Mo/Yr	# Hrs Worked Per Week/Shift	Description of Work	Potential Hazards (Dust, Fumes, Chemicals, Heat, Noise, Physical Agents, Metals, Radiation)

**IX. Toxic Exposure History**

At work or at home, have you ever been significantly exposed to hazardous solvents, hazardous airborne chemicals (e.g. gases, fumes, dust) or have you had significant skin contact with hazardous chemicals?

Yes       No

Describe: \_\_\_\_\_

Have you worked with any of the materials, or under any of the conditions, listed below:

	Yes	No
Asbestos	<input type="checkbox"/>	<input type="checkbox"/>
Silica (e.g. sandblasting)	<input type="checkbox"/>	<input type="checkbox"/>
Coal (e.g. mining)	<input type="checkbox"/>	<input type="checkbox"/>
Grinding	<input type="checkbox"/>	<input type="checkbox"/>
Welding	<input type="checkbox"/>	<input type="checkbox"/>
Asphalt, pitch or tar	<input type="checkbox"/>	<input type="checkbox"/>
Beryllium	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium	<input type="checkbox"/>	<input type="checkbox"/>
Cotton Dust	<input type="checkbox"/>	<input type="checkbox"/>
Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
Fuel	<input type="checkbox"/>	<input type="checkbox"/>
Oils	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>
Nickel/Chrome	<input type="checkbox"/>	<input type="checkbox"/>
Paint	<input type="checkbox"/>	<input type="checkbox"/>
Microwave/Radio Frequency	<input type="checkbox"/>	<input type="checkbox"/>
Nuclear Radiation/X-Ray	<input type="checkbox"/>	<input type="checkbox"/>
Fiberglass	<input type="checkbox"/>	<input type="checkbox"/>
Plastics	<input type="checkbox"/>	<input type="checkbox"/>
Solvents	<input type="checkbox"/>	<input type="checkbox"/>
Compressed Gases	<input type="checkbox"/>	<input type="checkbox"/>
Aluminum	<input type="checkbox"/>	<input type="checkbox"/>
Iron	<input type="checkbox"/>	<input type="checkbox"/>
Tin	<input type="checkbox"/>	<input type="checkbox"/>
Dusty Environments	<input type="checkbox"/>	<input type="checkbox"/>

Have you ever worked around excessive noise?

Yes       No

Where: \_\_\_\_\_

Have you ever worked in an excessive hot or cold environment?       Yes       No

Where: \_\_\_\_\_

Have you ever worked around vibration or with vibrating tools?       Yes       No

Have you ever worked in a doctor's office, clinic or hospital where you might have had exposure to biohazardous materials?       Yes       No

Have you ever performed a site assessment on any of the potential hazards listed above in Past Job History?       Yes       No

Describe: \_\_\_\_\_

Any other hazardous exposures?       Yes       No

If yes, describe these exposures: \_\_\_\_\_

Have you ever lived near a large industrial plant or in areas of excessive air pollution?

Yes       No

Have you ever been in the military service?       Yes       No

If yes, were you exposed to biological or chemical agents (either in training or in combat)?       Yes       No

Have you ever worked on a HAZMAT team?       Yes       No

List any second jobs or side businesses you have:

\_\_\_\_\_

List your current and previous hobbies:

\_\_\_\_\_

## Respirator Users Only

**The following two pages only need to be completed by those assigned to use respirators.  
If uncertain about respirator use, please complete.**

### Respirator Use

	Yes	No
1. Have you ever worn a respirator in the past?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. If no, go to Question #4.</b>		
If yes, what type of respirator did you wear:		
<input type="checkbox"/> Disposable particulate filter mask (non-cartridge dust mask)		
<input type="checkbox"/> Half face air purifying respirator		
<input type="checkbox"/> Full face air purifying respirator		
<input type="checkbox"/> Powered air purifying respirator		
<input type="checkbox"/> Supplied air (airline) respirator		
<input type="checkbox"/> Self contained breathing apparatus (SCBA)		
<input type="checkbox"/> Escape only respirator		
<b>3. If you've ever used a respirator, have you ever had any of the following problems:</b>		
Eye irritation	<input type="checkbox"/>	<input type="checkbox"/>
Skin allergies or rashes	<input type="checkbox"/>	<input type="checkbox"/>
Anxiety	<input type="checkbox"/>	<input type="checkbox"/>
General weakness or fatigue	<input type="checkbox"/>	<input type="checkbox"/>
Any other problem or difficulty that interfered with your use of a respirator	<input type="checkbox"/>	<input type="checkbox"/>
Describe: _____		

### Heart, Lungs and Other Body Systems

	Yes	No
4. Have you ever had an abnormal EKG (Electrocardiogram)	<input type="checkbox"/>	<input type="checkbox"/>
Describe: _____		
<b>5. Have you ever had or currently have any of the following cardiovascular or heart problems:</b>		
Heart attack	<input type="checkbox"/>	<input type="checkbox"/>
Stroke	<input type="checkbox"/>	<input type="checkbox"/>
Angina (chest pain)	<input type="checkbox"/>	<input type="checkbox"/>
Heart failure	<input type="checkbox"/>	<input type="checkbox"/>
High blood pressure	<input type="checkbox"/>	<input type="checkbox"/>
Heart arrhythmia	<input type="checkbox"/>	<input type="checkbox"/>
Swelling in your legs or feet (not caused by standing or walking)	<input type="checkbox"/>	<input type="checkbox"/>
Any other heart problem that you have been told about	<input type="checkbox"/>	<input type="checkbox"/>

### Heart, Lungs and Other Body Systems (cont.)

	Yes	No
6. Have you ever had surgery of the arteries, coronary bypass or angioplasty? If yes:	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Within the past year		
<input type="checkbox"/> More than one year ago		
<b>7. Have you ever had or currently have any of the following pulmonary or lung problems:</b>		
Asbestosis	<input type="checkbox"/>	<input type="checkbox"/>
Asthma	<input type="checkbox"/>	<input type="checkbox"/>
Chronic bronchitis	<input type="checkbox"/>	<input type="checkbox"/>
Emphysema	<input type="checkbox"/>	<input type="checkbox"/>
Pneumonia	<input type="checkbox"/>	<input type="checkbox"/>
Tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>
Silicosis	<input type="checkbox"/>	<input type="checkbox"/>
Lung cancer	<input type="checkbox"/>	<input type="checkbox"/>
Broken ribs	<input type="checkbox"/>	<input type="checkbox"/>
Pneumothorax (collapsed lung)	<input type="checkbox"/>	<input type="checkbox"/>
Any chest injuries or surgeries	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Have you <u>ever</u> had seizures (fits)?</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Have you <u>ever</u> been told you had diabetes (sugar disease)?</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. Have you <u>ever</u> had allergic reactions that interfere with your breathing?</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>11. Have you <u>ever</u> experienced claustrophobia (fear of closed-in spaces)?</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12. Have you <u>ever</u> had trouble smelling odors?</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>13. Have you <u>ever</u> had or currently have any of the following pulmonary, cardiovascular, lung or heart symptoms?</b>		
Shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>
Shortness of breath when walking on level ground or walking up a slight hill or incline	<input type="checkbox"/>	<input type="checkbox"/>
Shortness of breath when walking with other people at an ordinary pace on level ground	<input type="checkbox"/>	<input type="checkbox"/>
Have to stop for breath when walking at your own pace on level ground	<input type="checkbox"/>	<input type="checkbox"/>
Shortness of breath when washing or dressing yourself	<input type="checkbox"/>	<input type="checkbox"/>
Shortness of breath that interferes with your job	<input type="checkbox"/>	<input type="checkbox"/>

### Heart, Lungs and Other Body Systems (cont.)

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 14. Do you <u>currently</u> take medication for any of the following problems:      |                          |                          |
| Breathing   | <input type="checkbox"/> | <input type="checkbox"/> |
| Heart trouble   | <input type="checkbox"/> | <input type="checkbox"/> |
| Blood pressure  | <input type="checkbox"/> | <input type="checkbox"/> |
| Seizures (fits)   | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Have you had or currently have any of the following symptoms of lung illness:   |                          |                          |
| Coughing that produces phlegm (thick sputum)  | <input type="checkbox"/> | <input type="checkbox"/> |
| Coughing that occurs when you are lying down  | <input type="checkbox"/> | <input type="checkbox"/> |
| Coughing up blood in the last month   | <input type="checkbox"/> | <input type="checkbox"/> |
| Wheezing  | <input type="checkbox"/> | <input type="checkbox"/> |
| Wheezing that interferes with your job  | <input type="checkbox"/> | <input type="checkbox"/> |
| Chest pain when you breath deeply   | <input type="checkbox"/> | <input type="checkbox"/> |
| Coughing that wakes you early in the morning  | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other symptoms that you think may be related to lung problems                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Have you ever had any of the following cardiovascular or heart symptoms:        |                          |                          |
| Frequent pain or tightness in your chest  | <input type="checkbox"/> | <input type="checkbox"/> |
| Pain or tightness in your chest during physical activity                            | <input type="checkbox"/> | <input type="checkbox"/> |
| Pain or tightness in your chest that interferes with your job                       | <input type="checkbox"/> | <input type="checkbox"/> |
| In the past two years, have you noticed your heart skipping or missing a beat?      | <input type="checkbox"/> | <input type="checkbox"/> |
| Heartburn or indigestion that is not related to eating                              | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other symptoms that you think might be related to heart or circulation problems | <input type="checkbox"/> | <input type="checkbox"/> |

### Full Face or SCBA Respirator User Only (cont.)

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 19. Have you ever had an injury to your ears, including a broken eardrum?           | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Do you currently have any of the following hearing problems:                    |                          |                          |
| Difficulty hearing  | <input type="checkbox"/> | <input type="checkbox"/> |
| Wearing a hearing aid   | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other hearing or ear problem  | <input type="checkbox"/> | <input type="checkbox"/> |
| Describe fully: _____   |                          |                          |
| _____   |                          |                          |
| _____   |                          |                          |
| 21. Have you ever had a back injury?  | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. Do you currently have any of the following muscle or skeletal problems:         |                          |                          |
| Weakness in any of your arms, hands, legs or feet                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| Back pain   | <input type="checkbox"/> | <input type="checkbox"/> |
| Difficulty moving your arms and legs  | <input type="checkbox"/> | <input type="checkbox"/> |
| Pain or stiffness when you lean forward or backward at the waist                    | <input type="checkbox"/> | <input type="checkbox"/> |
| Difficulty moving your head up and down   | <input type="checkbox"/> | <input type="checkbox"/> |
| Difficulty moving your head side to side  | <input type="checkbox"/> | <input type="checkbox"/> |
| Difficulty bending at your knees  | <input type="checkbox"/> | <input type="checkbox"/> |
| Difficulty squatting to the ground  | <input type="checkbox"/> | <input type="checkbox"/> |
| Difficulty climbing a flight of stairs or a ladder while carrying more than 25 lbs. | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other muscle or skeletal problems that might interfere with using a respirator? | <input type="checkbox"/> | <input type="checkbox"/> |
| Describe fully: _____   |                          |                          |
| _____   |                          |                          |
| _____   |                          |                          |

**Continue to Next Section on  
Following Page ►**

### Full Face or SCBA Respirator User Only

Answer the following questions if you have been selected to use either a full-face piece respirator or Self-Contained Breathing Apparatus [SCBA].

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 17. Have you ever lost vision in either eye (temporarily or permanently)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Do you currently have any of the following vision problems?           |                          |                          |
| Wear contact lenses   | <input type="checkbox"/> | <input type="checkbox"/> |
| Wear glasses  | <input type="checkbox"/> | <input type="checkbox"/> |
| Color blind   | <input type="checkbox"/> | <input type="checkbox"/> |
| Any other eye or vision problem   | <input type="checkbox"/> | <input type="checkbox"/> |

**X.****For Yearly/Exit Examinations Only**

- 1a. Approximately how many days of hazardous fieldwork have you performed since your last exam? \_\_\_\_\_
- 1b. Approximately how many days in Level C (using an air-purifying respirator)? \_\_\_\_\_
- 1c. Approximately how many days in Level B (self-contained breathing apparatus or air line)? \_\_\_\_\_
2. Approximately how many different hazardous material sites have you worked on since your last examination? \_\_\_\_\_
3. What were the chemical or other hazards of concern to which you had or currently have significant potential exposure since your last examination? List chemicals of concern in table below.

Chemicals of Concern	Approximate # of Days	Exposure Frequency			Exposure Duration		
		Daily	Weekly	Monthly	<1 Hr.	1-8 Hr.	> 8 Hrs.

4. Since your last exam, have you had difficulty doing your job, because of:
- a. Sensitivity to chemicals, dust, sunlight, etc.?  Yes  No  Don't Know
- b. Inability to perform certain motions?  Yes  No  Don't Know
- c. Inability to assume certain positions?  Yes  No  Don't Know
- d. Heat stress?  Yes  No  Don't Know
- e. Other medical reasons?  Yes  No  Don't Know
5. Have you experienced any health symptoms that may be related to exposures to hazardous materials since your last examination? If so, please describe: \_\_\_\_\_
- 
6. Since your last examination, have you had any type of illness that resulted in more than 3 consecutive days lost time from work?  Yes  No
- Describe: \_\_\_\_\_
7. Do you feel that you have and/or had exposure to ticks?  Yes  No When: \_\_\_\_\_
- How would you quantify the exposure:  Very significant  Significant  Insignificant  None  Unknown
8. Have you ever had any symptoms or signs (e.g. rash) which you attribute to tick bites?  Yes  No
- If yes, please describe: \_\_\_\_\_
- 9a. How would you rate the effectiveness of the health and safety procedures used for work? *(Check only one.)*
- Poor  Fair  Good  Excellent
- 9b. Comments: \_\_\_\_\_
10. Have you ever had an illness, condition or symptom which:
- Occurred only during work?  Yes  No
- Occurred only after work, in evening?  Yes  No
- Occurred when you begin work after a weekend or holiday?  Yes  No
- Disappeared during vacations or weekends?  Yes  No
11. Have you ever developed an illness or symptoms that you think were related to work?  Yes  No
12. Have you ever worked with a substance that made your nose, chest or sinuses congested?  Yes  No
13. Have you ever worked with substances that irritated your skin or caused a rash?  Yes  No

**STOP! Physicians Complete the Remaining Sections.**

**Physical Examination and Supporting Studies**

(Please initial on Authorization Form when completed.)

**Height** \_\_\_\_\_ Inches      **Weight** \_\_\_\_\_ lbs.      **Temperature** \_\_\_\_\_ °      **Blood Pressure** \_\_\_\_\_ / \_\_\_\_\_

**Pulse (Resting)**  
\_\_\_\_\_ / min.

**For DOT only:** Pulse immediately after 2 min. exercise: \_\_\_\_\_

**Vision**

**Visual acuity: If applicant wears glasses, test and record both with and without glasses.**

<b>Near</b>	Left	Right	Both	<b>Color Vision</b>	
Corrected	20/____	20/____	20/____	Normal	<input type="checkbox"/>
Uncorrected	20/____	20/____	20/____	Abnormal	<input type="checkbox"/>
				Can recognize red & green	<input type="checkbox"/>
<b>Far</b>	Left	Right	Both	<b>Peripheral Vision</b>	
Corrected	20/____	20/____	20/____	Normal	<input type="checkbox"/>
Uncorrected	20/____	20/____	20/____	Abnormal	<input type="checkbox"/>

**Urinalysis**

Specified Gravity: \_\_\_\_\_ Albumin: \_\_\_\_\_ Female LMP: \_\_\_\_\_  
Sugar: \_\_\_\_\_ Blood: \_\_\_\_\_

**Audiogram** (If marked yes on Exam Checklist.)

	500	1000	2000	3000	4000	6000	8000
Right:	_____	_____	_____	_____	_____	_____	_____
Left:	_____	_____	_____	_____	_____	_____	_____

(Note: Testing documentation must be forwarded to WorkCare.)

**Spirometry** (If marked yes on Exam Checklist.)

FVC \_\_\_\_\_ Observed Vol.      FEV<sub>1</sub> \_\_\_\_\_ Observed Vol.       $\frac{FEV_1}{FVC}$  \_\_\_\_\_ %

FVC \_\_\_\_\_ Predicted % \_\_\_\_\_      FEV<sub>1</sub> \_\_\_\_\_ Predicted % \_\_\_\_\_

(Note: Testing documentation must be forwarded to WorkCare.)

**EKG** (If marked yes on Exam Checklist.)

Normal       Abnormal

(Note: All EKG strips must be forwarded to WorkCare.)

**Chest X-Ray** (If marked yes on Exam Checklist.)

Normal       Abnormal

Comments: \_\_\_\_\_

## Specimen Collection Per Exam Checklist

**All laboratory specimens must be shipped by the day of the exam! If this is a Friday exam, mark air bill for Saturday delivery. Exam data should be included for shipment in the box with the laboratory specimens.**

### Medical Examination

Checklist	Normal	Abnormal	Detailed Description of Abnormal Findings
Hands / Skin Hair Skin Color / Texture Nails	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Head / Eyes / Nose / Throat / Mouth Configuration Lids / Conj / Sclera Pupils / Fundi / EOM Nasal Septum / Mucosa Teeth / Gums / Tongue / Palate	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Nervous System Central Motor Sensory Cerebellar Reflexes	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Neck / Nodes Bruit ROM Muscle Strength Thyroid Cervical Nodes Inguinal / Axillary Nodes	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Chest / Lungs Shapes / Symmetry Diaphragmatic Excursion Percussion Auscultation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Cardiovascular Carotids Neck Veins / Pulses Heart Sounds (Murmurs) Heart Size	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Gastro / Intestinal Liver Spleen Masses Tenderness Scars Hernia	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Musculoskeletal / Extremities Spinal Alignment Extremities (Edema, Varicosities) Joints ROM	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Comments:			
Examining Physician (Print):	Physician Signature:		Date:

## Summary of Findings and Comments Relevant to Abnormal Conditions

Signature of Licensed Examining Physician: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_

## Summary of Findings and Comments Relevant to Abnormal Conditions

1. The results of the required testing should be recorded on page 11.
2. Please be sure to note EKG and chest x-ray readings on **Normal** or **Abnormal** on page 11, if required for this exam.
3. Please review any **Yes** answers **ONLY** for questions on pages 4, 5, 7, 8 and 9 of this booklet. You are not required to review the other history questions.
4. Your physical examination findings should be recorded on page 12 and 13.
5. The booklet and any specimens must be shipped to our laboratory **THE DAY OF THE EXAM.**

**Please answer all the questions in this booklet.  
If you have any questions, please call 1-800-455-6155.**





**Health, Safety and Environment**  
**MEDICAL SURVEILLANCE**  
**EVALUATION**

Attachment 024-2 NA

Issue Date: February 2001  
Revision 8: January 2011

This information will be used to determine routine medical screening exams for employees who work outside of an office setting. In addition, site-specific health and safety plans may specify project-related medical surveillance for regulated substances.

**Please answer each entry:**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Phone #: \_\_\_\_\_

Employee #: \_\_\_\_\_

Job Title: \_\_\_\_\_

Location: \_\_\_\_\_

Business: \_\_\_\_\_

Region/Business Unit: \_\_\_\_\_

Supervisor: \_\_\_\_\_

HSE Representative: \_\_\_\_\_

**Choose One:**

- New employee  Current employee with job change
- Transfer from \_\_\_\_\_ OFFICE

**The following questions assess federally mandated medical screenings and surveillance requirements:**

Respirator	<input type="checkbox"/> Yes <input type="checkbox"/> No	Does your job require you to wear a respirator or to be certified for respirator use? If yes, how many days per year? <input type="checkbox"/> 1-29 <input type="checkbox"/> 30+
Hearing	<input type="checkbox"/> Yes <input type="checkbox"/> No	Does your job require you to wear hearing protection because you: a) Work in an environment where noise levels equal or exceed an 8-hour time-weighted average of 85 decibels? b) Perform construction activities or construction management around heavy equipment on a construction project more than 50 percent of the time?
Asbestos	<input type="checkbox"/> Yes <input type="checkbox"/> No	Do you perform intrusive work with asbestos (i.e., sampling, demolition, etc.)?



**Health, Safety and Environment**  
**MEDICAL SURVEILLANCE**  
**EVALUATION**

Attachment 024-2 NA

Issue Date: February 2001  
Revision 8: January 2011

Lead	<input type="checkbox"/> Yes <input type="checkbox"/> No	Are you currently performing construction work where you may be exposed to airborne lead concentration at or above the OSHA action level or are you currently in a job that requires you to be in a medical surveillance program for lead (i.e., removal of lead-based paint or other demolition activities)?
Radiation	<input type="checkbox"/> Yes <input type="checkbox"/> No	Are you classified as a radiation worker?
DOT Driver	<input type="checkbox"/> Yes <input type="checkbox"/> No	Do you drive a truck with a gross vehicle weight rating of 10,000 pounds or more during company trips?
Diving	<input type="checkbox"/> Yes <input type="checkbox"/> No	Do you perform diving activities?
Biohazard	<input type="checkbox"/> Yes <input type="checkbox"/> No	Does your job require work with bloodborne pathogens?
Remediation	<input type="checkbox"/> Yes <input type="checkbox"/> No	Do you perform remediation construction activities, field construction sampling, or supervision activities at hazardous waste remediation sites or hazardous waste treatment, storage, or disposal (TSD) facilities that could expose you to hazardous substances above permissible exposure levels (i.e., work in exclusion zones)? If yes, how many days per year? <input type="checkbox"/> 1-29 <input type="checkbox"/> 30+
Field and Lab	<input type="checkbox"/> Yes <input type="checkbox"/> No	Answer Yes if you do ANY of the following: a) Work at HAZWOPER sites 1 to 29 days per year b) Perform waste disposal activities c) Perform non-HAZWOPER environmental sampling d) Work in a chemistry laboratory 30 or more days per year e) Work on a pilot plant project 30 or more days per year f) Conduct bench-scale operations 30 or more days per year
Other	<input type="checkbox"/> Yes <input type="checkbox"/> No	Site- or project-specific biological monitoring or toxicological screening as specified by the project-specific health and safety plan.

Distribution:

- Supervisor
- HSE Representative

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Supervisor Signature

\_\_\_\_\_  
Date



Health, Safety and Environment

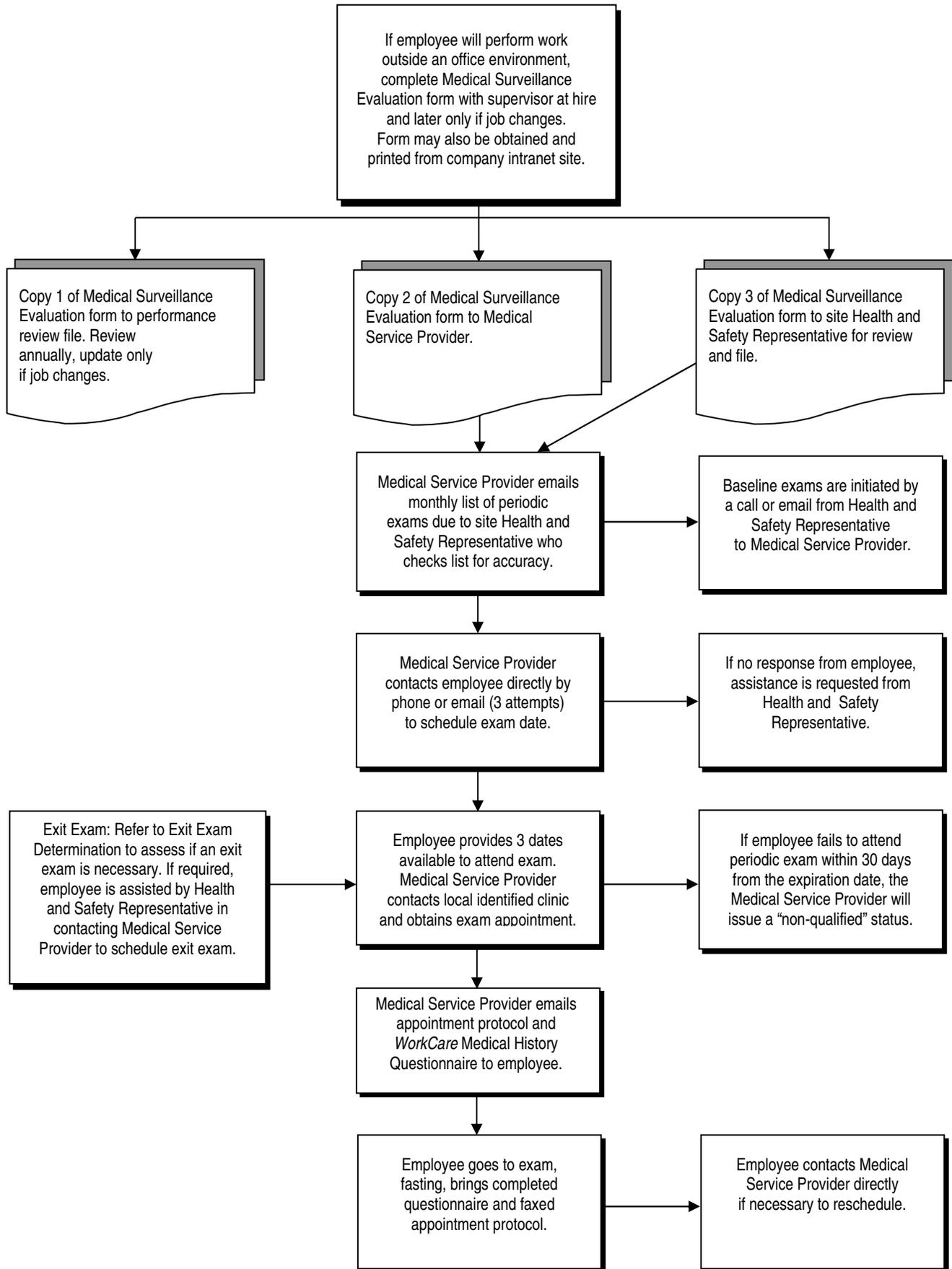
Attachment 024-3 NA

**MEDICAL SCREENING and SURVEILLANCE  
EXAM PROTOCOL**

Issue Date: February 2001  
Revision 8: January 2011

PROTOCOL	HAZWOPER (Baseline or Preassignment Baseline)	HAZWOPER (Annual or Biennial)	HAZWOPER (Exit)	DIVING (Baseline and Biennial)	DOT Driver Certification (Baseline and Biennial)	ASBESTOS (Baseline, Annual, and Exit)	SILICA (Baseline and Biennial)	RESPIRATOR (Baseline and Annual)
Medical History & Respiratory Questionnaire	X	X	X	X	X	X	X	X
Medical Exam	X	X	X	X	X	X	X	If indicated by questionnaire
Physical Exam (height, weight, pulse, oral temperature, blood pressure)	X	X	X	X	X	X	X	
Vision	X	X	X	X	X	X	X	
Urinalysis	X	X	X	X	X		X	
Audiogram (hearing test)	X	X	X	X	X	If indicated by project noise levels	X	
Spirometry (pulmonary function test)	X	X	X	X		X	X	X
<b>Electrocardiogram (EKG)</b>								
Diver < Age 40				Every 2 years				
Age < or = 50	X	Every 4 years		X			Every 4 years	
Age 50+	X	Every 2 years		X			Every 2 years	
<b>Chest x-ray (one view)</b>								
Age < or = 50	X	Every 4 years	If symptomatic or due on periodic	X		Baseline and every 5 years per 1910.1001	Baseline and Annual if 20+ years of silica exposure or Biennial if <20 years silica exposure	
Age 50+	X	Every 2 years	If symptomatic or due on periodic	X		Baseline and every 2-5 years per 1910.1001		
B-reader						X	X	
Complete Blood Count with White Cell Differential	X	X	X	X			X	
Blood Chemistry Panel	X	X	X	X			X	
Other				Sickle Cell (Baseline) Treadmill Stress Test (Baseline & Biennial after age 40)		OSHA Asbestos Questionnaire (Initial/Periodic)	OSHA Silica Questionnaire (Initial/Periodic)  TB Skin Test (MSHA regulated sites)	

Note: Additional entry, periodic, and exit biological monitoring or toxicological screening may be indicated in the project-specific health and safety plan. Examples include blood lead/ZPP, serum/RBC cholinesterase, urine heavy metals (arsenic, cadmium, mercury, chromium, or beryllium), urine radiation (thorium, uranium), biological vaccinations (hepatitis A/B, tetanus), blood benzene, blood beryllium LPT, etc. Substance abuse testing is not included in the medical screening and surveillance program. Please consult the business-specific substance abuse testing program for more information.

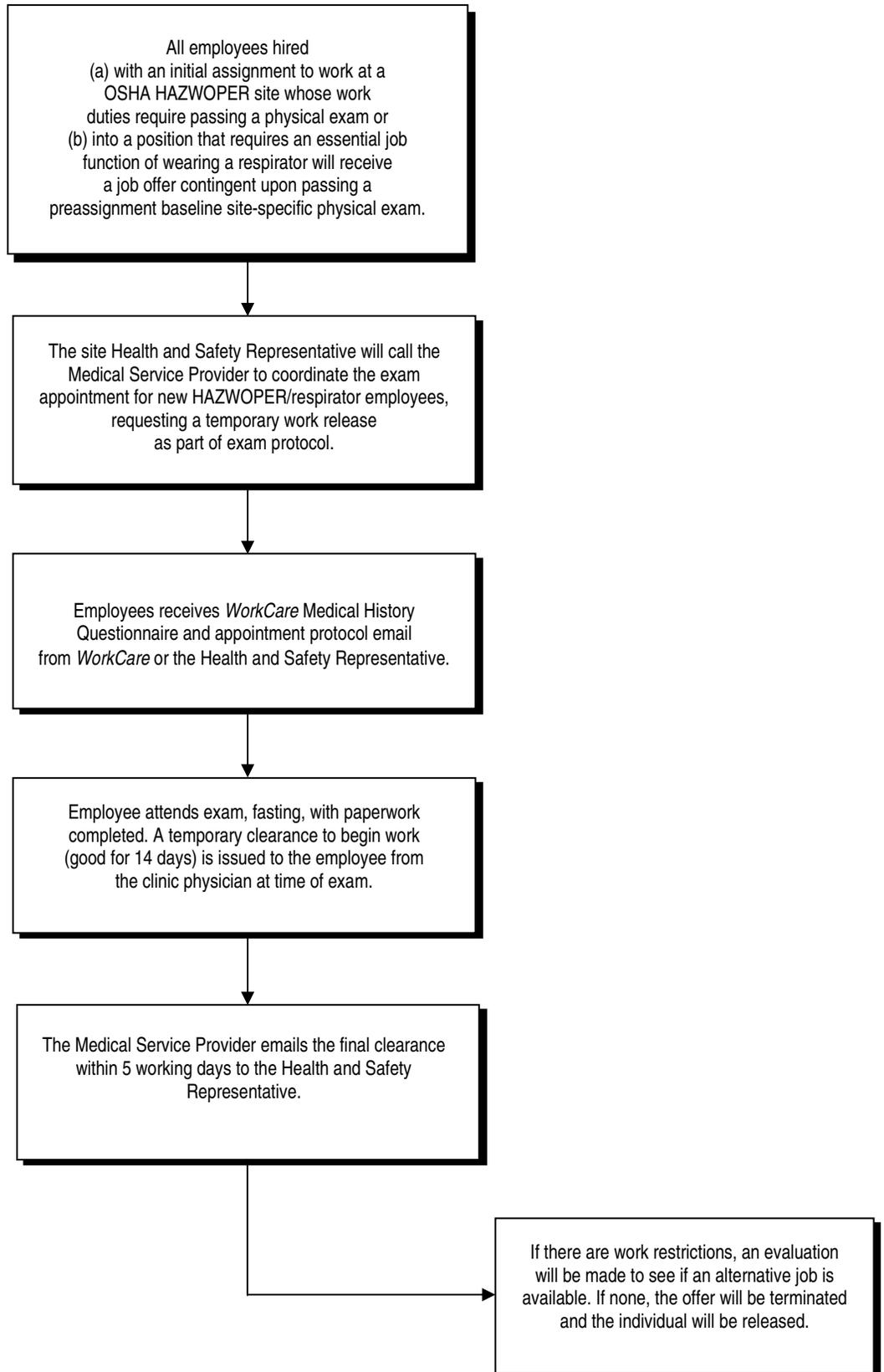


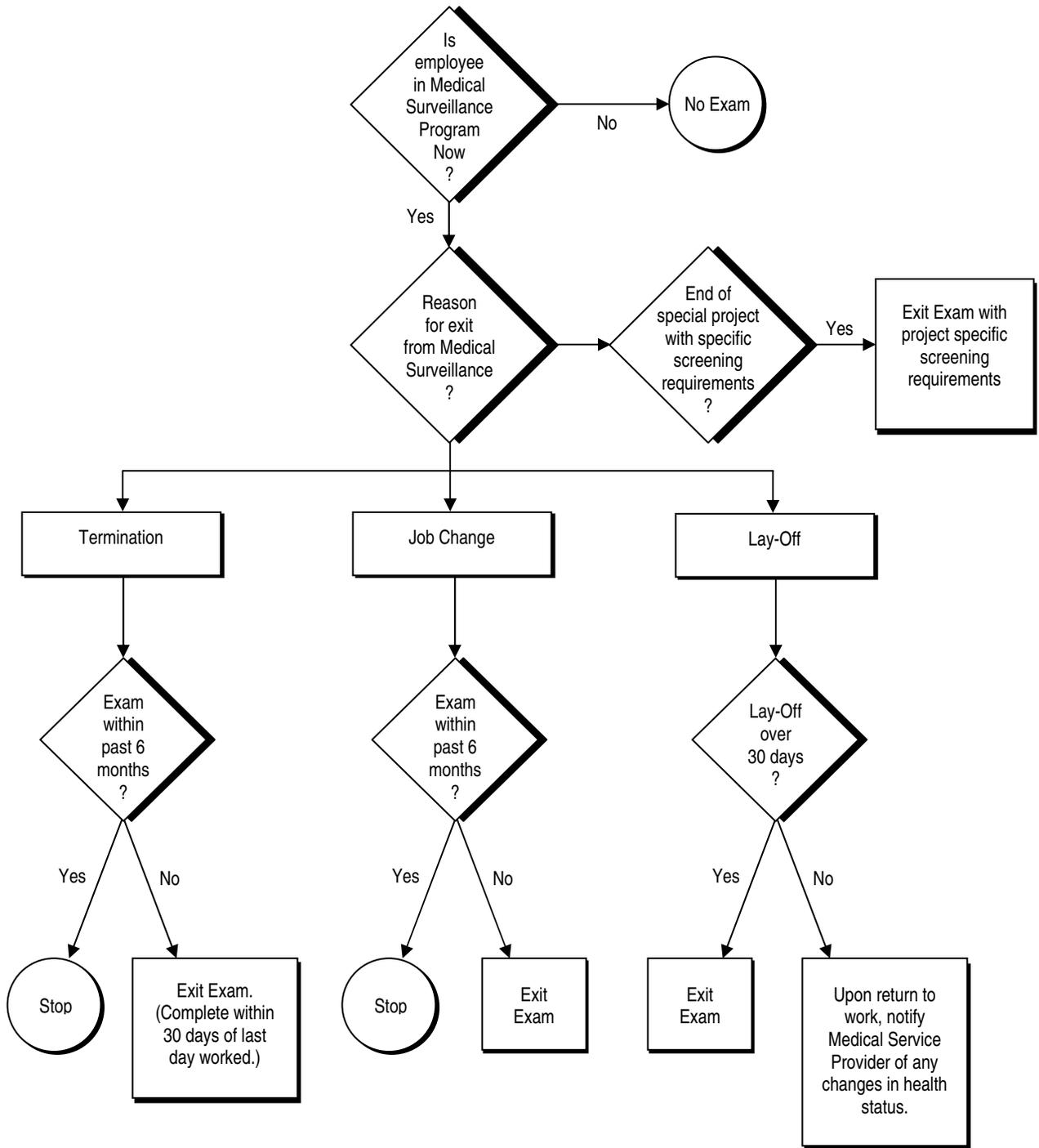


Health, Safety and Environment  
**HAZWOPER AND RESPIRATOR  
PRE-ASSIGNMENT BASELINE  
EXAM PROTOCOL**

Attachment 024-5 NA

Issue Date: February 2001  
Revision 8: January 2011





Note: Exit exams from Medical Service Provider or previous employer may be used for review as a URS Corporation baseline exam if completed within the past 3 months. A *WorkCare* Medical History Questionnaire is completed by the employee and submitted with a copy of the previous exam for physician review and approval.



**Health, Safety and Environment**  
**WAIVER OF EXIT MEDICAL**  
**SURVEILLANCE EXAM**

Attachment 024-7 NA

Issue Date: February 2001  
Revision 8: January 2011

I have been a participant in URS' Medical Screening and Surveillance Program, which entitles me to an exit medical surveillance exam upon reassignment to a position that does not require medical clearance or termination of my employment. I understand that URS encourages employees to schedule and complete an exit medical exam; however, I voluntarily relinquish the opportunity to have an exit medical exam.

**Name**

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**Employee Number**

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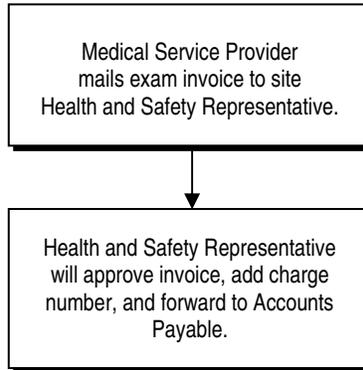
**Date**

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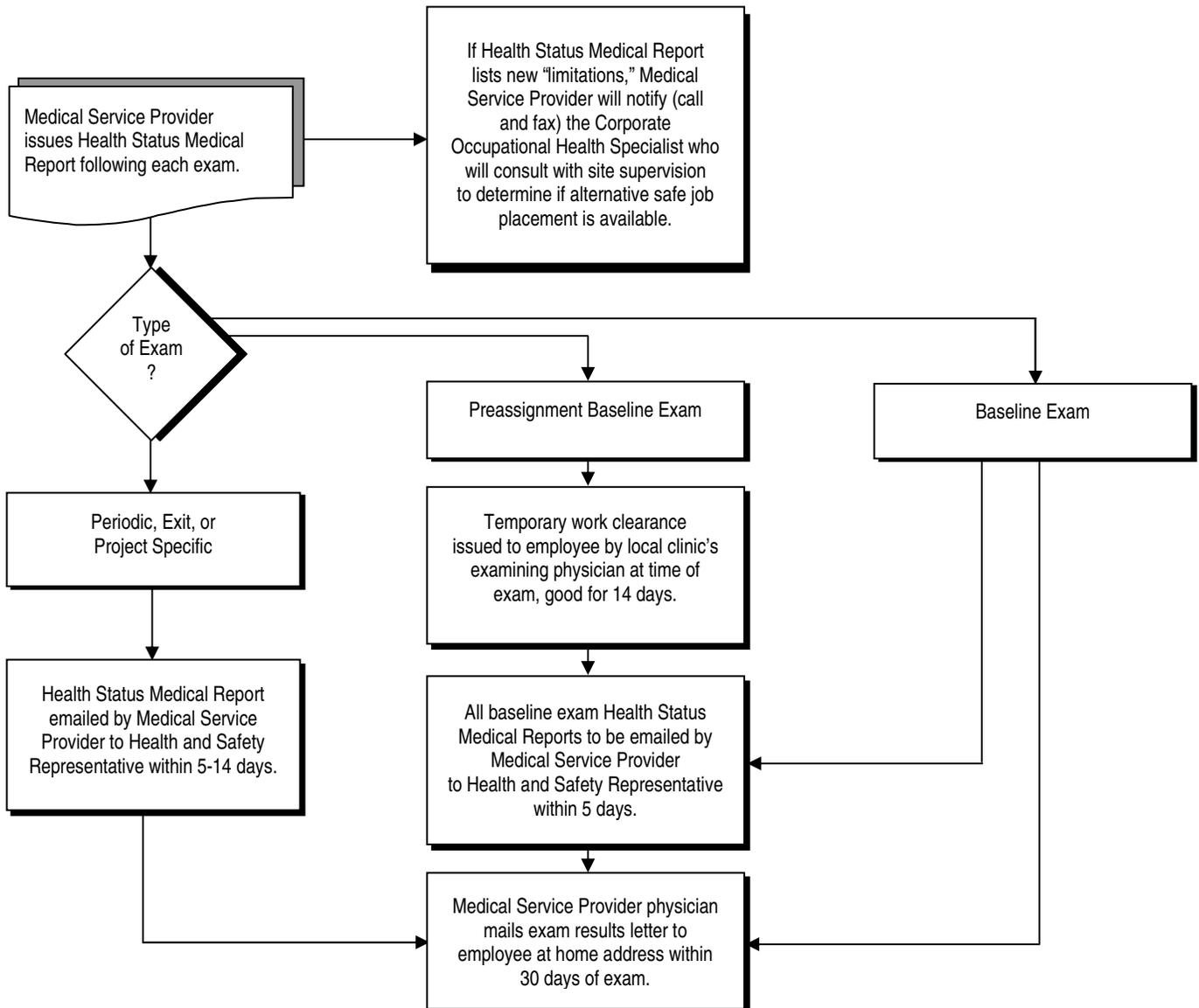
**Employee Signature**

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### Billing



### Medical Surveillance Exam Clearances



**FIRST AID KIT  
SUPPLY LIST**

All first aid kits shall conform to the requirements of the ANSI Z308.1-2003, and shall contain the first aid items indicated below. The quantity, dimensions, or volume listed for each item is the **minimum** for compliance with this standard for Type I, II, or III kits. Type I kits are required to have a means for mounting in a fixed position and are generally not intended to be portable. Type II kits shall have a carrying handle. Type III kits shall have a carrying handle and shall provide a means to be mounted in a fixed position.

**Required Contents:**

- Absorbent Compress 32 sq in
- (16) Adhesive Bandages, 1X3 in
- Adhesive Tape - 3/8 in X 5 yd
- (10) Antiseptic 0.14 fl. oz. application
- (6) Burn Treatment, 1/32 oz. application
- Medical Exam Gloves
- Sterile pad - 3 X 3 in
- Triangular Bandage - 40 X 40 X 56 in

In addition to the required contents listed above, optional products and sizes may be included, depending on specific hazards, to augment a kit based upon the specific hazards existing in a particular work environment. Optional contents include:

- *Analgesic (Oral)* - Oral analgesics shall be packed in a single dose, tamper evident, package with full labeling as required by FDA regulations, and should contain no ingredients which are known to cause drowsiness.
- *Antibiotic Treatment* - Each antibiotic treatment shall be packaged in individual use applications containing at least 1/32 oz. of ointment. Each individual-use application shall not be reusable.
- *Bandage Compress* - Each compress shall consist of an absorbent, non-adherent pad substantially free from loose ends and raveling. The bandage shall be individually packaged, sealed and sterile.
- *Breathing Barrier* - The barrier shall be a single use disposable medical device for CPR use.
- *Burn Dressing* - Burn dressings shall be gel-soaked pad which is soluble in water and a single use.
- *Cold Pack* - Each cold pack shall be at least 4 X 5 in. and shall reach temperature within 10 seconds of activation. Cold packs shall activate under normal hand pressure and shall not leak under normal conditions of use.
- *Eye Covering* - Eye covering(s) shall have the ability to cover both eyes. Each eye covering shall be individually packaged, sealed, and sterile.
- *Eye Wash* - A minimum of 1 fl. oz. of a sterile isotonic buffered solution shall be contained in at least 0.5 fl. oz. individual use applications.
- *Roller Bandage* - Each bandage shall be at least 2 in. wide and at least 6 yd long. Each bandage shall be free from loose threads and raveling and individually packaged, and sealed

**URS SAFETY MANAGEMENT STANDARD 026  
NOISE AND HEARING CONSERVATION**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Noise and Hearing Conservation**

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### **1. Applicability**

This standard applies to the operations of URS Corporation and its subsidiary companies where personnel may encounter noise exposures that may exceed 85 decibels, measured using an A-weighted scale (dBA), as an 8-hour time-weighted average (TWA).

### **2. Purpose and Scope**

The purpose of this procedure is to protect employees from hazardous noise exposures and to prevent hearing loss.

### **3. Implementation**

Implementation of this procedure is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

#### **A. General**

1. The use of hearing protectors is required in any location where powered or motorized equipment or any other noise source could reasonably be expected to exceed 85 dBA. Whenever information indicates that any employee's exposure may equal or exceed an 8-hour TWA of 85 dBA, the project manager or location manager will be responsible for enforcing the proper use of hearing protectors.
2. Implement a hearing conservation program in accordance with 29 Code of Federal Regulations (CFR) 1910.95(c) when applicable. Work not applicable to 29 CFR 1910.95(c) will assess hazards of noise exposure on a task basis, and implement engineering or administrative controls to reduce employee noise exposure.
3. Hearing protectors will be used in the event that administrative or engineering controls are either not effective or not feasible, and the following criteria will be applicable to selection of hearing protection devices.
  - a. Require that at least two types of hearing protectors are available to employees free of charge, and that the type of hearing protector is suitable to the task.

## **URS SAFETY MANAGEMENT STANDARD**

### **Noise and Hearing Conservation**

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- b. Require that hearing protectors are used in accordance with manufacturer's specifications to effectively protect hearing.
- c. Evaluate the effectiveness of the hearing protectors chosen. The manufacturer's assigned noise reduction rating (NRR) for hearing protection devices can seldom be achieved in workplace conditions; therefore this rating must be attenuated for real world conditions and use. To do so, subtract 7 from the NRR of the protector provided by the manufacturer. Divide this result by 2, and then subtract the remained from the observed "A" scale sound level measurement collected in the employee's work area (see Section 4.B). If this number is below 85, the hearing protectors are adequate for use in the work area.

#### **B. Noise Surveys**

1. Noise surveys must be conducted in a manner that reasonably reflects the exposure of the affected employees. Surveys must be conducted under the supervision of a URS Health, Safety, and Environment (HSE) Representative.
2. Sound-level meters and audio dosimeters used to determine employee exposure to noise sources must be Type II (accurate to within +/- 2 dBA), operated in "slow" response, on the "A" scale, and be calibrated to factory guidelines (including periodic factory recalibration).
3. Attachment 026-1NA (Sound Level Survey) and Attachment 026-2NA (Noise Dosimetry Field Sheet) may be used to record noise surveys.

#### **C. Noise Controls**

Eliminate noise sources to the extent possible. Examples of controls that must be considered include:

1. Adding or replacing mufflers on motorized equipment.
2. Adding mufflers to air exhausts on pneumatic equipment.
3. Following equipment maintenance procedures to lubricate dry bearings and replace worn or broken components.
4. Isolating loud equipment with barriers.
5. Replacing loud equipment with newer and quieter models.

## **URS SAFETY MANAGEMENT STANDARD**

### **Noise and Hearing Conservation**

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6. Using caution signs and Hearing Protection Required signs to designate noisy work areas.
7. Installing HPD-dispensing devices at the entrance to noisy work areas.

#### D. Audiometric Exams

##### 1. Tests

- a. Details on the medical surveillance program (including audiometric testing) are included in SMS 024 – Medical Screening and Surveillance.
- b. Audiometric tests will be performed by a person meeting the requirements described in 29 CFR 1910.95(g)(3). Within 6 months of an employee's first exposure at or above the action level, a valid baseline audiogram will be established, against which subsequent audiograms can be compared. Testing to establish a baseline audiogram will be preceded by 14 hours without exposure to noise. Hearing protectors may be used as a substitute for the requirement that a baseline audiogram will be preceded by 14 hours without exposure to workplace noise. The medical surveillance provider will notify employees of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination. For multi-year projects, an annual audiogram will be obtained for each employee exposed at or above an 8-hour time-weighted average of 85 decibels.
- c. Each employee's annual audiogram will be compared to that employee's baseline audiogram to determine if the audiogram is valid, and if there is a standard threshold shift (STS). A standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 hertz (Hz) in either ear. If the annual audiogram shows that an employee has suffered an STS, the employer will obtain a retest within 30 days, and consider the results in assessing an STS as the annual audiogram. The audiologist, otolaryngologist, or physician will review problem audiograms, and will determine whether there is a need for further evaluation. If an STS has occurred, the medical surveillance provider will notify the employee within 21 days of the determination.

#### E. Standard Threshold Shifts

## **URS SAFETY MANAGEMENT STANDARD**

### **Noise and Hearing Conservation**

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If an employee's test results show a confirmed STS, their hearing protection will be evaluated and refitted, and a medical evaluation may be required.

#### **F. Training**

Verify that each employee who must work in a noisy environment is current on required Hearing Conservation Training. At a minimum, training shall be conducted annually. Training must include the following topics:

1. The effects of noise on hearing.
2. The purpose of hearing protectors.
3. The advantages and disadvantages of various types of hearing protectors.
4. The attenuation of various types of hearing protection.
5. The selection, fitting, care, and use of hearing protectors.
6. The purpose of audiometric testing.
7. An explanation of the audiometric testing procedure.

#### **5. Documentation Summary**

The following documentation will be maintained:

- A. Noise surveys, when applicable.
- B. Training records.
- C. Audiometric tests (must be maintained by the Company's medical record retention vendor (e.g., WorkCare)).

#### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Standard – [Occupational Noise Exposure – 29 CFR 1910.95](#)
- B. U.S. OSHA Construction Standard – [Occupational Noise Exposure – 29 CFR 1926.52 and 1926.101](#)

**URS SAFETY MANAGEMENT STANDARD**  
**Noise and Hearing Conservation**

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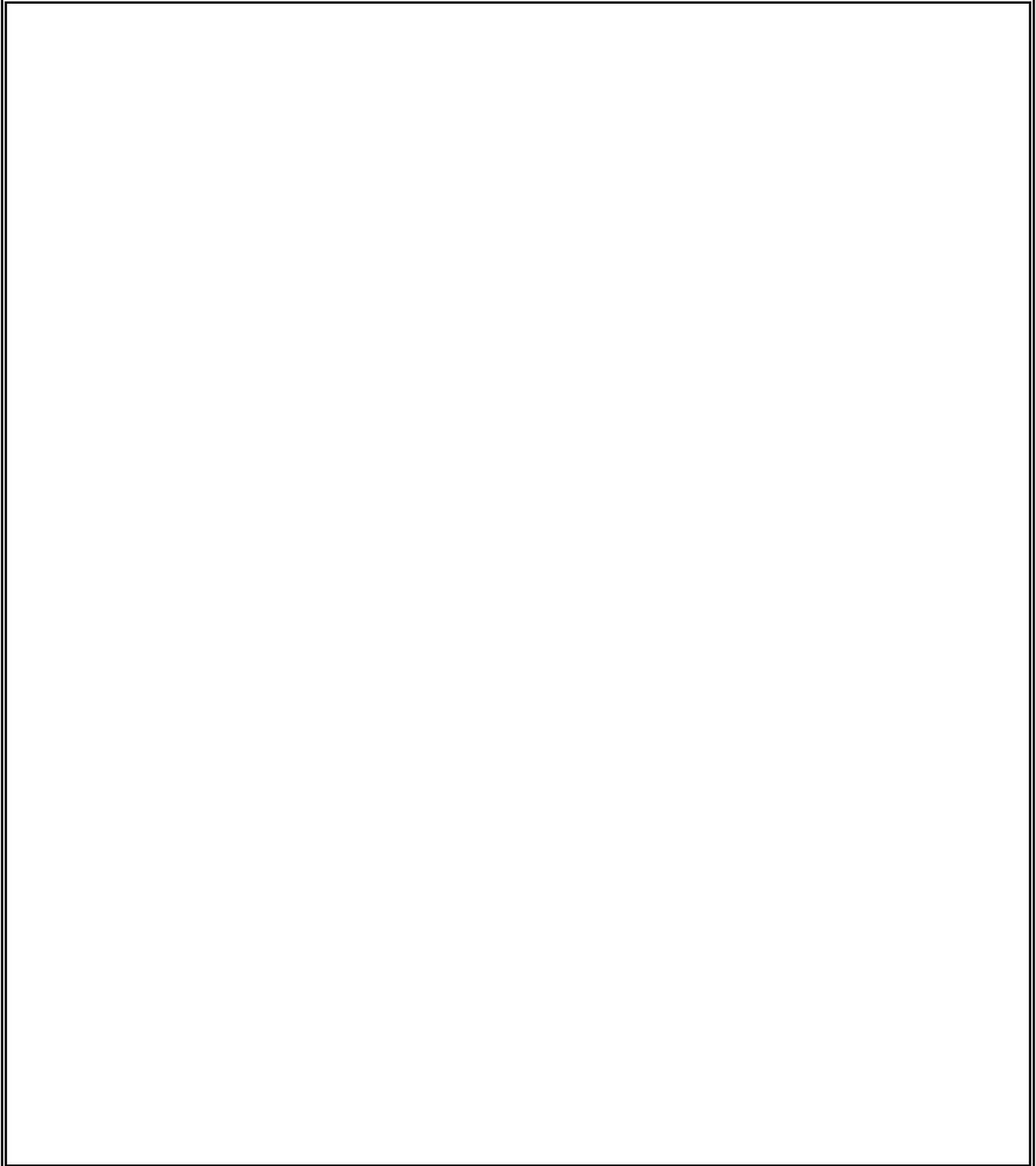
- C. U.S. MSHA – Occupational Noise Exposure [30 CFR 62](#)
- D. U.S. FRA – Occupational Noise Exposure [49 CFR 227](#)
- E. [U.S. OSHA Technical Links – Noise and Hearing Conservation](#)
- F. American Industrial Hygiene Association: [Protect Yourself from Noise-Induced Hearing Loss](#)
- G. [National Hearing Conservation Association web site](#)
- H. [SMS 024](#) – Medical Screening and Surveillance
- I. [Attachment 026-1NA](#) – Sound Level Survey
- J. [Attachment 026-2NA](#) – Noise Dosimetry Field Sheet





**Drawing of Equipment or Work Layout**

**Reference Numbers refer to the Test Numbers on Page 1**





**NOISE DOSIMETRY  
FIELD SHEET**

**Sample Identification**

Sample #: \_\_\_\_\_ Date: \_\_\_\_\_  
Employee Monitored: \_\_\_\_\_ Employee #: \_\_\_\_\_  
Job: \_\_\_\_\_ Location: \_\_\_\_\_

**Dosimeter Information**

Model: \_\_\_\_\_ Serial # \_\_\_\_\_  
Criterion Level (in dBA): \_\_\_\_\_ Threshold (in dBA): \_\_\_\_\_ Exchange Rate (in dBA): \_\_\_\_\_  
Calibration (in dBA): Initial \_\_\_\_\_ Final \_\_\_\_\_  
Weighting: Fast  Slow

**Calibrator Information**

Model: \_\_\_\_\_ Serial #: \_\_\_\_\_ Class  1  2  
Battery Check Completed:  Date of Factory Calibration: \_\_\_\_\_

**Sample Information**

Time On: \_\_\_\_\_ Time Off: \_\_\_\_\_ Total Run Time (in min): \_\_\_\_\_  
Time Weighted Average (in dBA): \_\_\_\_\_ %Dose: \_\_\_\_\_ Est. %Dose: \_\_\_\_\_  
Average Sound Level (L<sub>avg</sub>): \_\_\_\_\_ Peak Sound Level (L<sub>pk</sub>): \_\_\_\_\_  
Maximum Sound Level (L<sub>max</sub>): \_\_\_\_\_ Minimum Sound Level (L<sub>min</sub>): \_\_\_\_\_

**Workplace Conditions**

Scheduled Hours per Shift: \_\_\_\_\_ Operations: Normal?  Abnormal?   
Explain: \_\_\_\_\_

Hearing Protection: Type \_\_\_\_\_ % of Time Worn \_\_\_\_\_

**Work Description/Comments**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sampled By: \_\_\_\_\_

**URS SAFETY MANAGEMENT STANDARD 029**  
**PERSONAL PROTECTIVE EQUIPMENT**

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# **URS** Safety Management Standard

## **Personal Protective Equipment**

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### **1. Applicability**

This standard applies to all operations of URS Corporation and its subsidiary companies where the use of personal protective equipment (PPE) is anticipated.

### **2. Purpose and Scope**

The purpose of this standard is to provide information on recognizing those conditions that require PPE. PPE is designed to protect the employee from health and safety hazards that cannot be practically removed from the work environment.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

- A. Perform hazard assessments for those work activities that are likely to require the use of PPE.
  - 1. Use Attachment 029-1 NA to perform the assessment.
  - 2. Reevaluate completed hazard assessments when job conditions or duties change.
- B. Eliminate the hazards identified in Attachment 029-1 NA, if possible, through engineering or administrative controls.
- C. Select PPE that will protect employees if hazards cannot be controlled or eliminated.
  - 1. See Attachment 029-1 NA for recommended PPE.
  - 2. Review Material Safety Data Sheets for chemicals used for PPE recommendations.
  - 3. If needed, consult with the applicable safety representative for assistance in selecting PPE.
- D. Provide required PPE to employees free of charge (excluding, in some instances, components of standard work attire such as steel-toed boots and prescription safety glasses), assuring proper fit and providing a choice

**URS** Safety Management Standard  
**Personal Protective Equipment**

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if more than one type of PPE is available. Where applicable, the local policy (office or project) regarding reimbursement for PPE will prevail.

- E. Provide the employees with the appropriate PPE whenever a hazard is recognized and PPE is required. However, when PPE is not required and the employee elects to wear his or her own PPE, the manager directing activities must ensure that the employee is properly trained in the fitting, donning, doffing, cleaning, and maintenance of his or her employee-owned equipment.
- F. Make employees aware that they are responsible for PPE maintenance, care, and proper use. Employees must inform their supervisors when a need arises to use PPE for which the employee has not received training, or when a condition exists where adequate PPE is not available.
- G. Conduct and document employee training.
  - 1. Train all employees who are required to wear PPE.
  - 2. Require that training includes:
    - a. When PPE is to be worn.
    - b. The type of PPE necessary for the task to be completed.
    - c. How to properly don, doff, adjust, and wear PPE.
    - d. Limitations of PPE.
    - e. Proper care, maintenance, useful life and disposal of PPE.
  - 3. Conduct training before PPE is assigned.
  - 4. Provide refresher training when:
    - a. The workplace changes, rendering previous PPE and training obsolete.
    - b. New types of PPE are assigned to the worker.
    - c. The worker cannot demonstrate competency in PPE use.
  - 5. Keep written records of the employees trained and type of training provided, including the date of training.

## **URS** Safety Management Standard **Personal Protective Equipment**

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### H. PPE Specific Information

#### 1. Head Protection

- a. Use hard hats in areas where there is the possible danger of head injury from the impact of falling or flying objects, striking against objects, electrical shock and/or burns, or any combination of these hazards. Hard hats will be worn when required by site safety procedures, client/site requirements, or when posted as an entry requirement.
- b. Adjust the hard hat suspension to fit the wearer and to keep the shell a minimum of 1.25 inches (3.2 cm) above the wearer's head. Do not store materials in the suspension. Cold weather liners and perspiration control bands may be utilized within the hard hat unless specifically excluded by the manufacturer.
- c. Wear hard hats in the forward position unless written verification and instructions from the hard hat manufacturer indicate your hard hat model has been tested and found to be compliant when worn backwards.
- d. Type 1 helmets are designed to protect the employee from impact and penetration caused by objects hitting the top of the head; Type II helmets extend this protection to the sides of the head as well.
- e. Class G (General) helmets provide protection against impact, penetration, and limited electrical hazards up to 2,200 volts. Class E (Electrical) helmets meet the same criteria, but electrical protection is increased to 20,000 volts. Class C (Conductive) helmets only provide impact and penetration protection.
- f. Do not use bump caps as protection against head injury, except when the only potential hazard is striking against objects and the use has been approved a Business, Country, Group, Regional Business Unit (RBU), or Strategic Business Unit (SBU) Health, Safety and Environment Manager.
- g. Do not alter hard hats in a way that will downgrade their efficiency. Typical prohibited alterations include painting,

**URS** Safety Management Standard  
**Personal Protective Equipment**

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drilling holes in shell, application of metal jewelry, etc. Replace hats with these alterations or with excessive scratches.

- h. Wear integral chinstraps when working in high-wind conditions or near helicopters.
- i. Inspect hard hats before use and remove from service if any of the following are observed: cracking, tearing, fraying, chalking, and flaking.
- j. Remove hard hats and their components from service and replace as recommended by the manufacturer. Hard hats must be replaced after no more than 5 years.

2. Hearing Protection

- a. Provide hearing protection in any location where powered or motorized equipment or any other noise source could reasonably be expected to exceed 85 dBA. Each task in the work area will be evaluated for potential worker noise exposure as required.
- b. Review SMS 026 – Noise and Hearing Conservation – for additional information.

3. Eye and Face Protection

- a. Use eye and/or face protection when machines or operations create the risk of eye and/or face injuries due to physical, chemical, and/or radiation sources. Safety glasses will be worn when required by site safety procedures, client/site requirements, or when posted as an entry requirement.
- b. Provide safety glasses that can be worn over corrective spectacles for employees whose vision requires the use of corrective lenses. Employees will consult with the applicable safety representative or project managers for policies on reimbursement for prescription safety glasses.
- c. Do not use of sunglasses in place of required safety glasses. Heavily tinted safety glasses will only be used in outdoor areas with suitable lighting. Colored or lightly tinted or gradient lenses may be used indoors as appropriate to the work conditions.

**URS** Safety Management Standard  
**Personal Protective Equipment**

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- d. Tasks requiring grinding and cutting will require face shields over safety glasses. Tasks requiring power washing or handling corrosive chemicals will require a face shield over safety goggles. For welding tasks, refer to Supplemental Information B for lens selection criteria.
- e. Consult Supplemental Information A for additional information on types of eye and face protection and their various uses.

#### 4. Hand Protection

- a. Wear gloves when the hands are exposed to hazards such as, but not limited to, chemical absorption, cuts or lacerations, abrasions, punctures, chemical burns, thermal burns, vibration, or temperature extremes.
- b. Gloves must always be provided to workers for tasks with potential hand hazards.
- c. Identify hand hazards during job or task hazard analysis. A supply of appropriate gloves in various sizes must be provided to workers assigned to work on that task.
- d. Inspect chemical gloves for degradation or tears prior to use. Do not remove chemical gloves from the work area if it is visibly contaminated. Chemical gloves may be decontaminated or disposed of according to specified procedures. In some cases, inner disposable chemical gloves (e.g., nitrile) will be required for protection of hands during removal of contaminated gloves.
- e. Select chemical-resistant gloves using manufacturer's hazard-based selection programs or other published guides that identify compatibility of glove material with chemical hazards. Selection must also consider physical requirements of the task with regard to puncture resistance and need for flexibility and dexterity in performing the task.
- f. Review SMS 064 – Hand Safety – for additional information.

#### 5. Foot Protection

- a. Wear appropriate specialized protective footwear in the following environments:

**URS** Safety Management Standard  
**Personal Protective Equipment**

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- i. Using harmful corrosive substances or processes.
  - ii. Having a high probability of puncture or crushing injuries.
  - iii. Performing regular assembly or disassembly of heavy system components.
  - iv. Working in wet conditions.
  - v. Working in extreme cold.
  - vi. Working around exposed electrical wires or connections.
  - vii. When using hand-operated compactors, snow blowers, pressure washers, or steam cleaners.
  - viii. Other activities or areas as designated by supervisors or safety personnel.
- b. Employees assigned to field projects who are not required to wear specified protective footwear (e.g., steel-toed boots, metatarsal protection, rubber boots, insulated boots, etc.) will wear substantial leather, high-sided work boots. Shoes (leather, canvas, tennis, deck, or other types of material), sandals, high-heeled shoes, etc., are not allowed on field project sites.
- I. Maintain Protective Equipment
- 1. Check PPE for damage, cracks, and wear prior to each use. Replace or repair equipment not found in good condition.
  - 2. Decontaminate non-disposable PPE with appropriate cleaner, as necessary, to prevent degradation of the equipment. Staff will remove any non-impermeable PPE/clothing that becomes contaminated with hazardous substances. These instructions are reiterated in the emergency decontamination procedures in the Health and Safety Plans.
- J. Periodically inspect worksites where employees are using PPE using Attachment 029-2 NA. Regularity of inspections should be determined by the project manager and/or site safety representative.

## **URS** Safety Management Standard **Personal Protective Equipment**

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### **5. Documentation Summary**

The following information will be maintained in the project file:

- A. Completed Hazard Assessment Certification Forms (Attachment 029-1 NA).
- B. Completed Personal Protective Equipment Inspection Sheet (Attachment 029-2 NA).
- C. Documentation of employee training.

### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Standards – [Personal Protective Equipment – 29 Code of Federal Regulations \(CFR\)1910, Subpart I](#)
- B. U.S. OSHA Construction Standard - [Personal Protective Equipment – 29 CFR 1926 Subpart E](#)
- C. [U.S. OSHA Technical Links – Personal Protective Equipment](#)
- D. American National Standards Institute – [ANSI Z89.1-2003](#), Protective Headwear
- E. American National Standards Institute – ANSI Z87.1-2003 – Eye and Face Protection
- F. American National Standards Institute /International Safety Equipment Association, ANSI/ISEA 107 - 2004 – Standard for High-Visibility Safety Apparel
- G. American National Standards Institute – ANSI Z41-1991, Protective Footwear Requirements, American Society for Testing and Materials, ASTM F-2414-2005, Standard Test Methods for Foot Protection, ASTM F-2413-2005, Standard Specification for Performance Requirements for Protective Footwear
- H. American National Standards Institute/International Safety Equipment Association (ANSI/ISEA) – 105-2011 – American National Standard for Hand Protection Selection Criteria"
- I. *Quick Selection Guide to Chemical Protective Clothing*, K Forsberg and S.Z. Mansdorf, Wiley Interscience, 2002

**URS** Safety Management Standard  
**Personal Protective Equipment**

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- J. Best Manufacturing Co. <http://www.bestglove.com/>. Information on chemical resistant gloves.
- K. [SMS 040](#) – Fall Protection
- L. [SMS 026](#) – Noise and Hearing Conservation
- M. [SMS 064](#) – Hand Safety
- N. [Attachment 029-1 NA](#) – Hazard Assessment Form
- O. [Attachment 029-2 NA](#) – Personal Protective Equipment Inspection Form

**7. Supplemental Information**

- A. [Eye and Face Protector Selection Guide](#)
- B. [Welding Lens Selector](#)
- C. [Traffic Control Class Guidelines and Scenarios](#)



Health, Safety and Environment  
**HAZARD ASSESSMENT  
CERTIFICATION FORM**

Attachment 029-1 NA

Issue Date: July 2000  
Revision 8: September 2011

Location: \_\_\_\_\_ Job No.: \_\_\_\_\_

Date: \_\_\_\_\_ Assessment conducted by: \_\_\_\_\_

Specific tasks performed at this location: \_\_\_\_\_

*If any of the indicated hazards are present, eliminate the hazard or use the indicated PPE.*

**Overhead Hazards**

- |   |  |   |
|---|--|---|
| 1. Suspended/elevated loads, beams, or objects that could fall or strike head | <input type="checkbox"/> Yes <input type="checkbox"/> No | Hard hat, ANSI Z89, Class G, E or C                               |
| 2. Flying objects that could strike head                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No | Hard hat, ANSI Z89, Class G, E or C                               |
| 3. Energized wires or equipment that could strike head                        | <input type="checkbox"/> Yes <input type="checkbox"/> No | Hard hat, ANZI Z89, Class G or E (dependent on potential voltage) |
| 4. Sharp objects or corners at head level                                     | <input type="checkbox"/> Yes <input type="checkbox"/> No | Hard hat, ANSI Z89, Class G, E or C                               |

**Eye Hazards**

- |  |  |   |
|--|--|---|
| 5. Chemical splashes or irritating mists       | <input type="checkbox"/> Yes <input type="checkbox"/> No | See Supplemental Information A for additional information   |
| 6. Excessive dust                              | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety glasses or goggles   |
| 7. Smoke and/or fumes                          | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety goggles  |
| 8. Welding operations                          | <input type="checkbox"/> Yes <input type="checkbox"/> No | Welding goggles; See Supplemental Information A and B for additional information                      |
| 9. Lasers/optical radiation                    | <input type="checkbox"/> Yes <input type="checkbox"/> No | Have URS HSE Representative assist you in proper selection  |
| 10. Projectiles                                | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety glasses or goggles plus face shield  |
| 11. Sawing, cutting, chipping, and/or grinding | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety glasses or goggles plus face shield; See Supplemental Information A for additional information |

**Face Hazards**

- |   |  |   |
|---|--|---|
| 12. Chemical splashes or irritating mists | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety goggles; See Supplemental Information A for more information; add face shield if irritating or corrosive |
| 13. Welding operations                    | <input type="checkbox"/> Yes <input type="checkbox"/> No | Welding goggles or welding helmet; see Supplemental Information A and B for additional information              |
| 14. Projectiles                           | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety glasses or goggles plus face shield  |

**Hand Hazards**

- |                                  |  |  |
|----------------------------------|--|--|
| 15. Chemical exposure            | <input type="checkbox"/> Yes <input type="checkbox"/> No | Use chemical-resistant gloves specific to hazard; consult MSDS, chemical hazard guide, or HSE Representative |
| 16. Sharp edges, splinters, etc. | <input type="checkbox"/> Yes <input type="checkbox"/> No | Leather or Kevlar gloves   |
| 17. Temperature extremes – heat  | <input type="checkbox"/> Yes <input type="checkbox"/> No | Leather gloves, welder's gloves, hot mill gloves   |



Health, Safety and Environment  
**HAZARD ASSESSMENT  
CERTIFICATION FORM**

Attachment 029-1 NA

Issue Date: July 2000  
Revision 8: September 2011

*If any of the indicated hazards are present, eliminate the hazard or use the indicated PPE.*

- |  |  |   |
|--|--|---|
| 18. Temperature extremes – cold          | <input type="checkbox"/> Yes <input type="checkbox"/> No | Insulated gloves                              |
| 19. Blood, fungus, biological agents     | <input type="checkbox"/> Yes <input type="checkbox"/> No | Nitrile gloves                                |
| 20. Exposure to live electrical currents | <input type="checkbox"/> Yes <input type="checkbox"/> No | Electrical gloves; consult HSE representative |
| 21. Sharp tools, machine parts, etc.     | <input type="checkbox"/> Yes <input type="checkbox"/> No | Leather or Kevlar gloves                      |
| 22. Material handling                    | <input type="checkbox"/> Yes <input type="checkbox"/> No | Leather gloves                                |

**Foot Hazards**

- |   |  |  |
|---|--|--|
| 23. Heavy materials (greater than 50 pounds) handled by employees | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety shoes or boots  |
| 24. Potential to crush whole foot                                 | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety shoes or boots with metatarsal guard  |
| 25. Sharp edges or points (puncture risk)                         | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety shoes or boots  |
| 26. Exposure to electrical hazards                                | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety shoes or boots with:<br><br>Conductive - Protects the wearer in an environment where the accumulation of static electricity on the body is a hazard.<br><br>Static dissipative - Reduces the accumulation of excess static electricity by conducting body charge to ground while maintaining a sufficiently high level of resistance.<br><br>Electrical hazard - Provides a secondary source of protection against accidental contact with live electrical circuits, electrically energized conductors, parts or apparatus, and is manufactured with non-conductive electrical shock resistant soles and heels. |
| 27. Slippery conditions   | <input type="checkbox"/> Yes <input type="checkbox"/> No | Rubber-soled boots or grips  |
| 28. Chemical contamination  | <input type="checkbox"/> Yes <input type="checkbox"/> No | Rubber, PVC, or polyurethane boots or boot covers with puncture and protective toe if task required  |
| 29. Wet conditions  | <input type="checkbox"/> Yes <input type="checkbox"/> No | Rubber boots or boot covers  |
| 30. Construction/demolition                                       | <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety boots with metatarsal guard if foot-crushing hazard exists  |

**Fall Hazards**

- |   |  |                                       |
|---|--|---------------------------------------|
| 31. Elevations above 4 feet (general industry) or 6 feet (construction) without guardrails  | <input type="checkbox"/> Yes <input type="checkbox"/> No | ANSI A-10.14 Type 1 full-body harness |
| 32. Suspended scaffolds, boatswain's chairs, float scaffolds, or suspended staging          | <input type="checkbox"/> Yes <input type="checkbox"/> No | ANSI A-10.14 Type 1 full-body harness |
| 33. Working in trees  | <input type="checkbox"/> Yes <input type="checkbox"/> No | ANSI A-10.14 Type 1 full-body harness |
| 34. Working in vehicle-mounted elevating work platforms (e.g., bucket trucks, aerial lifts) | <input type="checkbox"/> Yes <input type="checkbox"/> No | ANSI A-10.14 Type 1 full-body harness |



Health, Safety and Environment  
**HAZARD ASSESSMENT  
CERTIFICATION FORM**

Attachment 029-1 NA

Issue Date: July 2000  
Revision 8: September 2011

**Water Hazards**

35. Working on or above water where a risk of drowning exist  Yes  No U.S. Coast Guard approved personal floatation device; Type I, II, or III

**Excessive Heat or Flame**

36. Full body chemical protective clothing in temperatures greater than 80 °F  Yes  No Cooling vest
37. Work around molten metal or flame  Yes  No Nomex or heat reflective clothing
38. Welding activities  Yes  No Welding leathers for those areas that are exposed to flame, spark, or molten metal

**Respiratory Hazards**

39. Airborne particulates, gases, vapors, or mists in excess of established exposure limits  Yes  No Refer to SMS 042 or URS HSE Representative for respirator selection guidance

**Excessive Noise**

40. Exposure to noise  Yes  No Ear plugs, muffs or both

**Body and Leg Protection**

41. Chemical exposure  Yes  No Contact URS HSE Representative for assistance in proper selection
42. Using chainsaw, cutting brush  Yes  No Chainsaw chaps
43. Exposure to snakes  Yes  No Snake chaps
44. Exposure to vehicle traffic or heavy equipment  Yes  No See SMS 032 and SMS 029 NA – Supplemental Information C for additional guidance

**I certify that the above inspection was performed to the best of my knowledge and ability, based on the hazards present on: \_\_\_\_\_**

Name \_\_\_\_\_ Signature \_\_\_\_\_



**Health, Safety and Environment**  
**PERSONAL PROTECTIVE EQUIPMENT**  
**INSPECTION SHEET**

Attachment 029-2 NA  
  
 Issue Date: July 2000  
 Revision 8: September 2011

Name of Inspector \_\_\_\_\_ Date Inspected \_\_\_\_\_

<b>Hard Hats</b>	
1. The brim or shell does not show signs of exposure and excessive wear, loss of surface gloss, chalking, or flaking.	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Suspension system in hard hat does not show signs of deterioration, including cracking, tearing, or fraying.	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. The brim or shell is not cracked, perforated, or deformed.	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Employees use hard hats in marked areas.	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Areas requiring hard hat usage are marked.	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Safety Shoes</b>	
6. Safety shoes used by employees do not show signs of excessive wear.	<input type="checkbox"/> Yes <input type="checkbox"/> No
7. Areas requiring safety shoes are marked.	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Work Gloves</b>	
8. Gloves are available and worn when needed.	<input type="checkbox"/> Yes <input type="checkbox"/> No
9. Gloves are appropriate for the task.	<input type="checkbox"/> Yes <input type="checkbox"/> No
10. Gloves do not show signs of excessive wear such as cracks, scrapes, or lacerations, thinning or discoloration, or break-through to the skin.	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Protective Clothing</b>	
11. Protective clothing (including traffic control apparel) is worn by employees when required.	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Hearing Protection</b>	
12. Noise hazard areas are posted.	<input type="checkbox"/> Yes <input type="checkbox"/> No
13. Employees are using earplugs or muffs when using noise producing equipment or working in posted noise hazard areas.	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Safety Glasses</b>	
14. Eye hazard areas are marked or posted.	<input type="checkbox"/> Yes <input type="checkbox"/> No
15. Employees use safety glasses when working in eye hazard areas or working with equipment that produces an eye hazard.	<input type="checkbox"/> Yes <input type="checkbox"/> No
16. Face shields are used when required and worn over safety glasses.	<input type="checkbox"/> Yes <input type="checkbox"/> No

**REMARKS (All "No" answers indicate a hazard which needs to be fixed.)**

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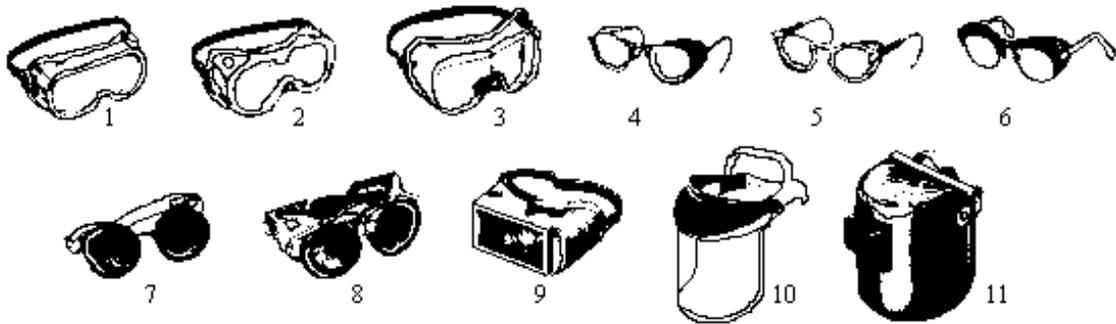
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- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. GOGGLES, Flexible Fitting, Regular Ventilation</li> <li>2. GOGGLES, Flexible Fitting, Hooded Ventilation</li> <li>3. GOGGLES, Cushioned Fitting, Rigid Body</li> <li>4. SPECTACLES, Metal Frame, with Sideshields</li> <li>5. SPECTACLES, Plastic Frame, with Sideshields</li> <li>6. SPECTACLES, Metal-Plastic Frame, with Sideshields</li> </ol> | <ol style="list-style-type: none"> <li>7. GOGGLES, Eyecup Type (Tinted Lenses – Welding; Clear Lenses – Chipping)</li> <li>8. GOGGLES, Coverspec Type (Tinted Lenses – Welding; Clear Lenses – Chipping)</li> <li>9. WELDING GOGGLES, Coverspec Type, Tinted Plate Lens</li> <li>10. FACE SHIELD (Plastic or Mesh Window)</li> <li>11. WELDING HELMETS</li> </ol> |
|--|---|

APPLICATIONS		
OPERATION	HAZARDS	RECOMMENDED PROTECTORS Bold Type Numbers = Slightly Preferred Protection
ACETYLENE – BURNING ACETYLENE – CUTTING ACETYLENE – WELDING	SPARKS, HARMFUL RAYS, MOLTEN METAL, FLYING PARTICLES	<b>7,8,9</b>
CHEMICAL HANDLING	SPLASH, ACID BRUNS, FUMES	<b>2,10</b> (For severe exposure, add 10 over 2)
CHIPPING	FLYING PARTICLES	<b>1,2,4,5,6,7,8</b>
ELECTRIC (ARC) WELDING	SPARKS, INTENSE RAYS, MOLTEN METAL	<b>9,11</b> (11 in combination with 4,5,6 in tinted lenses, advisable)
FURNACE OPERATIONS	GLARE, HEAT, MOLTEN METAL	<b>7,8,9</b> (For severe exposure, add 10)
GRINDING – LIGHT	FLYING PARTICLES	<b>1,3,4,5,6,10</b>
GRINDING – HEAVY	FLYING PARTICLES	<b>1,3,7,8</b> (For severe exposure, add 10)
LABORATORY	CHEMICAL SPLASH, GLASS BREAKAGE	<b>2</b> (10 when in combination with 4,5,6)
MACHINING	FLYING PARTICLES	<b>1,3,4,5,6,10</b>
MOLTEN METALS	HEAT, GLARE, SPARKS, SPLASH	<b>7,8</b> (10 in combination with 4,5,6 in tinted lenses)
SPOT WELDING	FLYING PARTICLES, SPARKS	<b>1,3,4,5,6,10</b>

Non-side shield spectacles available for limited hazard use requiring only frontal protection.



Health, Safety and Environment  
**WELDING LENS SELECTION**

SMS 029 NA  
Supplemental Information B  
Issue Date: February 2009  
Revision 1: December 2009

Operations	Electrode Size (1/32")	Arc Current	Minimum Protective Shade
Shielded metal arc welding (SMAW)	Less than 3	Less than 60	7
SMAW	3 – 5	60 – 160	8
SMAW	5 – 8	160 – 250	10
SMAW	More than 8	250 – 550	11
Gas metal arc welding and flux cored arc welding		Less than 60	7
Gas metal arc welding and flux cored arc welding		60 - 160	10
Gas metal arc welding and flux cored arc welding		160 – 250	10
Gas metal arc welding and flux cored arc welding		250 - 500	10
Gas tungsten arc welding		Less than 50	8
Gas tungsten arc welding		50 – 150	8
Gas tungsten arc welding		150 - 500	10
Air carbon arc cutting	(light)	Less than 500	10
Air carbon arc cutting	(heavy)	500 – 1000	11
Gas tungsten arc welding		Less than 20	8
Gas tungsten arc welding		20 – 100	8
Gas tungsten arc welding		100 – 400	10
Gas tungsten arc welding		400 – 800	11
Plasma arc cutting	(light)	Less than 300	8
Plasma arc cutting	(medium)	300 – 400	9
Plasma arc cutting	(heavy)	400 -800	10
Torch blazing			3
Torch soldering			2
Carbon arc welding			14
Gas welding			5 – 6
Oxygen cutting			3 - 5

**A. Class 1 Safety Apparel**

1. Class 1 safety apparel provides the minimum amount of required material to differentiate the wearer from the work environment.
2. At a minimum, this shall include 217 square inches (in<sup>2</sup>), or 0.14 square meters (m<sup>2</sup>), of fluorescent yellow-green, orange-red, or red background materials combined with 155 in<sup>2</sup> (0.10 m<sup>2</sup>) retro-reflective material. As an alternative, the apparel can have 310 in<sup>2</sup> (0.20 m<sup>2</sup>) of combined-performance material (i.e., materials that are both retro-reflective and fluorescent).
3. Class 1 safety apparel typically consists of a sleeveless traffic vest with retro-reflective bands no less than 0.98 inches (25 mm) in width.
4. Those occupational activities under which Class 1 safety apparel is typically used:
  - a. Permit full and undivided attention to approaching traffic;
  - b. Provide ample separation of the pedestrian worker from conflicting vehicle traffic; and
  - c. Permit optimum conspicuity in backgrounds that are not complex with vehicle and moving equipment speeds not exceeding 25 miles per hour (mph), or 40 kilometers per hour (kph).
5. Examples of pedestrian workers who could work in these situations may include:
  - a. Workers directing vehicle operators to parking/service locations;
  - b. Workers exposed to the hazards of warehouse equipment traffic;
  - c. Roadside "right-of-way" or sidewalk maintenance workers; and
  - d. Delivery vehicle drivers.

**B. Class 2 Safety Apparel**

1. Class 2 safety apparel provides superior visibility for the wearers by the additional coverage of the torso and is more conspicuous than Class 1.
2. At a minimum, this shall include 775 in<sup>2</sup> (0.50 m<sup>2</sup>) of fluorescent yellow-green, orange-red, or red background materials combined with 201 in<sup>2</sup> (0.13 m<sup>2</sup>) retro-reflective material. Combined-performance materials may not be used without background materials in Class 2.
3. Class 2 safety apparel typically consists of a full-torso sleeveless traffic vest with retro-reflective bands no less than 1.38 inches (35 mm) in width.
4. Those occupational activities under which Class 2 safety apparel is typically used:
  - a. Greater visibility is desired during inclement weather conditions;
  - b. Complex backgrounds are present;
  - c. Employees are performing tasks which divert attention from approaching vehicle traffic;

- d. Work activities take place in close proximity to vehicle traffic; and
  - e. Vehicle and moving equipment speeds exceed 25 mph (40 kph).
5. Examples of pedestrian workers who could work in these situations may include:
- a. Roadway construction workers;
  - b. Utility workers;
  - c. Survey crews;
  - d. Railway workers;
  - e. Forestry workers;
  - f. Parking and/or toll gate personnel;
  - g. Airport baggage handlers/ground crew;
  - h. Emergency response personnel;
  - i. Law enforcement personnel; and
  - j. Accident site investigators.

### **C. Class 3 Safety Apparel**

- 1. Class 3 safety apparel offers greater visibility to the wearer in both complex backgrounds and through a full range of body movements. Visibility is enhanced beyond Class 2 by the enhancement of background and reflective materials to the arms and/or legs.
- 2. At a minimum, this shall include 1240 in<sup>2</sup> (0.80 m<sup>2</sup>) of fluorescent yellow-green, orange-red, or red background materials combined with 310 in<sup>2</sup> (0.20 m<sup>2</sup>) retro-reflective material. Combined-performance materials may not be used without background materials in Class 3.
- 3. Class 3 safety apparel typically consists of a coveralls, jumpsuits, long or short-sleeved jackets, or long-sleeved shirts with retro-reflective bands no less than 1.97 inches (50 mm) in width. A sleeveless garment or vest alone shall not be considered Class 3 apparel.
- 4. Those occupational activities under which Class 3 safety apparel is typically used:
  - a. Workers are exposed to significantly high vehicle speeds and/or reduced sight distances (note that several sources have interpreted the vehicle speed requirements as 50 mph (80 kph) or more);
  - b. The worker and vehicle operator have high task loads, clearly placing the worker in danger; or
  - c. The wearer must be conspicuous through a full range of body motions at a minimum of 1280 feet (390 m) and must be identifiable as a person.
- 5. Examples of pedestrian workers who could work in these situations may include:
  - a. Roadway construction personnel;
  - b. Utility workers;

- c. Survey crews;
- d. Emergency response personnel; and
- e. Flagging crews.

**D. Class E Safety Apparel**

1. Class E apparel includes trousers or shorts which are part of a Class 3 apparel ensemble. Frequently a Class 2 vest is paired with Class E trousers, creating an overall ensemble which meets Class 3 apparel requirements. Class E garments are not intended to be worn without Class 2 or 3 garments.
2. At a minimum, Class E trousers shall have 465 in<sup>2</sup> (0.30 m<sup>2</sup>) of fluorescent yellow-green, orange-red, or red background materials combined with 108 in<sup>2</sup> (0.07 m<sup>2</sup>) retro-reflective material. Retro-reflective material shall encircle each leg (360° of visibility) and be placed not less than 1.97 inches (50 mm) above the bottom leg of the trouser.
3. At a minimum, Class E shorts shall have 465 in<sup>2</sup> (0.30 m<sup>2</sup>) of fluorescent yellow-green, orange-red, or red background materials combined with 108 in<sup>2</sup> (0.07 m<sup>2</sup>) retro-reflective material. Retro-reflective material shall encircle each leg.

**E. Headwear**

1. Headwear is considered an important accessory and compliments the overall visibility of the wearer. High-visibility headwear enhances visibility to the head of a moving worker in daylight and helps define the shape of the human form during nighttime exposures.
2. At a minimum, high-visibility headwear shall have 78 in<sup>2</sup> (0.05 m<sup>2</sup>) of fluorescent yellow-green, orange-red, or red background materials combined with 10 in<sup>2</sup> (0.0065 m<sup>2</sup>) retro-reflective material. As an alternative, the headwear can have 78 in<sup>2</sup> (0.05 m<sup>2</sup>) of combined-performance material.

**URS SAFETY MANAGEMENT STANDARD 030**  
**SANITATION**

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# URS SAFETY MANAGEMENT STANDARD

## Sanitation

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### 1. Applicability

This standard applies to the operations of URS Corporation and its subsidiary companies.

### 2. Purpose and Scope

The purpose of this standard is to provide employees with appropriate personal hygiene facilities, including toilets, wash rooms, and eating facilities, to protect employees from unsanitary conditions.

### 3. Implementation

Implementation of this standard is the responsibility of the URS manager directing activities of the facility or site.

### 4. Requirements

A. Prior to the start of site activities, ensure the availability of adequate toilet and wash facilities. Note: Mobile crews having transportation readily available (within 5 minute travel time) to nearby toilet facilities need not be provided with facilities.

1. Flush toilets will be used where available.
2. For job sites without flush toilets readily available, one of the following must be provided:
  - a. Chemical toilets.
  - b. Combustion toilets.
  - c. Recirculation toilets.
3. Other than construction sites, toilets will be provided for employees of each sex at sites according to the following ratio:

Number of Employees	Minimum # of toilets <sup>(1)</sup>
1 to 15	1
16 to 35	2
36 to 55	3
56 to 80	4
81 to 110	5
111 to 150	6
Over 150	<sup>(2)</sup>

**Notes:**

(1) Where toilet facilities will not be used by women, urinals may be provided instead of the minimum specified.

(2) One (1) additional fixture for each additional 40 employees.

**URS SAFETY MANAGEMENT STANDARD**  
**Sanitation**

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- B. A means for washing hands must be provided next to or near toilet areas.
- C. For facilities under URS control:
  - 1. Maintain toilets and toilet area in good repair and in a clean and sanitary condition. Refer to SMS 021 – Housekeeping.
  - 2. Provide paper towels and soap or other suitable sanitizing material for washing hands.
  - 3. Construct toilets so that the interior is lighted, by artificial or natural light, adequate ventilation is provided, and all windows and vents are screened.
- D. Maintain availability and cleanliness of drinking (potable) water.
  - 1. Use backflow prevention devices, testing, and administrative controls for all potable water supply branches. Maintain backflow prevention devices in a sanitary condition.
  - 2. Keep water coolers and water dispensers in a sanitary condition and filled only with potable water. Clearly mark potable drinking water containers as “Drinking Water.”
  - 3. Clean and sanitize water containers daily. Tightly close, seal, date, and mark containers as to the contents. Provide containers with a tap, and refill daily.
  - 4. Provide fountain-type dispensers or one-use cups at each water dispenser. Provide a waste receptacle where disposable cups are used.
  - 5. Do not use common drinking cups.
  - 6. Conspicuously post outlets for non-potable water such as water for industrial or firefighting purposes (e.g., Danger – Water Unfit for Drinking, Washing, or Cooking).
  - 7. Laboratory-test drinking water obtained from streams, wells, or other temporary sources in accordance with federal, state, or local regulations, or often enough to ensure it is suitable for consumption. Maintain records of testing reports and results.

**URS SAFETY MANAGEMENT STANDARD**  
**Sanitation**

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E. Eating Facilities

1. Operate and maintain food dispensing facilities established by URS in compliance with applicable health and sanitation regulations.
2. Ensure that buildings housing these facilities are floored completely, painted, well lighted, heated, ventilated, fly proof, and sanitary. Equip doors and windows with screens.
3. Use microwave ovens for food only.
4. Use refrigerators designated for food storage for food only (i.e., no chemical or samples storage).
5. Prohibit workers from eating and drinking or storing foods and drinks in areas where there is a potential for contamination.
6. Take positive control measures for protection against vermin, insects, and rodents.
7. Provide an ample supply of hot and cold water at all times in mess halls.
8. Clean break rooms /lunchrooms periodically. Refer to SMS 021 – Housekeeping.

F. Washing Facilities

1. Maintained each washing facility in a sanitary condition, and provide adequate water, soap, individual towels of cloth or paper, and covered receptacles for disposal of waste.
2. Provide emergency showers and eyewash facilities as required. Refer to SMS 065 – Injury Management.
3. Provide at least one shower for each 30 employees in construction camps. The use of a common towel is prohibited.

G. Waste Management:

1. Release sanitary sewage into sanitary sewer lines or to other proper disposal channels.
2. Do not dispose of garbage, refuse, or sewage in lakes, reservoirs, rivers, streams, or ditches.

**URS SAFETY MANAGEMENT STANDARD**  
**Sanitation**

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3. Do not discharge hazardous waste into the sanitary sewer or storm sewer system.
4. Collect garbage and trash daily.
  - a. Provide lids for garbage containers located outside buildings, and keep them closed. Transport garbage offsite at least weekly.
  - b. Remove garbage from the site daily at remote field sites where wild animals are a hazard. Do not let garbage remain on site overnight.

**H. Change Rooms**

Provide heated and ventilated change rooms for changing, hanging, and/or drying clothing for operations subjecting workers to prolonged wetting or contact with hazardous materials.

**I. Sleeping Facilities**

1. Keep temporary sleeping quarters heated, ventilated, lighted, and clean. Screen all doors and windows.
2. Keep clean and sanitary, and periodically disinfect bunkhouses, bedding, and furniture.

**J. Notify property manager of sanitation issues for sites not under URS control.**

**K. Personal Hygiene**

Wash hands and face before eating, drinking, smoking, and using facilities.

**L. Inspect work sites periodically in accordance with Attachment 030-1 NA.**

**5. Documentation Summary**

The following information will be maintained in the project file:

- A. Completed inspection sheets.

**URS SAFETY MANAGEMENT STANDARD**  
**Sanitation**

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**6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Construction Standard – [Sanitation – 29 Code of Federal Regulations \(CFR\) 1926.51](#)
- B. U.S. OSHA General Industry Standard – [Sanitation – 29 CFR 1910.141](#)
- C. [SMS 021](#) - Housekeeping
- D. [SMS 065](#) – Injury Management
- E. [Attachment 030-1 NA](#) - Sanitation Inspection Sheet



Health, Safety and Environment  
**SANITATION INSPECTION SHEET**

Attachment 030-1 NA  
Issue Date: June 1999  
Revision 4: September 2011

Location: \_\_\_\_\_ Job No: \_\_\_\_\_

Date Inspected: \_\_\_\_\_ Name of Inspector: \_\_\_\_\_

**Toilets**

1. Are there an adequate number of toilets on site?  Yes  No  NA  
1 to 15 employees = 1 toilet  
16 to 35 employees = 2 toilets  
36 to 55 employees = 3 toilets  
56 to 80 employees = 4 toilets  
81 to 110 employees = 5 toilets
2. Toilets are in clean condition.  Yes  No  NA
3. Toilet paper is provided.  Yes  No  NA
4. Toilet areas are clean and sanitary.  Yes  No  NA

**Hand Washing Facilities**

5. Hand washing facilities are provided near toilets.  Yes  No  NA
6. Paper towels and soap are provided.  Yes  No  NA

**Drinking Water**

7. Drinking water is provided on site.  Yes  No  NA
8. Disposable cups are provided or fountain-type dispenser is provided.  Yes  No  NA
9. Drinking water containers are kept clean and tightly closed or covered.  Yes  No  NA

**Break Rooms**

10. Break rooms or eating areas are kept clean.  Yes  No  NA
11. Microwaves are used for food only.  Yes  No  NA
12. Microwave ovens are kept clean.  Yes  No  NA
13. Refrigerators are kept clean.  Yes  No  NA
14. Refrigerators are used to store food only.  Yes  No  NA

**Vermin**

15. Rats, mice, and other vermin are not living within buildings.  Yes  No  NA
16. Cockroaches and fleas are not thriving within buildings.  Yes  No  NA

**Employee Compliance**

17. Employees only eat/drink in areas free from contamination.  Yes  No  NA
18. Employees wash hands/face prior to eating, drinking, smoking.  Yes  No  NA

**REMARKS:**

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**URS SAFETY MANAGEMENT STANDARD 032  
WORK ZONE TRAFFIC CONTROL**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Work Zone Traffic Control**

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### **1. Applicability**

This standard applies to those activities of URS Corporation and its subsidiary companies involving work performed on roads, highways, and similar areas where motor vehicles may be a hazard, and where URS is responsible for traffic control.

### **2. Purpose and Scope**

This standard is intended to protect personnel from the hazards associated with work performed on or next to highways and roads.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

- A. Review the project in the planning phase to determine if any work will be performed on or adjacent to any road that will disrupt normal traffic flow.
- B. Where project operations will be performed on or adjacent to roadways, plan work to interfere as little as possible with traffic, and to provide and maintain ingress and egress for all residences and places of business that may be impacted.
- C. When required by local regulations or when there is a potential to disrupt traffic, a traffic control plan, in detail appropriate to the complexity of the project, must be prepared by a competent person and understood by all responsible parties before activities begin. Any changes in the traffic control plan should be approved by an official trained in safe traffic control practices.
  1. Competent persons are those who are knowledgeable about the fundamental principles of temporary traffic control and the work activities to be performed, and who have the authority to propose and implement corrective measures to eliminate hazardous situations associated with temporary traffic control.
  2. Design traffic control plans to meet requirements set forth in Part 6 of the *Manual on Uniform Traffic Control Devices (MUTCD)*, as well as those rules set by state, county, and cities in which work is

**URS SAFETY MANAGEMENT STANDARD**  
**Work Zone Traffic Control**

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performed. At a minimum, the plan will include information on the following, as needed:

- a. Pedestrian and worker safety;
  - b. Temporary traffic control elements, including (but not limited to) temporary traffic control zones, advance warning zones, transition areas, activity areas, termination areas, tapers, buffers, detours, etc.;
  - c. Flagger controls, including high-visibility safety apparel, hand-signaling devices, and flagger procedures;
  - d. Temporary traffic control zone devices, including (but not limited to) signs, illuminated/flashing panels, warning devices, channelizing devices, drums, barricades, pavement markings; and
  - e. Temporary traffic control zone activities, including scope of work, duration, location, and portions of the roadway/shoulder affected.
- D. Submit the traffic control plan to the applicable road authority for approval.
- E. A Worksite Traffic Control Supervisor, certified by the American Traffic Safety Services Association (ATSSA) or an equivalent organization will be responsible for initiating, installing, and maintaining all traffic control devices. The Worksite Traffic Control Supervisor will also directly supervise all project flaggers.
1. Certified flaggers must attend an 8-hour work-zone traffic control course as taught by an ATSSA certified instructor (or equivalent).
- F. Execute the traffic control plan developed for the job site.
- G. Require all personnel exposed to the risks of moving roadway traffic or construction equipment to wear hardhats, safety glasses, sleeved shirts, long pants, work boots, and the appropriate class of high-visibility safety apparel. Safety apparel background material must be either fluorescent orange-red or fluorescent yellow-green, with accompanying reflective material of orange, yellow, white, silver, or yellow-green, or fluorescent versions of these colors.

**URS SAFETY MANAGEMENT STANDARD**  
**Work Zone Traffic Control**

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H. Wear high-visibility clothing as follows:

1. Class 1 safety apparel (as defined by American National Standards Institute/International Safety Equipment Association [ANSI/ISEA]) for activities that permit the worker:
  - a. Full and undivided attention to approaching traffic;
  - b. Ample separation between the worker and vehicle traffic;  
and
  - c. Optimum visibility in uncomplicated backgrounds where vehicle and equipment speeds do not exceed 25 miles per hour (mph) (40 kilometers per hours [kph]).
2. Wear Class 2 safety apparel for activities where:
  - a. Greater visibility is required due to bad weather;
  - b. There are complicated backgrounds;
  - c. Employees are performing tasks that draw their attention away from approaching traffic;
  - d. Vehicle speeds exceed 25 mph (40 kph); and
  - e. Work activities take place closer to the vehicle traffic.
3. Wear class 3 safety apparel for activities where:
  - a. Workers are exposed to higher vehicle speeds (generally 50 mph [80 kph] or more) or reduced sight distances;
  - b. The worker and vehicle operators have a high task load; and
  - c. The worker must be visible through the full range of body motions as a person at a minimum of 1,280 feet (390 meters).
4. Refer to SMS 029 – Personal Protective Equipment, for additional information on high-visibility clothing requirements, including suggested apparel for each class.

- F. Perform inspection and maintenance of the Traffic Control devices using Attachment 032-1 NA daily, or at the beginning of each shift.

## **URS SAFETY MANAGEMENT STANDARD**

### **Work Zone Traffic Control**

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#### **5. Documentation Summary**

The following information will be maintained in the project file:

- A. Copies of traffic control plans used on site.
- B. Training certificates for Traffic Control Supervisors and flaggers.
- C. Inspection records (Attachment 032-1 NA).

#### **6. Resources**

- A. Part VI of the [Manual on Uniform Traffic Control Devices](#) (MUTCD) – 2009 Edition
- B. [American Traffic Safety Services Association](#)
- C. [ATTSA Flagger Train-the-Trainer Program](#)
- D. [ANSI/ISEA 107-2004](#) – Standard for High-Visibility Safety Apparel
- E. [SMS 029](#) – Personal Protective Equipment
- I. [Attachment 032-1](#) – Traffic Control Device Inspection Checklist



Health, Safety, and Environment  
**TRAFFIC CONTROL DEVICE  
INSPECTION CHECKLIST**

Attachment 032-1 NA

Issue Date: June 1999  
Revision 3: December 2009

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Location Inspected: \_\_\_\_\_

1. **Are any devices missing?**  Yes  No

Do any devices need repair?  Yes  No

Were all replaced or repaired?  Yes  No

**Notes:**

2. **Are any lights (flashers, etc.) not functioning?**  Yes  No

Were they all replaced or repaired?  Yes  No

**Notes:**

3. **Are any devices improperly placed?**  Yes  No

Were all positions corrected?  Yes  No

**Notes:**

4. **Do any devices need cleaning?**  Yes  No

Were all devices cleaned?  Yes  No

**Notes:**

5. **Are flaggers certified and flagging appropriately?**  Yes  No

**Notes:**

**Additional Comments:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The above check was completed by: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

**URS SAFETY MANAGEMENT STANDARD 034  
UTILITY CLEARANCES AND ISOLATION**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Utility Clearances and Isolation**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies where personnel may encounter subsurface or overhead utilities.

### **2. Purpose and Scope**

Many field activities are conducted near aboveground and underground utilities. The primary purpose of this standard is to establish operating requirements that will permit employees to work safely in the vicinity of electrical, natural gas, fuel, water, and other utility systems and installations. The secondary purpose is to prevent economic damage to utility systems from operations associated with project-related activities.

The term *utility clearance* includes the following:

- A. The positive locating of utility systems in or near the work area.
- B. A signed statement by an appropriate representative attesting to the location of underground utilities and/or the positive de-energizing (including lockout) and testing of electrical utilities.

In some cases, utility representatives may deem it appropriate or necessary to use insulating blankets to isolate a power line. This is an acceptable alternative to positive de-energizing; however, only utility representatives can make the determination.

"Contact" with overhead power lines is considered to occur when equipment is closer to power lines than permitted by the criteria in the table in Section 4.C.2.b. (See note for operations in the United Kingdom).

On-site utilities, including emergency shut-off locations, shall be depicted on a utility drawing or plot plan. Emergency shut-off locations shall be verified before work activities commence.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

- A. Time for Completion

Complete utility clearances prior to the start of any work in the area of the utility that could feasibly result in contact with or damage to that utility.

## **URS SAFETY MANAGEMENT STANDARD**

### **Utility Clearances and Isolation**

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#### B. Local Regulations

Research local and state codes and regulations regarding utility locating and isolation requirements. Utility companies and locating services are among the appropriate resources.

#### C. Overhead Power Lines

##### 1. Proximity to Power Lines

No work is to be conducted within 50 feet (15 meters) of overhead power lines without first contacting the utility company to determine the voltage of the system and the height (at the lowest point) of the line has been measured. No aspect of any piece of equipment is to be operated within 50 feet (15 meters) of overhead power lines without first making this determination.

An exclusion zone shall be created at ground level beneath and 50 feet (15 meters) perpendicular to the overhead power lines on each side. This exclusion zone shall be demarcated with visual indicators (e.g., signage, flagging, paint, cones). No equipment shall enter the exclusion zone without approval from URS site management.

##### 2. Operations adjacent to overhead power lines are *prohibited* unless one of the following conditions is satisfied:

- a. Power has been shut off, positive means (such as lockout) have been taken to prevent the lines from being energized, lines have been tested to confirm the outage, and the utility company has provided a signed certification of the outage.
- b. The minimum clearance from energized overhead lines is presented in the following table, or the equipment will be repositioned and blocked so that no part, including cables, can come within the minimum clearances listed in the table.

<b>Minimum Distances from Power Lines</b>	
Nominal System (kilovolt, kV)	Minimum Required Distance
0–50	10 feet (3 meters)
51–100	12 feet (3.6 meters)
101–200	15 feet (4.6 meters)
201–300	20 feet (6.1 meters)
301–500	25 feet (7.6 meters)
501–750	35 feet (10.7 meters)
751–1000	45 feet (13.7 meters)

## **URS SAFETY MANAGEMENT STANDARD**

### **Utility Clearances and Isolation**

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Note: For operations in the United Kingdom, the specific safe distance is determined by the utility company.

- c. The power line(s) has been isolated through the use of insulating blankets, which have been properly placed by the utility. If insulating blankets are used, the utility will determine the minimum safe operating distance; get this determination in writing with the utility representative's signature.
3. All inquiries regarding electric utilities must be made in writing and a written confirmation of the outage/isolation must be received by the appropriate URS representative prior to the start of the task that may impact the utility.

#### D. Underground Utilities

1. Do not begin subsurface work (e.g., trenching, excavation, drilling, etc.) until a check for underground utilities and similar obstructions has been conducted. The use of as-built drawings must be confirmed with additional geophysical or other surveys. Attachment 034-1 NA may be used to verify all utilities have been located prior to performing subsurface work.
2. Contact utility companies or the state/regional utility protection service at least two (2) working days prior to excavation activities to advise them of the proposed work and to ask them to establish the location of the underground utility installations prior to the start of actual excavation. One Call utility location service is available throughout the United States by calling 811. Where these services are unavailable (e.g., private properties), contract with an independent utility locating service to perform an evaluation of subsurface utilities.
3. Obtain utility clearances for subsurface work on both public and private property. Clearances are to be in writing and signed by the party conducting the clearance.
4. Protect and preserve the markings of approximate locations of facilities until the markings are no longer required for safe and proper excavations. If the markings of utility locations are destroyed or removed before excavation commences or is completed, the URS representative must notify the utility company, utility protection service, or the utility locating service to inform them that the markings have been destroyed.

## **URS SAFETY MANAGEMENT STANDARD**

### **Utility Clearances and Isolation**

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5. Do not conduct mechanical-assisted subsurface work (e.g., work using a powered drill rig, mechanical excavator, etc.) within five (5) feet (1.5 meters) of a confirmed or suspected utility or other subsurface structure. Confirm minimum distances for mechanical-assisted subsurface work with the utility owner, as distances beyond this five-foot minimum may be required.
6. Nondestructive clearance techniques (e.g., vacuum extraction or other hand clearing means) are required prior to drilling/excavating in higher risk locations, including chemical plants, retail service stations, or other locations with complex underground utility systems.
7. Subsurface work within five feet (1.5 meters) of a confirmed or suspected utility or other subsurface structure must be done by nondestructive clearing techniques to the point where the obstruction is visually located and exposed. Once the obstruction location is confirmed in this manner, mechanical-assisted work may begin.
8. Reference SMS 013 – Excavation Safety for additional information regarding subsurface operations.

#### **E. Utility Strikes**

1. Utility strikes (unplanned contact with utilities resulting in damage to the utility or its protective coating) shall be reported in accordance with SMS 049 – Injury/Illness/Incident Reporting & Notifications.
2. All damaged utilities shall be repaired by a qualified and/or licensed professional.

#### **F. Training**

Conduct a briefing for site employees regarding the hazards associated with working near the utilities and the means by which the operation will maintain a safe working environment. Detail the method used to isolate the utility and the hazards presented by breaching the isolation.

## **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Documents requesting utility clearance.
- B. Documents confirming utility clearance.

**URS SAFETY MANAGEMENT STANDARD**  
**Utility Clearances and Isolation**

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C. Training/briefing documentation of each isolation.

**6. Resources**

- A. Utility Locating Services (typically under "Utility" in the Yellow Pages)
- B. National Institute for Occupational Safety and Health (NIOSH) Alert – [Preventing Electrocutions from Contact Between Cranes and Power Lines](#)
- C. [One Call Utility Locating List](#)
- D. [National Utility Locating Contractor's Association](#)
- E. [Attachment 034-1](#) – Utility Clearance Checklist
- F. [SMS 013](#) – Excavation Safety
- G. [SMS 049](#) – Injury/Illness/Incident Reporting



**Health, Safety and Environment**  
**UTILITY CLEARANCE CHECKLIST**

Attachment 034-1 NA

Issue Date: June 1999  
Revision 6: September 2011

Project Name:	Project Number:
Project Location:	Client Name:
URS Project Manager Name:	Date Completed:

<b>For any item answered 'No', Project Manager approval required before work can proceed.</b>	
Within the last 10 days, and not less than 72 hours from the initiation of the task, contacts were notified that the public utility locate service (One Call) was made.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Available records have been referenced and a plot plan indicating the location of all underground utilities have been provided and are available for reference at the work site.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

<b>Completed Site Walk Over With Site Personnel (site manager, property owner or tenant representative)</b>			
Site Personnel Name:	Site Personnel Signature:		
Does Site Personnel have any additional information regarding site utilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comment:	
Building Utility Service Line Connections Identified:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Cleared:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

<b>Field Observations – Any ** responses must be explained in box below.</b>	
Field walk completed and utilities identified on page 2 of this form are cleared?	<input type="checkbox"/> Yes <input type="checkbox"/> No**
Apparent saw cuts or patches in concrete/pavement?	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Piping along building exterior? Identify purposed and layout.	<input type="checkbox"/> Yes** <input type="checkbox"/> No <input type="checkbox"/> N/A
Manholes, vault covers, drains, pipes present?	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Piping inside of manholes correlate to utility markings?	<input type="checkbox"/> Yes <input type="checkbox"/> No** <input type="checkbox"/> N/A
Clear line-of-sight (equipment/vehicles/snow not blocking view or potential utilities)?	<input type="checkbox"/> Yes <input type="checkbox"/> No**
Work between potential utilities or manholes?	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Work areas clear of overhead utilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No**
All known utilities located on plot/site map for personnel to review?	<input type="checkbox"/> Yes <input type="checkbox"/> No**
Explanations:	

<b>Public Utility Locate (OneCall)</b>			
Date Called:		Called By:	
Ticket Number:		Valid Until:	
Area Requested To Be Cleared:			

<b>Private Utility Locate</b>		
Company Performing Locate:		Date Completed:
Area(s) Requested To Be Cleared (including distance around marked locations):		
Method(s) Used (e.g., GPR, EM):		
Confirm Area(s) Cleared:		



**UTILITY CLEARANCE CHECKLIST**

OneCall Utilities			Field Observation
Utility	Notified by	Comments	Marked (mains and services)
Electric (Red)	<input type="checkbox"/> OneCall <input type="checkbox"/> Other		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
Gas/Petroleum Pipeline (Yellow)	<input type="checkbox"/> OneCall <input type="checkbox"/> Other		<input type="checkbox"/> Yes <input type="checkbox"/> No
Sewer/Drainage (Green)	<input type="checkbox"/> OneCall <input type="checkbox"/> Other		<input type="checkbox"/> Yes <input type="checkbox"/> No
Water (Blue)	<input type="checkbox"/> OneCall <input type="checkbox"/> Other		<input type="checkbox"/> Yes <input type="checkbox"/> No
Communications (Orange)	<input type="checkbox"/> OneCall <input type="checkbox"/> Other		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
Other	<input type="checkbox"/> OneCall <input type="checkbox"/> Other		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above

Utilities Not Identified By OneCall (Includes both Public and Private along with Regional and Site Utilities)			Field Observation
Utility (Colors may vary)	Owner / Contact / Phone #	Notified	Marked
<b>Communications:</b> (Orange) TV, computer, phone, cell towers, site communication, cameras, security, etc.		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
<b>Electricity:</b> (Red) Mains / Supplies / Interior / Exterior (signs, fuel pumps, low voltage security perimeters, gates, property light posts, equipment, substations, etc.)		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
<b>Gas:</b> (Yellow) Mains / Supplies / Equipment / Pipelines (Natural, Process, Oil, Crude, Refined (Gas, Diesel, Jet), etc.)		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
<b>Steam</b> (Yellow)		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
<b>Structures:</b> Possible horizontally installed facilities, vaults, basements, tunnels, sub-grade structures, foundations, overhead obstructions, etc.		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
<b>UST Systems</b> (Tanks / piping / electric)		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Sewer:</b> (Green) Sanitary, storm, combined, septic, drainage (parking, buildings, fields), irrigation		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Water:</b> (Blue) Process, Plant, potable, well, cooling, return/makeup, fire, sprinkler, landscape irrigation, reclaim (Purple) other		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above
<b>Other:</b> Abandoned Lines, invisible dog fences, shopping cart perimeter monitoring, traffic lights		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Above

If subsurface work is within five feet (1.5 meters) of a confirmed or suspected utility or other subsurface structure, nondestructive clearing techniques (e.g., air knife, vacuum excavation, hand auger) must be completed to visually locate and expose the utility.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Precautions have been taken to prevent contact with overhead or underground utilities.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Printed Name of Person Completing Checklist:	Signature:
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**URS SAFETY MANAGEMENT STANDARD 042  
RESPIRATORY PROTECTION**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Respiratory Protection**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies that may require the use of respiratory protection, including Immediately Dangerous to Life and Health (IDLH) and emergency conditions. This program also addresses the voluntary use of respirators.

### **2. Purpose and Scope**

The purpose of this standard is to protect those employees performing operations for which exposures cannot be controlled by use of conventional engineering or administrative controls, and prior to establishing a negative air exposure assessment, and to require that respiratory protective equipment is selected, used, maintained, and stored in accordance with acceptable practices. This procedure establishes the minimum standard for respirator training, selection, and use during the performance of all work requiring such protection.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

- A. Before assigning hazardous jobs to employees, determine if respirators are required.
  - 1. Assign a project-specific Respiratory Protection Program administrator. This position shall be manned by a competent industrial hygienist or other technically qualified person who knowledgeable of the requirements of the URS and project-specific programs, have appropriate training in the principles and application of respiratory protection, and have the authority to conduct program evaluations.
  - 2. If the potential for respiratory hazards exists for any portion of a job, complete Attachment 042-1 NA – Identifying When A Respirator Is Needed.
  - 3. Contact a local Health, Safety, and Environment (HSE) Manager, Regional or Strategic Business Unit (RBU/SBU) HSE Manager, or URS Certified Industrial Hygienist (CIH) for assistance, as needed, if any of the questions in Attachment 042-1 are checked "yes."

## **URS SAFETY MANAGEMENT STANDARD**

### **Respiratory Protection**

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4. Follow instructions in Attachment 042-2 NA – Voluntary Use or Respirators – for employees who wish to wear respirators on a voluntary basis when not required to by URS or a regulatory agency.
  5. Follow all the requirements of this standard for employees who wish to voluntarily use tight-fitting (e.g., air purifying) respirators.
  6. Required respirators will be paid for by URS and will be provided without cost to the employee.
  7. Control worker's exposure to air contaminants, where practicable, by engineering or administrative controls, or by substitution of process materials with less-toxic substances. Use respirators only when engineering or administrative controls are not feasible or completely effective.
- B. Select the proper respirator for the job.
1. Contact the appropriate HSE Manager or CIH for assistance in respirator selection for those jobs identified in Attachment 042-1 NA.
  2. Contact the appropriate HSE Manager for follow up if there are any problems implementing the recommendations made.
- C. Require employees who will use respirators to be medically qualified by a project medical consultant (PMC) before fit-testing and assigning them a respirator. The PMC should preferably be an occupational physician; however, the Occupational Safety and Health Administration (OSHA) allows any physician or licensed health care professional (PLHCP) to conduct evaluations of respiratory protection medical forms. The PMC, where required, will determine the physiological and psychological status that is relevant to wearing different types of respirators. The PMC will review all questionnaires and test results and verify in writing that workers are physically and psychologically able to perform work while using respiratory protective devices. These determinations will be made using guidelines established by the PMC.
1. For program details, refer to SMS 024 – Medical Screening and Surveillance.
  2. Require that employees have a current and accurate Medical Surveillance form (Attachment 024-2).
  3. Obtain a copy of the employee's Health Status Medical Report from the Office Health and Safety Representative. The consulting occupational

**URS SAFETY MANAGEMENT STANDARD**  
**Respiratory Protection**

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physician of the medical service provider following each work-related examination issues the Health Status Medical Report. Employees cannot be assigned respirators unless they are medically cleared for respirator use.

- D. Require respirator users to receive appropriate training.
  - 1. All respirator users must be trained:
    - a. Before they are assigned a respirator.
    - b. Annually thereafter.
    - c. Whenever a new hazard or job is introduced.
    - d. Whenever employees fail to demonstrate proper use or knowledge.
  - 2. Document training in accordance with the requirements of SMS 055 – Training.
  - 3. Training must address, at a minimum, the following:
    - a. Why the respirator is necessary, and what conditions can make the respirator ineffective.
    - b. What the limitations and capabilities of the respirators are.
    - c. How to inspect, put on and remove, and check the seals of the respirator.
    - d. What the respirator maintenance and storage procedures are.
    - e. How to recognize medical signs and symptoms that may limit or prevent effective use of the respirator.
    - f. The engineering and administrative controls being used and the need for respirators.
    - g. The hazards and consequences of improper respirator use.
    - h. How to recognize and handle emergency situations.
- E. Require respirator users to be fit tested.

## **URS SAFETY MANAGEMENT STANDARD**

### **Respiratory Protection**

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1. Any employee who has been assigned a reusable respirator must be fit tested on an annual basis (no more than 1 year may elapse between fit tests), or when the employee is assigned a respirator of a different make, type, or size from that previously tested.
2. Qualitative or quantitative fit testing can be performed by contract or in-house personnel.
3. Obtain a signed, written copy of the fit-test results. The fit-test results should include:
  - a. Employee's name and employee identification number.
  - b. Respirator brand, model, and size fitted for.
  - c. Date fit tested.
  - d. Method of fit testing used.
  - e. Name and signature of fit tester.
  - f. Manufacturer and serial number of fit-testing apparatus (if used).

A fit test results form is available as Attachment 042-3 NA.

- F. The project-specific Respiratory Protection Program administrator will issue respirators to persons who must wear respirators for protection against harmful atmospheres should be given adequate training to ensure that the correct respirator is issued for each application. This training should include, but not necessarily be limited to, the following:
  1. Establishment of a working knowledge of the specific types of respirators to be issued, their limitations, and the importance of issuing only the respirators for which each user is specifically approved.
  2. Familiarization with the respirator maintenance and repair program in order to be able to identify any respirator that is improperly cleaned or needs repair.
  3. Familiarization with the procedures for respirator issue. Only persons trained to ensure that proper respirators are issued will be permitted to issue respirators to persons needing them.
- G. Where required by Section 2.C of SMS 043 – Personal Monitoring, conduct initial exposure assessments for contaminants of concern. Record collected air-monitoring data. Respiratory protection must be worn until such

**URS SAFETY MANAGEMENT STANDARD**  
**Respiratory Protection**

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assessments have been conducted, and it is determined that respiratory protection is not warranted.

- H. Provide qualified employees with respirator(s) and adequate amounts of parts and cartridges.
  - 1. Assign employees whose duties require respirators their own respirator for which they have been fit tested.
  - 2. Provide special eyeglass inserts designed for the respirator if an employee must wear eyeglasses with a full-facepiece respirator. Contact lenses may be worn when wearing a full-facepiece respirator.
  - 3. Respirators and cartridges must be approved by the National Institute for Occupational Safety and Health (NIOSH). Military-issue respirators are approved under Military Standard AR 11-34.
- I. Require respirators to be used properly.
  - 1. Prohibit facial hair where the respirator-sealing surface meets the wearer's face.
  - 2. Require employees to perform a positive and negative fit check every time the respirator is put on.
  - 3. Employees will leave the area where respirators are being used:
    - a. Before removing the facepiece for any reason.
    - b. To correct any respirator malfunction.
    - c. To change the respirator and/or respirator cartridges.
    - d. The employee becomes ill (dizziness, nausea, etc.).
    - e. If any of the following is detected:
      - 1. Vapor or gas breakthrough
      - 2. Leakage around the facepiece
      - 3. Increased breathing resistance.
  - 4. Use cartridges with End-of-Service-Life indicators, or determine the respirator cartridge change-out schedule. See Supplemental Information A for guidance.

## **URS SAFETY MANAGEMENT STANDARD**

### **Respiratory Protection**

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- J. Require respirators to be cleaned and stored properly.
  - 1. Clean and disinfect respirators after each use.
  - 2. Store respirators in a plastic bag or case and in a clean location.
  - 3. Inspect respirators before use and after each cleaning.
  
- K. Address issues associated with special-use respirators (self-contained breathing apparatus; air-supply respirators; emergency escape respirators).
  - 1. Self-Contained Breathing Apparatus  

Inspect self-contained breathing apparatus monthly and after each use in accordance with manufacturer's instructions.
  
  - 2. Air-Supplied Respirators
    - a. Air used for atmosphere-supplying respirators must meet or exceed the requirements for Type 1 – Grade D breathing air. Never use oxygen.
      - 1. A certificate of analysis must accompany bottled air.
      - 2. Compressors used to supply breathing air must:
        - i. Prevent entry of contaminated air into the air supply.
        - ii. Minimize moisture content.
        - iii. Have suitable in-line sorbent beds and filter to provide appropriate air quality.
        - iv. Have a high-carbon-monoxide alarm that sounds at 10 part per million (ppm).
  
    - b. Couplings on air-hose lines must be incompatible with other gas system.
  
  - 3. Emergency Escape Respirators
    - a. Emergency escape respirators intended to be used only for emergency exit. This may include situations where IDLH atmospheres and oxygen-deficient conditions exist. These respirators may be used as stand-alone protection or in conjunction with air-supplied respirators.

**URS SAFETY MANAGEMENT STANDARD**  
**Respiratory Protection**

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- L. Require follow-up training and medical surveillance to be provided as directed.
  - 1. Provide follow-up physical examinations as directed by the SMS 024-3 NA – Medical Screening and Surveillance Exam Protocol table.
  - 2. Provide follow-up physicals as directed by the Occupational Health Manager.
  - 3. Provide annual refresher training.
  - 4. Provide annual fit testing.
  - 5. Conduct regular evaluations to determine the effectiveness of the program's implementation. This should include interviews with employees regarding such topics as respirator selection, fit, and maintenance.
  
- M. Where required, implement procedures for dealing with entry into areas with IDLH conditions.
  - 1. Ensure at least one employee or attendant is located outside the area with the IDLH atmosphere. This person must be equipped with:
    - a. Pressure demand or other positive pressure self-contained breathing apparatus (SCBA), or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either
    - b. Appropriate retrieval equipment to removing the employee within the IDLH atmosphere, or
    - c. Equivalent means of rescue.
  - 2. Maintain communication between the employee(s) in the area with the IDLH environment and the employee(s) or attendant(s) outside the area. Communication may include visual, voice, or signal lines.
  - 3. In an emergency situation, the manager overseeing operations must be notified before employee(s) outside the area with the IDLH atmosphere enter the space.

## **URS SAFETY MANAGEMENT STANDARD**

### **Respiratory Protection**

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#### **5. Documentation Summary**

All Respiratory Protection Program documentation must be protected by the Privacy Act of 1974 (PL-93-579), and confidential medical information not required by OSHA may be protected under the Health Insurance Portability Accountability Act of 2003 (HIPAA).

The following information will be maintained in the office/project file by the Project Manager:

1. Identifying When A Respirator Is Needed – Attachment 042-1 NA.
2. Voluntary Use of Respirators – Attachment 042-2 NA.
3. Fit Test Record – Attachment 042-3 NA.
4. Employee Health Status Medical Report, including clearance for respirator use.
5. Employee Respirator Training Records.

#### **6. Resources**

- A. U.S. OSHA Standard - [Respiratory Protection](#) – 29 Code of Federal Regulations (CFR) 1910.134
- B. U.S OSHA Technical Links – [Respiratory Protection](#)
- C. [ANSI Z88.6-2006](#) – Respirator Use – Physical Qualifications for Personnel
- D. [AIHA](#), The Occupational Environment – Its Evaluation and Control
- E. [NIOSH Respirator Decision Logic](#)
- F. [NIOSH Guide to Industrial Respiratory Protection](#)
- G. [SMS 024](#) – Medical Screening and Surveillance Program
- H. [SMS 055](#) – Health and Safety Training
- I. [Attachment 042-1 NA](#) – Identifying When a Respirator is Needed
- J. [Attachment 042-2 NA](#) – Voluntary Use of Respirators
- K. [Attachment 042-3 NA](#) – Fit Test Record

**URS SAFETY MANAGEMENT STANDARD**  
**Respiratory Protection**

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- L. [Attachment 042-4 NA](#) – Respirator Standard Operating Procedure

**7. Supplemental Information**

- A. [Respirator Cartridge Change Schedule](#)
- B. [Hazard Analysis for Respirator Use](#)
- C. [Fit Testing Guidance](#)
- D. [Respirator Selection Guidance](#)
- E. [Inspection, Cleaning, and Storage Guidance](#)



Health, Safety and Environment  
**IDENTIFYING WHEN A RESPIRATOR  
IS NEEDED**

Attachment 042-1 NA

Issue Date: July 2000  
Revision 5: August 2010

Site Location: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Person Performing Evaluation: \_\_\_\_\_

Project: \_\_\_\_\_

Answer the questions below for the jobs you are to perform on site. If a 'Yes' response is checked, consult with an HSE Manager or a URS Certified Industrial Hygienist (CIH) to determine if a respirator is truly needed for the job; and if so, the type of respirator needed.

It is important to be aware of the respiratory protection requirements for any chemicals you are exposed to; these can be found on the Material Safety Data Sheets or chemical labels.

Material Used or Process to be Performed	Notes
<b>Abrasive Blasting</b> <ul style="list-style-type: none"><li>Abrasive blasting (with any type of grit or material) will be performed <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>Employee will fill abrasive blasting pots or perform clean-up activities <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>Employee will be in a contained area where abrasive blasting is taking place <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<b>Acids</b> <ul style="list-style-type: none"><li>Liquid or powder acids will be used in a situation where acid vapors, mists, or dust may be breathed <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<b>Adhesives</b> <ul style="list-style-type: none"><li>Aerosols-propelled adhesives are to be used in areas where there is insufficient or no local exhaust ventilation <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>Two-part adhesives (mix part one with two, let set, then use) are to be used in areas where there is limited ventilation <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<b>Alkalis/Bases/Caustics</b> <ul style="list-style-type: none"><li>Powdered alkalis will be used in a situation where an airborne dust may be breathed <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<b>Asbestos Abatement</b> <ul style="list-style-type: none"><li>Asbestos will be removed, repaired, or sampled <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>Employees will be inspecting or overseeing areas where asbestos will be removed or disturbed <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<b>Cleaning Compounds</b> <ul style="list-style-type: none"><li>Degreasers or carbon removers will be used in areas where local exhaust ventilation is not provided <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>Aerosol-propelled cleaning compounds will be used in areas where there is no local exhaust ventilation <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>Entry into a vault, tank, silo, sewer, or other confined space that has been used for chemical storage, recently painted, or where inert gases may have been used without ventilation <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>Degreasers or carbon removers will be used in voids, tanks, or other confined spaces <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<b>Corrosion-Preventive Compounds</b> <ul style="list-style-type: none"><li>Corrosion-prevention compounds, including chemical conversion compounds and corrosion inhibitors, will be used in areas where there is no local exhaust ventilation <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<b>Detergents/Soaps</b> <ul style="list-style-type: none"><li>Ammonia-based detergents will be used in large quantities (more than 5 gallons) in areas where local exhaust ventilation cannot be <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	



Health, Safety and Environment  
**IDENTIFYING WHEN A RESPIRATOR  
IS NEEDED**

Attachment 042-1 NA

Issue Date: July 2000  
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Material Used or Process to be Performed	Notes
provided <ul style="list-style-type: none"><li>Large quantities (5- or 55-gallon containers) of high pH powder detergent/soap will be used in a situation where dust may be breathed</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Fuels</b> (including regular or unleaded gasoline, kerosene, diesel fuel, JP-5) <ul style="list-style-type: none"><li>Employees will be inside unventilated fuel cells or other confined spaces containing fuels</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Grinding, Cutting, Sanding</b> <ul style="list-style-type: none"><li>Cutting, grinding, or sanding surfaces that have coatings containing beryllium, cadmium, chromium, lead, or zinc</li><li>Cutting, grinding, or sanding surfaces that are concrete or glass without use of ventilation or water</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____ <input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Hazardous Waste Sites</b> <ul style="list-style-type: none"><li>Employees will be performing tasks on a hazardous waste site that requires the use of respirator (as indicated in the site health and safety plan)</li><li>Employees will be performing site assessments on potential hazardous waste sites</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____ <input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Hydraulic Fluids</b> (including petroleum-based fluids, synthetic fire-resistant fluids, and water-based fire-resistant fluids) <ul style="list-style-type: none"><li>Hydraulic fluids and the vapors generated will not be exhausted using local exhaust ventilation</li><li>Synthetic fire-resistant fluids or water-based fire-resistant fluids will be used in an area where the air is contaminated with visible mist or spray from hydraulic fluids</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____ <input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Inspection Penetrants</b> (including Fluoro-finder, water-indicating pastes, and penetrant removers) <ul style="list-style-type: none"><li>An aerosol-propelled inspection penetrant will be used in an area where local exhaust ventilation cannot be provided, or in a situation where the solvent vapors can be breathed</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Lead Abatement Activities</b> <ul style="list-style-type: none"><li>Lead-containing materials will be disturbed, removed, or sampled</li><li>Employees will be inspecting or overseeing areas where lead will be removed or disturbed</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____ <input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Lubricants/Oils</b> <ul style="list-style-type: none"><li>Aerosol lubricants or oils will be sprayed with no immediate exhaust ventilation</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Oxidizers</b> (materials that give off oxygen, including chlorine laundry bleach, calcium hypochlorite, calcium oxide, oxygen candles, lithium hydroxide, hydrogen peroxide, and sodium dichromate) <ul style="list-style-type: none"><li>Oxidizers containing organic chlorine will be used in a situation where the dusts or vapors may be breathed</li><li>Powdered oxidizers will be used in a situation where airborne dust may be breathed</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____ <input type="checkbox"/> Yes <input type="checkbox"/> No _____
<b>Paint Materials</b> (including paints, primers, thinners, enamels, lacquers, strippers, coatings, and varnishes) <ul style="list-style-type: none"><li>Paint materials will be spray-applied in areas where there is no local exhaust ventilation</li><li>Two-part (mix part a with part b, let set, then apply) polyurethane or epoxy polyamide paints will be brush- or spray-applied</li></ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No _____ <input type="checkbox"/> Yes <input type="checkbox"/> No _____



**Health, Safety and Environment**  
**IDENTIFYING WHEN A RESPIRATOR**  
**IS NEEDED**

Attachment 042-1 NA

Issue Date: July 2000  
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<b>Material Used or Process to be Performed</b>	<b>Notes</b>
<ul style="list-style-type: none"><li>• Paints containing beryllium, cadmium, chromium, lead, or zinc (refer to the MSDS) <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Paint materials will be applied in confined spaces <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<p><b>Solvents</b> (including hydrocarbon solvents such as acetone, methyl ethyl ketone, toluene, xylene, and alcohols, as well as mixed solutions like antifreeze, heat-transfer fluid, turpentine, pipe-dope, and naphtha thinner)</p> <ul style="list-style-type: none"><li>• Local exhaust ventilation will not be provided and work will involve breathing solvent vapors <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Solvents will be used within confined spaces <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Solvents will be applied using aerosols <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<p><b>Thermal Insulation</b> (including asbestos and non-asbestos materials like pipe lagging, fiberglass insulation, boiler insulation, packing materials, and floor or ceiling tiles)</p> <ul style="list-style-type: none"><li>• Insulation will be disturbed, removed, or sampled <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<p><b>Water-Treatment Chemicals</b> (includes corrosive chemicals such as tri-sodium phosphate, hardness buffer, titrating solution, morpholine, caustic soda, citric acid, and nitric acid, as well as toxic chemicals such as mercuric nitrate, hydrazine, EDTA, and sodium nitrate)</p> <ul style="list-style-type: none"><li>• Morpholine, EDTA, or harness buffer/titrating solution is to be used in poorly ventilated spaces <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Powdered water-treatment chemicals will be used in a situation where chemical dusts may be breathed <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<p><b>Welding/Brazing/Cutting</b></p> <ul style="list-style-type: none"><li>• Welding will be performed in confined spaces <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Welding galvanized metal or stainless steel <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Brazing with cadmium or lead <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Torch-cutting on coated/painted materials <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<p><b>For Any of the Above-Listed Activities</b></p> <ul style="list-style-type: none"><li>• An employee will be in the immediate area – within 10 feet of the job or operation; or <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Employee will be inside confined space where activities are taking place; or <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Employee will be inside a “controlled area” such as found in asbestos abatement, lead abatement, radiation control area, or a hazardous waste site <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	
<p><b>Other</b></p> <ul style="list-style-type: none"><li>• A chemical process procedure (e.g., hydrogen sulfide in refineries, ammonia as a refrigerant, chlorine in water disinfection, inert gas systems) required the use of a respirator or emergency escape respirator <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Mine operations require issuance of an emergency escape respirator <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Emergency response plan requires issuance of respirators to first responders <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Radiological controls require use of a respirator <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li><li>• Laboratory Chemical Hygiene plan requires issuance of respirators <input type="checkbox"/> Yes <input type="checkbox"/> No _____</li></ul>	

	<p align="center"><b>Health, Safety and Environment</b></p> <p align="center"><b>VOLUNTARY USE OF RESPIRATORS</b></p>	<p align="right">Attachment 042-2 NA</p> <p align="right">Issue Date: July 2000 Revision 5: August 2010</p>
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**Instructions: Have the employee that is opting to use a respirator for non-overexposure conditions read this page, and then sign on the bottom of the page. Maintain a copy in the employee's training file.**

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for employees. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the employee.

Sometimes employees may wear respirators to avoid exposures to hazards, even if the amount of the hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your own voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not pose a hazard.

1. Read and follow all instructions provided by the manufacture on use, maintenance, cleaning, and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH (the National Institute for Occupational Safety and Health) certifies respirators in the U.S. A label or statement of certification should appear on the respirator or respirator packaging; it will tell you what the respirator is designed for and how it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants against which your respirator is not designed to protect. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, fumes, smoke, or very small solid particles.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.
5. If you have any health conditions (asthma; high blood pressure; emphysema; heart disease) that could be aggravated by using a respirator, you should check with your doctor before using one.

I have read and understand this information:	Date:
--	-------

Employee's Name (Please Print):
Employee's Signature:



FIT TEST RECORD

Employee Name \_\_\_\_\_ Employee Number \_\_\_\_\_

Office/Project \_\_\_\_\_ Last Medical Exam \_\_\_\_\_

Fit Test Date \_\_\_\_\_ Corrective Lenses Needed Yes [ ] No [ ]

Medically qualified to wear respirator? Yes [ ] No [ ]

Briefed on fundamental principles of respiratory protection, use, selection, inspection, cleaning, maintenance, and storage of equipment? Yes [ ] No [ ]

Test agent recognition: Yes [ ] No [ ] N/A [ ]

RESPIRATOR 1

RESPIRATOR 2

RESPIRATOR 3

Equipment Type \_\_\_\_\_

Manufacturer's Name \_\_\_\_\_

Model \_\_\_\_\_

Size \_\_\_\_\_

Facepiece Composition (Rubber/Silicone) \_\_\_\_\_

TEST PERFORMED

RESPIRATOR 1

RESPIRATOR 2

RESPIRATOR 3

Negative Pressure Test: Pass [ ] Fail [ ] Pass [ ] Fail [ ] Pass [ ] Fail [ ]

Positive Pressure Test: Pass [ ] Fail [ ] Pass [ ] Fail [ ] Pass [ ] Fail [ ]

Isoamyl Acetate Test: Pass [ ] Fail [ ] Pass [ ] Fail [ ] Pass [ ] Fail [ ]

Irritant Smoke Test: Pass [ ] Fail [ ] Pass [ ] Fail [ ] Pass [ ] Fail [ ]

Bitrex: Pass [ ] Fail [ ] Pass [ ] Fail [ ] Pass [ ] Fail [ ]

Saccharin: Pass [ ] Fail [ ] Pass [ ] Fail [ ] Pass [ ] Fail [ ]

Generated Aerosol Quantitative Fit: P [ ] F [ ] Fit Factor \_\_\_\_\_ P [ ] F [ ] Fit Factor \_\_\_\_\_ P [ ] F [ ] Fit Factor \_\_\_\_\_

Ambient Aerosol Quantitative Fit: P [ ] F [ ] Fit Factor \_\_\_\_\_ P [ ] F [ ] Fit Factor \_\_\_\_\_ P [ ] F [ ] Fit Factor \_\_\_\_\_

Controlled Negative Pressure Quantitative Fit: P [ ] F [ ] Fit Factor \_\_\_\_\_ P [ ] F [ ] Fit Factor \_\_\_\_\_ P [ ] F [ ] Fit Factor \_\_\_\_\_

Examiner's Name (Please Print)

Examiner's Signature

Date

Employee's Signature

Date

<b>URS</b>	<b>Health, Safety and Environment RESPIRATOR STANDARD OPERATING PROCEDURE</b>	Attachment 042-4 NA  Issue Date: July 2000 Revision 5: August 2010
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Job Task Reviewed: \_\_\_\_\_

Date Reviewed: \_\_\_\_\_

Task Review by: \_\_\_\_\_

**ADMINISTRATIVE PROCEDURES**

1. All respirator users must be medically qualified to use respirators.
2. Respirator users must be trained annually in respirator use, and must be fit-tested annually.
3. The respirator will be used only by the person to whom it was issued.
4. Persons using glasses who are required to use a full-face respirator may use contact lenses or eyeglass inserts designed for the respirator.

**GUIDANCE FOR SELECTION OF RESPIRATOR AND CARTRIDGES/FILTERS**

1. Respirators are currently being issued and used for the following job activities:  
\_\_\_\_\_  
\_\_\_\_\_
2. The respirator will be equipped with the following cartridges/filters:  
\_\_\_\_\_
3. Filters are to be changed when the breathing resistance increases.
4. Cartridges are to be changed \_\_\_\_\_ (frequency), or when the contaminant you are protecting yourself from can be smelled or tasted.

**FIT TESTING & FIT CHECKING**

1. Fit testing is required annually. To arrange for fit testing, call your local, project, or regional safety representative or qualified industrial hygienist.
2. Respirator users will “fit check” the respirator every time the respirator is put on:
  - **Negative Check** – Cover filters/cartridges with palms of hands and breath in: leakage should not be detected around the face seal of the respirator. Do not use if leakage is detected.
  - **Positive Check** – Cover the exhalation valve cover with palm of hand and blow out slightly: leakage should not be detected around the respirator seal.
  - **For Air Supply Respirators** – Kink or close off air supply hose and breath in: leakage should not be detected around the face seal of the respirator.

**CLEANING AND MAINTENANCE OF RESPIRATOR**

1. Clean and disinfect respirator after every use.
2. Inspect respirator at the end of work every day in use to ensure parts are not missing. Replace missing parts from stock supply.
3. Store clean respirator in labeled plastic bag out of direct sunlight.
4. Do not alter respirator in any way.



Health, Safety and Environment  
**RESPIRATOR CARTRIDGE  
CHANGE SCHEDULE**

SMS 042 NA  
Supplemental Information A  
Issue Date: February 2009  
Revision 2: August 2010

A cartridge change schedule must be developed for cartridges or canisters used with air purifying respirators that do not have an End of Service Life Indicator (ESLI). The purpose of this is to prevent contaminants from breaking through the respirator's sorbent cartridge(s), and thereby over-exposing employees. NIOSH has approved ESLIs for only four cartridges or canisters (mercury vapor, carbon monoxide, ethylene oxide, and hydrogen sulfide). Historically we have relied on the warning properties (odor, irritation) of a contaminant to dictate cartridge change. OSHA no longer allows this as the sole basis for changing respirator cartridges. In developing a change schedule the following factors should be considered:

- Contaminants
- Concentration
- Frequency of use (continuously or intermittently throughout the shift)
- Temperature and humidity
- Work rate
- The presence of potentially interfering chemicals.

The worst-case conditions should be assumed to avoid early breakthrough. This must be documented in the project health and safety plan or, in the cases of office or labs, in the site specific Respiratory Protection Program.

### **Sources of Help**

OSHA provides assistance in developing respirator cartridge change schedules on its website at [http://www.osha.gov/SLTC/etools/respiratory/change\\_schedule.html](http://www.osha.gov/SLTC/etools/respiratory/change_schedule.html).

Most cartridge manufacturers maintain on-line interactive cartridge service life programs that can be used to evaluate the service life against many contaminants. Typically, these do not evaluate the service life against mixtures (multiple contaminants).

Because of the complexity in evaluating mixtures, OSHA offers the following guidance:

- When the individual compounds in the mixture have similar breakthrough times (i.e., within one order of magnitude), service life of the cartridge should be established assuming the mixture stream behaves as a pure system of the most rapidly migrating component with the shortest breakthrough time (i.e., sum up the concentration of the components).
- Where the individual compounds in the mixture vary by 2 orders of magnitude or greater, the service life may be based on the contaminant with the shortest breakthrough time.

### **Rule of Thumb** (*"The Occupational Environment" - Its Evaluation and Control*)

- If the chemical's boiling point is  $>70$  °C and the concentration is less than 200 ppm, you can expect a service life of 8 hours at a normal work rate.
- Service life is inversely proportional to work rate.
- Reducing concentration by a factor of 10 will increase service life by a factor of 5.
- Humidity above 85% will reduce service life by 50%.

### **OSHA Interpretation**

The OSHA inspection procedures for the respiratory protection standard specifies that where contaminant migration is possible, respirator cartridges/canisters should be changed after each work shift where exposure occurs unless there is objective data to the contrary (description studies) showing the performance in the conditions and schedule of use/non-use found in the workplace.

- A. A hazard analysis of the workplace must be performed before selecting respirators. The analysis must consider inhalation hazards under routine and foreseeable emergency conditions. Other factors to consider when choosing respirators include skin and eye exposure, the effects of heat or cold, use of protective clothing, employee conditioning, and workload.
- B. Respiratory hazards that must be identified include:
1. Oxygen Deficiency
  2. Air Contaminants
  3. Particulates
  4. Toxic Gases

C. Evaluating Exposures

There are several options on how to evaluate exposures:

1. One option is to rely on personal monitoring data of employees. Representative exposure data provided by industry or laboratory studies is acceptable as long as it applies to similar tasks and conditions at the worksite.
2. The professional judgment provided by the Business, RBU, SBU, Office, or Project HSE Manager and/or as recommended by a qualified industrial hygienist or safety professional may be employed for the task.
3. If the exposure cannot be identified or estimated, then the atmosphere is considered immediately dangerous to life or health (IDLH). Atmospheres with levels of oxygen below 19.5% are also defined as IDLH.
4. Trained and qualified technical personnel shall perform assessment of the degree of respiratory hazard through sampling and testing of the work environment. Problems requiring special respiratory protection should be discussed with the Business or Regional HSE Manager or qualified industrial hygienist.
5. The Project HSE Manager shall establish procedures to control respiratory hazards through engineering or administrative controls, product/material substitution, respiratory protective devices, or a combination of these methods.
6. He/she shall also perform annual evaluations of the effectiveness of the project's respiratory protection program. These evaluations shall be documented.
7. The Project HSE Manager shall select and provide adequate respiratory protective devices for use on the project. This selection shall be based upon the specific type of air contaminant(s), the concentration of the contaminants(s) or oxygen deficiency in the work environment.
8. Establish a change schedule for air-purifying respirators based upon objective information or data that will ensure that cartridges are changed before the end of their useful life. OSHA has mandated that reliance on warning properties is no longer valid

- A. A quantitative fit-test provides the most accurate information; qualitative fit testing depends on the respirator wearer's sense of smell and taste (subjective response). OSHA's standard requires fit-testing for any face mask (full or half) designed to have a tight seal along the face, whether it is used in a positive or negative pressure mode, and whether it is disposable or not. If the required fit factor is greater than 100, then a quantitative fit-test must be performed.
- B. Each person will have a qualitative or quantitative fit test when first required to wear a respirator, every 12 months when respirators will be worn thereafter, or as hazards or respiratory needs change.
- C. Each person will have a qualitative or quantitative fit test for each specific make(s) and model(s) of respirator(s) for which the worker may wear.
- D. Under no circumstances shall a worker be allowed to use any respirator if the results of the qualitative fit test indicate that the worker is unable to obtain a satisfactory seal.
- E. The eight exercises required by OSHA under the respiratory protection standard, 29 CFR 1910.134, Appendix A, are as follows (note that these are not required controlled negative pressure (CNP) quantitative fit testing):
1. normal breathing
  2. deep breathing
  3. head side to side
  4. head up and down
  5. talking out loud
  6. grimacing (quantitative only)
  7. bending
  8. normal breathing
- F. Qualitative and quantitative fit testing must be performed in negative pressure mode for all tight fitting respirators, whether the respirator is positive or negative pressure demand.
- G. Qualitative and quantitative fit testing must be conducted according to one of the protocols found in 29 CFR 1910.134, Appendix A.
- H. Employees using respirators when not required under the standard (i.e., dust masks or comfort masks for nuisance type dust without a specified exposure level) must be aware of the potential hazards of using a respirator. See Attachment 042-2 of this standard or Appendix D of 29 CRF 1910.134 for information program requirement.

- A. Physical characteristics, functional capabilities, and performance limitations of various types of respirators shall be considered in the selection process.
- B. Specifics regarding hazard classification, descriptions of respirator types and modes of operation, and the capabilities and limitations of respirators are listed in ANSIZ88.2-1992.
- C. To select the correct respirator, the hazards must first be identified in the workplace and then follow these steps:
  1. Determine if the environment is IDLH.
    - a. All oxygen deficient atmospheres shall be considered IDLH.
    - b. If the employee exposure cannot be reasonably estimated, the atmosphere must be considered IDLH.
  2. Identify the contaminant(s) present in the atmosphere and answer the following questions:
    - a. What is the concentration?
    - b. Are they gaseous or particulate?
    - c. Are the contaminants IDLH?
  3. After completing the above steps select the appropriate respirator for the particular hazard(s).
    - a. IDLH – Provide a full facepiece NIOSH certified pressure demand SCBA with a minimum service life of 30 minutes or a full facepiece pressure demand airline respirator with an auxiliary self-contained air supply.
    - b. Non-IDLH – A respirator must be provided that is appropriate for the contaminant(s) identified.
  4. For protection against gases and vapors, either an atmosphere-supplying respirator or an air-purifying respirator equipped with a NIOSH certified end-of-service-life indicator (ESLI) for the contaminant must be used. In lieu of an ESLI, a change schedule for cartridges based on objective information or data may be used to ensure cartridges are changed before the end of their service life occurs (see Supplemental Information A). In most cases, respirator cartridge manufacturers provide a product specific on-line or CD-ROM based “Service Life Calculator” that allows determination of useful service life of a cartridge based on expected concentration and environmental and work conditions. If neither an ESLI or change schedule is available, a supplied air respirator must be used.
  5. For protection against particulates, an atmosphere-supplying respirator or an air-purifying respirator equipped with a NIOSH-certified high-efficiency particulate air (HEPA) filter under 30 CFR 11 or an air-purifying respirator equipped with a NIOSH certified filter for particulates under 42 CFR 84 must be used.

6. There are three classes of filters under NIOSH (N, R, and P series) with three levels of filter efficiency in each class – 95%, 99%, and 99.97% (classified as 100). All filters can be used regardless of aerosol size. The new filters are classified as follows:
  - a. N – For solid particulates and non-oil aerosols that do not degrade filter performance.
  - b. R – For solid particulates and degrading oil-based aerosols. R filters have “use limitations.”
  - c. P – For solid particulates and degrading oil-based aerosols. P filters generally have no “use limitations” other than those normally associated with particulate filters. The P100 filter is the replacement for the HEPA filter.
- E. Particulate filters are tested with 200 mg of loading but in many cases, these filters may exceed this capacity. Filtration efficiency may actually increase as the filter cake develops on the filter. Increased resistance to breathing or obvious taste or odor in the respirator would be cause to examine, re-evaluate and replace the filter cartridge

**A. Inspection**

Routinely used air-purifying and airline respirators should be checked as follows before and after each use:

1. Examine the facepiece for:
  - a. Excessive dirt.
  - b. Cracks, tears, holes or physical distortions of shape from improper storage.
  - c. Inflexibility of rubber facepiece (stretch and knead to restore flexibility).
  - d. Cracked or badly scratched lenses in full facepieces.
  - e. Incorrectly mounted full facepiece lenses, or broken or missing mounting clips.
  - f. Cracked or broken air-purifying element holder(s), badly worn threads or missing gasket(s) if required.
2. Examine the head straps or head harness for:
  - a. Breaks.
  - b. Loss of elasticity.
  - c. Broken or malfunctioning buckles and attachments.
  - d. Excessively worn serrations on head harness, which might permit slippage (full facepieces only).
3. Examine the exhalation valve for the following after removing its cover:
  - a. Foreign material, such as detergent residue, dust particles or human hair under the valve seat.
  - b. Cracks, tears or distortion in the valve material.
  - c. Improper insertion of the valve body in the facepieces.
  - d. Cracks, breaks or chips in the valve body, particularly in the sealing surface.
  - e. Missing or defective valve cover.
  - f. Improper installation of the valve in the valve body.
4. Examine the air-purifying element for:
  - a. Incorrect cartridge, canister, or filter for the hazard.
  - b. Incorrect installation, loose connections, missing or worn gasket or cross threading in the holder.
  - c. Expired shelf-life date on the cartridge or canister.
  - d. Cracks or dents in the outside case of the filter, cartridge or canister, indicated by the absence of sealing material, tape, foil, etc., over the inlet.
5. If the device has a corrugated breathing tube, examine it for:

- a. Broken or missing and connectors.
  - b. Missing or loose hose clamps.
  - c. Deterioration, determined by stretching the tube and looking for cracks.
6. Examine the harness of a front-or back-mounted gas mask for:
- a. Damage or wear to the canister holder, which may prevent its being held in place.
  - b. Broken harness straps for fastening.

**B. Self Contained Breathing Apparatus (SCBA)**

Follow manufacturer specifications for storage, maintenance and cleaning of SCBA systems.

**C. Manual Cleaning**

A generalized cleaning procedure is typically found in the manufacturer's manual. Read the respirator manual and follow the manufacturer's recommendations.

1. Remove canisters, filters, valves, straps and speaking diaphragms from the facepiece.
2. Wash facepiece and accessories in warm soapy water or a commercially available cleaner, following the manufacturer's instructions. Gently scrub the respirator.
3. Rinse parts thoroughly in clean water.
4. Air dry in a clean place or wipe dry with a lint less cloth.

**D. Machine Cleaning**

Machines may be used to expedite the cleaning, sanitizing, rinsing, and drying of large numbers of respirators. Read the machine-cleaning manual and follow manufacturer's recommendations.

1. Extreme care must be taken to ensure against excessive tumbling and agitation, or exposure to temperatures above those recommended by the manufacturer (normally 120°F maximum), as these conditions are likely to result in damage to the respirators.
2. Ultrasonic cleaners, clothes-washing machines, dishwashers, and clothes dryers have been specially adapted and successfully used for cleaning and drying respirators.

**E. Disinfection**

1. Disinfection is required when more than one person uses the respirator. Recommended NIOSH disinfection procedures include immersion of the respirator body for two minutes in a 50 ppm chlorine solution (about 2 ml bleach to 1 liter of water). Rinse thoroughly in clean water and dry.
  - a. Immersion times have to be limited to minimize damage to respirators. The solutions can age rubber and rust metal parts. Caution must be

taken to thoroughly rinse the respirator after cleaning and disinfection to prevent dermatitis.

- b. An alternate method is to purchase a commercially prepared solution for disinfection/decontamination and follow the directions recommended by the manufacturer.
2. Each person wearing a respirator shall examine the respirator before use in accordance with the training and instruction provided during fit testing.
3. After cleaning and sanitizing, each respirator shall be examined to determine if it is in proper working condition, if it needs replacement of parts or repairs, or if it should be discarded. Respirator inspection shall include, when applicable, a check for tightness of connections; for the condition of the respiratory inlet covering, head harness, valves, connecting tubes, harness assemblies, filters, cartridges, canisters, end-of-service life indicator, and shelf life date(s), and for the proper function of regulators, alarms, and other warning systems.
4. Each rubber or other elastomeric part shall be inspected for pliability and signs of deterioration. Each air and oxygen cylinder shall be inspected to ensure that it is fully charged according to the manufacturer's instructions.

#### **F. Repair**

Only persons trained in proper respirator assembly and correction of possible respirator malfunctions and defects shall do replacement of parts or repairs. Replacement parts shall be only those designed for the specific respirator being repaired. Reducing or admission valves, regulators, and alarms shall be returned to the manufacturer for repair or adjustment. The valve, regulator, or alarm manufacturer must approve instrumentation for valve, regulator, and alarm adjustments and tests.

#### **G. Storage**

Respirators shall be stored in a convenient, clean and sanitary location. The purpose of good respirator storage is to ensure that the respirators will function properly when used. Respirators shall be stored in a manner that will protect them against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators shall be stored to prevent distortion of rubber or other elastomeric parts. This can be done by storing the respirators in hermetically sealed plastic bags, or plastic bags capable of being sealed. Emergency and rescue use respirators that are placed in work areas shall be quickly accessible at all times, and the storage cabinet or container in which they are stored shall be clearly marked.

**URS SAFETY MANAGEMENT STANDARD 043  
PERSONAL MONITORING (INDUSTRIAL HYGIENE)**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Personal Monitoring (Industrial Hygiene)**

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### **1. Applicability**

This standard applies to the operations of URS Corporation and its subsidiary companies where employees may be exposed to airborne concentrations of hazardous air contaminants potentially exceeding permissible limits. Note that this standard does not cover monitoring for asbestos operations (SMS 008 – Asbestos Operations), hexavalent chromium (SMS 083 – Chromium (VI) Inhalation Exposure Protections), confined spaces (SMS 010 – Confined Space), heat stress (SMS 018 – Heat Stress), or noise (SMS 026 – Noise and Hearing Conservation).

### **2. Purpose and Scope**

The purpose of this standard is to assist and provide guidance to URS personnel who need to conduct personal industrial hygiene monitoring. Monitoring will be conducted to evaluate the exposures of URS employees to concentrations of toxic particulates, fibers, gases, vapors, mists, radionuclides, pathogens, hazardous biological agents, or to oxygen-deficient atmospheres.

Personal monitoring must be conducted under the following conditions:

- A. Where directed by a facility or site-specific health and safety plan.
- B. Where employees are exposed to known or suspected human carcinogens (e.g., beryllium, vinyl chloride, etc.).
- C. Where regulations require "initial exposure assessments" (e.g., lead, asbestos, methylene chloride, hexavalent chromium). The only exception to conducting an "initial exposure assessment" where there is a regulatory requirement to do so is when similar exposure assessments have been conducted under similar site conditions within 1 year prior to the start of work on the current project or site.
- D. When directed by a client or required by contract.
- E. At the direction of a Health, Safety, and Environment (HSE) Manager in response to employee concerns or incidents involving chemical exposure.
- F. Co-sampling during regulatory inspections.
- G. Routine monitoring in compliance with regulatory requirements.

## **URS SAFETY MANAGEMENT STANDARD**

### **Personal Monitoring (Industrial Hygiene)**

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#### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

#### **4. Requirements**

##### **A. Procedures for Personal Industrial Hygiene Monitoring**

1. Calibrate sampling equipment in accordance with the manufacturer's recommendations and the approved sampling methodology.
2. Collect samples using the most current applicable methodologies established by either the National Institute for Occupational Safety and Health (NIOSH) *Manual of Analytical Methods*, U.S. Department of Labor – Occupational Safety and Health Administration (OSHA) *Sampling and Analytical Methods*, or applicable guidelines for the host country.
3. Select an analytical laboratory accredited by the American Industrial Hygiene Association (AIHA), or equivalent host country certification, licensing, or accreditation, to analyze the personal air samples.

Note: There are several programs under which a laboratory may receive AIHA accreditation. The laboratory must be currently accredited for the specific program, scope category, and field of testing for the analysis that will be performed, not merely hold AIHA accreditation.

4. Require the selected laboratory to use the applicable analytical methodologies and document quality control procedures.
5. Ensure equipment is maintained, serviced, and calibrated in accordance with manufacturer's recommendations.
6. Document personal monitoring activities using the appropriate URS Industrial Hygiene Monitoring Form; require that all laboratory chain-of-custody forms be properly completed; and ensure samples are sealed and secured according to Quality Assurance procedures.

**URS SAFETY MANAGEMENT STANDARD**  
**Personal Monitoring (Industrial Hygiene)**

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7. Ensure workers are being protected (e.g., engineering controls, respiratory protection, PPE) during the monitoring phase. Determine whether medical surveillance is required.

**B. Evaluation of Personal Monitoring Results**

1. Where feasible, require that a URS Certified Industrial Hygienist (CIH) approved by an HSE Manager evaluate the analytical results.
2. Obtain a written evaluation report from the HSE manager. If exposures exceed the Action Level and/or Permissible Exposure Limit for the air contaminant(s) of concern, a verbal report is to be made to the senior facility, project, or site manager immediately, and the evaluation report will include required corrective actions.
3. Complete evaluation reports within 5 working days of the receipt of the analytical results.

**C. Procedures for Direct-Read Air Monitoring**

1. Direct-read air monitoring instruments are used primarily as screening tools to provide real-time evaluations of hazardous airborne contaminants at a project site.
2. Select an appropriate air monitor for the air contaminant to be measured.
3. Calibrate monitor in accordance with manufacturer's recommendations. Dates of full instrument calibration will be recorded on the direct-read instrument and on any associated calibration data sheets. If full instrument calibrations are not performed daily, then bump tests (exposure to a known concentration of contaminant) will be performed to verify calibration and ensure alarms are working appropriately.
4. Conduct air monitoring using techniques identified by the instrument manufacturer.
5. Ensure equipment is maintained, serviced, and calibrated in accordance with manufacturer's recommendations.
6. Document personal monitoring activities using the appropriate URS Industrial Hygiene Monitoring Form.

**URS SAFETY MANAGEMENT STANDARD**  
**Personal Monitoring (Industrial Hygiene)**

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7. Ensure workers are being protected (e.g., engineering controls, respiratory protection, PPE) during the monitoring phase. Determine whether medical surveillance is required.
8. Where required by client request or by unique or high hazard areas, individual portable direct-read monitors shall be used.

**D. Evaluation of Personal Monitoring Results**

1. Compare measured results with project-specific Action Levels and/or published Permissible Exposure Limits. If exposures exceed the Action Level and/or Permissible Exposure Limit for the air contaminant(s) of concern, take corrective actions as identified in the site-specific health and safety plan. Where questions exist about the results, contact a CIH approved by an HSE Manager to evaluate the analytical results.

**E. Communication of Sample Results and Evaluation**

1. Provide copies of the evaluation report to the employee(s) monitored and to employees working in the area for which the exposures could be representative, within 5 days of receipt of lab results.
2. Provide a copy of the evaluation report and monitoring data to the manager directing activities of the facility or site for filing purposes.
3. Personal identifiers (e.g., name, address, employee number) or information which could reasonably be used to identify specific employees (e.g., exact age, height, weight, race, sex, date of initial employment, job title), must be removed from analysis reports before access to the exposure data is provided.

**F. Corrective Actions**

Implement required corrective actions immediately. If workers are being exposed above the PEL, respiratory protection should be worn in accordance with SMS 042 – Respiratory Protection. Engineering controls should be used to reduce exposures to the extent possible

**G. Exposure Records**

1. Exposure records include workplace monitoring, biological monitoring, material safety data sheets and chemical inventories. Sampling results, the collection methodology (sampling plan), a

## **URS SAFETY MANAGEMENT STANDARD**

### **Personal Monitoring (Industrial Hygiene)**

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description of the analytical and mathematical methods used, and a summary of other background data relevant to interpretation of the results obtained, must be retained for at least thirty (30) years.

#### **5. Documentation Summary**

The following documents will be maintained in the project profile:

- A. Calibration data.
- B. Completed IH Monitoring Form(s).
- C. Evaluation Report with sample results (provide copy to affected employee as well).
- D. Relevant prior initial exposure assessments.

#### **6. Resources**

- A. [OSHA Sampling and Analytical Methods](#)
- B. [OSHA Chemical Sampling Information](#)
- C. [American Industrial Hygiene Association – The Occupational Environment: Its Evaluation and Control](#)
- D. [American Conference of Governmental Industrial Hygienists – Air Sampling Instruments for Evaluation of Atmospheric Contaminants](#)
- E. [NIOSH Manual of Analytical Methods](#)
- F. [SMS 008](#) – Asbestos Operations
- G. [SMS 010](#) – Confined Space
- H. [SMS 018](#) – Heat Stress
- I. [SMS 026](#) – Noise and Hearing Conservation
- J. [SMS 042](#) – Respiratory Protection
- K. [SMS 050](#) – Toxic and Hazardous Substances
- L. [Attachment 043-1 NA](#) – General Industrial Hygiene Survey Form
- M. [Attachment 043-2 NA](#) – Industrial Hygiene Sample Field Sheet

**URS SAFETY MANAGEMENT STANDARD**  
**Personal Monitoring (Industrial Hygiene)**

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- N. [Attachment 043-3 NA](#) – Total Dust Industrial Hygiene Sample Field Sheet
- O. [Attachment 043-4 NA](#) – Respirable Dust Industrial Hygiene Sample Summary
- P. [Attachment 043-5 NA](#) – Detector Tube Industrial Hygiene Sample Summary
- Q. [Attachment 043-6 NA](#) – Gas/Vapor/Fume/Mist Industrial Hygiene Sample Summary
- R. [Attachment 043-7 NA](#) – Combustible Gas Monitor Industrial Hygiene Sample Summary
- S. [Attachment 043-8 NA](#) – PID/FID Monitoring Report





**INDUSTRIAL HYGIENE  
SAMPLE FIELD SHEET**

**Sample ID** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Material of Interest (MOI) in Dust:** \_\_\_\_\_

**Site:** \_\_\_\_\_ **Sample I.D. No.** \_\_\_\_\_

**Person Sampled or Area:** \_\_\_\_\_ **Employee No.** \_\_\_\_\_

**Job/Area:** \_\_\_\_\_

**Sample Type**

**Personal:**  **Area:**  **Resp. Dust:**  **Total Dust:**  **Other:** \_\_\_\_\_

**Pump Type:** \_\_\_\_\_ **Pump No** \_\_\_\_\_ **Time On:** \_\_\_\_\_ **Time Off:** \_\_\_\_\_

**Total Time (min):** \_\_\_\_\_ **Cassette No:** \_\_\_\_\_ **Initial Flow:** \_\_\_\_\_ **Final Flow:** \_\_\_\_\_

**Average Flow:** \_\_\_\_\_ **Volume:** \_\_\_\_\_ **Calibrator Model:** \_\_\_\_\_ **Calibrator Serial No:** \_\_\_\_\_

**Workplace Conditions**

**Operations:** Normal  Abnormal  Explain \_\_\_\_\_

**Respirator Use:** Type \_\_\_\_\_ % of Time Worn \_\_\_\_\_

**Ventilation:** Type \_\_\_\_\_  
Normal  Abnormal  Explain \_\_\_\_\_

**Weather Conditions**

**Approximate Temperature:** \_\_\_\_\_ °F \_\_\_\_\_ °C

**Sky:** Precipitation  Cloudy  Partly Cloudy  Clear

**Wind:** Calm  Light  Medium  High

**Work Description/Comments:** \_\_\_\_\_ **Scheduled Hours per Shift:** \_\_\_\_\_

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**Sampled By:** \_\_\_\_\_













**URS SAFETY MANAGEMENT STANDARD 046  
SUBCONTRACTOR HEALTH AND SAFETY REQUIREMENTS**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Subcontractor Health and Safety Requirements**

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### **1. Applicability**

This standard is applicable to subcontractors retained by the Infrastructure & Environment and Federal Services businesses of URS Corporation and its subsidiary companies that perform:

- Intrinsically higher-risk construction-related activities (e.g., drilling, excavation, surveying, demolition, electrical contracting, steel erection etc.).
- Significant building or infrastructure alteration, demolition, and/or repair activities using their own workforce or equipment.
- Activities on hazardous waste sites.
- Activities in government services operations (e.g., aviation repair, vehicle repair, warehousing, facility operations, and maintenance) where the annual cost of the subcontract exceeds \$1,000,000.
- An activity where URS Corporation does not supervise the day-to-day activities and work efforts of subcontractor workers, **and** the subcontractor has a designated Supervisor on the work site.

This procedure is applicable to the operations of subcontractors and sub-subcontractors of any tier.

This procedure does not apply to third-party contractor operations where there is no subcontract relationship between the contractor and URS. Health, Safety, and Environment issues regarding third-party contractor operations are governed by project-specific contracts, and are not covered by this standard.

### **2. Purpose and Scope**

This procedure provides requirements on the pre-evaluation of subcontractor safety programs; contractual risk management; subcontractor safety performance on the job site; and the responsibilities of the Project Manager with respect to subcontractor jobsite safety performance.

Each URS subcontractor must be evaluated at least annually using Attachment 046-1 NA, "Subcontractor Safety Evaluation Form," or equivalent client or URS International Operations form, in order to perform work on any new URS projects.

## **URS SAFETY MANAGEMENT STANDARD**

### **Subcontractor Health and Safety Requirements**

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#### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

#### **4. Requirements**

A. Pre-qualification of Subcontractor – The Project Manager will complete the following procedures for all subcontractors retained on projects covered by this standard (the PM should also require subcontractors to follow these procedures with respect to pre-qualification of sub-subcontractors of any tier):

1. Request all subcontractor candidates to complete the attached Subcontractor Safety Evaluation Form (Attachment 046-1 NA).
2. Conduct an assessment of each subcontractor's qualifications with respect to the subcontractor health and safety evaluation criteria contained in Attachment 046-2 NA.
3. If the subcontractor does not meet the criteria established in Attachment 046-2 NA, and URS must retain the contractor, the Subcontractor Variance Form (Attachment 046-3 NA) must be completed and approved by a Regional, or Strategic Business Unit (SBU) Health, Safety, and Environment (HSE) Manager.
4. Verify that subcontractors meet the insurance requirements as stated in URS' agreement with the subcontractor, or as approved by URS Legal Counsel or Contracting Manager/Officer.
5. If the subcontractor has been successfully evaluated within the last 12 months, that evaluation may be substituted.
6. For long-term operations, update this evaluation within 12 months of the previous evaluation.

B. Contractual and Risk Management Requirements of Subcontractors

1. Ensure that the subcontractor is contractually bound to comply with applicable client and URS HSE Program requirements.
2. Ensure that subcontractor is contractually bound to develop additional safety procedures for work that is exclusive to their activities on the site, and for which they may have superior knowledge.

## **URS SAFETY MANAGEMENT STANDARD**

### **Subcontractor Health and Safety Requirements**

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3. Assess compliance of subcontractor's insurance with the URS Corporation subcontract requirements (including, but not limited to, necessary types and amounts of coverage, URS Corporation additional insured endorsement, etc.).
4. Ensure that URS has the right in its subcontract, without liability to URS, to stop the subcontractor's work in the event of any violations of the applicable Health and Safety Plan.

#### C. Subcontractor Safety Representative

1. Require each subcontractor to appoint a Subcontractor Safety Representative (SSR) who:
  - a. Is knowledgeable of the subcontractor's activities.
  - b. Understands the safety requirements of the subcontractor's activities.
  - c. Has the ability to recognize and the authority to correct safety deficiencies and execute a stop work order should an imminent danger arise.
  - d. Has the responsibility for the administration of the subcontractor Health and Safety Program.
  - e. Will serve as the direct contact with URS Corporation regarding resolution of health and safety issues.

#### D. Communication

1. Provide the SSR with information regarding Site Safety Program including but not limited to:
  - a. Client Requirements
  - b. URS HSE Program
  - c. Site Hazard Communication Program
  - d. Site Emergency Action Plan
  - e. Any additional safety information from other contractors or subcontractors working on the site.

## **URS SAFETY MANAGEMENT STANDARD**

### **Subcontractor Health and Safety Requirements**

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2. Provide the SSR with the name of the URS project or site contact and alternate for addressing site health and safety issues.
3. Require the participation of subcontractors in all Site Safety Briefings.
4. Require subcontractor compliance with all safety directives and/or stop work orders issued by the URS site representatives.
5. Require the subcontractor to notify the URS project or site manager when they will utilize short service employees (i.e., employees with less than six months of experience) to perform on-site activities. The URS project or site manager must approve the use of any short service employees by the subcontractor prior to mobilization. Site management will interact with the short service employee to verify their level of competency.

#### **E. Subcontractor Safety Performance**

1. To the extent reasonable in light of URS' scope of work under the client contract, visit the site and periodically observe subcontractor's operations (i.e., conduct spot checks) to assess whether subcontractor appears to be conducting their operations in accordance with applicable health and safety requirements. Periodically review any required subcontractor health and safety written documentation for compliance with applicable requirements.
2. In the event that unsafe acts or unsafe conditions are observed, immediately stop work, and bring them to the attention of the SSR for resolution.
3. Investigate all injuries/illnesses related to subcontractor operations to identify causes and effect corrective actions.
4. In the event of serious and/or continuing subcontractor breaches of applicable health and safety requirements, contact legal counsel to assess whether formal contractual action is appropriate under the subcontract.
5. Once a job is completed, a subcontractor's safety performance should be reviewed and feedback provided to subcontractor management.

#### **F. Subcontractor Database**

1. A database is available to store Attachment 046-1 NA completed by subcontractors. The database is available to all URS Lotus Notes users.

## **URS SAFETY MANAGEMENT STANDARD**

### **Subcontractor Health and Safety Requirements**

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2. A RBU or Regional HSE Manager can upload completed Attachment 046-1 NA. Contact your Office HSE Representative or Regional HSE Manager for information on how to access the database.

#### **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Subcontractor Health and Safety Evaluation Form (Attachment 046-1 NA)
- B. Applicable and current Insurance Certificates
- C. Names and telephone numbers of SSR for each subcontractor
- D. Verification of Health and Safety documents transmitted to subcontractors and received from subcontractors
- E. Identified safety deficiencies as applicable for subcontractors and verification of correction of conditions
- F. All other safety related documentation between URS and subcontractor such as training certifications, etc.
- G. Subcontractor safety plan, incident reports, and resolution reports.

#### **6. Resources**

- A. "Occupational Injury and Illness Rates by SIC," Bureau of Labor Statistics, U. S. Department of Labor (<http://www.bls.gov/iif/oshsum.htm>)
- B. Managing Subcontractor Safety, Prepared by The Construction Industry Institute, Safety Task Force, Publication 13-1, The University of Texas at Austin, Austin, Texas, 1991 (<http://www.construction-institute.org/>)
- C. American National Standard Construction and Demolition Operations—Safety and Health Program Requirements for Multi-Employer Projects, ANSI A10.33-1992, National Safety Council, Itasca, Illinois 60143-3201 (<http://www.nsc.org>)
- D. "Liability, OSHA, and the Safety of Outside Contractors," Professional Safety, American Society of Safety Engineers, January 1993 (<http://www.asse.org>)

**URS SAFETY MANAGEMENT STANDARD**  
**Subcontractor Health and Safety Requirements**

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- E. "Proactive Construction Management; Dealing With the Problem of Subcontractor Safety," Professional Safety, American Society of Safety Engineers, January 1990 (<http://www.asse.org>)
- F. [Attachment 046-1 NA](#) – Subcontractor Safety Evaluation Form
- G. [Attachment 046-2 NA](#) – Subcontractor Evaluation Criteria
- H. [Attachment 046-3 NA](#) – Subcontractor Variance Form



**Health, Safety and Environment**  
**SUBCONTRACTOR SAFETY**  
**EVALUATION FORM**

Attachment 046-1 NA  
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It is the policy of URS to provide a safe and healthful environment for all of its employees through the prevention of occupational injuries and illnesses. As such, URS considers safety as paramount and requests the following information of all subcontractors.

Company Name: _____	Date: _____
Address: _____	Contact Name: _____
_____	Title: _____
City: _____	Telephone: _____
State/Province: _____	Fax: _____
Zip/Postal Code: _____	Email: _____

Type of services performed: \_\_\_\_\_

Has your company previously performed work as a subcontractor to URS?  Yes  No

*If "Yes" explain the nature of the work, project location, and project date, and URS Project Manager and telephone number.*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How many years has your organization been in business under your firm's name? \_\_\_\_\_

If applicable, what was your organization's previous name(s)? \_\_\_\_\_

**1. WORKERS' COMPENSATION EXPERIENCE INFORMATION**

*(United States Only)*

Insurance Carrier(s): \_\_\_\_\_

Contact for Insurance Information: \_\_\_\_\_

Title: \_\_\_\_\_ Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

A. For U.S. operations - List your firm's Interstate Worker Compensation Experience Modification Rate (EMR) for the three most recent years: (Information is available from your workers compensation insurance carrier.)

For international operations - List the applicable performance rating (e.g., NEER Performance Index in Canada) for your company.



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<u>Year</u>	<u>EMR Interstate (or international equivalent)</u>
_____	_____
_____	_____
_____	_____

- B. We require verification of your EMR (or international equivalent). Please attach the endorsement page from your policy listing your rating, or have your insurance carrier or broker provide this information on their letterhead.
- C. If your rating exceeds 1.0 for any one or more years above, please explain:

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**2. SAFETY PERFORMANCE**

- A. Please consolidate your firm's injury and illness data for the last 3 years and complete the table below. The information provided must be for your company as a whole, not an individual office location. **For U.S. operations, provide copies of your OSHA 300 and 300A logs for the last 3 years.**

	YEAR	YEAR	YEAR
A. Average Number of Employees			
B. Number of Fatalities			
C. Number of cases that involved days away from work, or cases with job transfer or restriction, or both			
D. Other Recordable Cases – Medical Only (Number of cases without lost or restricted workdays)			
E. Total Recordable Cases			
F. Total hours worked			
G. Total Recordable Incident Rate $\frac{\text{(E above)} \times 200,000}{\text{Employee Hours Worked (Given Year)}}$			
H. Lost Workday Case Incident Rate $\frac{\text{(C above)} \times 200,000}{\text{Employee Hours Worked (Given Year)}}$			

- B. For each fatality, please attach a description of the accident, including cause, lessons learned, actions taken resulting from that fatality, actions taken to prevent future fatalities, and corporate management summary of their actions and attitudes.



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**SUBCONTRACTOR SAFETY  
EVALUATION FORM**

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- C. Has your company been issued any health and safety related citations/orders from any federal, state, province, or local regulatory agency during the past 3 years?  Yes  No

If "Yes", please explain the nature of the citation/order, classification, and final fine (if applicable) in an attachment to your evaluation form submittal.

### 3. RISK MANAGEMENT / INSURANCE DATA

- A. Are you able to provide URS with insurance certificates naming URS, and if requested, URS' client as an additional insured?  Yes  No
- B. Please provide proof of current Workers' Compensation and Employer's Liability Insurance coverage or proof of exemption. (For U.S. operations, *attach certificate naming URS as Additional Insured*).

### 4. HEALTH AND SAFETY PROGRAM

- A. Does your company maintain a written Health and Safety program?  Yes  No  
*If "Yes," please include a copy of the Table of Contents.*
- B. Is your company capable of preparing safety procedures specific to the work proposed for this project?  Yes  No
- C. Does your firm have a safety officer?  Yes  No  
*If "Yes," please provide name and telephone number.*

Name: \_\_\_\_\_ Telephone: \_\_\_\_\_

- D. Do you hold jobsite safety meetings?
1. How Often?
- Daily  Weekly  Bi-Weekly  Monthly  Less Often, As needed
2. Are the health and safety meetings documented?  Yes  No
- E. Does your firm have the following policies/procedures? *If "Yes," please provide copies of the policies/procedures.*
1. Stop Work?  Yes  No
2. Short Service Employee?  Yes  No
3. Fitness for Duty?  Yes  No
- F. Is a program in place for the reporting and correction of workplace hazards?  Yes  No
- G. Are workers encouraged to intervene when unsafe conditions are observed?  Yes  No





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If "No," how are new employees informed of safety policies and procedures and expectations?

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C. Do you have additional safety and health training for newly hired or promoted foremen/superintendents?  Yes  No

Topics Covered:

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D. Do you maintain a record of all employees' training?  Yes  No

E. Are your employees enrolled in a Defensive Driving Training Program?  Yes  No

If "Yes," describe the training, including the training provider, who receives the training, and course length.

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Please provide a copy of training records from a recent HSE training course.

**7. MEDICAL / DRUG TESTING**

A. Does your company have a Drug/Alcohol policy or program?  Yes  No

If "Yes," does your drug and alcohol program include the following:

- Pre-employment testing  Yes  No
- Testing for Cause  Yes  No
- Post-accident testing  Yes  No
- Random testing  Yes  No

B. Does your company have an ongoing medical surveillance program as required by applicable governmental regulations?  Yes  No

Do you conduct medical examinations for:

- Pre-employment  Yes  No



**Health, Safety and Environment**  
**SUBCONTRACTOR SAFETY**  
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- |                               |                              |                             |
|-------------------------------|------------------------------|-----------------------------|
| Pre-placement Job Capability  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Hearing Function (Audiograms) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Pulmonary                     | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Respiratory                   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**8. COMPLIANCE ASSURANCE**

- A. Does your company conduct job site safety inspections?  Yes  No
1. How often? \_\_\_\_\_
  2. Who conducts the inspection? (Job Title) \_\_\_\_\_
  3. Who receives the reports? (Job Title) \_\_\_\_\_
  4. Are inspections documented? *If "Yes," provide an example.*  Yes  No

Comment on any other areas of your company's safety program and policies that you think will be appropriate in our evaluation.

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<b>URS</b>	<b>Health, Safety and Environment</b>  <b>SUBCONTRACTOR SAFETY EVALUATION FORM</b>	Attachment 046-1 NA  Issue Date: July 1999 Revision 8: September 2011
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**VERIFICATION OF DATA**

Please have an officer of the Company sign below certifying that the information provided in this document is current and correct. Misrepresentation of data requested is grounds for immediate termination of contracts and disqualification from future consideration.

\_\_\_\_\_  
Name Title

\_\_\_\_\_  
Signature Date

<b>REQUIRED INFORMATION SUBMITTAL</b>	
Please provide copies of the following documents with the completed evaluation form. <b>If the following information is not included, provide a written reason for the failure to do so.</b>	
<input type="checkbox"/>	EMR documentation, or international equivalent, from your insurance carrier
<input type="checkbox"/>	U.S. Only - OSHA 300 and 300A Logs (Past 3 Years) – <i>Employee names must be removed.</i>
<input type="checkbox"/>	Description for any fatalities (if applicable)
<input type="checkbox"/>	Insurance Certificate(s) – <i>Naming URS as Additional Insured</i>
<input type="checkbox"/>	Safety, Health, and Environmental Program (Table of Contents)
<input type="checkbox"/>	Stop Work, Short Service Employee, Fitness for Duty Policies/Procedures
<input type="checkbox"/>	Accident/Incident Reporting Procedure
<input type="checkbox"/>	Example of an Investigation Report conducted within the past year
<input type="checkbox"/>	Injury Management Procedure
<input type="checkbox"/>	Safety, Health & Environmental Orientation for New Hires (Outline)
<input type="checkbox"/>	Example of Safety, Health and Environmental Training Records
<input type="checkbox"/>	Example of Job Site Safety Inspection conducted within the past year

**THIS PAGE IS TO BE COMPLETED BY URS CORPORATION.**

**Subcontractor Name:** \_\_\_\_\_

**Project or Site Manager Evaluation:**

- Pass  Subcontractor meets the criteria established in Attachment 046-2 NA, and no further action is required.
- Fail  Subcontractor does not meet the criteria established in Attachment 046-2 NA. If a unique business need exists, then a subcontractor variance must be initiated using Attachment 046-3 NA. The variance must be submitted to a Corporate, Regional, or Strategic Business Unit (SBU) HSE Manager for evaluation.

Project or Site Manager Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**SUBCONTRACTOR  
EVALUATION CRITERIA**

Prior to engaging a subcontractor on a project, Project Managers are required to ensure that the contractor has an effective safety program, is capable of conducting its operations in a safe manner, and has appropriate insurance coverage. The following criteria shall be followed in determining whether the subcontractor may be used on a URS Corporation project.

Note: Some questions/answers (Sections 4 through 8) from Attachment 046-1 NA are not discussed in the evaluation criteria below. These questions are asked and the answers are intended to help the Project Manager understand the safety culture and/or safety priority of the subcontractor.

**GENERAL INFORMATION**

If subcontractor has performed work for URS previously, check safety performance history with previous URS Corporation Project Manager.

The numbers in this section directly correspond to the questions in Attachment 046-1 NA.

**WORKERS' COMPENSATION EXPERIENCE INFORMATION**

1.A. For any EMR, or international equivalent, listed as greater than 1.0, the contractor has failed the sub-evaluation. Further consideration may not occur without referral to a URS Regional, or Strategic Business Unit (SBU) Health, Safety, and Environment (HSE) Manager in your Region for further assessment.

If all EMRs listed are 1.0 or below, continue with the evaluation.

**SAFETY PERFORMANCE**

2. For any Total Recordable Incident Rate (line G in table) listed as greater than 4.0, the subcontractor has failed the evaluation. Further considerations may not occur without referral to a URS Regional or SBU HSE Manager in your Region for further assessment.

If the Total Recordable Incident Rates are at or below 4.0, continue with the assessment.

2.B. If the contractor has had a fatality, further consideration may not occur without referral to a URS Regional or SBU HSE Manager in your Region.

2.C. In the U.S., determine the subcontractor's citation history at <http://osha.gov/pls/imis/establishment.html>. Query Case Status Open and Closed. Compare the published data to the subcontractor questionnaire. The subcontractor must explain any discrepancies.

For international operations, consult a URS Regional or SBU Manager to evaluate citations/orders a subcontractor has disclosed.



**SUBCONTRACTOR  
EVALUATION CRITERIA**

Look for willful, serious, and repeat violations. If they suggest a problem, request information and refer to a URS Regional or SBU HSE Manager in your Region for further assessment.

**RISK MANAGEMENT/INSURANCE DATA**

- 3.A. The ability to provide Insurance Certificates naming URS Corporation as an additional insured is required. Refer any questions to the URS Legal Department.
- 3.B Proof of Workers' Compensation Insurance (or proof of exemption) is required. Refer any questions to the URS Legal Department.

**HEALTH AND SAFETY PROGRAM**

For Sections 4 through 8, if a subcontractor answers 'No' to any of the questions, the Project Manager needs to consider the type of work the subcontractor will be performing (e.g. HAZWOPER work required medical surveillance exams) to determine if the answer is acceptable.

- 4.A. A "No" answer should be referred to a URS Regional or SBU HSE Manager in your Region for further assessment. For small subcontractors, a 'No' answer may be acceptable with good incident and insurance rate statistics. Generally, some minimal program is expected depending on the breadth and complexity of the work. Contact a URS Regional or SBU HSE Manager in your Region for further assessment if you have any questions or doubts.
- 4.B. It is expected that a subcontractor being hired to perform services on the project site should be the best prepared to address safety issues for their operations, especially when specialty work is being conducted, or for work in which the subcontractor possesses superior knowledge of their operations.

A "No" answer should be referred to a URS Regional or SBU HSE Manager in your Region for further assessment.

**Exception:**

If the subcontractor does not meet the other requirements outlined above, the decision will be that the subcontractor will not be used. However, if a unique business need exists (e.g., subcontractor is a specialty subcontractor), the Project Manager should initiate a Subcontractor Variance (Attachment 046-3 NA). The Subcontractor Variance must be approved by a Regional or SBU HSE Manager.



Health, Safety and Environment  
**SUBCONTRACTOR VARIANCE FORM**

Attachment 046-3 NA  
Issue Date: July 1999  
Revision 8: September 2011

Subcontractor Name: \_\_\_\_\_

Project or Site Location: \_\_\_\_\_

Description of Work to be Performed:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Explain any of the following conditions that apply to the subcontractor:

- EMR greater than 1.0
- TRIR greater than 4.0
- Fatalities within the past 3 years
- Willful, serious, or repeat OSHA citations

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Why should we use this subcontractor?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Health, Safety and Environment**  
**SUBCONTRACTOR VARIANCE FORM**

Attachment 046-3 NA  
Issue Date: July 1999  
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Have other similar subcontractors been evaluated? If so, please explain.

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Mitigations by URS to manage the risks.

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**Review:**

**Project or Site Manager Requesting Variance**

**HSE Manager Approval**

Name: \_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_

\_\_\_\_\_

**URS SAFETY MANAGEMENT STANDARD 047  
BIOLOGICAL HAZARDS**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Biological Hazards**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies where job activities are performed primarily in outdoor environments.

### **2. Purpose and Scope**

The purpose of this standard is to provide information that will help eliminate or reduce illnesses and injuries transmitted by plants, insects, animals, and pathogenic agents. Although there are many animals and insects that are potentially harmful to humans (e.g., bees, spiders, bears, and rodents), this standard focuses on six common biological hazards: ticks, poison plants, mosquitoes, snakes, Valley Fever, and water-borne pathogenic agents. Refer to SMS 051 – Bloodborne Pathogens for additional information.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

#### **A. Ticks**

##### **1. Precautionary Measures**

- a. Background information: Ticks do not jump, crawl, or fall onto a person. They are picked up when clothing or hair brushes a leaf or other object the tick is on. Ticks are generally found within 3 feet of the ground. Once picked up, they will crawl until they find a likely site to feed. Often they will find a spot at the back of the knee, near the hairline, behind the ears, or at pressure points where clothing presses against the skin (underwear elastic, belts, neckline). The best way to prevent tick-borne diseases is not to be bitten by a tick. Ticks can carry a number of diseases, including the following:
  - i. *Lyme Disease* is an infection caused by the corkscrew-shaped bacteria *Borrelia burgdorferi* that is transmitted by the bite of deer tick (ixodes) and western black-legged ticks. The disease occurs in the forested areas of North America, Europe, and Asia. Symptoms that occur within 3 to 30 days following a tick bite include: a spreading ‘bulls-eye’ rash, fever, fatigue, headache, and joint and muscle aches. Prompt treatment with antibiotics is essential in order to prevent more serious complications that may occur if left untreated.

**URS SAFETY MANAGEMENT STANDARD**  
**Biological Hazards**

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- ii. *Rocky Mountain Spotted Fever* is an infection caused by the bacteria *Rickettsia rickettsii*. The disease occurs in North, Central, and South America. Other *Rickettsia* organisms cause disease worldwide (Mediterranean, Japan, Africa, North Asia). Symptoms which occur 2-6 days following a tick bite include: fever, nausea, vomiting, diarrhea, rash, muscle and joint pain. The disease is treated with antibiotics.
- iii. *Babesiosis* is caused by hemoprotozoan parasites of the genus *Babesia*. It is transmitted by the ixodid tick. The geographic distribution is worldwide. Symptoms include fever, chills, fatigue, muscle aches, and an enlarged spleen and liver. The disease is treated with anti-protozoan drugs.
- iv. *Ehrlichiosis* is caused by several bacteria of the genus *Ehrlichiae*. The geographic distribution is global, primarily in temperate regions. Symptoms which occur 5-10 days following a tick bite include fever, headache, fatigue, muscle aches, nausea, vomiting, diarrhea, confusion, and occasionally a rash. The disease is treated with antibiotics.

b. Avoidance of tick habitats

Whenever possible, persons should avoid entering areas that are likely to be infested with ticks, particularly in spring and summer when nymphal ticks feed. Ticks favor a moist, shaded environment, especially which provided by leaf litter and low-lying vegetation in wooded, brushy, or overgrown grassy habitat. Both deer and rodent hosts must be abundant to maintain the life cycle of the tick.

c. Personal Protective Equipment

- i. Wear light colored clothing or white Tyvek® to allow you to see ticks that are crawling on your clothing.
- ii. Tuck your pant legs into your socks or boots, wear high rubber boots, or use tape to close the opening where they meet so that ticks cannot crawl up the inside of your pant legs.
- iii. Wear a hat, and tie back long hair.
- iv. Apply repellents to discourage tick attachment. Repellents containing permethrin can be sprayed on boots and clothing, and will last for several days. Repellents containing DEET (n,n-diethyl-m-toluamide) can be applied to the skin, but will last only a few

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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hours before reapplication is necessary. Apply according to Environmental Protection Agency guidelines to reduce the possibility of toxicity.

#### d. Tick Check

- i. Change clothes when you return from an area where ticks may be located.
- ii. Shower to wash off any loose ticks.
- iii. Check your entire body for ticks. Use a hand held or full-length mirror to view all parts of your body.
- iv. Place clothing worn in tick infested areas into the dryer for at least 30 minutes in order to kill any ticks.

#### 2. Tick Removal

Because it takes several hours of attachment before microorganisms are transmitted from the tick to the host, prompt removal of attached or crawling ticks is an important method of preventing disease. Remember, folklore remedies of tick removal to do not work! Methods such as the use of petroleum jelly or hot matches may actually make matters worse by irritating the tick and stimulating it to release additional saliva or regurgitate gut contents, increasing the chances of transmitting disease.

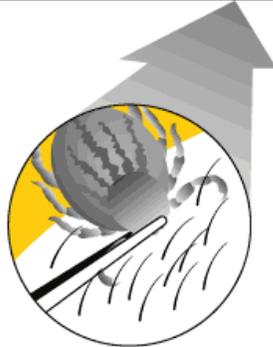
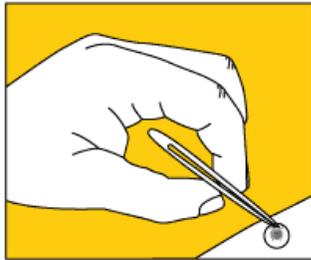
The best method to remove an attached tick is with a set of fine tipped tweezers.



## URS SAFETY MANAGEMENT STANDARD

### Biological Hazards

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- a. Use fine-tipped tweezers. When possible, avoid removing ticks with bare hands.
- b. Grasp the tick as close to the skin surface as possible and pull upward with steady, even pressure. Do not twist or jerk the tick; this may cause the mouthparts to break off and remain in the skin. If this happens, remove mouthparts with the tweezers.
- c. Do not squeeze, crush, or puncture the body of the tick because its fluids (saliva and gut contents) may contain infectious organisms.
- d. After removing the tick, thoroughly disinfect the bite site and wash your hands with soap and water.
- e. Disinfect the tweezers.
- f. Save the tick for identification in case you become ill. This may help the doctor make an accurate diagnosis. Place the tick in a vial or plastic zip lock bag and put it in the freezer. Write the date of the bite on a piece of paper with a pencil and place it in the bag.

### 3. Medical Follow-Up

In most circumstances, medical treatment of persons who only have a tick bite is not recommended. However, individuals who are bitten by a tick should seek medical attention if any signs and symptoms of tick-borne disease develop over the weeks following the tick bite.

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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#### B. Poisonous Plants

##### 1. Background Information

Poison ivy and poison oak plants are the most common cause of allergic contact dermatitis in North America. These poisonous plants can be a hazard for many various outdoor activities at work, home, and play. Skin contact with the oleoresins (urushiol) from these plants can cause an itchy, red, oozing, blistered rash in sensitive individuals. Oil content in the plants is highest in the spring and summer; however, the plants are even hazardous in the winter when they have dropped their leaves. There are three types of exposure:

- a. Direct contact: An initial skin exposure is necessary to “sensitize” the individual. Subsequent contact in a sensitized person will result in a rash appearing within 4 to 48 hours. Approximately 50 to 70 percent of the population is sensitized. Poison plant dermatitis is usually characterized by areas of linear or streaked patches where branches of the plant brushed the skin.
- b. Indirect contact: Skin exposure can happen indirectly. Clothing, shoes, tools, personal protective equipment, and other items can be contaminated with the oils and maintain potency for months.
- c. Airborne smoke contact: Never burn poison plants. Droplets of oil can be carried by smoke and enter the respiratory system, causing a severe internal outbreak.

Poison plant rash is not contagious. Skin contact with blister fluid from an affected individual will not cause dermatitis in another sensitized person. Scratching the rash can only spread it to other parts of your body if the oil is still on your skin. After the oil has been washed off or absorbed by the skin, scratching will not spread the rash.

The most distinctive features of poison ivy and poison oak are their leaves, which are composed of three leaflets each and are green in the summer and red in the fall. Both plants also have greenish-white flowers and berries that grow in clusters. All parts of these plants are toxic.

## **URS** SAFETY MANAGEMENT STANDARD **Biological Hazards**

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Poison Ivy grows as a small plant, vine, and as a shrub. Leaves always consist of three glossy leaflets.



Poison Oak grows as a shrub or vine. It has three leaflets that resemble oak leaves.



Poison Sumac grows as a woody shrub or small tree from 5 to 25 feet tall. It has 7 to 13 leaves that grow opposite each other with a leaflet at the tip. Poison sumac grows in wet soils, typically in swamps and bogs.



**Poison Sumac**

### 2. Precautionary Measures

- a. The best approach is to learn to identify the plants and avoid them.
- b. Wear long pants and long sleeves, boots, and gloves.
- c. Barrier skin creams may offer some protection if applied before contact.

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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- d. Avoid indirect contact with tools, clothing, or other objects that have come into contact with a crushed or broken plant. Don't forget to wash contaminated clothing and clean up contaminated equipment.
- e. If you can wash exposed skin areas within 3 to 5 minutes with cold running water, you may keep the urushiol from penetrating your skin. Proper washing may not be practical in remote areas, but a small wash-up kit with pre-packaged alcohol-based cleansing tissues can be effective.

#### 3. Medical Follow-Up

Home treatment: Calamine lotion and an oatmeal (1 cup to a tub full of water) bath can help relieve itching. To prevent secondary skin infection, scratching is not helpful, and the finger nails should be cut to avoid damage to the skin. Over-the-counter hydrocortisone cream can decrease inflammation and itching; however, read the label and use according to directions.

When to see the doctor: Severe cases may require further treatment. A physician should be seen if the rash appears infected, is on the face or other sensitive body areas, or is too extensive to be easily treated at home.

#### C. Mosquito-Borne Diseases

##### 1. Background Information

- a. Arboviral encephalitis is a viral illness causing inflammation of the brain, and is transmitted to humans by the bite of infected mosquitoes. Globally, there are several strains, including: Eastern equine, Japanese, La Crosse, St. Louis, West Nile, and Western equine encephalitis. Some of the strains have a vaccine. Symptoms of infection are nonspecific and flu-like: fever, headache, and tiredness. Fortunately, only a small proportion of infected people progress to encephalitis. Treatment is supportive, antibiotics are not effective.
- b. Malaria is a serious but preventable disease spread by the bite of an infected anopheline mosquito. It is caused by four species of the parasite *Plasmodium* (*P. falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*). Malaria-risk areas include primarily tropical areas of Central and South America, Africa, India, Southeast Asia, and the Middle East. Symptoms of malaria, which occur 8 days to 1 year after infection, include fever, shaking, chills, headache, muscle ache, tiredness,

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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jaundice, nausea, vomiting, and diarrhea. Malaria can be cured with prescription drugs.

- c. Dengue Fever is a potentially life-threatening viral illness transmitted by the bite of the Aedes mosquito, found primarily in urban areas. The disease is found in most of tropical Asia, the Pacific Islands, Central and South America, and Africa. There are four dengue virus serotypes. Symptoms include sudden onset, high fever, severe headache, joint and muscle pain, rash, nausea, and vomiting. There is no specific treatment and no vaccine.
- d. Yellow Fever is a viral disease transmitted between humans by mosquitoes. It occurs only in Africa and South America. There is a vaccine that confers immunity lasting 10 years or more. Symptoms begin 3 to 6 days after the mosquito bite, and include fever, nausea, vomiting, headache, slow pulse, muscle aches, and restlessness. Treatment is symptomatic.
- e. West Nile virus is a viral disease transmitted by mosquitoes. It occurs in North America, Europe, Africa, west and central Asia, and the Middle East. There is no vaccine for West Nile virus. Symptoms include nausea, vomiting, and diarrhea.

#### 2. Precautionary Measures

- a. Insect Repellent: Use insect repellants that contain DEET. The effect should last about 4 hours. Always use according to label directions. Use only when outdoors, and wash skin after coming indoors. Do not breathe in, swallow, or get into the eyes. Do not put on wounds or broken skin.
- b. Protective Clothing: Wear long-sleeved shirts and long pants, especially from dusk to dawn. Avoid going outdoors during these hours.
- c. Mosquito netting: Travelers who will not be staying in well-screened or air conditioned rooms should use a pyrethroid-containing flying insect spray in living and sleeping areas during evening and nighttime hours. Sleep under mosquito netting (bed nets) that has been sprayed with permethrin.
- d. Malaria prophylaxis medications may be prescribed; however, they do not provide complete protection. The type of medication given depends on the area of travel.

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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#### D. Poisonous Snakes

##### 1. Background Information

No single characteristic distinguishes a poisonous snake from a harmless one except the presence of poison fangs and glands. Only in dead specimens can you determine the presence of these fangs and glands without danger. Most poisonous snakes have both neurotoxic and hemotoxic venom; however, one type is dominant and the other is weak.

- a. Hemotoxic venom. The folded-fang snakes (fangs can raise to an erect position) have venoms that affect the circulatory system, destroying blood cells, damaging skin tissues, and causing internal hemorrhaging.
- b. Neurotoxic venom. The fixed-fang snakes (permanently erect fangs) have venoms that affect the nervous system, making the victim unable to breathe.
- c. Poisonous snakes in the Americas: copperhead, coral snake, cottonmouth, and rattlesnake.
- d. Poisonous snakes in Europe: adder, viper.
- e. Poisonous snakes in Africa and Asia: viper, cobra, adder, green mamba.
- f. Poisonous snakes in Australia: copperhead, adder, taipan, tiger snake.

##### 2. Precautionary Measures

Bites occur when you don't hear or see the snake, when you step on them, or when you walk too close to them. Follow these simple rules to reduce the chance of accidental snakebite:

- a. Don't put your hands into dark places, such as rock crevices, heavy brush, or hollow logs, without first investigating.
- b. Don't step over a fallen tree. Step on the log and look to see if there is a snake resting on the other side.
- c. Don't walk through heavy brush or tall grass without looking down. Look where you are walking.
- d. Do not pick up any live snake. If you encounter a snake, walk around the snake, giving it plenty of room. A snake can strike half its length.

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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- e. Don't pick up freshly killed snakes without first severing the head. The nervous system may still be active and a dead snake can deliver a bite.

#### 3. Medical Follow-Up

If you are bitten by a snake, the primary goal is to get to a hospital as soon as possible to receive professional medical evaluation, and possible treatment with anti-venom if warranted. Initial first aid should include: Washing the bite with soap and water; immobilizing the bitten area and keeping it lower than the heart. Try to remain calm. If you are unable to reach a hospital within 30 minutes, a bandage, wrapped 2 to 4 inches above the bite, may help slow the venom. The bandage should not cut off blood flow from a vein or artery; make sure the bandage is loose enough that a finger can slip under it.

Research has shown the following to be potentially harmful: DO NOT apply ice, use a tourniquet, or make incisions into the wound.

#### E. Valley Fever

##### 1. Background Information

Valley Fever is an illness that results from exposure to a fungal spore (*Coccidioides immitis*). It is endemic to the San Joaquin Valley in California, as well as areas of the Southwestern U.S., Mexico, and Central and South America, although it has been found in many other areas. It is particularly associated with arid soils that are not cultivated. Exposure is generally by inhalation of spores, though it may also enter through broken skin. Approximately 2 weeks after inhalation exposure, severe weakness and flu-like symptoms develop; severe pneumonia may occur. It may also affect the brain, bones, and joints causing disability, spinal meningitis, or death. Dermal forms of the infection can form disfiguring fungal lesions.

##### 2. Precautionary Measures

Because it is associated with arid soils, personnel should avoid locations and activities that create dust. Persons at risk of exposure include geologists, surveyors, excavators, archaeologists, etc. Dust suppression methods should be employed and the use of particulate respirators should be considered for areas known to harbor the fungus. At one phase of the fungus' life cycle, cottony, spider-web-like growths may be seen on the soil surface. If observed, these growths must not be disturbed, and work should be relocated if possible.

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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#### 3. Medical Follow-up

Approximately 60 percent of exposed persons will not have symptoms. Persons that have been in areas associated with Valley Fever should be alert to the development of flu-like symptoms, fatigue, or skin rashes 2 to 4 weeks later. Valley Fever can be treated with anti-fungal medication. Early treatment is critical, as disseminated forms of the disease can result in chronic disease or death.

#### F. Pathogenic organisms

##### 1. Background Information

Employees who perform certain activities, such as disaster response, may be in areas where water-borne pathogens may be present. A partial list of agents includes: E. coli, Hepatitis A, typhoid, and cholera. Chemical hazards and molds and fungus may also be present. Refer to SMS 051– Bloodborne Pathogens for additional information.

##### 2. Precautionary Measures

All work must be performed within the scope of either a Health and Safety Plan or Safe Work Plan that identifies the task hazards, and specifies appropriate controls. A medical exam and/or inoculations may be required. See SMS 024 – Medical Screening and Surveillance, or contact the Occupational Health Manager for assistance.

Where contact with water or wet materials may occur, personnel must use protection such as impervious coveralls, boots/waders, faceshields, etc, as specified in the project Health and Safety Plan or Safe Work Plan. Personnel must protect any areas of broken skin, eyes, nose, and mouth from contact with potentially infectious materials, and practice good personal hygiene before eating, drinking, etc.

##### 3. Medical Follow-up

Medical evaluation and/or an inoculation schedule may be required prior to beginning work. Because early evaluation and treatment is more successful, personnel should be alert to signs and symptoms of possible pathogenic organisms and seek prompt medical evaluation if illness develops or is suspected.

## **URS SAFETY MANAGEMENT STANDARD**

### **Biological Hazards**

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#### G. Natural disaster relief efforts

1. Natural disaster relief efforts present a variety of hazards, including biological hazards. Biological hazards potentially encountered during relief efforts include mold, sewage-contaminated water, various building materials that may puncture the skin and create various types of infections, and displaced animals and insects. Before work begins, each disaster relief site should be evaluated for the various types of biological hazards that may be encountered. Control measures must be developed to address the biological hazards.

#### **5. Documentation Summary**

Complete and distribute a URS Incident Report form 049-1 for all work-related biological exposure incidents.

#### **6. Resources**

- A. Centers for Disease Control <http://www.cdc.gov>
- B. U. S. Occupational Safety and Health Administration <http://www.osha.gov>
- C. U.S. Food and Drug Administration - Treating and Preventing Venomous Snake Bites  
[http://www.fda.gov/fdac/features/995\\_snakes.html](http://www.fda.gov/fdac/features/995_snakes.html)
- D. ENature – Identify plant and animals hazards in a specific area.  
<http://enature.com/zipguides/index.asp?choice=poisonous>
- E. [SMS 051](#) – Bloodborne Pathogens
- F. [SMS 024](#) – Medical Screening and Surveillance
- G. [SMS 049](#) – Injury / Illness / Incident Reporting & Notifications
- H. [ORC Pandemic Planning Guide](#)

**URS SAFETY MANAGEMENT STANDARD 049**  
**INJURY/ILLNESS/INCIDENT REPORTING & NOTIFICATIONS**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Injury / Illness / Incident Reporting & Notifications**

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### **1. Applicability**

This standard applies to the operations of the Infrastructure & Environment and Federal Services businesses of URS Corporation (URS) and its subsidiary companies.

### **2. Purpose and Scope**

The purpose of this standard is to provide guidance for the timely reporting of work-related injuries, illness, and incidents. This procedure also defines incident notification procedures for URS employees. For incidents involving motor vehicles, the reporting and notification requirements of SMS 057 – Vehicle Safety Program – may also apply.

For significant incidents (e.g., fatality, serious injury, injury to members of the public), SMS 066 – Incident Investigation – is also required.

Note that this standard will also be used for investigation of critical injuries as defined by Canadian provincial regulations. See Supplemental Information A for definitions of critical injuries.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

A. Reporting: All employees must immediately notify their appropriate level of management (line, project, and/or office) of a reportable incident. A reportable incident includes the following:

1. An injury or illness to any URS employee or subcontractor, even if the injury does not require medical attention.
2. An injury to a member of the public, or clients, occurring on a URS-controlled work site.
3. Illness resulting from suspected chemical exposure.
4. Chronic or re-occurring conditions such as back pain or cumulative trauma disorders (e.g., carpal tunnel syndrome).
5. Fire, explosion, or flash.

**URS SAFETY MANAGEMENT STANDARD**  
**Injury / Illness / Incident Reporting & Notifications**

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6. Any vehicle accidents occurring on site, while traveling to or from client locations, or with any company-owned, rented, or leased vehicle (including personal vehicles used for company business). If the vehicle accident involves injury, complete both 049-1 NA and 057-1 NA. If the vehicle accident does not involve injuries, complete 057-1 NA.
7. Property damage resulting from any URS or subcontractor activity.
8. Structural collapse or potential structural hazards.
9. Unexpected release or imminent release of a hazardous material.
10. Unexpected chemical exposures to workers or the public.
11. A safety-related complaint from the public regarding URS activities.
12. Incidents that could result in adverse public media interest concerning URS or a URS project.
13. Any incident that could or does result in an actual investigation by state, federal, provincial, or local regulatory or law enforcement agencies.
14. Any other significant occurrence that could impact safety, including a near-miss.

Note: A near-miss is defined as an incident having the potential to cause significant injury or property damage as listed above, but did not. Examples of a near-miss include:

- a. A worker steps off a ledge, falls 3 feet (1 meter) to the floor, and is uninjured.
- b. A crane drops a 1,000-pound (454-kilogram) beam during a lift. Nobody is hurt, and no equipment is damaged.
- c. A work crew is conducting a survey along the highway. A vehicle leaves the roadway (driver asleep) and the vehicle enters the survey area at 50 miles per hour (80 kilometers per hour). The vehicle misses an employee by 3 feet (1 meter); the driver recovers control of the vehicle and leaves the area.

B. Actions: The following actions will be taken following a reportable incident:

1. Employees:

**URS SAFETY MANAGEMENT STANDARD**  
**Injury / Illness / Incident Reporting & Notifications**

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- a. If necessary, suspend operations and secure and/or evacuate the area.
  - b. Immediately notify your supervisor and/or project manager.
  - c. Contact appropriate emergency services and obtain appropriate medical attention, as required or directed by your supervisor. For additional information, refer to SMS 065 – Injury and Claims Management.
  - d. Record information pertaining to the incident (e.g., time, date, location, name and company of person(s) involved, witnesses, description of event, and actions taken) and initiate Attachment 049-1 NA – Incident Report Form for the appropriate business (i.e., Infrastructure & Environment or Federal Services). (Note: The international operations of the Infrastructure & Environment business will complete an on-line Incident Report instead, using the appropriate Health, Safety, and Environment (HSE) and Quality Improvement database. Federal Services will submit the report in G-SMART.)
  - e. Infrastructure & Environment employees shall submit 049-1 NA to the URS Occupational Health Manager (OHM) within 24 hours of the incident. Federal Services shall enter the incident into G-SMART within 24 hours of the incident.
  - f. Assist with incident investigation as directed by management. Investigations shall be completed within 7 days of an incident.
  - g. Implement corrective actions as directed by management.
  - h. *Do not* discuss the incident with members of the news media or legal representatives (except URS legal counsel or your personal legal advisor) unless directed to do so by URS management.
  - i. *Do not* make statements pertaining to guilt, fault, or liability.
2. Line/Project Management Responsibilities (U.S. and Mexico Operations)
- a. For instances involving employee or subcontractor death or hospitalization, or equipment damage to Company or

## **URS SAFETY MANAGEMENT STANDARD**

### **Injury / Illness / Incident Reporting & Notifications**

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customer equipment valued at more than \$100,000 (USD), immediately notify by telephone or other direct means URS Operations and the HSE team in the order listed below. If any level of contact is unsuccessful, continue down the list in sequence. After notification has been made, a detailed follow-up, via email, is required.

- i. Appropriate corporate leadership for the affected program up to the Regional Business Unit (RBU) or Strategic Business Unit (SBU) Vice President for the affected Operations.
- ii. The URS OHM.
- iii. Appropriate RBU and SBU HSE Manager for the affected Operation.

Follow-up notification should be made by forwarding Attachment 049-1 NA to the OHM within 24 hours. See Attachment 049-1 NA for methods of distribution. Also, assure copies of the report are distributed as outlined on the form. For the international operations of the Infrastructure & Environment business, this follow-up notification is not required.

Business Vice President/Director of HSE (or designee) will make notification to federal and state authorities as appropriate.

- b. For minor incidents involving only first aid treatment, minor damage to vehicle or equipment, etc., make notifications to a supervisor and OHM immediately and submit Attachment 049-1 NA. See Attachment 049-1 NA for methods of distribution. Also, assure copies of the report are distributed as outlined on the form.
- c. For a near-miss incident, complete an on-line near miss report, using the appropriate Health, Safety, and Environment (HSE) database. If needed, contact the Regional/SBE/SBU HSE Manager to determine which database is appropriate.
- d. Within 7 days of an incident, review circumstances (i.e., who, what, when, where, and how) of the incident with applicable employee(s) to determine apparent causes and to develop recommended corrective actions.

**URS SAFETY MANAGEMENT STANDARD**  
**Injury / Illness / Incident Reporting & Notifications**

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- e. Discuss with department or project staff the circumstances surrounding the incident and corrective actions taken.

3. Line/Project Management Responsibilities (Canadian Operations)

- a. If notified of an incident that is a critical injury (see Supplemental Information A for definition), serious accident, or other significant consequence:
  - i. Immediately contact URS Canada Human Resources at (905) 882-4401.
  - ii. Review circumstances (i.e., who, what, when, where, and how) of the incident with applicable employee(s) to determine apparent causes and to develop recommended corrective actions.
  - iii. Follow up notification by completing, signing, and delivering/faxing Attachment 049-1 NA to URS Canada Human Resources within 24 hours.
  - iv. URS Canada Human Resources will make notification to provincial authorities as appropriate.
- b. If notified of an incident that is not a critical injury, nor a serious accident or other significant consequence:
  - i. Review circumstances (i.e., who, what, when, where, and how) of the incident with applicable employee(s) to determine apparent causes and to develop recommended corrective actions.
  - ii. Complete, sign, and deliver/fax Attachment 049-1 NA to URS Canada Human Resources within 24 hours.
  - iii. URS Canada Human Resources will make notification to provincial authorities as appropriate.
- c. If notified of a near-miss incident:
  - i. Review circumstances (i.e., who, what, when, where, and how) of the incident with applicable employee(s) to determine apparent causes and to develop recommended corrective actions.

**URS SAFETY MANAGEMENT STANDARD**  
**Injury / Illness / Incident Reporting & Notifications**

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- ii. Complete an on-line near miss report, using the appropriate Health, Safety, and Environment (HSE) database. If needed, contact the Regional/SBE/SBU HSE Manager to determine which database is appropriate.
  - d. Discuss with department or project staff the circumstances surrounding the incident and corrective actions taken.
- 4. Local Office, Project, and/or Certified HSE Representative
  - a. Assist with incident evaluation.
  - b. With management, identify cause(s) of incident and identify corrective actions needed to avoid recurrence.
  - c. Review injury/incident report or the near-miss report for completeness and accuracy. Ensure the reports are distributed properly.
  - d. Ensure notifications are made in a timely manner.
  - e. Ensure that the injured employee is properly counseled/advised as directed by SMS 065 – Injury and Claims Management. Communicate with the OHM.
  - f. Note that “Certified” HSE Representatives are those who have received special training in occupational safety and health and have been certified by the Ontario Workplace Safety and Insurance Board. Certified HSE Representatives should be used at larger Canadian project sites where joint worker/employer safety committees are developed.
- 5. Occupational Health Manager
  - a. Report work-related injuries and illness to workers’ compensation carrier.
  - b. Ensure that the employee’s injury is managed in accordance with SMS 065 – Injury and Claims Management. Provide guidance for the affected office, project, and/or Certified HSE Representative.
- 6. URS Human Resources (Canadian Operations Only)
  - a. Receive incident notifications from staff.

**URS SAFETY MANAGEMENT STANDARD**  
**Injury / Illness / Incident Reporting & Notifications**

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- b. For incidents involving critical injuries, serious accidents, or other significant consequences:
  - i. Verbally notify the Office Manager immediately, via cell phone if necessary.
  - ii. Notify the Certified HSE Representatives (management and worker) as soon as possible (where necessary).
  - iii. Notify the OHM as soon as possible. Notification to the OHM should in no case occur later than the end of the work shift.
  - iv. Follow up notification by receiving from staff and forwarding Attachment 049-1 NA to the OHM within 24 hours. Also, assure copies of the report are distributed as outlined on the form.
- c. For minor incidents involving only first aid treatment, minor damage to vehicle of equipment, etc.:
  - i. Notify the OHM as soon as reasonable during normal business hours.
  - ii. Receive from staff and forward Attachment 049-1 NA to the OHM within 24 hours.

Ensure copies of the report are distributed as outlined on the form.

- d. Report work-related injuries and illness to the Workplace Safety and Insurance Board or appropriate workers' compensation carrier and other provincial or federal authorities as appropriate.
- e. Ensure, in conjunction with the Office HSE Representative, that the employee's injury is managed in accordance with SMS 065 – Injury and Claims Management. Provide guidance for the affected Certified or Project HSE Representative.

## 7. Business HSE Management

**URS SAFETY MANAGEMENT STANDARD**  
**Injury / Illness / Incident Reporting & Notifications**

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- a. Notify URS management of any significant occurrence, including lost-time injuries, deaths, or other serious result or circumstance.
  - b. The OHM will review all reported incidents to determine OSHA reporting and recording requirements with input from the appropriate Business HSE Manager. For a determination of recordability in those infrequent instances where there is not a clear answer, the Business Vice President/Director HSE will make the final determination. All decisions will be based strictly on current U.S. Occupational Safety and Health Administration (OSHA) regulations.
  - c. Official records (including required reports and logs for all reported incidents) will be maintained at one central location by the OHM.
  - d. Where an incident has resulted in an injury or illness and that injury or illness is determined to be recordable in accordance with OSHA recordkeeping requirements, the OHM shall enter pertinent information related to the case into URS' recordkeeping documents no later than seven days after the event.
  - e. Each January, the OHM will prepare and distribute the appropriate government injury/illness reports to each URS establishment. These reports will summarize all required government information for incidents that occurred during the preceding calendar year. Reports, where required by regulation, will be signed by an officer of the company.
8. If an incident occurs on a client-controlled site, Project Management will ensure that appropriate client notifications are made within the required time frames. These notification requirements will be documented in project-specific planning documents.
  9. All notifications to external agencies (e.g., OSHA) will be made by the Business Vice President/Director HSE (or designee) in accordance with regulatory requirements.

**5. Documentation Summary**

**URS SAFETY MANAGEMENT STANDARD**  
**Injury / Illness / Incident Reporting & Notifications**

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File Attachment 049-1 NA in the appropriate safety files. Note that the international operations of the Infrastructure & Environment business will use the appropriate HSE and Quality Improvement database.

**6. Resources**

A. Occupational Health Managers (OHMs)

<b>Infrastructure &amp; Environment</b>	<b>Federal Services</b>
<b>Jeanette Schrimsher, RN COHN-S</b> (866) 326-7321 (Toll Free-U.S.) (512) 656-0203 (Cell) (512) 419-6413 (Confidential Fax)	<b>BJ (Johnson) Heinrich, RN, BSN, COHN-S</b> (877) 878-9525 (Toll Free) (512) 656-8502 (Cell) (512) 419-5252 (Confidential Fax)

- B. [SMS 057](#) – Vehicle Safety Program
- C. [SMS 065](#) – Injury and Claims Management
- D. [SMS 066](#) – Incident Investigation
- E. [Attachment 049-1 NA IE](#) – Infrastructure & Environment Incident Report Form
- F. [Attachment 049-1 NA FS](#) – Federal Services Incident Report Form



**Health, Safety and Environment**  
**INFRASTRUCTURE & ENVIRONMENT**  
**INCIDENT REPORT FORM**

Attachment 049-1 NA IE  
  
 Issue Date: May 2001  
 Revision 10: January 2011

**ADMINISTRATIVE INFORMATION**

**Database Office ID:**

Group:       East    West    International

Region:

Client Sector:

**NOTIFICATION / LOCATION DATA**

Site or Office:	Customer/Client Name:
Date of Event:	Time of Event:
Date Supervisor Notified:	Time Supervisor Notified:
Client Notification Completed (if required)? <input type="checkbox"/> Yes <input type="checkbox"/> No	Project/Order Number:

**TYPE OF EVENT (Check all applicable items)**

<b>Illness (Check one)</b> <input type="checkbox"/> Employee <input type="checkbox"/> Subcontractor <input type="checkbox"/> Other	<b>Injury (Check one)</b> <input type="checkbox"/> Employee <input type="checkbox"/> Subcontractor <input type="checkbox"/> Other	<b>NAME of Injured/III Employee:</b> _____ _____
<b>Property Damage (Check one)</b> <input type="checkbox"/> Company (owned, leased, rented) <input type="checkbox"/> Client/Customer <input type="checkbox"/> Other	<b>Vehicular Accident (Check one)</b> <input type="checkbox"/> Company (owned, leased, rented) <input type="checkbox"/> Client/Customer <input type="checkbox"/> Other	

Fire       Other (describe): \_\_\_\_\_  
 Explosion  
 Flash

**EVENT SUMMARY**

Briefly state the facts contributing to the event. Attach additional pages and supporting information, as necessary. Avoid use of employees' names. *If this is an injury or illness, supply additional information as required on Page 2.*

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**ROOT CAUSE DETERMINATION**

Root Cause (State the root or primary cause, then select the most appropriate cause category from Page 4):

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**CONTRIBUTING FACTORS**

Contributing Causes (Describe any contributing causes, then select the applicable cause categories from Page 4):

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**CORRECTIVE ACTIONS**

List methods of preventing/avoiding this type of incident in the future. There must be one or more corrective actions for each root cause.

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**Health, Safety and Environment**  
**INFRASTRUCTURE & ENVIRONMENT**  
**INCIDENT REPORT FORM**

Attachment 049-1 NA IE

Issue Date: May 2001  
Revision 10: January 2011

**FOR INJURIES/ILLNESS ONLY**

**Employee Information**

What was the employee's location when the injury/illness occurred (include city and state)?

What was the employee doing when the injury/illness occurred? Describe the activity as well as the tools, equipment, or material you were using.

What happened? Describe how the injury/illness occurred.

What was the injury or illness? Describe the part of the body that was affected and how it was affected. Use the Incident Pick List on Page 4 to aid in your description.

What level of medical treatment was received?  First Aid  Clinic/Physician  Emergency Room  Refused/None

List witnesses and/or other employees involved. Attach statements where applicable.

Do you feel URS provided you with the proper safety instructions (including PPE usage) for the task you were performing at the time of the incident?  Yes  No (Explain below)

How do you think this type of incident could be prevented or avoided in the future?

Mark all PPE being used when the incident occurred:

- |   |   |  |  |
|---|---|--|--|
| <input type="checkbox"/> Safety Glasses       | <input type="checkbox"/> Safety Goggles       | <input type="checkbox"/> Face Shield       | <input type="checkbox"/> Safety Shoes    |
| <input type="checkbox"/> Half-face Respirator | <input type="checkbox"/> Full-face Respirator | <input type="checkbox"/> Protective Gloves | <input type="checkbox"/> Chemical Gloves |
| <input type="checkbox"/> Hard Hat             | <input type="checkbox"/> Hearing Protection   | <input type="checkbox"/> Other (describe): |  |

Injured/Ill Employee Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Injured/Ill Employee (Please print clearly): \_\_\_\_\_

Employee Number: \_\_\_\_\_ Contact Phone Number: \_\_\_\_\_

Additional Sheets Attached?  Yes  No (Include photos, maps, and/or diagrams when possible.)



Health, Safety and Environment  
**INFRASTRUCTURE & ENVIRONMENT**  
**INCIDENT REPORT FORM**

Attachment 049-1 NA IE

Issue Date: May 2001  
Revision 10: January 2011

**Supervisor Information**

Describe any additional/different details other than those provided on the previous page. Avoid use of employees' names, where possible. Attach additional sheets, drawings, or photos, as needed.

Were the required tools available at the time of the injury?  Yes  No (Explain below)

At the time of the injury, was the employee using the correct tools for the task?  Yes  No (Explain below)

Was the employee sent for substance screening?  Yes  No (Explain below)

How do you think this type of incident could be prevented or avoided in the future?

Supervisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor Name (Please print clearly): \_\_\_\_\_

**Project Manager Comments**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager Name (Please print clearly): \_\_\_\_\_

**HSE Representative Comments**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

HSE Representative Name (Please print clearly): \_\_\_\_\_

**Site/Office Manager Comments**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Site/Office Manager Name (Please print clearly): \_\_\_\_\_



INFRASTRUCTURE & ENVIRONMENT

INCIDENT REPORT FORM

ROOT CAUSE CATEGORIES

Check all cause categories that apply to the incident, then choose the root cause (or causes) category from the boxes checked. Enter where indicated on Page 1.

PHYSICAL/ENVIRONMENT

- Extreme cold/ice
- Extreme heat
- Working/walking surface unfavorable
- Inadequate lighting
- Excessive noise
- Chemical exposure
- Biological hazards (animal/plant)
- Other weather
- Other

SYSTEMS

- Inadequate training/instruction
- Inadequate management system
- Missing or incorrect procedures or planning
- Inadequate management emphasis on safety
- Corporate/operations procedures not communicated
- Other

PHYSICAL/EQUIPMENT, TOOLS, and PPE

- Failure due to improper maintenance
- Failure due to improper design
- Other

HUMAN

- Failure to adequately recognize hazards
- Failure to follow procedures
- Failure to recognize condition change
- Impaired state (drug, alcohol, other)
- Physical/psychological limitation for task
- Inadequate communications (i.e., supervisor/employee)
- Carelessness by affected person(s)
- Carelessness by other person(s)
- Improper selection of equipment/tool/PPE
- Improper use of equipment/tool/PPE
- Other

INCIDENT PICK LIST

NATURE OF INJURY/ILLNESS

- Amputation
- Burn
- Concussion
- Contusion/Abrasion
- Corneal Abrasion
- Dental
- Dermatitis
- Fatality
- Fracture
- Hearing Loss
- Heat-Related Illness
- Hernia
- Insect Bite
- Laceration/Puncture
- Other
- Respiratory Disorder
- Sprain/Strain

BODY PART

- Ankle/Foot
- Arm/Elbow
- Back
- Eyes
- Head
- Hip/Groin
- Internal Organs/Blood
- Leg/Knee
- Multiple Body Parts
- Neck/Cervical
- Respiratory
- Shoulder
- Trunk
- Wrist/Hand

DIRECT CAUSE

- Animal/Insect Contact
- Biological Agent
- Caught Between
- Ergonomics/Repetitive Trauma
- Exposure To
- Miscellaneous
- Motor Vehicle Wreck
- Overexertion
- Poisonous Plant
- Slips/Trips/Falls
- Struck Against
- Struck By

DISTRIBUTION

**NOTE:** The preferred method of distribution of this report is by e-mail attachment either in Word, or scanned to PDF. Forward URS incident reports to the OHM at [incidentreport@urscorp.com](mailto:incidentreport@urscorp.com). Alternatively, reports may be faxed to 512.419.6413. Initial reports must be submitted to the OHM within 24 hours of incident. More detailed follow-up reports may be submitted later.

**Additional Distribution:**  Program/Client Sector Manager  Regional HSE Manager  Office HSE Representative



Per the Ontario Occupational Health and Safety Act, R.R.O. 1990, Regulation 834, a Critical Injury is defined as an injury of a serious nature that:

- a. Places life in jeopardy;
- b. Produces unconsciousness;
- c. Results in substantial loss of blood;
- d. Involves the fracture of a leg or arm but not a finger or toe;
- e. Involves the amputation of a leg, arm, hand or foot, but not a finger or toe;
- f. Consists of burns to a major portion of the body; or
- g. Causes the loss of sight in an eye.

Per the British Columbia Workers Compensation Act, RSBC 1996, Chapter 492, a Critical Injury is defined as injury of a serious nature that includes the following:

- a. Any incident that kills, causes risk of death, or seriously injures a worker;
- b. Any blasting accident that results in injury, or unusual event involving explosives;
- c. A diving incident that causes death, injury, or decompression sickness requiring treatment;
- d. A major leak or release of a dangerous substance;
- e. A major structural failure or collapse of a structure, equipment, construction support system or excavation; and any serious mishap.

**URS SAFETY MANAGEMENT STANDARD 055**  
**HEALTH, SAFETY AND ENVIRONMENT TRAINING**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Health, Safety, and Environment Training**

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### **1. Applicability**

This standard applies to the operations of URS Corporation and its subsidiary companies. These are the minimum Health, Safety, and Environment (HSE) compliance training requirements and tracking procedures. Specific geographic entities, business units, and projects may require additional training. These requirements may be dictated by federal/national, state/provincial, or local agencies or by the activities of a specific work group or project team.

### **2. Purpose and Scope**

This standard was developed to assist employees and managers in the identification of training requirements and to define the URS procedures for tracking/documenting this training. It covers environmental, hazardous materials, and health and safety training only. The goals of this standard are to ensure regulatory compliance and to provide employees with the information/training they need to accomplish their work assignments safely; prevent injuries to themselves, coworkers, surrounding communities, and customers; and protect company and/or customer property and the environment.

### **3. Implementation**

- A. The assigned Site/Office Manager is responsible for ensuring compliance with this standard and any additional requirements necessary because of the physical location of the facility and/or the business units in operation at that facility (e.g., laboratories).
- B. The Program/Project Manager is responsible for ensuring project or program-related compliance (e.g., compliance of project/program staff members) with this standard and any additional training necessary because of specific project/program activities.
- C. The HSE Training Coordinator (HTC) is responsible for maintaining a training calendar, filing original records/tests, issuing certificates for business-sponsored training, maintaining and issuing training materials, adding approved courses and course information to the training database, and updating the URS HSE intranet site with course information.

### **4. Requirements**

- A. Employee training requirements are dictated by the work each employee performs (or is expected to perform) and the geographic area(s) where the

**URS SAFETY MANAGEMENT STANDARD**  
**Health, Safety, and Environment Training**

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- employee performs these activities. In most cases, there is a regulatory driver for specific training.
- B. All new URS employees must be provided an orientation on the URS HSE Program. Details on orientation requirements are provided in SMS 025 – New Employee Health, Safety and Environment Orientation and SMS 078 – Short Service Employee.
  - C. HSE Training Evaluation – Attachment 055-1 NA is a list of the most common courses that may be required, their frequency, and expected participants. This table will be updated as regulatory and company requirements change. These requirements may be necessary due to the individual’s project, site, or office activities, or the location of the facility. The responses to this simple questionnaire dictate what training an individual needs in addition to the basic URS courses. Once these requirements have been identified, each employee is expected to complete the required training as soon as possible and to track his/her progress.
  - D. Training requirements should be re-evaluated at least annually and more frequently if an employee’s assigned duties change significantly.
  - E. To ensure consistency in content and duration and in meeting regulatory and company requirements, URS training materials should be used as the basis for training whenever they are available. Trainers may always elect to supplement the base training materials for these courses with specifics for the program, project, customer, office, or geographic unit.
  - F. For training requiring certification (regulatory or URS-driven), trainers must be Business, Country, Group, Regional Business Unit (RBU), or Strategic Business Unit (SBU) HSE Managers or approved by the Business, Country, Group, RBU, or SBU HSE Manager.
  - G. Training is offered in a variety of formats, including classroom instruction, computer based training (CBT), and on-the-job (OTJ) training. To ensure that training is consistent and that all requirements are being met, external courses (e.g., 40-Hour HAZOPWER), including classroom instruction and CBT, should be evaluated and approved by the Business, Country, Group, RBU, or SBU HSE Manager. Local HSE staff will be able to assist in identifying qualified external vendors as necessary.
  - H. URS staff is expected to be familiar with applicable training requirements. Staff members are expected to track their own progress toward meeting those requirements.

**URS SAFETY MANAGEMENT STANDARD**  
**Health, Safety, and Environment Training**

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- I. Supervisors and office/location managers are expected to be familiar with the training requirements of staff that report to them.
- J. A sample safety training flow chart is available in Supplemental Information A.

**5. Documentation Summary**

- A. Those courses so denoted in Attachment 055-1 NA or Commonly Required Training will be tracked in a training database.
- B. All training must be documented using a training Attendance Record – Attachment 055-2 NA and Course Agenda. This attendance form requires participants to acknowledge by their signature that they received the training.
- C. Minimum course agenda requirements are as follows:
  - Type of course.
  - Course date.
  - Course location.
  - Topics covered.
  - Length of time covered for each topic.
  - Course duration (start/end times).
  - Instructor(s) name.
- D. For training provided by customers/vendors, training documentation must include the following:
  - Copy of the attendee's course certificate.
  - Course agenda.

In some cases, objective evidence of comprehension is required. This information must be tracked in addition to the course certificate and agenda.

- E. Group, RBU, and SBU HSE Managers will ensure that the course agenda meets regulatory/company requirements. Attendance records will be entered into the HSE training database.

**URS SAFETY MANAGEMENT STANDARD**  
**Health, Safety, and Environment Training**

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- F. For corporately tracked courses, original attendance sheets, agendas, course evaluations, and any completed tests will be sent to the HTC. These should be filed by course then by date for easy access/auditing.
- G. Locations/projects/programs will maintain records on any project, program, or location- or site-specific training requirements such as fire extinguisher training, project health and safety plan training, and chemical hygiene program (laboratory safety) training. HSE Representatives will also maintain copies of attendance records for courses being tracked corporately.
- H. For courses requiring Business certification, the Vice President of HSE (or designee) or customer/vendor will issue certificates. A copy of the certificate must be provided to the HTC, along with course content information and sign-in sheets (see Item 5.D). For Federal Services employees, a copy of the certificate is to be provided to the appropriate Human Resources Manager for inclusion into the personnel record (Human Resources Management System or HRMS).

## 6. Resources

- A. U.S. Occupational Safety and Health Administration (OSHA), [Training Requirements in OSHA Standards and Training Guidelines](#)
- B. [SMS 025](#) – New Employee Health, Safety and Environment Orientation
- C. [SMS 078](#) – Short Service Employee
- D. [Attachment 055-1 NA](#) – HSE Training Evaluation
- E. [Attachment 055-2 NA](#) – Attendance Record



**Health, Safety and Environment**  
**HSE TRAINING EVALUATION**

Attachment 055-1 NA

Issue Date: November 2000  
Revision 9: September 2011

Name \_\_\_\_\_ Location \_\_\_\_\_ Date \_\_\_\_\_

Course Title	Regulatory	Frequency	Should You Attend?	Check if Required <input checked="" type="checkbox"/>	Comments
Asbestos Inspector	Y	Annual	You perform asbestos sampling tasks.	<input type="checkbox"/>	
Asbestos Planner	Y	Annual	You serve as the project asbestos planner.	<input type="checkbox"/>	
Automated External Defibrillator (AED)	Y	As established by the training provider	You are designated to be an AED user in a URS office or project site.	<input type="checkbox"/>	
Behavior Based Safety	N	Annual	Required for all Infrastructure & Environment employees.	<input type="checkbox"/>	Concepts of behavior based safety, including the observation process (how to do one, who does one, the purpose). Available online through the URS Learning Management System (LMS).
Bloodborne Pathogens	Y	Annual	Required for employees designated as a first aid responder or others who have a potential bloodborne pathogen exposure.	<input type="checkbox"/>	
Cardiac Pulmonary Resuscitation (CPR)	Y	As established by the training provider	Required for 1) employees who are designated as first aid responders, 2) employees who are performing high hazard activities (e.g., potential for falls, suffocation, electrocution, amputation) and medical attention is more than 4 minutes away, or 3) required by client contract.	<input type="checkbox"/>	Acquire training from recognized source (e.g., Red Cross, American Heart).
Confined Space Entry	Y	Once	You perform confined space entry/authorizer/attendant duties (including anyone performing non-entry rescue activities).	<input type="checkbox"/>	
Confined Space Refresher	N	As needed	Recommended if you perform entry activities.	<input type="checkbox"/>	
Confined Space Rescuer	Y	Once	You may have to enter a confined space to perform a rescue.	<input type="checkbox"/>	
Confined Space Entry Awareness	N	As needed	You work with and around confined spaces that may require entry; however, you are not responsible for performing entry/authorizer/attendant duties.	<input type="checkbox"/>	30-minute CSE Awareness module offered online through URS LMS.
Construction Safety (10-hour OSHA Outreach Training)	N	Once	Recommended if you are a Supervisor and/or Safety Officer at Construction Sites	<input type="checkbox"/>	
Construction Safety (30-hour OSHA Outreach Training)	N	Once	Required if you serve as a site safety and health officer on US Army Corps of Engineers (USACE) projects, or other DoD projects which follow the provisions of EM 385-1-1 (USACE Safety and Health Requirements Manual)	<input type="checkbox"/>	



**Health, Safety and Environment**  
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Course Title	Regulatory	Frequency	Should You Attend?	Check if Required <input checked="" type="checkbox"/>	Comments
Emergency Preparedness Plan	Y	Once	Required for all URS employees.	<input type="checkbox"/>	For office personnel, this information is covered in employee orientation. For field/site personnel, this is covered in project/site safety training.
Ergonomics	N	Once	Recommended for staff who are primarily office employees.	<input type="checkbox"/>	Available online through the URS LMS.
Excavations/Trenching Awareness	Y	Once	You work at sites where excavation/trenching tasks are performed.	<input type="checkbox"/>	Available online through URS LMS.
Excavations/Trenching Competent Person	Y	Once	You are or may be designated as a competent person (educational background and experience may allow for grandfathering).	<input type="checkbox"/>	
Experienced Miner Training	Y	Once, followed by annual refreshers	You meet the US Mine Safety and Health Administration (MSHA) definition of an "Experienced Miner."	<input type="checkbox"/>	See Surface Miner and Underground Miner training for information on annual refreshers.
Fall Prevention/Protection	Y	Once	You supervise tasks or perform tasks at heights (on roofs, scaffolding, ladders, unfinished flooring).	<input type="checkbox"/>	
Field Safety Training (4 hours)	N	Biennial	Required for all Infrastructure & Environment (IE) non-craft employees performing field work who are not in the hazardous waste training program. This training is also required for any IE Project Manager that manage projects where field work is performed.	<input type="checkbox"/>	Specific content will depend on the office and the employees' expected work. When offered as a combination of online modules and classroom instruction, online modules must be completed prior to the classroom portion for participants to receive credit. Both portions (online and classroom) need to be completed within the same calendar year.
Fire Extinguisher	Y	Annual	You may be expected to use fire extinguishers (fixed facilities and project sites).	<input type="checkbox"/>	
First Aid	Y	As established by the training provider	Required for 1) employees who are designated as first aid responders, 2) employees who are performing high hazard activities (e.g., potential for falls, suffocation, electrocution, amputation) and medical attention is more than 4 minutes away, or 3) required by client contract.	<input type="checkbox"/>	Acquire training from recognized source (e.g., Red Cross, American Heart).



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Attachment 055-1 NA

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Course Title	Regulatory	Frequency	Should You Attend?	Check if Required <input checked="" type="checkbox"/>	Comments
H&S Issues for Project Managers	N	Once	Required if you manage projects involving field work.	<input type="checkbox"/>	Offered as part of PM Training. Online courses available through URS LMS include Handling Specific Health and Safety Issues, Planning for Health and Safety, and Project Delivery Aspects of Health and Safety.
Hazard Communication	Y	Initially and if hazards change	Required for anyone who is potentially exposed to/works with hazardous chemicals.	<input type="checkbox"/>	Training must occur before any work with hazardous chemicals. Included (as needed) in HSE Orientation. After the initial training, required updates will typically be handled as part of project-specific HSE training. Refresher training is also available online through the URS LMS.
Hazardous Materials Shipping	Y	Biennial	Required for anyone who packages, labels, transports, completes paperwork for, or offers for shipment, hazardous materials/dangerous goods.	<input type="checkbox"/>	Initial training is approximately 16 hours. 30-minute Hazmat Shipping Awareness class is available online through the URS LMS.
Hazardous Waste Operations (40-hours – U.S.) (24-hours – non U.S.)	Y	Once	Anyone performing work or expected to perform at hazardous waste sites or treatment, storage, and disposal facilities.	<input type="checkbox"/>	See SMS 017. Training must have a 'hands-on' component (i.e., donning/doffing PPE). Any exceptions must be approved by a Regional HSE Manager/Group HSE Director.
Hazardous Waste Operations – Refresher (8 hours)	Y	Annual	(See Hazardous Waste Operations.)	<input type="checkbox"/>	When offered as a combination of online modules and classroom instruction, online modules must be completed prior to the classroom portion for participants to receive credit. Both portions (online and classroom) need to be completed within the same calendar year.
Hazardous Waste Operations – Supervisor (8 hours)	Y	Once	Required for anyone serving as the site supervisor at a hazardous waste site.	<input type="checkbox"/>	When offered as a combination of online modules and classroom instruction, online modules must be completed prior to the classroom portion for participants to receive credit. Both portions (online and classroom) need to be completed within the same calendar year.



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Attachment 055-1 NA

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Course Title	Regulatory	Frequency	Should You Attend?	Check if Required <input checked="" type="checkbox"/>	Comments
Health, Safety, and Environment (HSE) Orientation	Y	Once	Required for all URS employees.	<input type="checkbox"/>	Specific content will depend on the office and the employees' expected work. See SMS 025.
Hearing Conservation	Y	Annual	Employees exposed to noise at or above 85 decibels averaged over an 8-hour day.	<input type="checkbox"/>	Available online through URS LMS.
HSE Representative Training	N	Once; follow-up as needed	Required for anyone assigned to the role of URS HSE Representative.	<input type="checkbox"/>	URS company metrics, training programs, and technical topics to support the HSE Representative position. HSE training for non-HAZWOPER trained personnel, describing OSHA and EPA regulatory requirements.
Injury/Illness Prevention	Y	Once	You are assigned to California offices.	<input type="checkbox"/>	Covered in California office HSE Orientation.
Laboratory Safety	Y	Once	You work in a fixed or mobile wet chemistry lab.	<input type="checkbox"/>	Completed as part of site or project orientation.
Lead Project Designer	Y	Every 3 years	You are a lead project designer.	<input type="checkbox"/>	
Lead Risk Assessor	Y	Every 3 years	You are a project lead risk assessor inspector.	<input type="checkbox"/>	
Lockout/Tagout Awareness – Affected Person	Y	Once; follow-up as required by regulations	You work with and around equipment that may need to be locked out/tagged out. (You are not responsible for applying tags/locks).	<input type="checkbox"/>	Available online through the URS LMS.
Lockout/Tagout – Authorized Person	Y	Once; follow-up as required by regulations	You lock out or tag out machines or equipment in order to perform servicing or maintenance on that machine or equipment.	<input type="checkbox"/>	Specific to individual machines.
Marine Trash and Debris Awareness and Limitation	Y	Annual	You work on contract operations for lessees and/or operators of oil and gas operations in the Gulf of Mexico.	<input type="checkbox"/>	Provided by lessee or operator.
Nuclear Density Gauge Operator	Y	Once	You <u>operate</u> nuclear density gauges.	<input type="checkbox"/>	Troxler or equivalent training.
Nuclear Density Gauge Transporter	Y	Every 3 years	You <u>transport</u> nuclear density gauges.	<input type="checkbox"/>	Hazardous Materials shipping.
Powered Industrial Trucks (Forklifts)	Y	Once	Your job assignments include operating a powered industrial truck (forklift).	<input type="checkbox"/>	Required more frequently if assessments indicate the need.
Radiation Safety Officer	Y	Once	You are designated as a Radiation Safety Officer.	<input type="checkbox"/>	
Respiratory Protection	Y	Annual	Required for any employee who may be required to wear a respirator.	<input type="checkbox"/>	Initial training is approximately 1 hour. Annual refresher training is approximately 0.5 hour. Annual refresher training is available online through the URS LMS.
Self Contained Breathing Apparatus (SCBA)/Cascade Systems	Y	Once	Required for any employee required to wear SCBAs or to operate a supplied air system.	<input type="checkbox"/>	Part of Project HSE training as needed.



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**HSE TRAINING EVALUATION**

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Course Title	Regulatory	Frequency	Should You Attend?	Check if Required <input checked="" type="checkbox"/>	Comments
Shipping Specialist	Y	Once	You are designated as a Shipping Specialist and/or are a Regional/SBU HSE Manager.	<input type="checkbox"/>	Updates are required as regulations change.
Site Safety Training (4 hours)	N	Biennial	Required primarily for Federal Services employees performing tasks at fixed locations (e.g., warehouses, laboratories, vehicle maintenance, aircraft maintenance).	<input type="checkbox"/>	Specific content will depend on the site and the employees' expected work.
Site Supervisor Training	N	Once	Required for all Federal Services Supervisors who are responsible for a site.	<input type="checkbox"/>	
Substance Specific	Y	Once	Any employee potentially exposed to a substance covered by the 29 CFR substance specific regulations. See SMS 050.	<input type="checkbox"/>	Includes lead, asbestos, benzene, etc. Offered as part of project-specific training.
Surface Miner Training – New (24 hours)	Y	Once	You perform work at surface mine sites regulated by MSHA.	<input type="checkbox"/>	Training is conducted by MSHA-approved instructors under MSHA-approved training plan.
Surface Miner Training – Annual Refresher (8 hours)	Y	Annual	You perform work at surface mine sites regulated by MSHA.	<input type="checkbox"/>	Training is conducted by MSHA-approved instructors under MSHA-approved training plan.
Underground Miner Training – New (40 hours)	Y	Once	You perform work in underground mine sites regulated by MSHA.	<input type="checkbox"/>	Training is conducted by MSHA-approved instructors under MSHA-approved training plan.
Underground Miner Training – Annual Refresher (8 hours)	Y	Annual	You perform work in underground mine sites regulated by MSHA.	<input type="checkbox"/>	Training is conducted by MSHA-approved instructors under MSHA-approved training plan.
Vehicle Safety	N	Once	Required for employees who drive on company business.	<input type="checkbox"/>	Authorized Drivers are those individuals permitted to drive URS-owned, -leased, or -rented vehicles, and employees who drive a personal vehicle for work purposes and are reimbursed for mileage. See SMS 057.
Waste Awareness	Y	Annual	You generate, handle, or manage hazardous waste at a fixed facility or field project.	<input type="checkbox"/>	Available online through the URS LMS.
Waste Specialist	Y	Once with Annual Refresher	You are responsible for waste management at a small or large quantity generator facility.	<input type="checkbox"/>	
Welding/Brazing/Cutting	Y		You job duties include these activities.	<input type="checkbox"/>	
Workplace Hazardous Materials Information System (WHMIS)	Y	Annual	You are assigned to a Canadian facility and work with or around hazardous materials.	<input type="checkbox"/>	Canadian Hazard Communications.



This supplement defines and lists the areas within the OSHA Construction Standards where a competent person is required to be part of a particular project activity

A. Definition

A **competent person** is “one who is capable of identifying existing and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them (Subpart C; 29 CFR 1926.32(f)).”

B. Accident Prevention

“(Accident prevention) programs shall provide for frequent and regular inspections of the job sites, materials, and equipment to be made by **competent persons** designated by the employers (Subpart C: 29 CFR 1926.20(b)(2)).”

C. Ionizing Radiation

“Any activity which involves the use of radioactive materials or X-rays, whether or not under license from the Nuclear Regulatory Commission, shall be performed by **competent persons** specially trained in the proper and safe operation of such equipment. In the case of materials used under Commission license, only persons actually licensed, or **competent persons** under direction and supervision of the licensee, shall perform such work (Subpart D; 29 CFR 1926.53(b)).”

D. Respiratory Protection

“Administrative or engineering controls must first be implemented whenever feasible. When such controls are not feasible to achieve full compliance, protective equipment or other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed in this section. Any equipment and technical measures used for this purpose must first be approved for each particular use by a **competent** industrial hygienist or other technically qualified person (Subpart D; 29 CFR 1926.55(b)).”

E. Lead

“The compliance program shall provide for frequent and regular inspections of job sites, materials, and equipment to be made by a **competent person** (Subpart D; 29 CFR 1926.62(e)(2)(iii)).”

**F. Hearing Protection**

“Ear protective devices inserted in the ear shall be fitted or determined individually by **competent persons** (Subpart E; 29 CFR 1926.101(b)).”

**G. Material Handling**

“Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a **competent person** designated by the employer (Subpart H; 29 CFR 1926.251(a)(6)).”

**H. Welding, Cutting, and Heating**

“Before welding, cutting, or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made by a **competent person** to determine its flammability (Subpart J; 29 CFR 1926.354(a)).”

**I. Assured Equipment Grounding Conductor Program**

“The employer shall designate one or more **competent persons** to implement the program (Subpart K; 29 CFR 1926.404(b)(1)(iii)(B)).”

**J. Scaffolding**

1. “Before the scaffold is used, direct connections shall be evaluated by a **competent person** who shall confirm, based on the evaluation, that the supporting surfaces are capable of supporting the loads to be imposed. In addition, an engineer experienced in such scaffold design shall design masons’ multi-point adjustable suspension scaffold connections (Subpart L; 29 CFR 1926.451(d)(3)(i)).” Note that this passage applies to suspension scaffolds only.
2. “The employer shall have each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a **competent person** to recognize any hazards associated with the work in question (Subpart L; 29 CFR 1926.454(b)).” Per the standard, the training should include the following topics, as applicable:
  - a. The nature of scaffold hazards;
  - b. The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question;

- c. The design criteria, maximum intended load-carrying capacity and intended use of the scaffold; and
- d. Any other pertinent requirements of 1926 Subpart L.

#### K. Fall Protection

1. "Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a **competent person** to be undamaged and suitable for reuse (Subpart M; 29 CFR 1926.502(d)(19))."
2. Where safety monitoring systems are employed, "the employer shall designate a **competent person** to monitor the safety of other employees and the employer shall ensure that the safety monitor complies with the following requirements (Subpart M: 29 CFR 1926.502(h)(1)):
  - a. The safety monitor shall be competent to recognize fall hazards;
  - b. The safety monitor shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner;
  - c. The safety monitor shall be on the same walking/working surface and within visual sighting distance of the employee being monitored;
  - d. The safety monitor shall be close enough to communicate orally with the employee; and
  - e. The safety monitor shall not have other responsibilities which could take the monitor's attention from the monitoring function."
3. "The implementation of the fall protection plan shall be under the supervision of a **competent person** (Subpart M; 29 CFR 1926.502(k)(4))." This section specifically refers to the implementation of fall protection plans on projects where it is infeasible or it creates a greater hazard to use conventional fall protection equipment.
4. "The employer shall assure that a **competent person** qualified in the following areas has trained each employee, as necessary (Subpart M; 29 CFR 1926.503(a)(2))":

- a. The nature of fall hazards in the work area;
- b. The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
- c. The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;
- d. The role of each employee in the safety monitoring system when this system is used;
- e. The limitations on the use of mechanical equipment during the performance of elevated work;
- f. The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection;
- g. The role of employees in fall protection plans, and
- h. The standards contained in 1926 Subpart M.

#### L. Cranes and Derricks

1. "The employer shall designate a **competent person** who shall inspect all machinery and equipment prior to each use, and during use, to make sure it is in safe operating condition. Any deficiencies shall be repaired, or defective parts replaced, before continued use (Subpart N; 29 CFR 1926.550(a)(5))."
2. "A thorough annual inspection of the hoisting machinery shall be made by a **competent person**, or by a government or private agency recognized by the U.S. Department of Labor. The employer shall maintain a record of the dates and results of inspections for each hoisting machine and piece of equipment (Subpart N; 29 CFR 1926.550(a)(6))."
3. "The personnel platform and suspension system shall be designed by a qualified engineer or a **qualified person competent** in structural design (Subpart N; 29 CFR 1926.550(g)(4)(i)(A))."
4. "A visual inspection of the crane or derrick, rigging, personnel platform, and the crane or derrick base support or ground shall be conducted by

a **competent person** immediately after the trial lift to determine whether the testing has exposed any defect or produced any adverse effect upon any component or structure (Subpart N; 29 CFR 1926.550(g)(5)(iv)).”

5. “At each job site, prior to hoisting employees on the personnel platform, and after any repair or modification, the platform and rigging shall be proof tested to 125 percent of the platform’s rated capacity by holding it in a suspended position for five minutes with the test load evenly distributed on the platform (this may be done concurrently with the trial lift). After proof testing, a **competent person** shall inspect the platform and rigging. Any deficiencies found shall be corrected and another proof test shall be conducted. Personnel hoisting shall not be conducted until the proof testing requirements are satisfied (Subpart N; 29 CFR 1926.550(g)(5)(vi)).”

#### M. Material Hoists, Personnel Hoists and Elevators

“Following assembly and erection of hoists, and before being put in service, an inspection and test of all functions and safety devices shall be made under the supervision of a **competent person**. A similar inspection and test is required following major alteration of an existing installation. All hoists shall be inspected and tested at not more than 3-month intervals. The employer shall prepare a certification record which includes the date the inspection and test of all functions and safety devices was performed; the signature of the person who performed the inspection and test; and a serial number, or other identifier, for the hoist that was inspected and tested. The most recent certification record shall be maintained on file (Subpart N; 29 CFR 1926.552(c)(15)).”

#### N. Excavations

1. “Structural ramps that are used solely by employees as a means of access or egress from excavations shall be designed by a **competent person**. Structural ramps used for access or egress of equipment shall be designed by a **competent person** qualified in structural design, and shall be constructed in accordance with the design (Subpart P; 29 CFR 1926.651(c)(1)(i)).”
2. “If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations shall be monitored by a **competent person** to ensure proper operation (Subpart P; 29 CFR 1926.651(h)(2)).”

3. "If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require an inspection by a **competent person** and compliance with paragraphs (h)(1) and (h)(2) of 1926.651 (Subpart P; 29 CFR 1926.651(h)(3))."
4. "Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a **competent person** for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the **competent person** prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated (Subpart P; 29 CFR 1926.651(k)(1))."
5. "Where the **competent person** finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety (Subpart P; 29 CFR 1926.651(k)(2))."
6. Employees shall be protected from cave-ins except where "excavations are less than 5 feet (1.52 m) in depth and examination of the ground by a **competent person** provides no indication of a potential cave-in (Subpart P; 29 CFR 1926.652(a)(1)(ii))."
7. "When material or equipment that is used for protective systems is damaged, a **competent person** shall examine the material or equipment and evaluate its suitability for continued use. If the **competent person** cannot assure the material or equipment is able to support the intended loads or is otherwise suitable for safe use, then such material or equipment shall be removed from service, and shall be evaluated and approved by a registered professional engineer before being returned to service (Subpart P; 29 CFR 1926.652(d)(3))."
8. "Each soil and rock deposit shall be classified by a **competent person** as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix (1926 Subpart P, Appendix A, (a)(2)(C)(1))."

9. "The classification of the deposits shall be made based on the result of at least one visual and at least one manual analysis. Such analyses shall be conducted by a **competent person** using tests described in paragraph (d) of this appendix, or in other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification system (1926 Subpart P, Appendix A, (a)(2)(C)(2))."
10. "If after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a **competent person**. The deposit shall be reclassified as necessary to reflect the changed circumstances (1926 Subpart P, Appendix A, (a)(2)(C)(5))."
11. "When surcharge loads from stored material or equipment, operating equipment, or traffic are present, a **competent person** shall determine the degree to which the actual slope must be reduced below the maximum allowable slope, and shall assure that such reduction is achieved (1926 Subpart P, Appendix B, (c)(3)(iii))."

#### O. Lift-Slab Operations

"If leveling is maintained by manual controls, such controls shall be located in a central location and attended by a **competent person** while lifting is in progress. In addition to meeting the definition in 1926.32(f), the **competent person** must be experienced in the lifting operation and with the lifting equipment being used (Subpart Q, 29 CFR 1926.705(i))."

#### P. Steel Erection - Cranes

1. "Cranes being used in steel erection activities shall be visually inspected prior to each shift by a **competent person**; the inspection shall include observation for deficiencies during operation. At a minimum this inspection shall include the following (Subpart R: 29 CFR 1926.753(c)(1)(i)):
  - a. All control mechanisms for maladjustments;
  - b. Control and drive mechanism for excessive wear of components and contamination by lubricants, water or other foreign matter;
  - c. Safety devices, including but not limited to boom angle indicators, boom stops, boom kick out devices, anti-two block devices, and load moment indicators where required;

- d. Air, hydraulic, and other pressurized lines for deterioration or leakage, particularly those which flex in normal operation;
  - e. Hooks and latches for deformation, chemical damage, cracks, or wear;
  - f. Wire rope reeving for compliance with hoisting equipment manufacturer's specifications;
  - g. Electrical apparatus for malfunctioning, signs of excessive deterioration, dirt, or moisture accumulation;
  - h. Hydraulic system for proper fluid level;
  - i. Tires for proper inflation and condition;
  - j. Ground conditions around the hoisting equipment for proper support, including ground settling under and around outriggers, ground water accumulation, or similar conditions;
  - k. The hoisting equipment for level position; and
  - l. The hoisting equipment for level position after each move and setup.”
2. “If any deficiency is identified, an immediate determination shall be made by the **competent person** as to whether the deficiency constitutes a hazard (Subpart R; 29 CFR 1926.753(c)(1)(ii)).”

#### Q. Steel Erection – Structural Steel Assembly

1. “When deemed necessary by a **competent person**, plumbing-up equipment shall be installed in conjunction with the steel erection process to ensure the stability of the structure (Subpart R; 29 CFR 1926.754(d)(1)).”
2. “Plumbing-up equipment shall be removed only with the approval of a **competent person** (Subpart R; 29 CFR 1926.754(d)(3)).”

#### R. Steel Erection – Column Anchorage

“All columns shall be evaluated by a **competent person** to determine whether guying or bracing is needed; if guying or bracing is needed, it shall be installed (Subpart R; 29 CFR 1926.755(a)(4)).”

### S. Steel Erection – Beams and Columns

“A **competent person** shall determine if more than two bolts are necessary to ensure the stability of cantilevered members; if additional bolts are needed, they shall be installed (Subpart R; 29 CFR 1926.756(a)(2)).”

### T. Underground Construction

1. “The employer shall assign a **competent person** who shall perform all air monitoring required by this section (Subpart S; 29 CFR 1926.800(j)(1)(i)(A)).”
2. “Where this paragraph requires monitoring of airborne contaminants ‘as often as necessary,’ the **competent person** shall make a reasonable determination as to which substances to monitor and how frequently to monitor (Subpart S; 29 CFR 1926.800(j)(1)(i)(B)).” The standard indicates the following factors should be considered:
  - a. Location of jobsite: Proximity to fuel tanks, sewers, gas lines, old landfills, coal deposits, and swamps;
  - b. Geology: Geological studies of the jobsite, particularly involving the soil type and its permeability;
  - c. History: Presence of air contaminants in nearby jobsites, changes in levels of substances monitored on the prior shift; and
  - d. Work practices and jobsite conditions: The use of diesel engines, use of explosives, use of fuel gas, volume and flow of ventilation, visible atmospheric conditions, decompression of the atmosphere, welding, cutting and hot work, and employees’ physical reactions to working underground.
3. “When the **competent person** determines, on the basis of air monitoring results or other information, that air contaminants may be present in sufficient quantity to be dangerous to life, the employer shall:
  - a. Prominently post a notice at all entrances to the underground jobsite to inform all entrants of hazardous condition, and
  - b. Ensure that the necessary precautions are taken (Subpart S; 29 CFR 1926.800(j)(1)(iv))”

4. "When ventilation has been reduced to the extent that hazardous levels of methane or flammable gas may have accumulated, a **competent person** shall test all affected areas after ventilation has been restored and shall determine whether the atmosphere is within flammable limits before any power, other than for acceptable equipment, is restored or work is resumed (Subpart S; 29 CFR 1926.800(k)(7))."
5. "A **competent person** shall inspect the roof (back), face, and walls of the work area at the start of each shift and as often as necessary to determine ground stability (Subpart S; 29 CFR 1926.800(o)(3)(i)(A))."
6. "A **competent person** shall determine whether rock bolts meet the necessary torque, and shall determine the testing frequency in light of the bolt system, ground conditions and the distance from vibration sources (Subpart S; 29 CFR 1926.800(o)(3)(iv)(B))."
7. "After blasting operations in shafts, a **competent person** shall determine if the walls, ladders, timbers, blocking, or wedges have loosened. If so, necessary repairs shall be made before employees other than those assigned to make the repairs are allowed in or below the affected areas (Subpart S; 29 CFR 1926.800(o)(4)(iii))."
8. "A **competent person** shall inspect all drilling and associated equipment prior to each use. Equipment defects affecting safety shall be corrected before the equipment is used (Subpart S; 29 CFR 1926.800(q)(1))."
9. "A **competent person** shall inspect haulage equipment before each shift (Subpart S; 29 CFR 1926.800(r)(1)(i))."
10. "A **competent person** shall visually check all hoisting machinery, equipment, anchorages, and hoisting rope at the beginning of each shift and during hoist use, as necessary (Subpart S; 29 CFR 1926.800(t)(3)(xix))."
11. "Each safety device shall be checked by a **competent person** at least weekly during hoist use to ensure suitable operation and safe condition (Subpart S; 29 CFR 1926.800(t)(3)(xx))."

#### U. Compressed Air

1. "There shall be present, at all times, at least one **competent person** designated by and representing the employer, who shall be familiar with this Subpart in all respects, and responsible for full compliance

with these and other applicable subparts (Subpart S; 29 CFR 1926.803(a)(1)).”

2. “At all times there shall be a thoroughly experienced, **competent**, and reliable **person** on duty at the air control valves as a gauge tender who shall regulate the pressure in the working areas. During tunneling operations, one gauge tender may regulate the pressure in not more than two headings provided that the gauge and controls are all in one location. In caisson work, there shall be a gauge tender for each caisson (Subpart S; 29 CFR 1926.803(h)(1)).”

#### V. Demolition – Preparatory Operations

“Prior to permitting employees to start demolition operations, an engineering survey shall be made, by a **competent person**, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. Any adjacent structure where employees may be exposed shall also be similarly checked. The employer shall have in writing evidence that such a survey has been performed (Subpart T; 29 CFR 1926.850(a)).”

#### W. Mechanical Demolition

“During demolition, continuing inspections by a **competent person** shall be made as the work progresses to detect hazards resulting from weakened or deteriorated floors, or walls, or loosened material. No employee shall be permitted to work where such hazards exist until they are corrected by shoring, bracing, or other effective means (Subpart T; 29 CFR 1926.859(g)).”

#### X. Blasting and the Use of Explosives

1. Precautions taken to prevent the accidental discharge of electric blasting caps shall include “the prominent display of adequate signs, warning against the use of mobile radio transmitters, on all roads within 1,000 feet of blasting operations. Whenever adherence to the 1,000-foot distance would create an operational handicap, a **competent person** shall be consulted to evaluate the particular situation, and alternative provisions may be made which are adequately designed to prevent any premature firing of electric blasting caps. A description of any such alternatives shall be reduced to writing and shall be certified as meeting the purposes of this subdivision by the **competent person** consulted. The description shall be maintained at the construction site during the duration of the work, and shall be available for inspection by representatives of the Secretary Labor (Subpart U; 29 CFR 1926.900(k)(3)(i)).”

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2. “The blaster shall be knowledgeable and **competent** in the use of each type of blasting method used (Subpart U; 29 CFR 1926.901(e)).”

#### Y. Ladders

1. “Ladders shall be inspected by a **competent person** for visible defects on a periodic basis and after any occurrence that could affect their safe use (Subpart X; 29 CFR 1926.1053(b)).”
2. “The employer shall ensure that each employee has been trained by a **competent person** in the following areas, as applicable:
  - a. The nature of fall hazards in the work area;
  - b. The correct procedures for erecting, maintaining, and disassembling the fall protection systems to be used;
  - c. The proper construction, use, placement, and care in handling of all stairways and ladders;
  - d. The maximum intended load-carrying capacities of ladders used; and
  - e. The standards contained in this subpart (Subpart X; 29 CFR 1926.1060(a)(1)).”

#### Z. Toxic Substances – Asbestos

1. “**Competent person** means, in addition to the definition in 29 CFR 1926.32 (f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f): in addition, for Class I and Class II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent and, for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92 (a)(2).” (Subpart Z; 29 CFR 1926.1101(b))
2. “The **competent** person shall examine worksuits worn by employees at least once per workshift for rips or tears that may occur during performance of work (Subpart Z; 29 CFR 1926.1101(i)(4)(i)).”

3. "On all construction worksites covered by this standard, the employer shall designate a **competent person**, having the qualifications and authorities for ensuring worker safety and health required by Subpart C, General Safety and Health Provisions for Construction (Subpart Z; 29 CFR 1926.1101(o)(1))."
4. "The **competent person** shall make frequent and regular inspections of the job sites, in order to perform the duties set out below in paragraph (o)(3)(i) and (ii) of this section. For Class I jobs, on-site inspections shall be made at least once during each work shift, and at any time at employee request. For Class II, III, and IV jobs, on-site inspections shall be made at intervals sufficient to assess whether conditions have changed, and at any reasonable time at employee request (Subpart Z; 29 CFR 1926.1101(o)(3))."
5. "On all worksites where employees are engaged in Class I or II asbestos work, the **competent person** shall perform or supervise the following duties, as applicable:
  - a. Set up the regulated area, enclosure, or other containment;
  - b. Ensure (by on-site inspection) the integrity of the enclosure;
  - c. Set up procedures to control entry to and exit from the enclosure and/or area;
  - d. Supervise all employee exposure monitoring required by this section and ensure that it is conducted as required by paragraph (f) of this section;
  - e. Ensure that employees working within the enclosure and/or using glove bags wear respirators and protective clothing as required by paragraphs (h) and (i) of this section;
  - f. Ensure through on-site supervision, that employees set up, use, and remove engineering controls, use work practices and personal protective equipment in compliance with all requirements;
  - g. Ensure that employees use the hygiene facilities and observe the decontamination procedures specified in paragraph (j) of this section;

- h. Ensure that through on-site inspection, engineering controls are functioning properly and employees are using proper work practices; and,
  - i. Ensure that notification requirement in paragraph (k) of this section are met (Subpart Z; 29 CFR 1926.1101(o)(3)(i)).”
- 6. “For Class I and II asbestos work the **competent person** shall be trained in all aspects of asbestos removal and handling, including: abatement, installation, removal and handling; the contents of this standard; the identification of asbestos; removal procedures, where appropriate; and other practices for reducing the hazard. Such training shall be obtained in a comprehensive course for supervisors that meets the criteria of EPA’s Model Accreditation Plan (40 CFR part 763, subpart E, Appendix C), such as a course conducted by an EPA-approved or state-approved training provider, certified by EPA or a state, or a course equivalent in stringency, content, and length (Subpart Z; 29 CFR 1926.1101(o)(4)(i)).”
- 7. “For Class III and IV asbestos work, the **competent person** shall be trained in aspects of asbestos handling appropriate for the nature of the work, to include procedures for setting up glove bags and mini-enclosures, practices for reducing asbestos exposures, use of wet methods, the contents of this standard, and the identification of asbestos. Such training shall include successful completion of a course that is consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2), or its equivalent in stringency, content and length (Subpart Z; 29 CFR 1926.1101(o)(4)(ii)).”

AA. Toxic Substances – Cadmium

- 1. “**Competent person**, in accordance with 29 CFR 1926.32 (f), means a person designated by the employer to act on the employer’s behalf who is capable of identifying existing and potential cadmium hazards in the workplace and the proper methods to control them in order to protect workers, and has the authority necessary to take prompt corrective measures to eliminate or control such hazards. The duties of a **competent person** include at least the following: Determining prior to the performance of work whether cadmium is present in the workplace; establishing, where necessary, regulated areas and assuring that access to and from those areas is limited to authorized employees; assuring the adequacy of any employee exposure monitoring required by this standard; assuring that all employees exposed to air cadmium levels above the PEL wear appropriate

personal protective equipment and are trained in the use of appropriate methods of exposure control; assuring that proper hygiene facilities are provided and that workers are trained to use those facilities; and assuring that the engineering controls required by this standard are implemented, maintained in proper operating condition, and functioning properly (Subpart Z; 29 CFR 1926.1127(b)).”

2. “Prior to the performance of any construction work where employees may be potentially exposed to cadmium, the employer shall establish the applicability of this standard by determining whether cadmium is present in the workplace and whether there is the possibility that employee exposures will be at or above the action level. The employer shall designate a **competent person** who shall make this determination. Investigation and material testing techniques shall be used, as appropriate, in the determination. Investigation shall include a review of relevant plans, past reports, material safety data sheets, and other available records, and consultations with the property owner and discussions with appropriate individuals and agencies (Subpart Z; 29 CFR 1926.1127(d)(1)(i)).”
3. “Where cadmium has been determined to be present in the workplace, and it has been determined that there is a possibility the employee’s exposure will be at or above the action level, the **competent person** shall identify employees potentially exposed to cadmium at or above the action level (Subpart Z; 29 CFR 1926.1127(d)(1)(ii)).”
4. “The employer also shall institute the exposure monitoring required under paragraphs (d) (2) (i) and (d) (3) of 29 CFR 1926.1127 whenever there has been a change in the raw materials, equipment, personnel, work practices, or finished products that may result in additional employees being exposed to cadmium at or above the action level or in employees already exposed to cadmium at or above the action level being exposed above the PEL, or whenever the employer or **competent person** has any reason to suspect that any other change might result in such further exposure (Subpart Z; 29 CFR 1926.1127(d)(4)).”
5. “A **competent person** shall review the comprehensive compliance program initially and after each change (Subpart Z; 29 CFR 1926.1127(f)(5)(iii)).”

BB. Toxic Substances – 1,2-Dibromo-3-Chloropropane

“Since many of the duties relating to employee protection are dependent on the results of monitoring and measuring procedures, employers should

assure that the evaluation of employee exposures is performed by a **competent** industrial hygienist or other technically qualified **person** (Subpart Z; 29 CFR 1926.1144; makes direct reference to 29 CFR 1910.1044, Appendix B, IV.B).”

CC. Toxic Substances – Acrylonitrile

“Since many of the duties relating to employee exposure are dependent on the results of monitoring and measuring procedures, employers shall assure that the evaluation of employee exposures is performed by a **competent** industrial hygienist or other technically qualified **person** (Subpart Z; 29 CFR 1926.1145; makes direct reference to 29 CFR 1910.1045, Appendix B, IV.B).”

This supplement defines and lists the areas within the OSHA General Industry Standards where a competent person is required to be part of a particular project activity.

A. Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms

1. “**Competent person** means a person who, because of training and experience, is capable of identifying hazardous or dangerous conditions in powered platform installations and of training employees to identify such conditions (Subpart F; 29 CFR 1910.66(d)).”
2. “Related building supporting structures shall undergo periodic inspection by a **competent person** at intervals not exceeding 12 months (Subpart F; 29 CFR 1910.66(g)(2)(i)).”
3. “All parts of the equipment including control systems shall be inspected, and, where necessary, tested by a **competent person** at intervals specified by the manufacturer/supplier, but not to exceed 12 months, to determine that they are in safe operating condition. Parts subject to wear, such as wire ropes, bearings, gears, and governors shall be inspected and/or tested to determine that they have not worn to such an extent as to affect the safe operation of the installation (Subpart F; 29 CFR 1910.66(g)(2)(ii)).”
4. “A maintenance inspection and, where necessary, a test shall be made of each platform installation every 30 days, or where the work cycle is less than 30 days such inspection and/or test shall be made prior to each work cycle. This inspection and test shall follow procedures recommended by the manufacturer, and shall be made by a **competent person** (Subpart F; 29 CFR 1910.66(g)(3)(i)).”
5. “Inspection of governors and secondary brakes shall be performed by a **competent person** (Subpart F; 29 CFR 1910.66(g)(4(v)).”
6. “Suspension wire rope shall be inspected by a **competent person** for visible defects and gross damage to the rope before every use and after each occurrence which might affect the wire rope's integrity (Subpart F; 29 CFR 1910.66(g)(5)(ii)).”
7. “A thorough inspection of suspension wire ropes in service shall be made once a month. Suspension wire ropes that have been inactive for 30 days or longer shall have a thorough inspection before they are placed into service. These thorough inspections of suspension wire

ropes shall be performed by a **competent person** (Subpart F; 29 CFR 1910.66(g)(5)(iii)).”

8. “Any other condition which the **competent person** determines has significantly affected the integrity of the rope (Subpart F; 29 CFR 1910.66(g)(5)(iv)(J)).”
9. “Training of employees in the operation and inspection of working platforms shall be done by a **competent person** (Subpart F; 29 CFR 1910.66(i)(1)(iii)).”
10. “**“Competent person”** means a person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as in their application and use with related equipment (Subpart F; 29 CFR 1910.66 App. C, (I)(b)).”
11. “Personal fall arrest systems or components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection unless inspected and determined by a **competent person** to be undamaged and suitable for reuse (Subpart F; 29 CFR 1910.66 App. C, (I)(e)(7)).”
12. “**“Comment compatibility considerations.”** Ideally, a personal fall arrest system is designed, tested, and supplied as a complete system. However, it is common practice for lanyards, connectors, lifelines, deceleration devices, body belts and body harnesses to be interchanged since some components wear out before others. The employer and employee should realize that not all components are interchangeable. For instance, a lanyard should not be connected between a body belt (or harness) and a deceleration device of the self-retracting type since this can result in additional free fall for which the system was not designed. Any substitution or change to a personal fall arrest system should be fully evaluated or tested by a **competent person** to determine that it meets the standard, before the modified system is put in use (Subpart F; 29 CFR 1910.66 App. C, (III)(c)).”

## B. Explosives and Blasting Agents

1. “Magazines shall be in the charge of a **competent person** at all times and who shall be held responsible for the enforcement of all safety precautions (Subpart H; 29 CFR 1910.109(c)(5)(viii)).”
2. “Explosives recovered from blasting misfires shall be placed in a separate magazine until **competent personnel** have determined from the manufacturer the method of disposal.

Caps recovered from blasting misfires shall not be reused. Such explosives and caps shall then be disposed of in the manner recommended by the manufacturer (Subpart H; 29 CFR 1910.109(c)(5)(ix)).”

3. “Extinguishers shall be filled and ready for immediate use and located near the driver's seat. Extinguishers shall be examined periodically by a **competent person** (Subpart H; 29 CFR 1910.109(d)(2)(iii)(b)).”
4. “The distances in the table apply to ammonium nitrate that passes the insensitivity test prescribed in the definition of ammonium nitrate fertilizer promulgated by the National Plant Food Institute; and ammonium nitrate failing to pass said test shall be stored at separation distances determined by **competent persons** (Subpart H, 29 CFR 1910.109, Table H-22, Footnote (3)).”
5. “Every warehouse used for the storage of blasting agents shall be under the supervision of a **competent person** (Subpart H, 29 CFR 1910.109(g)(5)(vii)).”

#### C. Helicopters

“Cargo hooks. All electrically operated cargo hooks shall have the electrical activating device so designed and installed as to prevent inadvertent operation. In addition, these cargo hooks shall be equipped with an emergency mechanical control for releasing the load. The employer shall ensure that the hooks are tested prior to each day's operation by a **competent person** to determine that the release functions properly, both electrically and mechanically (Subpart N, 29 CFR 1910.183(d)).”

#### D. Slings

1. “**Inspections.** Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a **competent person** designated by the employer. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service (Subpart N, 29 CFR 1910.184(d)).”
2. “The thorough inspection of alloy steel chain slings shall be performed by a **competent person** designated by the

employer, and shall include a thorough inspection for wear, defective welds, deformation and increase in length. Where such defects or deterioration are present, the sling shall be immediately removed from service (Subpart N, 29 CFR 1910.184(e)(3)(iii)).”

#### E. Telecommunications

1. “**Support structures.** No employee, or any material or equipment, may be supported or permitted to be supported on any portion of a pole structure, platform, ladder, walkway or other elevated structure or aerial device unless the employer ensures that the support structure is first inspected by a **competent person** and it is determined to be adequately strong, in good working condition and properly secured in place (Subpart R, 29 CFR 1910.268(b)(6)).”
2. “**Tools and personal protective equipment -- Generally.** Personal protective equipment, protective devices and special tools needed for the work of employees shall be provided and the employer shall ensure that they are used by employees. Before each day's use the employer shall ensure that these personal protective devices, tools, and equipment are carefully inspected by a **competent person** to ascertain that they are in good condition (Subpart R, 29 CFR 1910.268(e)).”
3. “**General.** Safety belts and straps shall be provided and the employer shall ensure their use when work is performed at positions more than 4 feet above ground, on poles, and on towers, except as provided in paragraphs (n)(7) and (n)(8) of this section. No safety belts, safety straps or lanyards acquired after July 1, 1975 may be used unless they meet the tests set forth in paragraph (g)(2) of this section. The employer shall ensure that all safety belts and straps are inspected by a **competent person** prior to each day's use to determine that they are in safe working condition (Subpart R, 29 CFR 1910.268(g)(1)).”
4. “The employer shall ensure that pole climbers are inspected by a **competent person** for the following conditions: Fractured or cracked gaffs or leg irons, loose or dull gaffs, broken straps or buckles. If any of these conditions exist, the defect shall be corrected before the climbers are used (Subpart R, 29 CFR 1910.268(g)(3)(ii)).”

5. “The employer shall ensure that no employee nor any material or equipment may be supported or permitted to be supported on any portion of a ladder unless it is first determined, by inspections and checks conducted by a **competent person** that such ladder is adequately strong, in good condition, and properly secured in place, as required in Subpart D of this part and as required in this section (Subpart R, 29 CFR 1910.268(h)(1)).”
6. “The employer shall ensure that visual inspections are made of the equipment by a **competent person** each day the equipment is to be used to ascertain that it is in good condition (Subpart R, 29 CFR 1910.268(j)(1)(i)).”
7. “The employer shall ensure that tests shall be made at the beginning of each shift by a **competent person** to insure the vehicle brakes and operating systems are in proper working condition (Subpart R, 29 CFR 1910.268(j)(1)(ii)).”
8. “The employer shall ensure that the derrick and its associated equipment are inspected by a **competent person** at intervals set by the manufacturer but in no case less than once per year. Records shall be maintained including the dates of inspections, and necessary repairs made, if corrective action was required (Subpart R, 29 CFR 1910.268(j)(4)(iv)(F)).”

**URS SAFETY MANAGEMENT STANDARD 056  
DRILLING SAFETY GUIDELINES**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Drilling Safety Guidelines**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies on projects using truck-mounted or other engine-powered drill rigs. The primary responsibility for drilling safety is with the drilling contractor.

### **2. Purpose and Scope**

The purpose of this standard is to provide an overview for working safely around drilling operations with truck-mounted and other engine-powered drill rigs. The procedure addresses off-road movement of drill rigs, overhead and buried utilities, the use of augers, rotary and core drilling, and other drilling operations and activities. More detailed drilling safety guidelines are provided in the document *Environmental Remediation Drilling Safety Guidelines*.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

Drill rig safety and maintenance is the responsibility of the drill rig operator. Drilling subcontractors must be qualified in accordance with SMS 046 – Subcontractor Health and Safety Requirements.

### **4. Requirements**

#### **A. General Safety Guidelines**

URS technicians, geologists, engineers, or other field staff assigned to oversee drilling operations or collect soil samples will observe the following guidelines:

1. Require a meeting at project startup regarding the drill rig operator's responsibility for rig safety, and any site- and equipment-specific safety requirements.
2. Excluding geoprobe activities, set up any sample tables and general work areas for the URS field staff at a distance of at least the height of the fully extended mast plus 5 feet (1.52 meters), and no less than 30 feet (10 meters) from the rig.
3. URS engineers, technicians, and geologists will not assist the drillers with drilling equipment or supplies, and will not operate the drill rig controls except to activate the emergency shutoff, if needed.

## **URS SAFETY MANAGEMENT STANDARD**

### **Drilling Safety Guidelines**

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4. Require that all rotary drilling equipment have an emergency shut off/ kill switch. The location of the switch should be reviewed with all field staff.
5. Drilling rigs shall be inspected by the lead driller prior to use daily. Attachment 056-1 NA – Drill Rig Inspection Checklist may be utilized to document the inspection.

#### **B. Movement of Drill Rigs**

1. Before moving a rig, the operator must do the following:
  - a. To the extent practical, walk the planned route of travel and inspect it for depressions, gullies, ruts, and other obstacles.
  - b. Check the brakes of the truck/carrier, especially if the terrain along the route of travel is rough or sloped.
  - c. Discharge all passengers before moving on rough or steep terrain.
  - d. Engage the front axle (on 4x4, 6x6, etc., vehicles) before traversing rough or steep terrain.
2. Driving drill rigs along the sides of hills or embankments should be avoided; however, if side-hill travel becomes necessary, the operator must conservatively evaluate the ability of the rig to remain upright while on the hill or embankment. The possibility must be considered that the presence of drilling tools on the rig may reduce the ability of the rig to remain upright (raises the center of mass of the rig).
3. Logs, ditches, road curbs, and other long and horizontal obstacles should be approached and driven over squarely, not at an angle.
4. When close lateral or overhead clearance is encountered, the driver of the rig should be guided by another person on the ground.
5. Loads on the drill rig and truck must be properly stored while the truck is moving, and the mast must be in the fully lowered position.
6. After the rig has been positioned to begin drilling, all brakes and/or locks must be set before drilling begins. If the rig is positioned on a steep grade and leveling of the ground is impossible or impractical, the wheel of the transport vehicle must be blocked and other means employed of preventing the rig from moving or toppling over.

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#### C. Buried and Overhead Utilities

1. The location of overhead and buried utility lines must be determined before drilling begins, and the locations should be noted on boring plans and/or assignment sheets.
2. When overhead power lines are close by, the drill rig mast should not be raised unless the distance between the rig and the nearest power line is at the minimum distance stated in SMS 034 – Utility Clearances and Isolation. The drill rig operator or assistant should walk completely around the rig to make sure that adequate clearance exists.
3. The rig operator should be aware that when the drill rig is positioned near an overhead line, hoist lines and power lines can be moved towards each other by wind. When necessary and approved by the project manager, the utility and/or power lines may be shielded, shut down, or moved by the appropriate personnel.
4. Before performing work, for additional information, please refer to SMS 034 – Utility Clearances and Isolation.

#### D. Clearing the Work Area

1. Before a drill rig is positioned to drill, the area on which the rig is to be positioned must be cleared of removable obstacles and the rig must be leveled if it is sloped. The cleared/leveled area should be large enough to accommodate the rig and supplies.

#### E. Safe Use of Augers

1. Never place hands or fingers under the bottom of an auger flight or drill rods when hoisting the augers or rods over the top of another auger or rod in the ground or other hard surfaces, such as the drill rig platform.
2. Never allow feet to get under the auger or drill rod while they are being hoisted.
3. When the drill is rotating, stay clear of the drill string and other rotating components of the drill rig. Never reach behind or around a rotating auger for any reason.
4. Move auger cuttings away from the auger with a long-handled shovel or spade; never use hands or feet.

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### **Drilling Safety Guidelines**

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5. Never clean an auger attached to the drill rig unless the transmission is in neutral or the engine is off, and the auger has stopped rotating.
6. Do not wear loose clothing or jewelry while working near the drill rig. Long hair must be pulled back to avoid entanglement with moving parts.
7. Hearing protection is required when working near an operating drill rig.

#### F. Rod Separation

1. Do not use manual tools (e.g., pipe wrenches) in combination with rotation of the drill stem. Manual tools are not designed for the load, and may break. The use of such tools creates a significant impact hazard for those in the work area, because they rotate with the drill stem. URS does not permit drillers to use manual tools in combination with a rotating drill stem to break rods. Manual tools may be used if the drill stem is isolated/positively disengaged.
2. Mechanical means of rod separation that are permitted include:
  - a. Opposing hydraulic controls.
  - b. Rod locking devices.
  - c. Hydraulic breakout tools.
  - d. Hydraulic foot clamps.

#### G. Safe Use of Hand Tools

Review SMS 064 – Hand Safety for information regarding hand tools in addition to the guidelines provided below:

1. Use each tool to perform only tasks for which it was originally designed.
2. Repair damaged tools before use, or discard them.
3. Wear safety goggles or glasses when using a hammer or chisel. Nearby co-workers and bystanders are required to wear safety goggles or glasses also, or move away.
4. Clean tools and store them in an orderly manner when they are not in use.

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#### H. Safe Use of Wire Line Hoists, Wire Rope, and Hoisting Hardware

1. Whenever wire line hoists, wire rope, or hoisting hardware are used, the safety rules described in Title 29 Code of Federal Regulations (CFR) 1926.552, and guidelines contained in the Wire Rope User's Manual published by the American Iron and Steel Institute, will be followed. The driller will provide written reports (upon request) documenting inspections of equipment.

#### I. Traffic Safety

1. Drilling in streets, parking lots, or other areas of vehicular traffic requires definition of the work zones with cones, warning tape, etc., and compliance with local police requirements. Refer to SMS 032 – Work Zone Traffic Control.

#### J. Fire Safety

1. Fire extinguishers (type ABC) will be kept on or near drill rigs for fighting small fires.
2. If methane or other flammable gases or vapors are suspected in the area, a combustible gas indicator (CGI) will be used to monitor the air near the borehole, with all work to stop at 20 percent of the Lower Explosive Limit (LEL).
3. Work must stop during lightning storms.

#### K. Drilling at Potential MEC/UXO Sites

If the project site is suspected of containing munitions and explosives of concern (MEC) or unexploded ordnance (UXO), the UXO team will conduct a reconnaissance and MEC/UXO avoidance to provide clear access routes to each site before drilling crews enter the area. The following procedures will be implemented:

1. Drilling operations on an MEC/UXO site will not be conducted until a complete plan for the site is prepared and approved by the URS UXO Safety Officer. MEC/UXO avoidance must be conducted during drilling operations on known or suspect MEC/UXO sites. Refer to SMS 039 – Munitions Response/Munitions and Explosives of Concern.
2. The UXO team will identify and distinctly mark the boundaries of a clear approach path for the drilling crews, vehicles, and equipment to enter the site. This path will be, at a minimum, twice the width of the

## **URS SAFETY MANAGEMENT STANDARD**

### **Drilling Safety Guidelines**

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widest vehicle. No personnel will be allowed outside any marked boundary.

3. If MEC/UXO is encountered on the ground surface, the UXO team will clearly mark the area where it is found, report it to the proper authorities, and divert the approach path around it.
4. The UXO team will conduct an access survey using the appropriate geophysical instrument over the approach path for avoidance of MEC/UXO that may be in the subsurface. If a magnetic anomaly is encountered, it will be assumed to be MEC/UXO, and the approach path will be diverted around the anomaly. UXO personnel only will operate the appropriate geophysical instrument and identify MEC/UXO.
5. An incremental geophysical survey of the drill-hole location(s) will be initially accomplished by the UXO team using a hand auger to install a pilot hole. If MEC/UXO is encountered or an anomaly cannot be positively identified as inert material, Hazardous, Toxic, and Radioactive Waste (HTRW) sampling personnel will select a new drill-hole location.
6. Once the surface of a drilling site has been cleared and a pilot hole established as described above, the drilling contractor will be notified that the site is available for subsurface drilling.
7. Additional guidance for MEC/UXO support during drilling activities is provided in SMS 039 – Munitions Response/Munitions and Explosives of Concern.

#### L. Protective Gear

##### 1. Minimum Protective Gear

At a minimum, items listed below must be worn by all staff working within 30 feet (10 meters) of drilling activities.

- a. Hearing protection.
- b. Hard hat.
- c. Eye protection (safety glasses, goggles, or face-shield).
- d. Safety shoes (steel-toed shoes or boots).

# **URS SAFETY MANAGEMENT STANDARD**

## **Drilling Safety Guidelines**

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### 2. Other Gear

Items listed below must be worn when conditions warrant their use. Some of the conditions are listed after each item.

- a. Safety Harnesses and Lifelines: Safety harnesses and lifelines must be worn by all persons working on top of an elevated derrick beam or mast. Lifelines should be secured at a position that will allow a person to fall no more than 6 feet (2 meters). OSHA Fall Protection (1926 Subpart M) requirements apply. Refer to SMS 040 – Fall Protection for additional information.
- b. Life Vests: Life vests must be used for work over water. Refer to SMS 027 – Work Over Water for additional information.

### 5. Resources

- A. International Association of Drilling Contractors Safety Alerts  
<http://iadc.org/alerts.htm>
- B. U.S. Occupational Safety and Health Administration (OSHA) Standard Fall Protection – [29 CFR 1926 Subpart M](#)
- C. U.S. OSHA - [29 CFR 1926.552](#), Material Hoists, Personnel Hoists and Elevators
- D. [Environmental Remedial Safety Drilling Guidelines](#)
- E. [SMS 026](#) – Noise and Hearing Conservation
- F. [SMS 027](#) – Work Over Water
- G. [SMS 032](#) – Work Zone Traffic Control
- H. [SMS 034](#) – Utility Clearances and Isolation
- I. [SMS 039](#) – Munitions Response/Munitions and Explosives of Concern
- J. [SMS 040](#) – Fall Protection
- K. [SMS 046](#) – Subcontractor Health and Safety Requirements
- L. [SMS 064](#) – Hand Safety
- M. [Attachment 056-1 NA](#) – Drill Rig Inspection Checklist





Health, Safety and Environment  
**DRILL RIG INSPECTION CHECKLIST**

Attachment 056-1 NA  
Issue Date: December 2009

Inspect flights/augers for metal burns. NOTE: Burrs must be filed to flat surface.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Avoid stacking augers; all should lay flat on ground.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Avoid manually lifting/moving augers. Should be lifted/moved with cable lines, or, at a minimum, by two persons.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Drill String</b>	
Drill string should not be bent or have any cracks/fractures.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Drill string connecting pins should not be bent, have any cracks/fractures, or be excessively worn.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Mast</b>	
Mast is free of bends, cracks, or broken sections.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
All mounting hardware (pins, bolts, etc) should be in place.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
No moving of drill rig while mast is in vertical position.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Maintenance/repairs to be performed on mast only in horizontal position.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Hammering Device</b>	
Hammer free of cracks, fatigue, or other signs of excessive wear.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Hammer connections are secure.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Leveling Devices</b>	
Outriggers move in/out and up/down smoothly and freely while using controls on drill rig, with no hydraulics leaks.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Outriggers are extended prior to and whenever the mast is raised off its cradle. Outriggers must maintain pressure to continuously support and stabilize the drill rig (even while unattended).	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Outriggers are properly supported on the ground surface to prevent setting into the soil (use of outrigger support pads).	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Controls</b>	
Controls are intact, properly labeled, have freedom of movement, and have no loose wiring or connections.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Controls are not blocked or locked into an operating position.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Installed lights, signals, gauges, and alarms operate properly.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Lifting Devices</b>	
Slings, chokers, and lifting devices are inspected before using and are in proper working order. NOTE: Damaged units are to be labeled and removed from jobsite.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Shackles/Clevises are in proper working order with pins/screws in place that is to be used while lifting.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Cables and lifting devices are not operated erratically or with a jerking action to overcome resistance.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Hydraulic System</b>	
Hydraulic lines are secure, in good condition with no signs of excessive wear, and not leaking. NOTE: Check while pressurized.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Hydraulic lines are not in a bent or pinched position causing additional fluid restrictions/pressures.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Hydraulic oil reservoir has appropriate amount of oil and not leaking.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Documentation available to confirm that pressure relief valve was checked during shop maintenance activity and noted on maintenance log.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Pump Lines (water, grout, etc)</b>	
Suction/Discharge hoses, pipes, valves, and fittings are secured and not leaking.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
High pressure hoses have a safety chain, cable, or strap at each end to prevent whipping in the event of a failure.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Fire Prevention</b>	
A fire extinguisher of appropriate size is located on drill rig and readily available/accessible for drilling crew (recommended 20 lb).	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A

<b>URS</b>	<b>Health, Safety and Environment</b>	Attachment 056-1 NA
	<b>DRILL RIG INSPECTION CHECKLIST</b>	Issue Date: December 2009

<b>Ladders</b>	
Drill rig has a permanently attached or proper portable ladder to be used for access to drilling platform.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Tracks</b>	
Tracks on rig are not excessively worn and free of any debris or foreign material.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>General</b>	
Drill rig meets regulations for transport on state/federal highways (inspection sticker, license plate, etc.).	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Does the rig size meet job requirements?	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Maintenance log available for previous 3 months to confirm proper maintenance/inspection.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Exhaust</b>	
Exhaust system should be free from defect and routes engine exhaust away from drill rig workers.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Fuels</b>	
Fuel stored in an approved and properly labeled container.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Fuel transfer lines free from signs of excessive wear and not leaking.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
Refueling and transferring of fuel is performed in an approved area with sufficient containment to prevent spillage.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Exclusion/Work Zones</b>	
The exclusion/work zone is centered over the borehole and the radius equal to or greater than the height of the mast (measured from ground level).	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
The exclusion/work zone should be clear of tripping hazards.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Overhead Obstructions</b>	
Except where electrical distribution and transmission lines have been de-energized and visibly grounded, drill rigs will be operated proximate to under, by, or near power lines in accordance with the following: <ul style="list-style-type: none"> <li>• 50 KV or less – minimum clearance of 10 feet</li> <li>• 50 KV or greater – add 0.4 inches for every KV over 50 KV</li> <li>• If voltage is unknown, maintain at least 20 feet of clearance</li> </ul>	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Rig Repairs</b>	
Repairs, when possible, are conducted offsite to reduce the risk of any onsite incidents.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
<b>Specialized PPE</b>	
When working at elevated heights, workers are to wear a fall restraining device attached in a manner to restrict falls to less than six feet.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A
When working in wet/slippery conditions, all workers have a lug-type sole or similar slip resistant sole, on their safety footwear to prevent slipping.	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A

<b>Comments:</b>

Signature of Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

**URS SAFETY MANAGEMENT STANDARD 059**  
**COLD STRESS**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Cold Stress**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies where field crews are working outdoors in damp and cool (below 50 degrees Fahrenheit [°F] or 10 degrees Celsius [°C]) conditions or anytime temperatures are below 32°F or 0°C.

### **2. Purpose and Scope**

The purpose of this standard is to protect project personnel from hypothermia and frostbite.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

- A. Carefully plan work anticipated to be performed in cool or cold conditions. Include costs in project budgets for specialized equipment and supplies needed to complete the field activities.
- B. Monitor weather forecasts immediately prior to entering the field. If possible, schedule heavy work during the warmer parts of the day. Implement a work-warming regimen by taking breaks out of the cold.
- C. Observe and monitor weather conditions such as ambient temperature, wind speed, and precipitation while in the field. If needed, use Supplemental Information B to determine wind chill.
- D. Wearing the right clothing is the most important way to avoid cold stress. The type of fabric also makes a difference. Cotton loses its insulation value when it becomes wet. Wool, on the other hand, retains its insulation even when wet. Adequate insulating dry clothing will be required in air or wind chill temperatures below 40 °F (4.4 °C).
  1. Wear at least 3 layers of clothing to help prevent cold stress. It is important to preserve the air space between the body and the outer layer of clothing to retain body heat.
  2. Wear an outer layer to break the wind and allow some ventilation (e.g., Gortex<sup>®</sup> or nylon).

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**Cold Stress**

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3. Wear a middle layer of down, wool, or similar materials to provide insulation.
  4. Wear an inner layer of cotton or synthetic weave to allow ventilation.
  5. Wear a hat or hardhat liner. Up to 40 percent of body heat can be lost when the head is left exposed.
  6. Wear insulated boots or other insulated footwear, and insulated gloves to help reduce the chance of frostbite.
  7. Keep a change of dry clothing available in case work clothes become wet.
  8. Do not wear tight clothing. Loose clothing allows better ventilation.
  9. Skin should not be left exposed on a continuous basis when air temperature or chill factors are below -17°F (-27°C).
  10. Drink plenty of liquids, avoiding caffeine and alcohol, which are vasoconstrictors. It is easy to become dehydrated in cold weather.
- E. Use the following work practices:
1. Use Supplemental Information C to establish work/rest cycles in cold weather.
  2. Drink plenty of warm liquids. It is easy to become dehydrated in cold weather.
  3. Avoiding caffeine and alcohol. Alcohol will accelerate loss of body heat.
  4. Eat high calorie snacks to help maintain body metabolism.
  5. If possible, heavy work should be scheduled during the warmer parts of the day. Take breaks out of the cold.
  6. Work in pairs to keep an eye on each other and watch for signs of cold stress.
  7. NEVER IGNORE SHIVERING. Persistent or violent shivering is a clear warning that you are on the verge of hypothermia.
  8. Avoid exhaustion.

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- F. When possible, use the following engineering controls:
1. Provide shelter to escape cold, wind, and precipitation
  2. Provide a source of heat (such as warm packs or portable heaters).
  3. Use insulating materials on equipment handles when temperatures drop below 30°F (-1°C).
- G. Watch for symptoms and signs of hypothermia. Work in pairs to keep an eye on each other and watch for signs of cold stress.
- H. Treat cold stress illness as follows:
1. Hypothermia: Prompt treatment of hypothermia is essential. Once the body temperature drops below 95°F (35°C), the loss of temperature control occurs, and the body can no longer rewarm itself. Initial treatment includes reducing heat loss by moving the individual out of the wind and cold, removing wet clothing, applying external heat (such as a pre-warmed sleeping bag, electric blanket, or body-heat from other workers), and obtaining follow-up medical attention.
  2. Frost Bite: The initial treatment for frostbite includes bringing the individual to a warm location, removing clothing in the affected area, and **if help is delayed**, placing the affected parts in warm (100° to 104°F or 38° to 40°C) water. Do not massage or rub the frostbite area. After the initial treatment, wrap the affected area loosely in sterile gauze and seek medical attention.

For further discussion on Cold Stress treatment, please refer to Supplemental Information A.

I. Hypothermia in Water:

Loss of body heat to the water is a major cause of deaths in boating and working near water incidents. Often the cause of death is listed as drowning; however, the primary cause is often hypothermia. It should also be noted that alcohol lowers the body temperature around 2 to 3 degrees by dilating the blood vessels. Do not drink alcohol around cold water. The following table shows the effects of hypothermia in water:

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**Cold Stress**

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<b>WATER TEMPERATURE</b>	<b>EXHAUSTION</b>	<b>SURVIVAL TIME</b>
32.5°F (0°C)	Under 15 minutes	Under 15 to 45 minutes
32.5 to 40°F (0 to 4°C)	15 to 30 minutes	30 to 90 minutes
40 to 50°F (4 to 10°C)	30 to 60 minutes	1 to 3 hours
50 to 60°F (10 to 16°C)	1 to 2 hours	1 to 6 hours
60 to 70°F (16 to 21°C)	2 to 7 hours	2 to 40 hours
60 to 70°F (16 to 21°C)	3 to 12 hours	3 hours to indefinite
Over 80°F (27°C)	Indefinite	Indefinite

**SOME POINTS TO REMEMBER:**

1. Wear your PFD. Review SMS 027 – Work Over Water, SMS 053 – Marine Safety and Boat Operations and SMS 095 – Barge Operations.
2. If the water is less than 50°F (10°C), wear a wet suit or dry suit for work in water (e.g., wading), or if a significant potential to fall in water exists.
3. While in the water, do not attempt to swim unless to reach nearby safety. Unnecessary swimming increases the rate of body heat loss. Keep your head out of the water. This will increase your survival time.
4. Keep a positive attitude about your rescue. This will increase your chances of survival.
5. If there is more than one person in the water, huddling is recommended.

J. Training

Workers at risk of developing hypothermia or cold-related injury will be trained in:

1. Recognition of the signs and symptoms of cold injury or impending hypothermia;

## **URS SAFETY MANAGEMENT STANDARD**

### **Cold Stress**

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2. Proper re-warming procedures and appropriate first aid treatment;
3. Proper use of clothing;
4. Proper eating and drinking practices; and
5. Safe work practices appropriate to the work that is to be performed.

#### **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Cold stress training records.

#### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) Fact Sheets – [“Protecting Workers in Cold Environments”](#)
- B. [OSHA Publication 3156 – Quick Reference Card](#)
- C. [SMS 027](#) – Work Over Water
- D. [SMS 053](#) – Marine Safety and Boat Operations
- E. [SMS 095](#) – Barge Operations

#### **7. Supplemental Information**

- A. [Signs of, and Treatment for, Cold Stress-Related Illnesses](#)
- B. [Wind Chill Index](#) (units in °F and miles/hour, and units in °C and Kilometers/hour )
- C. [Work/Warm-up Schedule for Outside Workers](#) based on a Four-Hour Shift



**Health, Safety and Environment**  
**SIGNS OF AND TREATMENT FOR COLD  
 STRESS RELATED ILLNESSES**

SMS 059 NA  
 Supplemental Information A  
 Issue Date: February 2009

**Hypothermia:** Hypothermia results when the body loses heat faster than it can be produced. When this situation first occurs, blood vessels in the skin constrict in an attempt to conserve vital internal heat. Hands and feet are first affected. If the body continues to lose heat, involuntary shivers begin. This is the body's way of attempting to produce more heat, and it is usually the first real warning sign of hypothermia. Further heat loss produces speech difficulty, confusion, loss of manual dexterity, collapse, and finally death. Wet clothes or immersion in cold water greatly increases the hypothermia risk. The progressive clinical presentation of hypothermia is described in the table below.

**Frostbite:** Local injury resulting from cold is included in the generic term frostbite. There are several degrees of damage. Frostbite can be categorized into:

- **Frost Nip or Initial Frostbite:** (1st degree frostbite) Characterized by blanching or whitening of skin.
- **Superficial Frostbite:** (2nd degree frostbite) Skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient. Blistering and peeling of the frozen skin will follow exposure.
- **Deep Frostbite:** (3rd degree frostbite) Tissues are cold, pale, and solid; extremely serious injury with possible amputation of affected area.

Frostbite can occur without hypothermia when the extremities do not receive sufficient heat. The toes, fingers, cheeks, and ears are the most commonly affected. Frostbite occurs when there is freezing of the fluids around the cells of the affected tissues. The first symptom of frostbite is an uncomfortable sensation of coldness, followed by numbness. There may be tingling, stinging, or cramping. Contact by the skin with tools or other metal objects below 20°F (-7°C) may result in contact frostbite.

Condition	Signs/Symptoms	Treatment
Hypothermia <b>Mild</b> (98° - 90° F) (36° - 32°C)	<ul style="list-style-type: none"> <li>• shivering</li> <li>• lack of coordination</li> <li>• stumbling, fumbling hands</li> <li>• slurred speech</li> <li>• memory loss</li> <li>• pale, cold skin</li> </ul>	<ul style="list-style-type: none"> <li>• move to warm area</li> <li>• stay active</li> <li>• remove wet clothes and replace with dry clothes or blankets</li> <li>• cover the head</li> <li>• drink warm (not hot) sugary drink</li> </ul>
Hypothermia <b>Moderate</b> (90° - 86° F) (32° - 30°C)	<ul style="list-style-type: none"> <li>• shivering stops</li> <li>• unable to walk or stand</li> <li>• confused and irrational</li> </ul>	<ul style="list-style-type: none"> <li>• All of the above, plus</li> <li>• Call for an ambulance</li> <li>• Cover all extremities completely</li> <li>• Place very warm objects, such as hot packs or water bottles on the victim's head, neck, chest and groin</li> </ul>
Hypothermia <b>Severe</b> (86° - 78° F) (30° - 26°C)	<ul style="list-style-type: none"> <li>• severe muscle stiffness</li> <li>• very sleepy or unconscious</li> <li>• ice cold skin</li> <li>• death</li> </ul>	<ul style="list-style-type: none"> <li>• Call for an ambulance</li> <li>• Treat the victim very gently</li> <li>• Do not attempt to re-warm -- the victim should receive treatment in a hospital</li> </ul>
<b>Frostbite</b>	<ul style="list-style-type: none"> <li>• Cold, tingling, stinging or aching feeling in frostbitten area; numbness</li> <li>• Skin color turns red, then purple, then white or very pale skin, cold to the touch</li> <li>• Blisters in severe cases</li> </ul>	<ul style="list-style-type: none"> <li>• Seek medical attention</li> <li>• Do not rub the area</li> <li>• Wrap in soft cloth</li> <li>• If help is delayed, immerse in warm, not hot, water</li> </ul>
<b>Trench Foot</b>	<ul style="list-style-type: none"> <li>• Tingling, itching or burning sensation</li> <li>• Blisters</li> </ul>	<ul style="list-style-type: none"> <li>• Soak feet in warm water, then wrap with dry cloth bandages</li> <li>• Drink a warm, sugary drink</li> </ul>



**WIND CHILL INDEX**

Estimated wind speed	Actual temperature reading (°F/°C)											
	50/10	40/4	30/-1	20/-7	10/-12	0/-18	-10/-23	-20/-29	-30/-34	-40/-40	-50/-46	-60/-51
(mph/kph)	Equivalent wind chill temperature (°F/°C)											
0 (Calm)	50/10	40/4	30/-1	20/-7	10/-12	0/-18	-10/-23	-20/-29	-30/-34	-40/-40	-50/-46	-60/-51
5/8	48/9	37/3	27/-3	16/-9	6/-14	-5/-21	-15/-26	-26/-32	-36/-38	-47/-44	-57/-49	-68/-56
10/16	40/4	28/-2	16/-9	4/-16	-9/-23	-24/-31	-33/-36	-46/-43	-58/-50	-70/-57	-83/-64	-95/-71
15/24	36/2	22/-6	9/-13	-5/-21	-18/-28	-32/-36	-45/-43	-58/-50	-72/-58	-85/-65	-99/-73	-112/-80
20/32	32/0	18/-8	4/-16	-10/-23	-25/-32	-39/-39	-53/-47	-67/-55	-82/-63	-96/-71	-110/-79	-121/-85
25/40	30/-1	16/-9	0/-18	-15/-26	-29/-34	-44/-42	-59/-51	-74/-59	-88/-67	-104/-76	-118/-83	-133/-92
30/48	28/-2	13/-11	-2/-19	-18/-28	-33/-36	-48/-44	-63/-53	-79/-62	-94/-70	-109/-78	-125/-87	-140/-96
35/56	27/-3	11/-12	-4/-20	-20/-29	-35/-37	-51/-46	-67/-55	-82/-63	-98/-72	-113/-81	-129/-89	-145/-98
40/64	26/-3	10/-12	-6/-21	-21/-29	-37/-38	-53/-47	-69/-56	-85/-65	-100/-73	-116/-82	-132/-91	-148/-100
	<b>LOW HAZARD</b> Risk of exposed, dry skin being affected in less than one hour. Awareness of hazard low.				<b>INCREASING HAZARD</b> Danger from freezing of exposed flesh within one minute.				<b>HIGH HAZARD</b> Flesh may freeze within 30seconds.			

Note that wind speeds greater than 40 mph/64 kph have little additional effect.

Information in this table was originally developed by the U.S. Army Research Institute of Environmental Medicine, Natick, MA, and is further adapted from the 2004 *Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*, published by the ACGIH. The ACGIH publication provides the equivalent table with temperature in degrees Fahrenheit and wind speed in mph.

Equivalent wind chill temperatures identified require dry clothing to maintain core body temperature above 96.8°F (36°C).



**Health, Safety and Environment**  
**WORK / WARM-UP SCHEDULE FOR OUTSIDE WORKERS BASED ON A FOUR-HOUR SHIFT**

SMS 059 NA  
 Supplemental Information C  
 Issue Date: February 2009

How fast a person's body cools in cold weather depends on: air temperature, wind speed, heat of the sun, and work being done. The fingers and toes usually feel cold first. Shivering then sets in. Shivering is the body's way of warning that it needs to be warm-up. |

The Work Warm-Up Schedule shows the warm-up breaks needed for work in cold conditions. It assumes that normal work practice provides for breaks in warm locations every two hours. The schedule provides for additional breaks as the wind velocity at the work site increases and/or the temperature drops. Warm-up breaks should begin when the temperature reaches -15° (-26° C) with winds of 10 mph (16 km/h) or greater. When the work involves riding on an unshielded vehicle or some other activity that generates wind, the number of breaks should be increases appropriately. If effective protection against the wind can be provided by shields or screens, work modifications or measures, then the work warm-up schedule for "No Noticeable Wind" would apply.

The information below applies to any four-hour period. Warm-up breaks are assumed to provide 10 minutes in a warm environment. These guidelines apply to workers wearing dry clothing.

Air Temperature - Sunny Sky		No Noticeable Wind		5 mph Wind		10 mph Wind		15 mph Wind		20 mph Wind	
°C (approx.)	°F (approx.)	Max. work Period	No. of Breaks**	Max. Work Period	No. of Breaks						
-26° to -28°	-15° to -19°	(Norm breaks) 1		(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4
-29° to -31°	-20° to -24°	(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4	30 min.	5
-32° to -34°	-25° to -29°	75 min.	2	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease	
-35° to -37°	-30° to -34°	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease			
-38° to -39°	-35° to -39°	40 min.	4	30 min.	5	Non-emergency work should cease					
-40° to -42°	-40° to -44°	30 min.	5	Non-emergency work should cease							
-43° & below	-45° & below	Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease					

Note: All temperatures are approximate.

Apply the schedule one step lower for work with limited physical activity. For example, at -30° F (-35° C) with no noticeable wind, a worker with a job requiring little physical movement should have a maximum work period of 40 minutes with four breaks in a four-hour period.

If reliable weather reports are not available, us the following as a guide to estimate wind velocity:

- A 5 mph (8 km/h) wind will move a light flag
- A 10 mph (16 km/h) wind will fully extend the flag
- A 15 mph (24 km/h)wind will raise a newspaper sheet
- A 20 mph (23 km/h) wind will produce blowing and drifting snow.

Source: Saskatchewan Labour Occupational Health and Safety, January 2000.

**URS SAFETY MANAGEMENT STANDARD 065**  
**INJURY AND CLAIMS MANAGEMENT**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Injury and Claims Management**

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### **1. Applicability**

This standard applies to all operations of URS Corporation and its subsidiary companies.

### **2. Purpose and Scope**

This standard is designed to ensure that employees receive appropriate, immediate, and high-quality health care services that will minimize disability, promote rapid recovery, and save lives.

### **3. Implementation**

Implementation of this procedure is the responsibility of the manager directing activities of the facility, site, or project location.

### **4. Requirements**

#### **A. Pre-Injury Management**

The following proactive plans and procedures will be in place before an injury or illness occurs.

#### **1. Work Site Evaluation**

Project and office locations will evaluate their location for first aid and medical requirements. The following factors should be considered:

- a. Types of accidents that could reasonably occur.
- b. Location of local clinics and hospitals.
- c. Response time for external emergency services.
- d. If corrosive or hazardous materials are in use.
- e. Any industry specific requirements.
- f. Types of training for employees and first aid responders.
- g. What first aid supplies should be available.

## **URS SAFETY MANAGEMENT STANDARD**

### **Injury and Claims Management**

---

#### 2. First Aid Services

##### a. First Aid Responders

There will be a sufficient number (but not less than one) of employees on each shift trained in first aid to provide adequate first response medical care available at the work site if either of these conditions exist:

- i. If life-threatening injuries can reasonably be expected, trained personnel must be available within 3 to 4 minutes. This generally means that community emergency medical services cannot be relied on since their response time is usually greater than 3 minutes.
- ii. If no life-threatening injuries can reasonably be expected, the response time for trained personnel is extended to 15 minutes.

The trained first aid responders should be designated so that the other employees know who they are and how to contact them. The trained responders must have a current first aid certificate and be trained in Bloodborne Pathogens (see SMS 051 – Bloodborne Pathogens).

For certain long-term, heavily staffed, or high hazard projects, URS may opt to establish a first aid station on site. It should be staffed with a person who is a nurse, Emergency Medical Technician (EMT), or Emergency Medical Technician Paramedic (EMT-P) who may practice limited treatment under the direction of a physician.

Where clients provide the services of a first aid station, the project manager will determine the specific services provided and the administrative procedures involved. Employees requiring first aid treatment by a client-provided facility must obtain prior approval from the project manager.

##### b. First Aid Kits

- i. Each site will maintain a first aid kit in accordance with Attachment 024-9 NA – Field First Aid Kit Supply List.
- ii. First aid kits will be maintained in readily accessible locations on each job site. For mobile or vehicle-based operations in remote locations, first aid kits may be necessary in vehicles.

**URS SAFETY MANAGEMENT STANDARD**  
**Injury and Claims Management**

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- iii. Kits will be inspected prior to being sent to a work location and weekly while in use. Any items not approved for the kit will be removed during inspection.
- iv. At no time will over-the-counter medications such as antacids, aspirin, cold or cough drops, or other sundry items be stored in the kits without the written approval of the URS Occupational Health Nurse or a URS-approved health care professional.

c. Emergency Services

The project Health, Safety, and Environment (HSE) Representative, in conjunction with the project manager, will identify emergency service providers, including ambulance and hospital services. Each location will post a current list of emergency telephone numbers and maps to access local medical emergency providers (SMS 003 – Emergency Preparedness Plans). Advance contact with ambulance services to ensure they are familiar with location, access routes, and hospital locations is advised.

d. Eyewash and Safety Shower Facilities

A corrosive material is a highly reactive substance that causes obvious damage to living tissue. Corrosives act either directly by chemically destroying the part (oxidation) or indirectly by causing inflammation. A hazardous material is any substance or compound (including corrosives) that has the capability of producing adverse effects on the health and safety of humans. Review material safety data sheets for the health effects of compounds being used at the site to determine whether they meet the criteria defined previously.

If corrosive or otherwise hazardous materials are used, eyewash and body flush facilities must be provided. Where possible, these facilities should provide large quantities of clean water. The water source must be pressure controlled and clearly identified. Portable eyewash stations must contain a minimum of 1 gallon of potable water. See Supplemental Information A for additional guidance on eyewash and shower facilities.

e. Identification of Medical Facilities

The field and office location will identify a suitable local clinic, preferably specializing in occupational medicine, to treat nonemergency injuries and illnesses. In addition, a local hospital

## **URS SAFETY MANAGEMENT STANDARD**

### **Injury and Claims Management**

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emergency room will be identified for treatment of life-threatening or after hours injuries. The URS Occupational Health Nurse, the Workers' Compensation Administrator, or the workers' compensation insurance carrier representative should be contacted to provide a listing of recommended medical facilities.

The project HSE Representative should visit the medical facility and meet with the medical provider to establish expectations. Clinics should be conveniently located, clean, professionally staffed, offer multiple services, and be supportive of early return to work practices.

Field/construction projects will make appropriate arrangements with local ambulance/emergency service providers prior to the start of work activities to ensure that appropriate transportation can be provided in the event of an emergency. These arrangements include establishment of an identifiable project address and emergency access point (i.e., location to meet emergency personnel).

The project HSE Representative will communicate the following with the designated hospitals/clinics:

- i. Physical requirements for each trade.
- ii. Policies regarding availability of suitable work for partially disabled employees.
- iii. Procedures for reporting of treatment diagnosis and treatment plans to the company and its workers' compensation insurance carrier.
- iv. Requirements for alcohol and substance abuse testing per company and/or client-required substance abuse policies (as needed).

#### **B. Post-Injury Management**

##### **1. Transportation**

When employees require urgent medical attention as the result of a work-related injury/illness, transportation will be provided to the doctor's office, clinic, or hospital. Employees should not be permitted to drive unless it is safe to do so.

# **URS SAFETY MANAGEMENT STANDARD**

## **Injury and Claims Management**

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### 2. Emergency Injury/Illness Treatment

In all cases, critical injuries must be immediately referred for professional medical attention. The manner in which the referral is accomplished, and the person responsible for the referral, should be clearly defined in either a project safety plan and/or an office Emergency Preparedness Plan (SMS 003). Critical injuries/illnesses include, but may not be limited to, the following:

- a. Loss of consciousness.
- b. Unexplained chest pain.
- c. Breathing difficulty.
- d. Uncontrolled bleeding.
- e. Fractured bones.
- f. Suspected internal injuries.
- g. Suspected exposure to chemical/biological hazard.
- h. Second or third degree thermal or chemical burns (i.e., blistering).
- i. Electrocution.
- j. Unexplained change in mental state following an injury (may indicate shock or other internal injuries).

### 3. Nonemergency Injury/Illness Treatment

When a work-related incident results in a noncritical injury/illness, the primary objective is to provide appropriate medical services to diagnose and treat the injury/illness. Options available to the employee and project/office management in these situations include the following:

- a. First aid treatment and/or review by a qualified first aid responder.
- b. First aid treatment and/or review by a qualified first aid responder followed by a referral to an occupational health clinic.

Additional support for the employee and managers in these situations can also be obtained from a URS HSE professional.

## **URS SAFETY MANAGEMENT STANDARD**

### **Injury and Claims Management**

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Attachment 065-1 NA – Injury Management Procedures Flow Chart provides a flow chart to assist employees and managers in determining the most appropriate option for obtaining medical services for nonemergency injuries/illnesses.

Note: Some states allow injured workers to choose their own initial medical provider. Employees are to be cautioned that not all medical providers accept workers' compensation insurance and coverage should be verified prior to treatment if an employee lives in a state that permits him/her to elect to see their personal doctor rather than the URS-recommended physician.

#### C. Workers' Compensation Case Management

##### 1. Health and Safety

- a. Occupational Health Nurse/Workers' Compensation Administrator will
  - i. Evaluate and file workers' compensation claims for cases covered by the URS insurance program. Evaluate and provide consultation for injuries occurring in monopolistic states (Ohio, Washington, North Dakota, and Wyoming). Energy & Construction workers' compensation claims are filed by site personnel.
  - ii. Provide date of injury support to employees and supervisors, including monopolistic state claims.
  - iii. Coordinate regular follow-up of all cases, including monopolistic state claims, to ensure effective case management.
  - iv. Offer pre-injury consultation for offices and project sites.
  - v. Provide training and communication regarding the workers' compensation process.
- b. The HSE Representatives will assist with the early return to work program by interfacing with the supervisor and employee to evaluate whether appropriate and safe temporary transitional work is available.
- c. HSE Representatives will
  - i. Provide support to ensure that the requirements of this SMS are in place.

## **URS SAFETY MANAGEMENT STANDARD**

### **Injury and Claims Management**

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- ii. Provide training on this SMS.
- iii. Ensure proper reporting of incidents in accordance with SMS 049 – Injury/Illness/Incident Reporting and Notification.
- iv. Ensure that requirements of this SMS are incorporated into all project health and safety plans.

#### 2. Human Resources

The HR Representatives will forward any external communication (e.g., clinic bills, monopolistic state forms) to the Occupational Health Nurse or Workers' Compensation Administrator upon receipt.

#### 3. Supervisor

The Supervisor (or HR or HSE Representative) will

- a. Sign the Medical Treatment Referral form (Attachment 065-2 NA) prior to the employee leaving the site for medical treatment (this will not be necessary in an emergency). The employee will also be given the Medical Authorization Form (Attachment 065-3 NA) to be signed with copy provided to the employee, health care provider, and Occupational Health Nurse or Workers' Compensation Administrator.
- b. Provide transitional job assignments, with consultation and approval of the office manager, whenever possible to enable an injured worker to return to work (Return to Work Policy Attachment 065-4 NA).  
Transitional employment is defined as temporary modified or light duty work that covers the time from the injury until the release to full duty from the doctor. The return to work hierarchy includes the following:
  - i. Return to own job.
  - ii. Return to own job with accommodations/modifications.
  - iii. Return to another job at URS with or without accommodations/modifications.
  - iv. Placement in alternate jobs through telecommuting or other job assignments determined case by case.
- c. Provide, when requested by the treating physician or insurance carrier, the Description of Employee's Job Duties form (Attachment 065-5 NA).

## **URS SAFETY MANAGEMENT STANDARD**

### **Injury and Claims Management**

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- d. Maintain regular contact with employees who are temporarily disabled (contact at least weekly by phone or email).

#### 4. Employee

The employees will

- a. Report injuries immediately to their supervisors. Employees are encouraged to contact their supervisor and/or the Occupational Health Nurse or Workers' Compensation Administrator prior to seeking any medical services for nonemergency injuries and illnesses.
- b. Review and comply with Attachment 065-6 – Employee's Responsibilities.

#### D. URS will follow the recordability requirements of U.S. Occupational Safety and Health Administration (OSHA) (29 CFR 1904 and 1952) for both U.S. and international operations.

1. For Infrastructure & Environment and Federal Services, the Occupational Health Nurse will maintain OSHA 300 logs for U.S. locations. For Energy & Construction, the Business Group HSE Managers will maintain OSHA 300 logs for U.S. locations. The OSHA 300 logs (with employee names deleted) will be distributed to the U.S. locations each January. Logs will be posted from February 1 to April 30 in a location conspicuous to all employees. The posted log must not be altered, defaced, or covered by any other materials.
2. Sites working under the U.S. Mine Safety and Health Administration (MSHA) recordkeeping requirements will meet MSHA requirements, as well as track injuries using OSHA criteria for use in company HSE statistics.
3. For Infrastructure & Environment and Federal Services, the Occupational Health Nurse will make the initial decision on recordability of an injury/illness. For Energy & Construction, the Business Group HSE Manager will make the decision on recordability of an injury/illness.
4. For Infrastructure & Environment, a recordability review committee will be appointed by the Vice President HSE to review the recordable cases on a monthly basis. The review committee (based on OSHA regulations and information regarding the case) will make the final decision on recordability.

## **URS SAFETY MANAGEMENT STANDARD**

### **Injury and Claims Management**

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5. The injury/illness statistics (e.g., Total Recordable Incident Rate) will be calculated monthly and reported to URS management.
6. Completed logs of recordable cases, including any regulatory required forms (OSHA 300 logs, incident report forms, etc.) will be retained at least five years following the end of the calendar year these records cover.

#### **5. Documentation**

- A. The following documents will be maintained in the office/project safety file:
  1. Posting of medical services providers and emergency phone numbers.
  2. List of qualified first aid providers.
  3. Documentation of coordination between URS and emergency service providers for field/construction projects.
  4. Completed Injury/Illness/Incident Report Form (Attachment 049-1).
  5. Description of Employee's Job Duties form.
  6. Medical Treatment Referral form.
  7. Medical Authorization Form.
- B. The following documents will be maintained by the HR Representative and copied to the Occupational Health Nurse or Workers' Compensation Administrator.
  1. Physician's First Report of Injury and follow-up reports.
  2. Medical Treatment Referral form.
  3. Medical Authorization Form.
  4. Description of Employee's Job Duties form.

#### **6. Resources**

- A. U.S. Occupational Safety and Health Administration (OSHA) [29 Code of Federal Regulations \(CFR\) 1910.151](#) – Medical Services and First Aid
- B. [OSHA 29 CFR 1910.1030](#) – Bloodborne Pathogens
- C. [OSHA 29 CFR 1926.50](#) – Medical Services and First Aid

**URS SAFETY MANAGEMENT STANDARD**  
**Injury and Claims Management**

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- D. [OSHA 29 CFR 1904](#) – Recording and Reporting Occupational Injuries and Illnesses
- E. [OSHA 29 CFR 1952](#) – Approved State Plans for Enforcement of State Standards
- F. American National Standards Institute ([ANSI Z358.1-2004](#)) – Emergency Eyewash and Shower Equipment
- G. [OSHA Instruction CPL 2-2.53](#) – Guidelines for First Aid Programs
- H. [OSHA Safety and Health Topics: Medical and First Aid](#)
- I. Red Cross Health and Safety Services – [www.redcross.org/services/hss/](http://www.redcross.org/services/hss/)
- J. [SMS 003](#) – Emergency Preparedness Plans
- K. [SMS 024](#) – Medical Screening and Surveillance
- L. [SMS 049](#) – Injury/Illness/Incident Reporting and Notifications
- M. [SMS 051](#) – Bloodborne Pathogens
- N. Medical Services Provider – WorkCare™ 1-800-455-6155
- O. Contacts

Infrastructure & Environment	Federal Services	Energy & Construction
Occupational Health Nurse	Senior Occupational Health Nurse	Workers' Compensation Administrator
<b>Jeanette Schrimsher, RN            COHN-S</b> (866) 326-7321 (Toll Free-U.S.) (512) 656-0203 (Cell) (512) 419-6413 (Confidential Fax)	<b>BJ (Johnston) Heinrich, RN,            BSN, COHN-S</b> (877) 878-9525 (Toll Free) (512) 656-8502 (Cell) (512) 419-5252 (Confidential Fax)	<b>Terry Sower, CPCU, AIC,            CWCP</b> (208) 386-6038 (Office) (208) 890-3843 (Cell) (208) 386-5462 (Confidential Fax)

- P. [Attachment 065-1 NA](#) – Injury Management Procedures Flow Chart
- Q. [Attachment 065-2 NA](#) – Medical Treatment Referral form
- R. [Attachment 065-3 NA](#) – Medical Authorization Form
- S. [Attachment 065-4 NA](#) – Return to Work Policy
- T. [Attachment 065-5 NA](#) – Description of Employee's Job Duties

**URS SAFETY MANAGEMENT STANDARD**  
**Injury and Claims Management**

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- U. [Attachment 065-6 NA](#) – Employee’s Responsibilities
- V. [Attachment 065-7 NA](#) – Injury Management Checklist

**7. Supplemental Information**

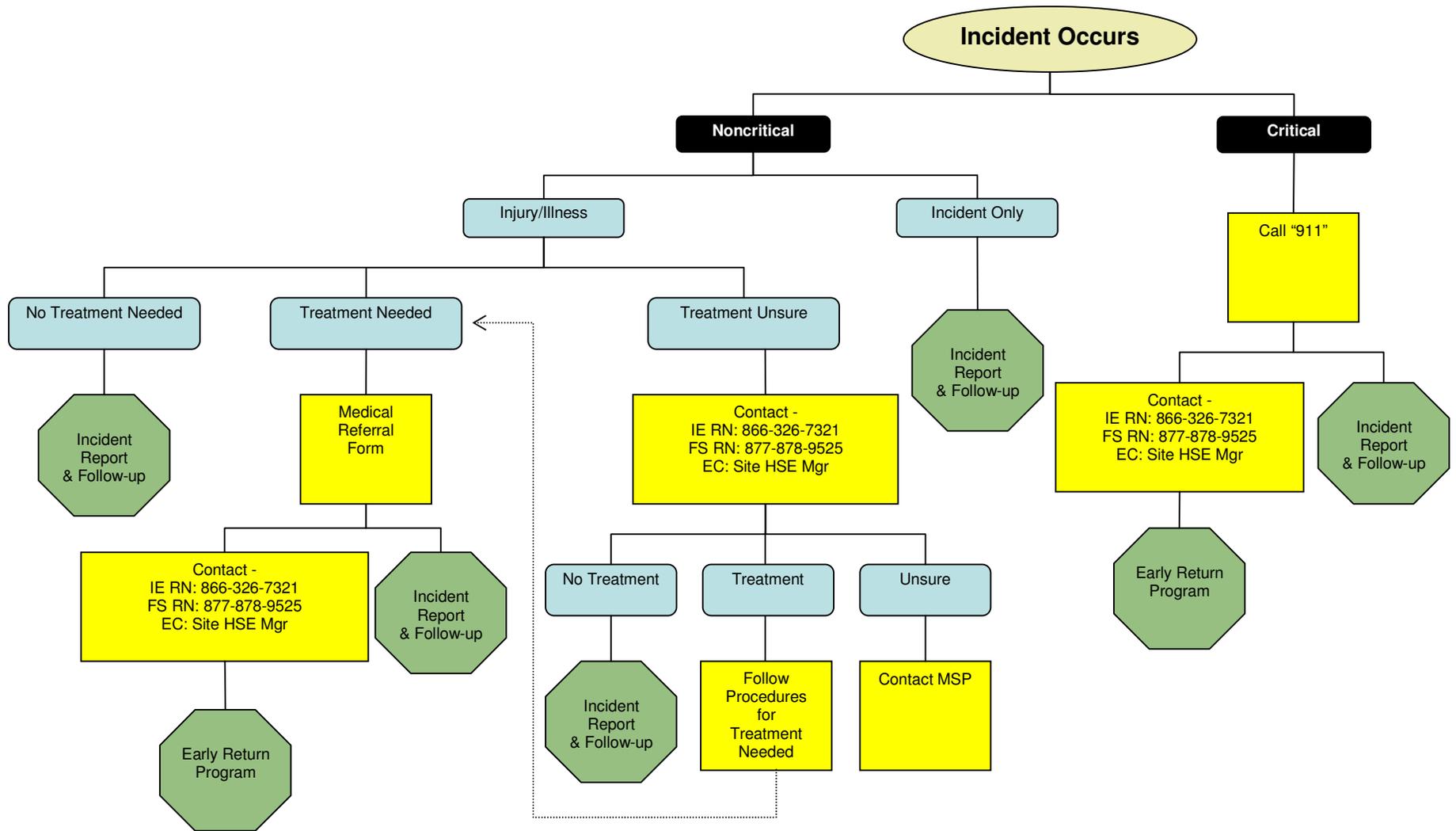
- A. [Emergency Eyewash and Shower Equipment](#)



Health, Safety and Environment  
**INJURY MANAGEMENT PROCEDURES  
FLOW CHART**

Attachment 065-1 NA

Issue Date: January 2003  
Revision 5: January 2011





Health, Safety, and Environment  
**MEDICAL TREATMENT REFERRAL**

Attachment 065-2 NA

Issue Date: January 2003  
Revision 5: January 2011

Date \_\_\_\_\_ Site Phone Number \_\_\_\_\_

URS Site Contact \_\_\_\_\_

Employee Name \_\_\_\_\_ Social Security # \_\_\_\_\_

Employee Signature \_\_\_\_\_

Brief Job Description \_\_\_\_\_

Date of Injury \_\_\_\_\_ Body Part Injured \_\_\_\_\_

Place of Injury \_\_\_\_\_

Post-accident drug and/or alcohol test required? Yes  No

**Medical Provider:**

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

Employee Transported to Medical Provider by: \_\_\_\_\_

**Workers' Compensation Claims Administrator:** **Sedgwick CMS (see attached billing locations)**  
(except for: Washington, Ohio, North Dakota, Wyoming)

For questions, please contact:

Infrastructure & Environment	Jeanette Schrimsher, RN	(866) 326-7321
Federal Services	BJ (Johnston) Heinrich, RN	(877) 878-9525
Energy & Construction	Terry Sower	(208) 386-6038

**Early Return-to-Work and Transitional Employment Policy**

**To Medical Providers:** URS Corporation values its employees and believes that it is helpful to an injured worker's recovery to return to work as soon as medically approved. Please contact us if you have any questions regarding releasing the employee to work either in a modified/light duty status or full duty clearance. Please send a work status report to the site contact listed above following the initial medical evaluation and each follow-up appointment.

\_\_\_\_\_  
Supervisor Name

\_\_\_\_\_  
Supervisor Signature



**Providers: Send medical bills to Sedgwick CMS at the office address indicated for the state where the claim is filed.**

**URS Corporation & Sedgwick Claims Management Services, Inc.**

***Workers' Compensation Claims Handling Offices***

<b>Albuquerque, NM</b>	<b>Anchorage, AK</b>	<b>Baltimore, MD</b>	<b>Boise, ID</b>
<p><b><u>States Served</u></b></p> <p>New Mexico</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14489 Lexington, KY 40512-4489 Toll-Free: 800-255-4349 Tel: 800-255-4349 Fax: 505-256-1412</p>	<p><b><u>States Served</u></b></p> <p>Alaska</p> <p><b><u>Office Information</u></b> Sedgwick CMS PO Box 14518 Lexington, KY 40512-4518 Toll-Free: 866-853-0048 Tel: 907-868-2787 Fax: 907-868-3042</p>	<p><b><u>States Served</u></b></p> <p>DC, DE, MD, PA</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14491 Lexington, KY 40512-4491 Toll-Free: 800.285.3258 Tel: 410-773-4200 Fax: 410-773-4221</p>	<p><b><u>States Served</u></b></p> <p>Idaho</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14543 Lexington, KY 40512-4543 Toll-Free: 866-253-1074 Tel: 208-385-5523 Fax: 208-385-5586</p>
<b>Charleston, WV</b>	<b>Columbia, SC</b>	<b>Dallas, TX</b>	<b>Denver, CO</b>
<p><b><u>States Served</u></b></p> <p>West Virginia</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14480 Lexington, KY 40512-4480 Toll-Free: 877-393-0022 Tel: 304-347-9600 Fax: 304-347-9610</p>	<p><b><u>States Served</u></b></p> <p>AL, GA, KY, MS NC, SC, TN, VA</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14480 Lexington, KY 40512-4480 Toll-Free: 800-426-9218 Tel: 803-551-2100 Fax: 803-750-2885</p>	<p><b><u>States Served</u></b></p> <p>Louisiana Oklahoma Texas</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14497 Lexington, KY 40512-4497 Toll-Free: 888-899-4694 Tel: 214-849-5000 Fax: 214-849-5201</p>	<p><b><u>States Served</u></b></p> <p>Arizona Colorado</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14493 Lexington, KY 40512-4493 Toll-Free: 800-507-9656 Tel: 303-713-6000 Fax: 303-713-6056</p>
<b>Freeport, ME</b>	<b>Helena, MT</b>	<b>Honolulu, HI</b>	<b>Las Vegas, NV</b>
<p><b><u>States Served</u></b></p> <p>CT, MA, ME NH, RI, VT</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14492 Lexington, KY 40512-4492 Toll-Free: 800-526-3721 Tel: 207-865-2568 Fax: 207-865-2599</p>	<p><b><u>States Served</u></b></p> <p>Montana</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14544 Lexington, KY 40512-4544 Toll-Free: 866-458-4737 Tel: 406-442-2202 Fax: 406-442-2865</p>	<p><b><u>States Served</u></b></p> <p>Hawaii</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14541 Lexington, KY 40512-4541 Tel: 808-523-3200 Fax: 808-523-3250</p>	<p><b><u>States Served</u></b></p> <p>Nevada</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14483 Lexington, KY 40512-4483 Toll-Free: 888-713-1112 Tel: 702-568-3800 Fax: 702-240-1962</p>
<b>Memphis, TN</b>	<b>Omaha, NE</b>	<b>Portland, OR</b>	<b>Rochester, NY</b>
<p><b><u>States Served</u></b></p> <p>Arkansas</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14423 Lexington, KY 40512-4423 Toll-Free: 866-856-4805 Tel: 901-566-3300 Fax: 901-566-3415</p>	<p><b><u>States Served</u></b></p> <p>IA, IL, IN, KS MI, MN, MO NE, SD, WI</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14513 Lexington, KY 40512-4513 Toll-Free: 800-486-2152 Tel: 402-496-2000 Fax: 402-496-6511</p>	<p><b><u>States Served</u></b></p> <p>Oregon</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14514 Lexington, KY 40512-4514 Toll-Free: 800-906-3147 Tel: 503-412-3948 Fax: 503-412-3990</p>	<p><b><u>States Served</u></b></p> <p>New Jersey New York</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14515 Lexington, KY 40512-4515 Toll-Free: 866-846-7757 Tel: 585-368-7700 Fax: 585-368-7710</p>
<b>Roseville, CA</b>	<b>Salt Lake City, UT</b>	<b>Tampa, FL</b>	
<p><b><u>States Served</u></b></p> <p>California</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14433 Lexington, KY 40512-4433 Toll-Free: 866-274-6586 Tel: 916-771-2900 Fax: 916-771-2990</p>	<p><b><u>States Served</u></b></p> <p>Utah</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14485 Lexington, KY 40512-4485 Toll-Free: 866-814-8220 Tel: 801-258-9700 Fax: 801-258-9730</p>	<p><b><u>States Served</u></b></p> <p>Florida</p> <p><b><u>Office Information</u></b> Sedgwick CMS P.O. Box 14437 Lexington, KY 40512-4437 Toll-Free: 888-390-9522 Tel: 813-287-4100 Fax: 813-282-6783</p>	



Health, Safety, and Environment  
**MEDICAL AUTHORIZATION FORM**

Attachment 065-3 NA  
Issue Date: January 2003  
Revision 5: January 2011

**WORKERS' COMPENSATION  
EMPLOYEE AUTHORIZATION LETTER**

To Whom It May Concern:

I, \_\_\_\_\_, hereby authorize any hospital,  
Please Print Name  
medical practitioner, clinic, other medical or medically related facility, pharmacy,  
or insurance company to furnish to URS Corporation or its subsidiaries or  
representatives (orally or in writing) information with respect to any work-related  
injury or illness, including treatments, consultations, prescriptions, and copies of  
applicable records that may be requested. I also authorize my employer to  
disclose information needed to process my workers' compensation claim.

The information provided to URS Corporation, its subsidiaries, or representatives  
is to be used solely for the administration of my workers' compensation claim.

A photocopy of this authorization is to be considered as valid as the original and  
is effective for the duration of the claim.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

- Signed copies to:  Employee  
 Medical Provider  
 URS Occupational Health Nurse/Workers' Compensation Administrator



**Health, Safety, and Environment**  
**RETURN TO WORK POLICY**

Attachment 065-4 NA

Issue Date: January 2003  
Revision 5: January 2011

Our primary goal in safety is the prevention of work-related injuries. When an injury does occur, it is the policy of URS to provide our employees with the best possible recovery program. A major component of any successful recovery program is returning the injured employee to the workforce as soon as medically possible. This type of Early Return Strategy has been shown to dramatically reduce the overall recovery time of injured workers, creating a benefit for the employee, his/her family, coworkers, and the firm.

As part of this policy, Operations; Human Resources; Health, Safety, and Environment; and our workers' compensation insurance carrier will work together with our employees and their treating physician to establish a recovery program that minimizes both the number of cases and total days away from work experienced by our employees. URS operations will accommodate transitional work (i.e., light duty or modified work) requirements for employees recovering from work related injuries, whenever possible. The work limits, as defined by the treating physician, will be strictly adhered to. Modified job assignments will be structured to meet the capacities and therapy needs of the injured employee.



**Health, Safety and Environment**  
**DESCRIPTION OF EMPLOYEE'S JOB DUTIES**

Attachment 065-5 NA

Issue Date: January 2003  
Revision 5: January 2011

Print Name: \_\_\_\_\_

Location: \_\_\_\_\_ Phone: \_\_\_\_\_

Job Title: \_\_\_\_\_ No. Hours/Day: \_\_\_\_\_ No. Days/Week: \_\_\_\_\_

**General Job Description:** \_\_\_\_\_

1. Check the frequency and number of hours a day the activity is performed:

Activity	Frequency		Number of Hours Per Day										
	Continuous	Intermittent	0	1	2	3	4	5	6	7	8	9+	
Sitting	<input type="checkbox"/>												
Walking	<input type="checkbox"/>												
Standing	<input type="checkbox"/>												
Bending	<input type="checkbox"/>												
Squatting	<input type="checkbox"/>												
Climbing	<input type="checkbox"/>												
Kneeling	<input type="checkbox"/>												
Twisting	<input type="checkbox"/>												

2. Hand manipulation required? (If yes, complete 2 a, b, c, d) Yes  No

2a. Simple grasping? Yes  No  Right  Left

2b. Power grasping? Yes  No  Right  Left

2c. Pushing and pulling? Yes  No  Right  Left

2d. Fine manipulation? Yes  No  Right  Left

3. Does the job require reaching at or above shoulder level? Yes  No

4. Does the job require use of the feet to operate foot controls? Yes  No

5. Are there special visual requirements? (Describe) Yes  No

6. Are there special hearing requirements? (Describe) Yes  No



**Health, Safety and Environment**  
**DESCRIPTION OF EMPLOYEE'S JOB DUTIES**

Attachment 065-5 NA

Issue Date: January 2003  
Revision 5: January 2011

7. Lifting and carrying (check weight lifted, frequency, and how far carried):

Weight	Frequency			Distance Carried
	Hourly	Daily	Weekly	
1-10 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
11-25 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
26-40 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
41-60 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
61-75 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

8. Environmental conditions (check yes or no):

- 8a. Work near dust, gas, vapors, or fumes? Yes  No
- 8b. Work in noisy environment? Yes  No
- 8c. Work in extremely hot temperature? Yes  No
- 8d. Work in extremely cold temperature? Yes  No
- 8e. Work at heights? Yes  No
- 8f. Walk on uneven surfaces? Yes  No

9. Equipment operated (check yes or no):

- 9a. Computer and mouse? If yes, hours per day \_\_\_\_\_ Yes  No
- 9b. Drive car, truck, or van? Yes  No
- 9c. Operate forklift or heavy equipment? Yes  No
- 9d. Other (please describe): \_\_\_\_\_

10. Comments:

Employee Signature: \_\_\_\_\_ Date of Hire: \_\_\_\_\_

Date: \_\_\_\_\_

If an employee is injured at work or becomes ill due to a work-related issue, the employee must abide by the following:

1. Employee shall immediately notify their supervisor and HSE representative, even if the employee does not believe that they need medical attention.
2. With the assistance of their supervisor, the employee shall complete SMS 049-1 (in all cases), and SMS 065-3 (Medical Treatment Referral form) if medical attention is needed.
3. If it is perceived that medical attention is needed, an employee will be provided an opportunity for a telephonic consultation with the Occupational Health Nurse (OHN). During that consultation, if it is determined that an employee will need a physician evaluation, the OHN will contact the clinic with the necessary workers' compensation billing information. Unless it is an emergency, all employees are required to obtain approval from their supervisor and OHN. This ensures that URS, the workers' compensation carrier and the clinic are notified appropriately and timely medical treatment can be provided and follow-up given.
4. Provide the Medical Treatment Referral form to the treating physician. If employees are unable to obtain the form prior to being treated (i.e., onset of symptoms during non-work hours, work in remote locations), they must notify their supervisor as soon as possible on the next scheduled workday.
5. If an employee is treated by a physician, the employee is required to inquire if a consent form will need to be signed by the employee in order for medical records to be released to the URS Occupational Health Team. (Some clinics do not accept form SMS 065-3.) The employee will also need a work status form from the physician indicating if the employee can return to work, has restrictions or must be off work.
6. This work status form must be given to the employee's supervisor and/or HSE representative **and** emailed or faxed to URS Occupational Health Team immediately after the physician visit. Contact information for the URS Occupational Health Team is presented below.

<b>Infrastructure &amp; Environment</b>	<b>Federal Services</b>	<b>Energy &amp; Construction</b>
Occupational Health Nurse	Senior Occupational Health Nurse	Workers' Compensation Administrator
<b>Jeanette Schrimsher, RN COHN-S</b>	<b>BJ (Johnston) Heinrich, RN, BSN, COHN-S</b>	<b>Terry Sower, CPCU, AIC, CWCP</b>
Toll-Free U.S.: (866) 326-7321	Toll Free: (877) 878-9525	Office: (208) 386-6038
Cell: (512) 656-0203	Cell: (512) 656-8502	Cell: (208) 890-3843
Confidential Fax: (512) 419-6413	Confidential Fax: (512) 419-5252	Confidential Fax: (208) 386-5462
Email: jeanette_schrimsher@urscorp.com	Email: bj_heinrich@urscorp.com	Email: terry.sower@wgint.com

- a. If a physician has indicated that a follow-up appointment is needed or the employee will need to schedule future follow-up appointments, the employee is required to attend the appointment regardless if the employee is feeling better or having no symptoms. There is a reason the physician felt like he/she needed to see the employee for that follow-up visit, and the visit is required to ensure proper recovery.
  - b. If an employee has been put on restrictions or is taken off work, once the employee is cleared to return to work the employee must receive a return to work without restrictions release from the physician. This updated work status report must be given to the employee's supervisor and/or HSE representative immediately. URS cannot return an employee to work without this release.
7. After every medical provider visit (whether the employee is off work/restricted work or is just having a follow-up) the employee is required to contact the URS Occupational Health Team. The employee shall provide an update as to the medical provider visit, plan of care, to ensure that the employee is getting the appropriate care in a timely manner, and to ensure that the physician is being reimbursed accordingly. The employee must also contact their supervisor and/or HSE representative to inform him/her of their work status.
  8. Once the initial information of the employee's injury/illness is received by the URS workers' compensation insurance carrier.
  9. It is likely that the employee will be contacted by the workers' compensation carrier either by letter and/or by phone.
  10. The claims adjuster, telephonic nurse case manager and/or field case manager may ask that the employee to communicate with them after every medical provider appointment as well. This would be in addition to the employee contacting the URS Occupational Health Team.

### **Off-Work or Restricted Work**

It is URS' goal to return an employee back to work as quickly as possible to decrease an employee's healing time (as supported by medical studies that earlier return to work decreases complications), promote wellness, provide support to an employee during the recovery time, and to return the employee to full wage-earning capacity.

1. If an employee is placed off work by a physician for either personal medical reasons or work-related medical reasons, the employee is required to notify Human Resources, their supervisor, HSE representative and the URS Occupational Health Team. Human Resources may have additional requirements. For extended absences, an employee will want to discuss with Human Resources the necessary steps that an employee will need to take to maintain benefits that an employee has signed up for in active status (e.g., insurance premiums for personal medical insurance, short term disability, etc.).

2. For work-related incidents, once the workers' compensation carrier has determined that the case is accepted as a claim, the employee will begin receiving workers' compensation payments. The payments will be paid at approximately 66.67% of the employee's base pay.
3. If an employee must be off work or is given restricted work for injury or illness of any kind, the employee is required to notify their supervisor immediately.
4. If an employee is absent for more than 3 days for personal illness or injury, an employee may be required to provide a physician note indicating the employee's work status and release to return to work. This will need to be provided to Human Resources and the employee's supervisor. For work-related illness or injury a physician's note is required for any absence due to an incident.

**Before an Injury**

- € Identify emergency care service providers.
- € Identify clinic for non-emergency medical care – Occupational Health physicians (give preference to Board-Certified).
- € Post instructions for reporting injuries, medical providers, contact info, and driving directions on safety bulletin board(s).
- € Develop a bank of light-duty positions with descriptions that would accommodate different levels of restrictions.
- € Develop a relationship with the physician and clinic staff (especially Office Manager):
  - Philosophy – most effective treatment, minimize OSHA recordability, minimize impact to employee, light duty always available
  - Visit clinic often to maintain relationship (quarterly)
  - Invite physician to visit site and work areas
  - Provide copies of light-duty position descriptions.
- € Implement first aid treatment program – designate/train first aid responders, keep first aid supplies readily available, etc.
- € Identify who will be responsible for contacting any employees with lost work days.
- € Train employees on program requirements:
  - Immediate reporting as a company mandate
  - Potential delay of treatment for late reporting
  - First aid treatment
  - Advantage for using Company physicians
  - Potential benefit loss and disciplinary action for unauthorized non-emergency treatment
  - Waiting periods for workers' compensation benefits.

**When an injury occurs**

- € CALL 911 (or equivalent) if this is an emergency situation.
- € Provide first aid treatment (e.g., ice, over-the-counter ibuprofen, bandages, a place to rest).
- € Initiate an immediate investigation to ensure work-related written reports (employee and witnesses); review for red flags.
- € Notify the Occupational Health Department (OHD) before non-emergency medical care; do not take to a clinic unless medically necessary.
- € Influence (or control, depending on state law) choice of treating physician.
- € Escort injured employee to and remain through medical treatment.
- € Remind clinic personnel of transitional duty and OSHA-recordable sensitive treatment.
- € Remind injured worker of transitional-duty benefits – part of the team, receive full pay, save their personal leave time.
- € Notify HSE chain-of-command and follow site communication protocol.
- € Coordinate post-incident drug and alcohol screen.
- € Review return-to-work slip before departing facility. Review restrictions; if unreasonable or unclear, discuss with clinic. Seek alternative solutions to lost time if medically feasible.
- € Accommodate any restrictions.
- € Obtain a second opinion if initial provider's diagnosis (especially lost time) is unreasonable; work closely with OHD
- € Require a return-to-work slip following **all** medical visits and provide a copy to the OHD.
- € Ensure the employee makes any follow-up visits or referrals to another provider – need to ensure to close the loop on workers' compensation claims.
- € Maintain regular and personal contact with the employee:
  - Ensure he/she shows up for work the next day
  - If on restrictions, visit regularly to ensure working within restrictions
  - If on lost time, call on a regular basis to check status (minimum weekly).

## **A. Eyewash Equipment**

Plumbed and self-contained eyewash units will meet the following specifications:

1. A controlled flow of flushing liquid will be provided to both eyes simultaneously at a velocity low enough so as to not cause injury to the user.
2. Spray nozzles will be protected from airborne contaminants. The removal of such protection during operation will not require a separate motion by the operator when activating the unit.
3. The eyewash will be designed and installed in such a manner that, once activated, it will not require the use of the operator's hands. The valve controlling the flow from the eyewash will remain open until it is intentionally closed.
4. Units will be constructed in such a manner that they will not corrode in the presence of the flushing fluid.
5. Stored flushing fluids will be protected against airborne contaminants.
6. Eyewash equipment will be capable of delivering flushing fluid to the eyes at a rate of not less than 0.4 gallons per minute (gpm), or 1.5 liters per minute (lpm), for 15 minutes.
7. The unit will be designed to provide sufficient room to allow the eyelids to be held open with the hands while the eyes are in the flushing stream.
8. The valve to open the eyewash flow will be simple to operate and will go from OFF to ON in 1 second or less.
9. The eyewash unit will be assembled and installed in accordance with the manufacturer's instructions.
10. The unit will be in an accessible location that requires no more than 10 seconds to reach. It will be on the same level as the hazard and the path of travel will be free of obstructions. For strong caustics or acids, the eyewash should be immediately adjacent to the hazard.
11. The unit will be located in an area identified with a highly visible sign positioned so that the sign will be visible within the area served by the eyewash. The area around the eyewash will be well lit.
12. The eyewash will deliver tepid flushing fluid.
13. Where the possibility of freezing conditions exists, equipment will be protected from freezing or freeze-protected equipment will be installed.

14. Plumbed eyewash equipment will be activated weekly to verify operation and ensure that flushing fluid is available. Self-contained eyewash equipment will be visually checked regularly to determine whether the flushing fluid needs to be changed or supplemented.
15. All eyewash units will be inspected annually for compliance with the requirements listed in this document.
16. Employees who may be exposed to hazardous materials will be instructed in the location and proper use of emergency eyewash units.

## **B. Shower Equipment**

Plumbed and self-contained shower units will meet the following specifications:

1. A controlled flow of flushing liquid will be provided to both eyes simultaneously at a velocity low enough so as to not cause injury to the user.
2. The shower will be designed and installed in such a manner that, once activated, it will not require the use of the operator's hands. The valve controlling the flow from the eyewash will remain open until it is intentionally closed.
3. Units will be constructed in such a manner that they will not corrode in the presence of the flushing fluid.
4. Stored flushing fluids will be protected against airborne contaminants.
5. Shower equipment will be capable of delivering flushing fluid at a rate of not less than 20 gpm (75.7lpm) for 15 minutes.
6. The valve to open the eyewash flow will be simple to operate and will go from OFF to ON in 1 second or less.
7. The eyewash unit will be assembled and installed in accordance with the manufacturer's instructions.
8. The unit will be in an accessible location that requires no more than 10 seconds to reach. It will be on the same level as the hazard, and the path of travel will be free of obstructions.
9. The unit will be located in an area identified with a highly visible sign positioned so that the sign will be visible within the area served by the shower. The area around the eyewash will be well lit.
10. The shower will deliver tepid flushing fluid.
11. Where the possibility of freezing conditions exists, equipment will be protected from freezing or freeze-protected equipment will be installed.

12. Plumbed shower equipment will be activated weekly to verify operation and ensure that flushing fluid is available. Self-contained shower equipment will be visually checked regularly to determine whether the flushing fluid needs to be changed or supplemented.
13. All eyewash units will be inspected annually for compliance with the requirements listed in this document.
14. Employees who may be exposed to hazardous materials will be instructed in the location and proper use of emergency eyewash units.

### **C. Eye/Face Wash Equipment**

Eye/face wash equipment will meet all the criteria outlined in Section A, except the equipment will be capable of delivering flushing fluid at a rate of not less than 3.0 gpm (11.4 lpm) for 15 minutes.

### **D. Combination Units**

Combination units (eyewash and shower assemblies served by a single source of flushing fluid) will meet all the criteria outlined in Section B.

**URS SAFETY MANAGEMENT STANDARD 069**  
**MANUAL MATERIAL HANDLING**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Manual Material Handling**

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### **1. Applicability**

This standard applies to URS Corporation and its subsidiary companies where personnel perform manual handling of materials. For this procedure, manual material handling (MMH) is defined as the movement of items by lifting, lowering, pushing, pulling, carrying, holding, or restraining.

### **2. Purpose and Scope**

The purpose of this standard is to prevent common injuries caused by the practice of MMH. Immediate or short-term effects include lacerations, bruises, and muscle fatigue. Long-term effects include chronic pain, frequently in the lower back but also in limb joints and ligaments.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project.

### **4. Requirements**

#### **A. General**

1. Prior to lifting, lowering, pushing, pulling, carrying, holding, or restraining an object of any significant size or weight, employees must evaluate the object and the required task to determine whether they can handle the object safely.
2. If the employee has any doubt about whether he or she can safely move the object alone, the employee should obtain additional manual or mechanical help.
3. Healthy employees with no physician-imposed restrictions should be able to lift and carry a maximum of 50 pounds (23 kilograms) using proper lifting and carrying techniques. Physical and workplace factors may reduce this recommended weight limit (RWL) significantly and should be considered prior to attempting lifts of this magnitude. Examples of physical and workplace factors may include the following:
  - a. Physical size of an object.
  - b. Slippery container surface or poor grip ability.
  - c. Sharp edges.
  - d. Slippery floors or obstacles on the floor.
  - e. Cold or hot objects surfaces.
  - f. Distance and route of travel.

## **URS SAFETY MANAGEMENT STANDARD**

### **Manual Material Handling**

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4. An employee's personal "safe" MMH capability is defined as the employee's personal capability to manually lift, carry, push, or pull an object alone. This "safe" limit must consider the employee's past experience and training with MMH, health status, and any other personal or environmental characteristics affecting the employee's ability to perform these tasks. An employee's "safe" MMH capability is typically at or below the calculated RWL. In some cases, a trained and physically conditioned employee may exceed the MMH capability limit, but only after a complete hazard review of the task has determined an acceptable risk for minimizing injury.
5. An MMH task that exceeds an employee's personal "safe" MMH capability or RWL should be brought to the attention of the applicable manager or safety supervisor for the project.
6. If, due to a medical or health condition, the employee's physician or the employee has set a personal "safe" MMH capability, then appropriate medical documentation must be provided to the applicable manager to define these limits. The manager and appropriate safety supervisor should evaluate the tasks to which that employee is assigned and recommend a specific course of action to limit the potential for injury. This should include periodic monitoring of the employee and his/her work environment.
7. A recommended RWL can be calculated using the factors described in Supplemental Information A. The weight limit derived from these calculations is considered to be a load that over 99% of men and over 75% of women can safely handle without application of engineering or administrative controls. **Implementation of the calculations in Supplemental Information A should be attempted only with the assistance of a safety professional knowledgeable in the application of these factors. The calculations are intended to determine RWLs for repetitive lifting scenarios rather than occasional lifts.**
8. Prior to any manual lift, it is suggested that the employee warm up his or her muscles and joints using a combination of stretching and flexing.

#### B. Preplanning

1. Where MMH will be a necessary function of the task, the manager and/or safety supervisor should perform a thorough evaluation of the activities to determine ergonomic solutions to reduce or eliminate conditions that can cause or contribute to MMH injuries.

## **URS SAFETY MANAGEMENT STANDARD**

### **Manual Material Handling**

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2. If a heavy object is to be moved to another location, the safest transport route should be determined prior to the activity.
3. The area around the object and the route over which it will be transported should be checked for slip, trip, and fall hazards. Hazards should be removed prior to initiation of the task.
4. The object to be moved should be inspected for grasping or handling hazards, such as slivers, sharp edges, grease, water, etc. Eliminate or abate any identified hazards where possible. Safe grasping or handling points on the object should be determined. Whenever possible, containers with carrying handles should be used for objects because they increase the manual grip strength for holding the object, thus providing better control and reduced muscle fatigue.
5. The distance to be traveled and the length of time that a grip on the object must be maintained should be considered before moving objects. If the travel distance is greater than 10 feet (3 meters) at maximum RWL, the employee should consider using an alternative method, rather than manually carrying the object.

#### C. Lifting/Lowering Guidelines

1. Reduce or eliminate manual lifting and lowering tasks where possible. Determine whether there are ways to abate the safety and ergonomic hazards associated with manual lifting.
2. The recommended technique for two-handed manual lifting/lowering involves five maneuvers:
  - a. Get a firm footing. Keep your feet apart for a stable base. Put one foot slightly in front of the other.
  - b. Bend your knees. Do not bend at the waist. When grasping the object, a firm grip should be obtained before lifting/lowering.
  - c. Lift/lower with your legs. Lift/lower the load slowly and in a straight line, avoiding sudden movements.
  - d. Keep the load close to the body. Generally, the closer the load is to the body, the less force it exerts on your back.
  - e. Keep your back straight, your head and shoulders up, and your stomach muscles tights. Do not add the weight of your body to the load. Avoid twisting.

## **URS SAFETY MANAGEMENT STANDARD**

### **Manual Material Handling**

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3. When a turn or change of direction is necessary, the object should be lifted or lowered into a carrying position, then the whole body should be turned with the feet, avoiding any trunk twisting motion.
4. Objects to be lifted to shoulder height should first be lifted to waist height, then rested on a level surface so the grasping position can be changed prior to lifting to a higher level.
5. Employees should never lift a load above their head.

#### **D. Carrying/Holding Guidelines**

1. Manual carrying is an inefficient way of transporting materials in the work place. Where possible, reduce or eliminate manual carrying tasks.
2. Never carry a load above the head.
3. Carry an object close to the body using both hands. One-handed carries are awkward and tend to unbalance the employee.
4. Do not carry objects that are so large they will obstruct visibility.
5. Do not change grips on an object while carrying or holding an object. Rest the object on a secure surface prior to changing grip.
6. If an object is of a size, shape, or mass that it requires two people to carry, use two people of similar size and physique. Two-person lifts should be planned and coordinated before performing the lift. Lift the item in unison.
7. Avoid carrying objects on stairs, particularly where the line of sight may be obstructed or the object can interfere with leg movement. All travel on stairs requires use of a handrail at all times, so only carry objects that can be safely handled with one hand. Always maintain handrail contact when carrying an object up or down stairs.

#### **E. Pushing/Pulling Guidelines**

1. Check the condition of the floor, ground, or other surface prior to pushing or pulling an object across it.
2. Be aware of the "break out" force of the object; this is the force at which a push or pull overcomes the frictional force between the surface and object. Adjust posture to avoid losing balance when this point is reached.
3. Get assistance when moving or guiding a large load.
4. Where possible, always push rather than pull a load.

## **URS SAFETY MANAGEMENT STANDARD**

### **Manual Material Handling**

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5. Never load the cart or load-carrying device in such a manner that visibility is obstructed in the path of travel.
6. When pushing or pulling an object on an inclined surface, be certain that you can control the load and direction of travel before proceeding. Obtain additional support to control the load if necessary.
7. Never leave carts or loads in an area that will present a hazard to other workers. Make sure carts or transport devices are secured in position before leaving them unattended.

#### F. Workplace Design

1. Store heavy or bulky materials at heights between the knee and shoulder to avoid the need to stretch or bend. Use step stools to access objects above shoulder height.
2. Pack or arrange items to be lifted to avoid shifting of weight in the package. If a box has hand cutouts (e.g., file archive boxes) do not load the box so full that the handles cannot be used for carrying the box.
3. Design work areas to avoid the need to lift, carry, push, or pull heavy or bulky materials for extended distances.
4. Design workplaces with the following in mind:
  - a. Lifts from the floor should be avoided.
  - b. The torso should never twist while handling loads.
  - c. Asymmetrical or unbalanced one-handed lifts should be avoided.
  - d. Loads should not be lifted with sudden movements.
  - e. Loads should not be lifted over obstacles.
  - f. Loads should not be lifted at extended forward or sideways reaches.
  - g. Uncomfortable or static postures should not be necessary throughout the work cycle.
  - h. Environmental factors (e.g., task lighting, dry work surfaces, heat or cold stress) should be considered.

#### G. Training

1. Personnel who may have MMH as part of their duties are required to receive training that includes the following topics:

## **URS SAFETY MANAGEMENT STANDARD**

### **Manual Material Handling**

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- a. Showing personnel how to avoid unnecessary physical stress and strain during MMH operations.
  - b. Teaching personnel to become aware of what they can comfortably handle without undue strain.
  - c. Instructing personnel on the proper use of equipment.
  - d. Teaching personnel to recognize potential hazards and how to prevent or correct them.
2. This training must be completed prior to an employee being assigned to a task that involves MMH activities.
  3. Assistance with training or training materials is available through the HSE staff.

#### **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Training rosters.
- B. Other proof of completion of MMH training.

#### **6. Resources**

- A. National Institute for Occupational Safety and Health (NIOSH) – Work Practices Guide for Manual Lifting <http://www.cdc.gov/niosh>
- B. Canadian Centre for Occupational Health and Safety <http://www.ccohs.ca/oshanswers/ergonomics/>
- C. Oregon OSHA – Ergonomics of Manual Materials Handling <http://www.cbs.state.or.us/external/osha/pdf/workshops/206w.pdf>
- D. North Carolina Department of Labor – A Guide to Manual Materials Handling and Back Safety <http://www.nclabor.com/osha/etta/indguide/ig26.pdf>

#### **7. Supplemental Information**

- A. [Recommended Weight Limit \(RWL\) Calculations](#)

This lifting equation, developed by the National Institute for Occupational Safety and Health (NIOSH), takes into account the weight of an object plus several other variables in lifting tasks that contribute to the risk of injury. For example, if the situation requires frequent lifts or lifting loads far away from the body, there is an increased risk of injury. Under these conditions, the weight limit would be reduced from a baseline weight or "load constant" (LC) to a recommended weight limit (RWL). A "load constant" (LC) of 23 kg (about 51 pounds) has been established by NIOSH as a load that, under ideal conditions, is safe for 75% of females and 90% of males.

To calculate the RWL, you must first measure or assess several variables related to the lifting task. The six variables that are considered in determining the RWL are:

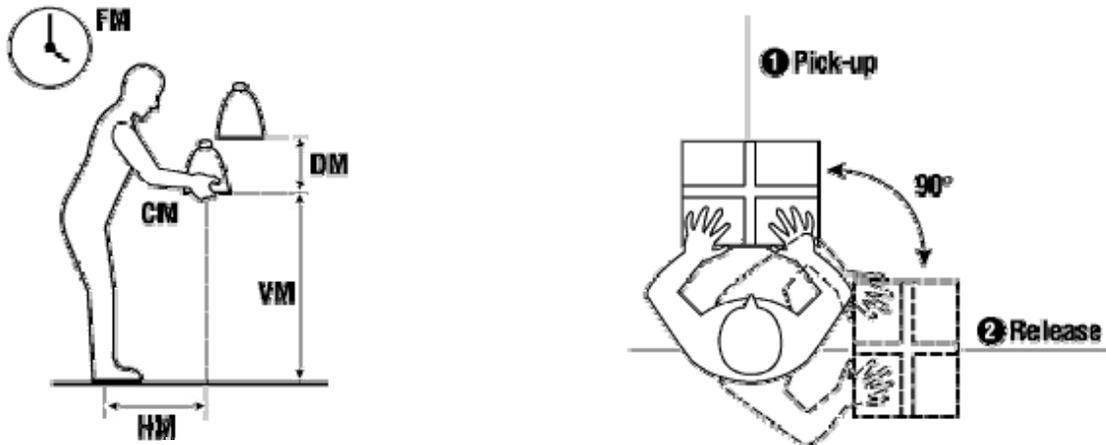
- The horizontal distance (H) the load is lifted (distance of hands from midpoint between ankles),
- The starting height of the hands from the ground (V),
- The vertical distance of lifting (D),
- The time between lifts or frequency of lifting (F),
- The angle of the load in relation to the body (e.g., straight in front of you or off to the side, A), and
- The quality of the grasp or handhold based on the type of handles available (hand-to-load coupling, C).

Each of these variables is then assigned a numerical value (multiplier factor) from look-up charts. The equation includes six multiplier factors to calculate the RWL:

$$RWL = LC \times HM \times VM \times DM \times FM \times AM \times CM$$

Where LC is the load constant (23 kg) and other factors in the equation are:

- HM, the "Horizontal Multiplier" factor,
- VM, the "Vertical Multiplier" factor,
- DM, the "Distance Multiplier" factor,
- FM, the "Frequency Multiplier" factor,
- AM, the "Asymmetric Multiplier" factor, and
- CM, the "Coupling Multiplier" factor.



**Horizontal Multiplier** is the distance the object is from the body. Measure (in centimeters) the distance from in between the person's ankles to their hands when holding the object. Write down this number. Next, look up the number on the accompanying chart and find the matching "multiplier factor". Use this factor in the lifting equation.

**Vertical Multiplier** is measured as the starting point of the lift and is the distance in centimeters of the hands up from the ground. Measure this distance and use the number to determine which value to use on the chart.

**Distance Multiplier** is the number of centimeters the load travels up (or down) from the starting position. Measure this distance and use the number to determine which value to use on the chart.

**Frequency Multiplier** is how often the lift is repeated within a certain time period. You need to determine if the lift is done while standing or stooping, for more or less than one hour (in total time for the shift), and how much time there is for rest between lifts.

**Asymmetric Multiplier** measures if the body must twist or turn during the lift. This measurement is done in degrees (with 360° being one complete circle).

**Coupling Multiplier** determines the "coupling" or type of grasp the person has on the container. It rates the type of handles as good (handles), fair (make-shift cut outs in cardboard boxes) or poor. You also need to know if the lift is done in a standing or stooping position.

When these multipliers are placed into the equation, determine the RWL. If the weight of the object to be lifted exceeds the RWL, the task is considered to be dangerous. Assess the relevant factors which contribute most to the risk (the lower the factor, the more it contributes to the risk) and redesign the handling task.

The lifting equation only applies in certain situations. It does not apply in situations where a person is lifting (or lowering):

- With one hand,
- For over 8 hours,
- While seated or kneeling,
- In a restricted work space,
- Objects that are unstable (such as buckets or containers of liquids),
- While pushing or pulling,
- With wheelbarrows or shovels,
- With high speed motion (faster than about 30 inches/second),
- Extremely hot or cold objects or in extreme temperatures, or
- With poor foot/floor coupling (high risk of a slip or fall).

This equation applies to most workers for:

- Two-handed lifting,
- Comfortable lifting postures, and
- Comfortable environments and non-slip floorings.

### **FACTORS USED IN RWL CALCULATIONS**

Horizontal Multiplier (HM): Horizontal distance (H, in cm) from the midpoint between the ankles to the hands while holding the object.

H = Horizontal Distance (cm)	HM Factor
25 or less	1.00
30	0.83
40	0.63
50	0.50
60	0.42

Vertical Multiplier (VM): The vertical distance (V, in cm) of the hands from the ground at the start of the lift.

V = Starting Height (cm)	VM Factor
0	0.78
30	0.87
50	0.93
70	0.99
100	0.93
150	0.78
175	0.70
>175	0.00

Distance Multiplier (DM): The vertical distance (D, in cm) that the load travels.

D = Lifting Distance (cm)	DM Factor
25 or less	1.00
40	0.97
55	0.90
100	0.87
145	0.85
175	0.85
>175	0.00

Asymmetric Multiplier (AM): The twisting angle (A) of the body while lifting, measured in degrees.

A = Angle (degrees)	AM Factor
90°	0.71
60°	0.81
45°	0.86
30°	0.90
0°	1.00

**Frequency Multiplier (FM):** The frequency (F) of lifts and the duration of lifting (in minutes or seconds) over a work shift.

F = Time Between Lifts	FM Factor			
	Lifting While Standing		Lifting While Stooping	
	One Hour or Less	Over One Hour	One Hour or Less	Over One Hour
5 min	1.00	0.85	1.00	0.85
1 min	0.94	0.75	0.94	0.75
30 sec	0.91	0.65	0.91	0.65
15 sec	0.84	0.45	0.84	0.45
10 sec	0.75	0.27	0.75	0.27
6 sec	0.45	0.13	0.45	-
5 sec	0.37	-	0.37	-

**Coupling Multiplier (CM):** The quality of grasp (or coupling, C) classified as good, fair or poor and depends on the body position (either standing or stooping).

C = Grasp	CM Factor	
	Standing	Stooping
Good (handles)	1.00	1.00
Fair	1.00	0.95
Poor	0.90	0.90

**URS SAFETY MANAGEMENT STANDARD 072**  
**BEHAVIOR BASED SAFETY**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Behavior-Based Safety**

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### **1. Applicability**

This standard applies to all operations of URS Corporation and its subsidiary companies.

### **2. Purpose and Scope**

The purpose of this standard is to describe the URS approach to implementing our behavior-based safety program.

Behavior-based safety is a process that provides a higher level of safety excellence by promoting proactive involvement, building ownership, and fostering communication that relates to employee safety. A primary concept is that most accidents are due to at-risk behavior, and behavioral changes may be made that significantly reduce accident potential.

### **3. Implementation**

Implementation of this procedure is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

#### **A. Definitions**

1. **At-Risk Behavior:** Individual actions that increase the chance of injury, despite knowledge of the hazard. An example is excessive speed while driving.
2. **Activators:** Items that are intended to produce desired behaviors. URS activators for safety include, but are not limited to, policy statements, safety management standards (SMS), training, safety slogans, posters and signs, health and safety plans, safe work plans, safety meetings, and rules and regulations.
3. **Behaviors:** Visible actions on the part of individuals and can be characterized as safe (following health and safety plans, using work practices that minimize risk, coaching others on safe behavior, having safety as a priority over speed and convenience, etc.), or at-risk.
4. **Consequences:** Result of safe and at-risk behaviors, and can therefore be positive or negative. Examples of consequences include self-approval, reprimand, peer approval, penalty, feedback, inconvenience, and comfort. The most effective consequences are positive, immediate, and certain.

## **URS SAFETY MANAGEMENT STANDARD**

### **Behavior-Based Safety**

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#### B. Values of Behavior-Based Safety

1. Employees hold safety as a core value.
2. Each employee feels responsible for the safety of their coworkers as well as themselves, and takes action accordingly.
3. Each employee is willing and able to “go beyond the call of duty” on behalf of the safety of others.

#### C. Roles for Safe Behavior

1. Supervisor’s Role:
  - a. Provide clearly defined safety expectations and encourage/reinforce the implementation of safety observations using the SMS 072-1 NA checklist or equivalent.
  - b. Provide consequences for observed behaviors throughout the course of the work shift.
2. Co-Worker Role
  - a. Intervene when observing at-risk behavior.
  - b. Provide positive feedback for safe behavior.
  - c. Volunteer to be observed.

#### C. Identification of At-Risk Behaviors

Observations and review of incident and near miss data will be used by URS Safety Officers to help identify at-risk behavior.

1. Employee observations.
  - a. Observation checklists, either project-specific or Attachment 072-1 NA, will be used as a tool to help identify safe and at-risk behaviors and why the behavior(s) occurred.
  - b. Employees will be instructed on using the checklists.
  - c. Checklists will be included in the site-specific health and safety plan or the safe work plan.
  - d. The checklists will include the expected safe behaviors.

## **URS SAFETY MANAGEMENT STANDARD**

### **Behavior-Based Safety**

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- e. Peers will complete the checklist for applicable work tasks.
- f. Checklists may change throughout the project to include additional behaviors.

#### **E. Feedback to Employees**

- 1. Observers will immediately provide one-on-one feedback to the observed, noting both safe and at-risk behaviors.
- 2. Observer and observee will discuss the identified barriers to safe behavior, and potential solutions.
- 3. Near-Miss and Incident Reports will be reviewed to identify at-risk behaviors and corrective actions.
- 4. Management and Health, Safety, and Environment staff will verify compliance with this standard.

#### **F. Feedback Follow-up**

- 1. Observation checklists will be collected and discussed at periodic safety meetings.
- 2. The manager will review the trends for at-risk and safe behavior, and report the trends to the employees.
- 3. Project-specific trends are analyzed and areas of additional action are identified.

### **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Behavior-Based Safety Checklists.

### **6. Resources**

[Attachment 072-1 NA](#) – Behavior-Based Safety Checklist



Health, Safety and Environment  
**BEHAVIOR BASED SAFETY  
CHECKLIST**

Attachment 072-1 NA

Issue Date: September 2003  
Revision 2: February 2009

Job Location: \_\_\_\_\_

Date: \_\_\_\_\_

Task/Work Observed: \_\_\_\_\_

Observer: \_\_\_\_\_

	<u>Safe</u>	<u>Unsafe</u>	<u>Comments *</u>
<b>Personal Protective Equipment</b>			
Head	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hand	<input type="checkbox"/>	<input type="checkbox"/>	_____
Feet	<input type="checkbox"/>	<input type="checkbox"/>	_____
Eyes/Face	<input type="checkbox"/>	<input type="checkbox"/>	_____
Skin	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hearing	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fall Protection	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Equipment / Tools</b>			
Proper tool for the job	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper Use	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Body Use / Position</b>			
Lifting	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pinch Point	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ladder / stairs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hand placement	<input type="checkbox"/>	<input type="checkbox"/>	_____
Travel path / speed	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body position	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Work Practices</b>			
Follow Safety Plan / Procedures	<input type="checkbox"/>	<input type="checkbox"/>	_____
Housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Other</b>			
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

\* Use comment column when unsafe behavior / conditions were observed. Describe what was observed and why this occurred.

**URS SAFETY MANAGEMENT STANDARD 084  
LONE WORKER**

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# **URS SAFETY MANAGEMENT STANDARD**

## **Lone Worker**

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### **1. Applicability**

This standard is applicable to URS Corporation and its subsidiary companies.

### **2. Purpose and Scope**

The purpose of this standard is to provide a policy for managing lone workers while working at field sites.

Individuals are considered to be “lone workers” when their normal duties require them to work where they cannot be seen or heard by another person; cannot expect a visit from another worker or member of the public during the normal course of their work; and/or where assistance is not readily available.

### **3. Implementation**

Implementation of this standard is the responsibility of the URS manager directing activities of the facility, site, or project location.

### **4. Requirements**

- A. Conduct a hazard assessment to determine:
  - 1. Type or nature of work being conducted by the lone worker;
  - 2. Location of the work;
  - 3. Length of time worker will be working alone;
  - 4. Characteristics of the individual working alone that may increase the risk to that worker (e.g., medical conditions);
  - 5. Hazards of the work location that may increase the risk to that worker (e.g., high crime area); and
  - 6. The working conditions the lone worker may experience (e.g., heat/cold stress, unstable terrain, wild animals).
- B. Prohibit individuals from acting as “lone workers” if work activities involve any of the following:
  - 1. Working from heights greater than 3 feet (1 meter).
  - 2. Confined spaces.

## **URS SAFETY MANAGEMENT STANDARD**

### **Lone Worker**

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3. Work involving electricity.
4. Work over or near water.
5. Working in an area where there is an increased potential for violence.
6. Work in hazardous areas of mine sites.

#### C. Prepare a Lone Worker Communication Plan.

1. Using Attachment 084-1 NA (or equivalent) – Lone Work Communication Plan, determine the frequency of contact the lone worker will make with the Project Manager or designated alternate (PM).
2. Determine the method of contact that will be made with the lone worker by the PM. If the use of a cell phone is the primary method of contact, cell phone coverage in the area of the work location must be verified prior to work activities beginning.
3. Establish a contingency plan that will address steps to be taken if the lone worker does not contact the PM at the frequency established in Attachment 084-1 NA. The contingency plan should be specific and assign roles and responsibilities.
4. Discuss the communication plan with the lone worker prior to work activities beginning.
5. Both the lone worker and PM must sign Attachment 084-1.
6. A copy of Attachment 084-1 NA will be given to the lone worker prior to work activities beginning. The PM will maintain a copy until the work has been completed. After the work has been completed, Attachment 084-1 NA will be placed in the project safety file.

#### **5. Documentation Summary**

The following documentation will be maintained in the project file:

- A. Lone Worker Communication Plan

**URS** SAFETY MANAGEMENT STANDARD  
**Lone Worker**

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**6. Resources**

- A. [Working Alone in Safety/Controlling the Risks of Solitary Work](#)
- B. [Facts: Violence at Work](#)
- C. [Attachment 084-1 NA](#) – Lone Worker Communication Plan



Health, Safety and Environment  
**LONE WORKER COMMUNICATION PLAN**

Attachment 084-1 NA  
Issue Date: May 2007  
Revision 1: February 2009

Project Name: \_\_\_\_\_ Project Location: \_\_\_\_\_

Project Manager: \_\_\_\_\_ Project Number: \_\_\_\_\_

Lone Worker: \_\_\_\_\_ Expected Dates;  
Duration of Work  
Activities: \_\_\_\_\_

Work Activities:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Frequency of contact with the Project Manager/Supervisor:  
\_\_\_\_\_

Method of contact with the Project Manager/Supervisor:  
\_\_\_\_\_

Contingency plan if contact does not occur. Be specific.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The Lone Worker and Project Manager/Supervisor have reviewed this Lone Work Communication Plan. Both the Lone Worker and the Project Manager/Supervisor understand their responsibilities as stated in this Lone Worker Communication Plan.

**Lone Worker:**

\_\_\_\_\_  
Name Signature Date

**Project Manager/Supervisor:**

\_\_\_\_\_  
Name Signature Date

**APPENDIX B**  
**MATERIAL SAFETY DATA SHEETS/SAFETY CARDS**

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## MSDSs/SAFETY CARDS CONTAINED IN THIS APPENDIX

### Contaminants of Concern

#### **Volatile Organic Compounds**

Chloroethane  
1,1-dichloroethane  
1,1-dichloroethene  
1,1,1-trichloroethane

#### **Semi-Volatile Organic Compounds**

Benzo(a)anthracene    Benzo(a)pyrene  
Benzo(b)fluoranthene    Benzo(k)fluoranthene  
Chrysene                      Dibenzo(a,h)anthracene  
Naphthalene                  Phenol  
Indeno(1,2,3-cd)pyrene

#### **Metals**

Arsenic                          Barium  
Cadmium                        Calcium  
Copper                          Lead  
Magnesium                      Mercury  
Selenium                        Zinc

#### **Pesticides**

Dieldrin  
Gamma-BHC  
Endrin

### Materials Brought to Site

Alconox<sup>®</sup>                        Antifreeze  
Bentonite                        DEET  
Diesel fuel                       Gasoline (unleaded)  
Hydrochloric Acid              Isobutylene (isobutene)  
Motor Oil                        Nitric Acid  
Nitrogen                         Portland Cement  
Permanone<sup>®</sup>                      Trisodium Phosphate

## **CONTAMINANTS OF CONCERN**

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## **VOLATILE ORGANIC COMPOUNDS**

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# Material Safety Data Sheet

## Chloroethane

ACC# 89460

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Chloroethane**Catalog Numbers:** AC404600000, AC404601000, AC404605000**Synonyms:** Ethyl chloride; monchloroethane.**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
75-00-3	Ethyl chloride	ca.100	200-830-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless gas. Flash Point: -50 deg C.

**Danger!** Extremely flammable liquid and vapor. Vapor may cause flash fire. Possible risks of irreversible effects. May cause eye and skin irritation. May cause respiratory tract irritation. Cancer suspect agent. Dangerous for the environment.

**Target Organs:** Reproductive system.**Potential Health Effects****Eye:** May cause eye irritation.**Skin:** May cause skin irritation.**Ingestion:** May cause irritation of the digestive tract.**Inhalation:** May cause respiratory tract irritation. Vapors may cause dizziness or suffocation.

Inhalation of vapors causes irritation of the mucous membranes.

**Chronic:** Possible risk of irreversible effects.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT

induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Extremely flammable liquid and vapor. Containers may explode in the heat of a fire. Will be easily ignited by heat, sparks or flame.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Use agent most appropriate to extinguish fire. Do NOT use straight streams of water.

**Flash Point:** -50 deg C ( -58.00 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 4; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Refrigerator/flammables.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

**Exposure Limits**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethyl chloride	100 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route	3800 ppm IDLH (10% LEL)	1000 ppm TWA; 2600 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** Ethyl chloride: 1000 ppm TWA; 2600 mg/m<sup>3</sup> TWA

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Gas

**Appearance:** colorless

**Odor:** pungent odor

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** 2.22

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 12 - 14 deg C

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** Not available.

**Solubility:** Not available.

**Specific Gravity/Density:** 9200g/cm<sup>3</sup>

**Molecular Formula:** C<sub>2</sub>H<sub>5</sub>Cl

**Molecular Weight:** 64.51

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Forms explosive mixtures with air (flash point -58°F/-50°C).

**Conditions to Avoid:** Incompatible materials, ignition sources, moisture, excess heat, strong oxidants.

**Incompatibilities with Other Materials:** Metals, strong oxidizing agents, plastics, rubber, potassium, sodium.

**Hazardous Decomposition Products:** Hydrogen chloride, carbon monoxide, carbon monoxide, carbon dioxide, phosgene gas.

**Hazardous Polymerization:** Has not been reported

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 75-00-3: KH7525000

**LD50/LC50:**

**CAS#** 75-00-3:

Inhalation, mouse: LC50 = 121300 mg/m<sup>3</sup>/2H;

Inhalation, rat: LC50 = 152 gm/m<sup>3</sup>/2H;

Inhalation, rat: LC50 = 150000 mg/m<sup>3</sup>/2H;

**Carcinogenicity:**

**CAS#** 75-00-3:

- **ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
- **California:** carcinogen, initial date 7/1/90
- **NTP:** Not listed.
- **IARC:** Not listed.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information found.

**Physical:** No information found.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 75-00-3 is listed on the TSCA inventory.

#### Health & Safety Reporting List

CAS# 75-00-3: Effective 6/1/87, Sunset 6/1/97

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 75-00-3: 100 lb final RQ; 45.4 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPO.

#### SARA Codes

CAS # 75-00-3: immediate, delayed, fire, sudden release of pressure.

#### Section 313

Ethyl chloride is not at a high enough concentration to be reportable under Section 313. No chemicals are reportable under Section 313.

#### Clean Air Act:

CAS# 75-00-3 is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CAS# 75-00-3 is listed as a Priority Pollutant under the Clean Water Act.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 75-00-3 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

#### The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Ethyl chloride, a chemical known to the state of California to cause cancer.

California No Significant Risk Level: CAS# 75-00-3: 150 æg/day NSRL

### European/International Regulations

**European Labeling in Accordance with EC Directives****Hazard Symbols:**

XN F+

**Risk Phrases:**

R 12 Extremely flammable.

R 40 Limited evidence of a carcinogenic effect.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**

S 16 Keep away from sources of ignition - No smoking.

S 33 Take precautionary measures against static discharges.

S 36/37 Wear suitable protective clothing and gloves.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 9 Keep container in a well-ventilated place.

S 28A After contact with skin, wash immediately with plenty of water

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 75-00-3: 2

**Canada - DSL/NDSL**

CAS# 75-00-3 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of B1, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 75-00-3 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
--

**MSDS Creation Date:** 4/05/1997**Revision #9 Date:** 11/20/2008

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# International Chemical Safety Cards

## 1,1-DICHLOROETHANE

ICSC: 0249

### 1,1-DICHLOROETHANE

Ethane, 1,1-dichloro-

Ethylidene chloride



Molecular mass: 99.0

CAS # 75-34-3

RTECS # KI0175000

ICSC # 0249

UN # 2362

EC # 602-011-00-1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Powder, water spray, foam, carbon dioxide.
<b>EXPLOSION</b>	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.
<b>EXPOSURE</b>		PREVENT GENERATION OF MISTS!	
• <b>INHALATION</b>	Dizziness. Drowsiness. Dullness. Nausea. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
• <b>SKIN</b>	Dry skin. Roughness.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
• <b>EYES</b>	Redness. Pain.	Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>	Burning sensation (further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer (extra personal protection: self-contained breathing apparatus).	Fireproof. Separated from: see Chemical Dangers. Cool.	F symbol Xn symbol R: 11-22-36/37 S: 16-23 UN Hazard Class: 3 UN Packing Group: II Marine pollutant.	

## SEE IMPORTANT INFORMATION ON BACK

ICSC: 0249

Prepared in the context of cooperation between the International Programme on Chemical Safety &amp; the Commission of the European Communities © IPCS CEC 1993

## International Chemical Safety Cards

## 1,1-DICHLOROETHANE

ICSC: 0249

I M P O R T A N T  D A T A	<p><b>PHYSICAL STATE; APPEARANCE:</b> COLOURLESS LIQUID , WITH CHARACTERISTIC ODOUR.</p> <p><b>PHYSICAL DANGERS:</b> The vapour is heavier than air and may travel along the ground; distant ignition possible.</p> <p><b>CHEMICAL DANGERS:</b> The substance decomposes on heating and on burning producing toxic and corrosive fumes including phosgene (see ICSC 0007) and hydrogen chloride (see ICSC 0162). Reacts violently with strong oxidants, alkali metals and earth-alkali metals, powdered metals, causing fire and explosion hazard. Attacks aluminium, iron and polyethylene. Contact with strong caustic will cause formation of flammable and toxic acetaldehyde gas.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS (OELs):</b> TLV: 100 ppm; 405 mg/m<sup>3</sup> (ACGIH 1992-1993).</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation and by ingestion.</p> <p><b>INHALATION RISK:</b> A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20°C.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The substance may cause effects on the central nervous system. Exposure at high levels may result in unconsciousness.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> The liquid defats the skin. The substance may have effects on the kidneys and liver.</p>
	<p><b>PHYSICAL PROPERTIES</b></p> <p>Boiling point: 57°C Melting point: -98°C Relative density (water = 1): 1.2 Solubility in water, g/100 ml at 20°C: 0.6 Vapour pressure, kPa at 20°C: 24</p>	<p>Relative vapour density (air = 1): 3.4 Flash point: -6°C c.c. Auto-ignition temperature: 458°C Explosive limits, vol% in air: 5.6-11.4 Octanol/water partition coefficient as log Pow: 1.8</p>
<b>ENVIRONMENTAL DATA</b>		
<b>NOTES</b>		
Do NOT use in the vicinity of a fire or a hot surface, or during welding.		
Transport Emergency Card: TEC (R)-30G34 NFPA Code: H 2; F 3; R 0;		
<b>ADDITIONAL INFORMATION</b>		
ICSC: 0249		1,1-DICHLOROETHANE

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LEGAL  
NOTICE:**

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## CHEM SERVICE INC -- F29 1,1-DICHLOROETHENE -- 6550-00F037520

## ===== Product Identification =====

Product ID:F29 1,1-DICHLOROETHENE  
MSDS Date:10/13/1992  
FSC:6550  
NIIN:00F037520  
MSDS Number: BWJGQ  
=== Responsible Party ===  
Company Name:CHEM SERVICE INC  
Address:660 TOWER LN  
Box:3108  
City:WEST CHESTER  
State:PA  
ZIP:19381-3108  
Country:US  
Info Phone Num:215-692-3026/800-452-9994  
Emergency Phone Num:215-692-3026/800-452-9994  
CAGE:84898

## === Contractor Identification ===

Company Name:CHEM SERVICE INC  
Box:3108  
City:WEST CHESTER  
State:PA  
ZIP:19381  
Country:US  
Phone:215-692-3026  
CAGE:84898  
Company Name:CHEM SERVICE, INC  
Address:660 TOWER LN  
Box:599  
City:WEST CHESTER  
State:PA  
ZIP:19301-9650  
Country:US  
Phone:610-692-3026  
CAGE:8Y898

## ===== Composition/Information on Ingredients =====

Ingred Name:VINYLIDENE CHLORIDE, 1,1-DICHLOROETHENE,  
1,1-DICHLOROETHYLENE, VDC  
CAS:75-35-4  
RTECS #:KV9275000  
Other REC Limits:5 PPM  
OSHA PEL:1 PPM  
ACGIH TLV:5 PPM  
EPA Rpt Qty:100 LBS  
DOT Rpt Qty:100 LBS

## ===== Hazards Identification =====

LD50 LC50 Mixture:ORAL LD50 (RAT/MOUSE): 200 MG/KG  
Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:LACHRYMATOR-EYES: SEVERE IRRITATION.  
SKIN: IRRITATION/ALLERGIC REACTIION/SENSITIZATION. INHALATION:  
MUCOUS MEMBRANE IRRITATION. EXPOSURE CAN CAUSE LIVER & KIDNEY

DAMAGE/NERVOUS & CARDIOVASCULAR SYSTEM INJURY/DELAYED ADVERS  
HEALTH EFFECTS. NARCOTIC AT HIGH CONCENTRATIONS.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:IRRITATION.

=====  
First Aid Measures  
=====

First Aid:EYES: FLUSH CONTINUOUSLY W/WATER FOR 15-20 MINS. SKIN: FLUSH  
W/WATER FOR 15-20 MINS. IF NOT BURNED, WASH W/SOAP & WATER.  
INHALATION: REMOVE TO FRESH AIR. GIVE CPR/OXYGEN IF NEEDED. KEEP  
WARM & QUIET. INGESTION: DON'T INDUCE VOMITING/GIVE LIQUIDS IF  
UNCONSCIOUS/CONVULSING. IF VOMITING OCCURS, WATCH CLOSELY FOR ANY  
AIRWAY OBSTRUCTION. OBTAIN MEDICAL ATTENTION IN ALL CASES.

=====  
Fire Fighting Measures  
=====

Flash Point:5F

Extinguishing Media:CO2, DRY CHEMICAL POWDER. DON'T USE WATER.

Unusual Fire/Explosion Hazard:FLAMMABLE CHEMICAL. EXPLOSIVE. TENDS TO  
DEVELOP PRESSUE ON STANDING. SENSITIVE TO HEAT & AIR. MAY  
POLYMERIZE UPON STANDING.

=====  
Accidental Release Measures  
=====

Spill Release Procedures:EVACUATE AREA. WEAR APPROPRIATE OSHA  
REGULATED EQUIPMENT. VENTILATE AREA. ABSORB ON VERMICULITE/SIMILAR  
MATERIAL. SWEEP UP & PLACE IN APPROPRIATE CONTAINER/HOLD FOR  
DISPOSAL. WASH CONTAMINATED SURFAC ES TO REMOVE ANY RESIDUES.

=====  
Handling and Storage  
=====

Handling and Storage Precautions:STORE IN A COOL DRY PLACE ONLY  
W/COMPATIBLE CHEMICALS. KEEP TIGHTLY CLOSED. STORE UNDER NITROGEN &  
REFRIGERATION. FOR LABORATORY USE ONLY.

Other Precautions:AVOID CONTACT W/SKIN, EYES & CLOTHING. DON'T BREATH  
VAPORS. CONTACT LENSES SHOULDN'T BE WORN IN THE LABORATORY. ALL  
CHEMICALS SHOULD BE CONSIDERED HAZARDOUS. AVOID DIRECT PHYSICAL  
CONTACT.

=====  
Exposure Controls/Personal Protection  
=====

Respiratory Protection:WEAR APPROPRIATE OSHA/MSHA APPROVED SAFETY  
EQUIPMENT.

Ventilation:CHEMICAL SHOULD BE HANDLED ONLY IN A HOOD.

Eye Protection:EYE SHIELDS

Work Hygienic Practices:REMOVE/LAUNDER CONTAMINATED CLOTHING BEFORE  
REUSE.

Supplemental Safety and Health

=====  
Physical/Chemical Properties  
=====

Boiling Pt:B.P. Text:87.06F

Melt/Freeze Pt:M.P/F.P Text:-188.5F

Solubility in Water:INSOLUBLE

Appearance and Odor:COLORLESS LIQUID W/FRUITY/PLEASANT ODOR.

=====  
Stability and Reactivity Data  
=====

Stability Indicator/Materials to Avoid:NO

Stability Condition to Avoid:HEAT, AIR, UPON STANDING.

Conditions to Avoid Polymerization:UPON STANDING.

===== Disposal Considerations =====

Waste Disposal Methods:BURN IN A CHEMICAL INCINERATOR EQUIPPED W/AN  
AFTERBURNER & SCRUBBER IAW/FEDERAL, STATE & LOCAL REGULATIONS.

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particular situation.

# Material Safety Data Sheet

## 1,1,1-Trichloroethane

ACC# 14370

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 1,1,1-Trichloroethane**Catalog Numbers:** AC294930000, AC294930250, AC294932500, AC327940000, AC327940010, AC327942500, S80231, T391-20, T391-4, T398-4**Synonyms:** Methyl chloroform; Methyltrichloromethane; Trichloroethane; Trichloromethylmethane; 1,1,1-TCE.**Company Identification:**Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
71-55-6	1,1,1-Trichloroethane	>96	200-756-3
123-91-1	1,4-Dioxane	2.5	204-661-8
106-88-7	1,2-Butylene oxide	0.47	203-438-2
75-52-5	Nitromethane	0.34	200-876-6

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless liquid.

**Warning!** Causes eye, skin, and respiratory tract irritation. May be harmful if inhaled. May cause central nervous system depression. This is a CFC substance which destroys ozone in the upper atmosphere. Destruction of the ozone layer can lead to increased ultraviolet radiation which, with excess exposure to sunlight, can lead to an increase in skin cancer and eye cataracts.

**Target Organs:** Central nervous system, respiratory system, eyes, skin.

#### Potential Health Effects

**Eye:** Causes mild eye irritation. Vapors may cause eye irritation.

**Skin:** Causes skin irritation. Prolonged or repeated contact may dry/defat the skin and cause irritation. 1,4-Dioxane may cause an allergic skin reaction, and absorption of this substance may cause systemic toxicity. Methyl chloroform is an acknowledged skin irritant in guinea pigs, where a single topical application of 1 ml or repeated contact over 3 days causes edema, erythema, inflammation, and cellular degeneration. There is one case report of allergic contact dermatitis in a worker exposed to 1,1,1-trichloroethane. It is not possible to draw any conclusions from this single

report.

**Ingestion:** Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Low hazard for usual industrial handling. Although there are no case reports of aspiration, it was induced in rats in one study. In addition, based on its physical properties (viscosity and surface tension), it seems likely that 1,1,1-trichloroethane can be aspirated.

**Inhalation:** Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentration. Causes irritation of the mucous membrane and upper respiratory tract. Numerous deaths due to depression of CNS control of respiration and fatal cardiac arrhythmia have been reported from methyl chloroform inhalation (accidental or intentional) in poorly ventilated rooms, pits, tanks, and other small areas (Documentation of the TLV). Cases of intentional abuse of 1,1,1-trichloroethane in substances such as typewriter correction fluid for euphoric symptoms have been documented.

**Chronic:** Prolonged or repeated skin contact may cause defatting and dermatitis. Exposure to high concentrations may cause central nervous system depression. Studies with solvent abusers have established that severe cardiac arrhythmias may result from cardiac sensitization, where the heart has an increased response to circulating epinephrine. In these cases, exposures by far exceeded occupational relevant levels. Liver effects have been observed in some animal studies at high

## Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

**Skin:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

**Ingestion:** Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Alcoholic beverage consumption may enhance the toxic effects of this substance.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Substance is nonflammable. Vapors may accumulate in confined spaces. Methyl chloroform burns only in excess oxygen or in air if a strong source of ignition is present. No flash point in conventional closed tester; however, vapors in containers can explode if subjected to high energy source.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** 500 deg C ( 932.00 deg F)

**Explosion Limits, Lower:** 7.0 vol %

**Upper:** 16 vol %

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Approach spill from upwind.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing vapor.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Do not store in aluminum containers.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
1,1,1-Trichloroethane	350 ppm TWA; 450 ppm STEL	700 ppm IDLH	350 ppm TWA; 1900 mg/m <sup>3</sup> TWA
1,4-Dioxane	20 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route	500 ppm IDLH	100 ppm TWA; 360 mg/m <sup>3</sup> TWA
1,2-Butylene oxide	none listed	none listed	none listed
Nitromethane	20 ppm TWA	750 ppm IDLH	100 ppm TWA; 250 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** 1,1,1-Trichloroethane: 350 ppm TWA; 1900 mg/m<sup>3</sup> TWA 1,4-Dioxane: 25 ppm TWA; 90 mg/m<sup>3</sup> TWA 1,2-Butylene oxide: No OSHA Vacated PELs are listed for this chemical. Nitromethane: 100 ppm TWA; 250 mg/m<sup>3</sup> TWA

### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid  
**Appearance:** colorless  
**Odor:** Sweet, mild chloroform-like.  
**pH:** Not applicable.  
**Vapor Pressure:** 100 mm Hg @ 20 deg C  
**Vapor Density:** 4.55 (air=1)  
**Evaporation Rate:**1.0 (carbon tetrachloride=1)  
**Viscosity:** 0.86 cP @ 20 deg C  
**Boiling Point:** 74 deg C  
**Freezing/Melting Point:**-33 deg C  
**Decomposition Temperature:**> 260 deg C  
**Solubility:** Insoluble.  
**Specific Gravity/Density:**1.338 (water=1)  
**Molecular Formula:**C2H3Cl3  
**Molecular Weight:**133.38

## Section 10 - Stability and Reactivity

**Chemical Stability:** Because of 1,1,1-TCE's reactivity with magnesium, aluminum, & their alloys, inhibitors (like 1,4-dioxane, 1,3-dioxolane, isobutyl alcohol, or nitroethane) are often added to increase the stability of the solvent & prevent corrosion of metal parts. 1,1,1-Trichloroethane reacts slowly with water to produce hydrochloric acid.

**Conditions to Avoid:** High temperatures, ignition sources, moisture, confined spaces.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong bases, aluminum, magnesium, chemically active metals.

**Hazardous Decomposition Products:** Hydrogen chloride, chlorine, phosgene, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 71-55-6: KJ2975000

**CAS#** 123-91-1: JG8225000

**CAS#** 106-88-7: EK3675000

**CAS#** 75-52-5: PA9800000

**LD50/LC50:**

CAS# 71-55-6:

Draize test, rabbit, eye: 100 mg Mild;

Draize test, rabbit, eye: 2 mg/24H Severe;

Draize test, rabbit, skin: 5 gm/12D (Intermittent) Mild;

Draize test, rabbit, skin: 20 mg/24H Moderate;

Inhalation, mouse: LC50 = 3911 ppm/2H;

Inhalation, mouse: LC50 = 29492 ppm/10M;

Inhalation, rat: LC50 = 17000 ppm/4H;

Inhalation, rat: LC50 = 14250 ppm/7H;

Inhalation, rat: LC50 = 20000 ppm/2H;

Oral, mouse: LD50 = 6 gm/kg;

Oral, rabbit: LD50 = 5660 mg/kg;

Oral, rat: LD50 = 9600

CAS# 123-91-1:

Draize test, rabbit, eye: 100 mg Severe;  
 Draize test, rabbit, eye: 100 mg/24H Moderate;  
 Inhalation, mouse: LC50 = 37 gm/m<sup>3</sup>/2H;  
 Inhalation, rat: LC50 = 46 gm/m<sup>3</sup>/2H;  
 Oral, mouse: LD50 = 5300 mg/kg;  
 Oral, rabbit: LD50 = 2 gm/kg;  
 Oral, rat: LD50 = 4200 mg/kg;  
 Skin, rabbit: LD50 = 7600 uL/kg;

CAS# 106-88-7:

Draize test, rabbit, eye: 100 mg/24H Moderate;  
 Draize test, rabbit, skin: 500 mg/24H Mild;  
 Inhalation, rat: LC50 = 6300 mg/m<sup>3</sup>/4H;  
 Oral, rat: LD50 = 500 mg/kg;  
 Skin, rabbit: LD50 = 2100 uL/kg;

CAS# 75-52-5:

Oral, mouse: LD50 = 950 mg/kg;  
 Oral, rat: LD50 = 940 mg/kg;

#### **Carcinogenicity:**

CAS# 71-55-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 123-91-1:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans
- **California:** carcinogen, initial date 1/1/88
- **NTP:** Suspect carcinogen
- **IARC:** Group 2B carcinogen

CAS# 106-88-7:

- **ACGIH:** Not listed.
- **California:** Not listed.
- **NTP:** Not listed.
- **IARC:** Group 2B carcinogen

CAS# 75-52-5:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans
- **California:** carcinogen, initial date 5/1/97
- **NTP:** Suspect carcinogen
- **IARC:** Group 2B carcinogen

**Epidemiology:** No information found

**Teratogenicity:** Animal evidence suggests that 1,1,1-TCE is not teratogenic at exposures which are not maternally toxic. Slight fetotoxicity (for example, reduced fetal weight) has been reported at doses which were not maternally toxic.

**Reproductive Effects:** Animal evidence suggests that 1,1,1-TCE does not cause reproductive

effects.

**Mutagenicity:** Evidence from studies using live animals suggests that 1,1,1-trichloroethane is not mutagenic.

**Neurotoxicity:** Some studies using sensitive neurobehavioural tests have shown altered scores for exposed workers. However, whether or not these results indicate nervous system damage is not clear. Other studies with 1,1,1-TCE have not shown any changes.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Fathead Minnow: EC50 = 52.9 mg/L; 96 Hr; Flow-through at 25.5°C Fish: Bluegill/Sunfish: LC50 = 72 mg/L; 96 Hr; Static bioassay Fish: Fathead Minnow: LC50 = 52.9 mg/L; 96 Hr; Flow-through at 25.5°C Fish: Sheepshead minnow: LC50 = 53-72 mg/L; 96 Hr; Unspecified Water flea Daphnia: EC50 > 530 mg/L; 48 Hr; Unspecified Releases to surface water will decrease in concn almost entirely due to evaporation. Spills on land will decrease in concentration almost entirely due to volatilization and leaching.

**Environmental:** Releases to air may be transported long distances and partially return to earth in rain. In the troposphere, 1,1,1-trichloroethane will degrade very slowly by photooxidation and also slowly diffuse to the stratosphere where photodegradation will be rapid. This substance has a high potential for oxone depletion.

**Physical:** No information available.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:**

CAS# 71-55-6: waste number U226.

CAS# 123-91-1: waste number U108.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	1,1,1-TRICHLOROETHANE	1,1,1-TRICHLOROETHANE
<b>Hazard Class:</b>	6.1	6.1
<b>UN Number:</b>	UN2831	UN2831
<b>Packing Group:</b>	III	III

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 71-55-6 is listed on the TSCA inventory.  
 CAS# 123-91-1 is listed on the TSCA inventory.  
 CAS# 106-88-7 is listed on the TSCA inventory.  
 CAS# 75-52-5 is listed on the TSCA inventory.

#### **Health & Safety Reporting List**

CAS# 71-55-6: Effective 10/4/82, Sunset 10/4/92    CAS# 106-88-7: Effective 10/4/82, Sunset 10/4/92    CAS# 75-52-5: Effective 4/13/89, Sunset 12/19/95

#### **Chemical Test Rules**

CAS# 71-55-6: 40 CFR 799.5000

#### **Section 12b**

None of the chemicals are listed under TSCA Section 12b.

#### **TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

#### **CERCLA Hazardous Substances and corresponding RQs**

CAS# 71-55-6: 1000 lb final RQ; 454 kg final RQ    CAS# 123-91-1: 100 lb final RQ; 45.4 kg final RQ    CAS# 106-88-7: 100 lb final RQ; 45.4 kg final RQ

#### **SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

#### **SARA Codes**

CAS # 71-55-6: immediate.  
 CAS # 123-91-1: delayed, fire.  
 CAS # 106-88-7: immediate.  
 CAS # 75-52-5: immediate, delayed, fire, reactive.

#### **Section 313**

This material contains 1,1,1-Trichloroethane (CAS# 71-55-6, >96%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR

This material contains 1,4-Dioxane (CAS# 123-91-1, 2.5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains 1,2-Butylene oxide (CAS# 106-88-7, 0.47%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### **Clean Air Act:**

CAS# 71-55-6 is listed as a hazardous air pollutant (HAP).  
 CAS# 123-91-1 is listed as a hazardous air pollutant (HAP).  
 CAS# 106-88-7 is listed as a hazardous air pollutant (HAP).

CAS# 71-55-6 is listed as a Class 1 ozone depletor with an 0.1 ODP; 110 GWP

This material does not contain any Class 2 Ozone depletors.

#### **Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CAS# 71-55-6 is listed as a Priority Pollutant under the Clean Water Act. CAS# 71-55-6 is listed as a Toxic Pollutant under the Clean Water Act.

#### **OSHA:**

CAS# 75-52-5 is considered highly hazardous by OSHA.

#### **STATE**

CAS# 71-55-6 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 123-91-1 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 106-88-7 can be found on the following state right to know lists: New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 75-52-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### **California Prop 65**

WARNING: This product contains 1,4-Dioxane, a chemical known to the state of California to cause cancer. WARNING: This product contains Nitromethane, a chemical known to the state of California to cause cancer.

California No Significant Risk Level: CAS# 123-91-1: 30 æg/day NSRL

## European/International Regulations

### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

XN N

#### Risk Phrases:

R 20 Harmful by inhalation.

R 59 Dangerous for the ozone layer.

#### Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

S 59 Refer to manufacturer/supplier for information on recovery/recycling.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

### WGK (Water Danger/Protection)

CAS# 71-55-6: 3

CAS# 123-91-1: 2

CAS# 106-88-7: 3

CAS# 75-52-5: 2

### Canada - DSL/NDSL

CAS# 71-55-6 is listed on Canada's DSL List.

CAS# 123-91-1 is listed on Canada's DSL List.

CAS# 106-88-7 is listed on Canada's DSL List.

CAS# 75-52-5 is listed on Canada's DSL List.

### Canada - WHMIS

This product has a WHMIS classification of D1B, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

### Canadian Ingredient Disclosure List

CAS# 71-55-6 is listed on the Canadian Ingredient Disclosure List.

CAS# 123-91-1 is listed on the Canadian Ingredient Disclosure List.

CAS# 75-52-5 is listed on the Canadian Ingredient Disclosure List.

## Section 16 - Additional Information

**MSDS Creation Date:** 6/11/1999

**Revision #5 Date:** 3/16/2007

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*

## **SEMI-VOLATILE ORGANIC COMPOUNDS**

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# International Chemical Safety Cards

## BENZ(a)ANTHRACENE

ICSC: 0385

### BENZ(a)ANTHRACENE

1,2-Benzoanthracene

Benzo(a)anthracene

2,3-Benzphenanthrene

Naphthanthracene

C<sub>18</sub>H<sub>12</sub>

Molecular mass: 228.3

CAS # 56-55-3

RTECS # CV9275000

ICSC # 0385

EC # 601-033-00-9

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Combustible.		Water spray, powder. In case of fire in the surroundings: all extinguishing agents allowed.
<b>EXPLOSION</b>	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
<b>EXPOSURE</b>		AVOID ALL CONTACT!	
• <b>INHALATION</b>		Local exhaust or breathing protection.	Fresh air, rest.
• <b>SKIN</b>		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
• <b>EYES</b>		Safety goggles, face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>		Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth.
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place (extra personal protection: complete protective clothing including self-contained breathing apparatus).	Well closed.	T symbol R: 45 S: 53-45	

## SEE IMPORTANT INFORMATION ON BACK

ICSC: 0385

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## International Chemical Safety Cards

## BENZ(a)ANTHRACENE

ICSC: 0385

I M P O R T A N T  D A T A	<p><b>PHYSICAL STATE; APPEARANCE:</b> COLOURLESS TO YELLOW-BROWN FLUORESCENT FLAKES OR POWDER.</p> <p><b>PHYSICAL DANGERS:</b> Dust explosion possible if in powder or granular form, mixed with air.</p> <p><b>CHEMICAL DANGERS:</b></p> <p><b>OCCUPATIONAL EXPOSURE LIMITS (OELs):</b> TLV not established.</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation, through the skin and by ingestion.</p> <p><b>INHALATION RISK:</b> Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b></p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> This substance is probably carcinogenic to humans.</p>
	<p><b>PHYSICAL PROPERTIES</b></p> <p>Sublimation point: 435°C Melting point: 162°C Relative density (water = 1): 1.274</p>	<p>Solubility in water: none Vapour pressure, Pa at 20°C: 292 Octanol/water partition coefficient as log Pow: 5.61</p>
<b>ENVIRONMENTAL DATA</b>	In the food chain important to humans, bioaccumulation takes place, specifically in seafood.	
<b>NOTES</b>		
This substance is one of many polycyclic aromatic hydrocarbons - standards are usually established for them as mixtures, e.g., coal tar pitch volatiles. However, it may be encountered as a laboratory chemical in its pure form. Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken. Do NOT take working clothes home. Tetraphene is a common name.		
<b>ADDITIONAL INFORMATION</b>		
<b>ICSC: 0385</b>		<b>BENZ(a)ANTHRACENE</b>
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**IMPORTANT  
LEGAL  
NOTICE:**

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# Material Safety Data Sheet

## Benzo[a]pyrene, 98%

ACC# 37175

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Benzo[a]pyrene, 98%**Catalog Numbers:** AC105600000, AC105600010, AC105601000, AC377200000, AC377200010, AC377201000 AC377201000**Synonyms:** 3,4-Benzopyrene; 3,4-Benzpyrene; Benzo[def]chrysene.**Company Identification:**

Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
50-32-8	Benzo[a]pyrene	>96	200-028-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: yellow to brown powder.

**Danger!** May cause harm to the unborn child. May impair fertility. May cause eye, skin, and respiratory tract irritation. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Cancer hazard. May cause allergic skin reaction. May cause heritable genetic damage.

**Target Organs:** Reproductive system, skin.**Potential Health Effects****Eye:** May cause eye irritation.**Skin:** May cause skin irritation. May be harmful if absorbed through the skin. May cause an allergic reaction in certain individuals.**Ingestion:** May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.**Inhalation:** May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May be harmful if inhaled.**Chronic:** May cause cancer in humans. May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs

Benzo[a]pyrene	0.2 mg/m3 TWA (as benzene soluble aerosol) (listed under Coal tar pitches).	0.1 mg/m3 TWA (cyclohexane-extractable fraction) (listed under Coal tar pitches).80 mg/m3 IDLH (listed under Coal tar pitches).	0.2 mg/m3 TWA (as benzene soluble fraction) (listed under Coal tar pitches).
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**OSHA Vacated PELs:** Benzo[a]pyrene: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Appearance:** yellow to brown

**Odor:** faint aromatic odor

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** 495 deg C @ 760 mm Hg

**Freezing/Melting Point:**175 - 179 deg C

**Decomposition Temperature:**Not available.

**Solubility:** 1.60x10<sup>-3</sup> mg/l @25°C

**Specific Gravity/Density:**Not available.

**Molecular Formula:**C<sub>20</sub>H<sub>12</sub>

**Molecular Weight:**252.31

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 50-32-8: DJ3675000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 50-32-8:

- **ACGIH:** A2 - Suspected Human Carcinogen
- **California:** carcinogen, initial date 7/1/87
- **NTP:** Suspect carcinogen
- **IARC:** Group 1 carcinogen (listed as Coal tar pitches).

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** Adverse reproductive effects have occurred in experimental animals.

**Mutagenicity:** Mutagenic effects have occurred in humans. Mutagenic effects have occurred in experimental animals.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:**

CAS# 50-32-8: waste number U022.

## Section 14 - Transport Information

	<b>US DOT</b>	<b>Canada TDG</b>
<b>Shipping Name:</b>	NOT REGULATED FOR DOMESTIC TRANSPORT	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOL (Benzo{a} pyrene)
<b>Hazard Class:</b>		9
<b>UN Number:</b>		UN3077
<b>Packing Group:</b>		III

## Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**

CAS# 50-32-8 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

CAS# 50-32-8: 1 lb final RQ; 0.454 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 50-32-8: immediate, delayed.

**Section 313**

This material contains Benzo[a]pyrene (CAS# 50-32-8, >96%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CAS# 50-32-8 is listed as a Priority Pollutant under the Clean Water Act.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 50-32-8 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

**The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:**

WARNING: This product contains Benzo[a]pyrene, a chemical known to the state of California to cause cancer.

California No Significant Risk Level: CAS# 50-32-8: 0.06 æg/day NSRL

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

T N

**Risk Phrases:**

R 43 May cause sensitization by skin contact.

R 45 May cause cancer.

R 46 May cause heritable genetic damage.

R 60 May impair fertility.

R 61 May cause harm to the unborn child.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

- S 53 Avoid exposure - obtain special instructions before use.
- S 60 This material and its container must be disposed of as hazardous waste.
- S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 50-32-8: No information available.

**Canada - DSL/NDSL**

CAS# 50-32-8 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 50-32-8 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 9/02/1997

**Revision #7 Date:** 6/30/2006

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# International Chemical Safety Cards

## BENZO(B)FLUORANTHENE

ICSC: 0720

### BENZO(B)FLUORANTHENE

Benzo(e)acephenanthrylene

2,3-Benzofluoroanthene

C<sub>20</sub>H<sub>12</sub>

Molecular mass: 252.3

CAS # 205-99-2

RTECS # CU1400000

ICSC # 0720

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Combustible.	NO open flames.	Water spray, powder.
<b>EXPLOSION</b>			
<b>EXPOSURE</b>		PREVENT DISPERSION OF DUST! STRICT HYGIENE! AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
• <b>INHALATION</b>		Local exhaust or breathing protection.	Fresh air, rest.
• <b>SKIN</b>	MAY BE ABSORBED!	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention. Wear protective gloves when administering first aid.
• <b>EYES</b>		Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>		Do not eat, drink, or smoke during work.	Wear protective gloves when inducing vomiting. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	Provision to contain effluent from fire extinguishing. Tightly closed.	Unbreakable packaging; put breakable packaging into closed unbreakable container.	
<b>SEE IMPORTANT INFORMATION ON BACK</b>			
<b>ICSC: 0720</b>	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities © IPCS CEC 1993		

# International Chemical Safety Cards

**BENZO(B)FLUORANTHENE**

ICSC: 0720

<b>I M P O R T A N T  D A T A</b>	<p><b>PHYSICAL STATE; APPEARANCE:</b> COLOURLESS TO YELLOW CRYSTALS.</p> <p><b>PHYSICAL DANGERS:</b></p> <p><b>CHEMICAL DANGERS:</b> Upon heating, toxic fumes are formed.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS (OELs):</b> TLV not established.</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation of its aerosol and through the skin.</p> <p><b>INHALATION RISK:</b> Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b></p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> This substance is possibly carcinogenic to humans.</p>		
<b>PHYSICAL PROPERTIES</b>	Melting point: 168°C Solubility in water: none	Vapour pressure, Pa at 20°C: <10 Octanol/water partition coefficient as log Pow: 6.04		
<b>ENVIRONMENTAL DATA</b>	This substance may be hazardous to the environment; special attention should be given to the total environment. In the food chain important to humans, bioaccumulation takes place, specifically in oils and fats.			
<b>NOTES</b>				
Depending on the degree of exposure, periodic medical examination is indicated. Data are insufficiently available on the effect of this substance on human health, therefore utmost care must be taken. Do NOT take working clothes home.				
<b>ADDITIONAL INFORMATION</b>				
<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>				
<b>ICSC: 0720</b>		<b>BENZO(B)FLUORANTHENE</b>		
© IPCS, CEC, 1993				

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# International Chemical Safety Cards

## BENZO(K)FLUORANTHENE

ICSC: 0721

BENZO(K)FLUOROANTHENE 11,12-Benzofluoroanthene Dibenzo(b,j,k)fluorene $C_{20}H_{12}$ Molecular mass: 252.3  CAS # 207-08-9 RTECS # DF6350000 ICSC # 0721			
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Combustible.	NO open flames.	Water spray, powder.
<b>EXPLOSION</b>			
<b>EXPOSURE</b>		PREVENT DISPERSION OF DUST! STRICT HYGIENE! AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
• <b>INHALATION</b>		Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
• <b>SKIN</b>	MAY BE ABSORBED!	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention. Wear protective gloves when administering first aid.
• <b>EYES</b>		Safety goggles or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>		Do not eat, drink, or smoke during work.	Wear protective gloves when inducing vomiting. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	Provision to contain effluent from fire extinguishing. Separated from strong oxidants. Tightly closed.		
<b>SEE IMPORTANT INFORMATION ON BACK</b>			
<b>ICSC: 0721</b>	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities © IPCS CEC 1993		

# International Chemical Safety Cards

**BENZO(K)FLUORANTHENE**

ICSC: 0721

<b>I M P O R T A N T  D A T A</b>	<p><b>PHYSICAL STATE; APPEARANCE:</b> YELLOW CRYSTALS.</p> <p><b>PHYSICAL DANGERS:</b></p> <p><b>CHEMICAL DANGERS:</b> Upon heating, toxic fumes are formed. Reacts with strong oxidants.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS (OELs):</b> TLV not established.</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation of its aerosol and through the skin.</p> <p><b>INHALATION RISK:</b> Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b></p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> This substance is possibly carcinogenic to humans.</p>
<b>PHYSICAL PROPERTIES</b>	<p>Boiling point: 480°C Melting point: 215.7°C</p>	<p>Solubility in water: none Octanol/water partition coefficient as log Pow: 6.84</p>
<b>ENVIRONMENTAL DATA</b>	<p>This substance may be hazardous to the environment; special attention should be given to the total environment. In the food chain important to humans, bioaccumulation takes place, specifically in oils and fats.</p>	
<b>NOTES</b>		
<p>Data are insufficiently available on the effect of this substance on human health, therefore utmost care must be taken. Do NOT take working clothes home.</p>		
<b>ADDITIONAL INFORMATION</b>		
<p>ICSC: 0721 <span style="float: right;">BENZO(K)FLUORANTHENE</span></p> <p style="text-align: center;">© IPCS, CEC, 1993</p>		

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# Material Safety Data Sheet

## Chrysene, 98%

ACC# 95251

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Chrysene, 98%**Catalog Numbers:** AC224140000, AC224140010, AC224140050, AC224145000**Synonyms:** 1,2-Benzophenanthrene; Benzo(a)phenanthrene; 1,2,5,6-Dibenzonaphthalene.**Company Identification:**

Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
218-01-9	Chrysene	98	205-923-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: very light beige solid.

**Caution!** May cause eye and skin irritation. May cause respiratory tract irritation. May cause cancer in humans.**Target Organs:** Liver, skin.**Potential Health Effects****Eye:** May cause eye irritation.**Skin:** May cause skin irritation.**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.**Inhalation:** May cause respiratory tract irritation.**Chronic:** May cause cancer according to animal studies.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.**Skin:** Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air

immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: ; Flammability: 1; Instability:

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Avoid breathing dust.

**Storage:** Store in a tightly closed container. Store in a cool, dry area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Chrysene	0.2 mg/m <sup>3</sup> TWA (as benzene soluble aerosol) (listed under Coal tar pitches).	0.1 mg/m <sup>3</sup> TWA (cyclohexane-extractable fraction) (listed under Coal tar pitches).80 mg/m <sup>3</sup> IDLH (listed under Coal tar pitches).	0.2 mg/m <sup>3</sup> TWA (benzene soluble fraction) (listed under Coal tar pitches).

**OSHA Vacated PELs:** Chrysene: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** very light beige

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 448 deg C @ 760 mm Hg

**Freezing/Melting Point:** 250-255 deg C

**Decomposition Temperature:** Not available.

**Solubility:** insoluble

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C<sub>18</sub>H<sub>12</sub>

**Molecular Weight:** 228.29

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 218-01-9: GC0700000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 218-01-9:

- **ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

- **California:** carcinogen, initial date 1/1/90
- **NTP:** Known carcinogen (listed as Coal tar pitches).
- **IARC:** Group 1 carcinogen (listed as Coal tar pitches).

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** Chrysene was mutagenic to *S. Typhimurium* in the presence of an exogenous metabolic system.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Water flea LC50 = 1.9 mg/L; 2 Hr.; Unspecified Fish toxicity : LC50 (96hr) *Neaethes arenacedentata* >1ppm.(Rossi,S.S. et al Marine Pollut. Bull. 1978) Invertebrate toxicity : lethal treshold concentration (24hr) *Daphnia Magna* 0,7æg/l.(\* Newsted,J.L. et al Environ. Toxicol. Chem. 1987) Bioaccumulation : 24hr *Daphnia Magna* log bioconcentration factor 3.7845 (\*)

**Environmental:** Degradation studies : biodegradated by white rot fungus (Proc.Annu.Meet.Am.Wood-Preserv.Assoc.1989) May be utilised by axenic cultures of microorganisms e.g. *Pseudomonas pancimobilis* EPA505, which may have novel degradative systems(Mueller,J.G. et al ppl.Environ.Microbiol.1990; Mueller, J.G. et al Environ.Sci.Technol.1991).

**Physical:** Not found.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:**

CAS# 218-01-9: waste number U050.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	DOT regulated - small quantity provisions apply (see 49CFR173.4)	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 218-01-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 218-01-9: 100 lb final RQ; 45.4 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

This material contains Chrysene (CAS# 218-01-9, 98%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CAS# 218-01-9 is listed as a Priority Pollutant under the Clean Water Act.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 218-01-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

#### The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Chrysene, a chemical known to the state of California to cause cancer.

California No Significant Risk Level: CAS# 218-01-9: 0.35 æg/day NSRL (oral)

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T

#### Risk Phrases:

R 45 May cause cancer.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Safety Phrases:

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

- S 53 Avoid exposure - obtain special instructions before use.
- S 60 This material and its container must be disposed of as hazardous waste.
- S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 218-01-9: No information available.

**Canada - DSL/NDSL**

CAS# 218-01-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 218-01-9 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
--

**MSDS Creation Date:** 6/30/1999

**Revision #5 Date:** 11/20/2008

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*

## SUPELCO INC -- 48574, DIBENZO (A,H) ANTHRACENE 0.1G -- 6810-00N032523

## ===== Product Identification =====

Product ID:48574, DIBENZO (A,H) ANTHRACENE 0.1G

MSDS Date:12/19/1985

FSC:6810

NIIN:00N032523

MSDS Number: BNSSL

=== Responsible Party ===

Company Name:SUPELCO INC

Address:SUPELCO PARK

City:BELLEFONTE

State:PA

ZIP:16823-0048

Country:US

Info Phone Num:814-359-3441

Emergency Phone Num:814-359-3441

CAGE:54968

=== Contractor Identification ===

Company Name:SIGMA-ALDRICH INC.

Address:3050 SPRUCE STREET

Box:14508

City:ST. LOUIS

State:MO

ZIP:63103

Country:US

Phone:314-771-5765/414-273-3850X5996

CAGE:54968

## ===== Composition/Information on Ingredients =====

Ingred Name:DIBENZ A,H ANTHRACENE

CAS:53-70-3

RTECS #:HN2625000

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

## ===== Hazards Identification =====

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:REPORTED ANIMAL CARCINOGEN.

Explanation of Carcinogenicity:DIBENZ(A,H) ANTHRACENE: GROUP 2A(IARC),  
ANTICIPATED TO BE CARCINOGEN (NTP).

Effects of Overexposure:NONE SPECIFIED BY MANUFACTURER.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

## ===== First Aid Measures =====

First Aid:EYES: FLUSH WITH WATER FOR AT LEAST 15 MIN. CONTACT A  
PHYSICIAN. SKIN: FLUSH WITH LARGE VOLUMES OF WATER. CONTACT A  
PHYSICIAN. INHAL: IMMED MOVE TO FRESH AIR. INGEST: CONTACT A  
PHYSICIAN.

## ===== Fire Fighting Measures =====

Lower Limits:1%

Extinguishing Media:WATER, CO2, DRY CHEMICAL.  
Fire Fighting Procedures:WEAR NIOSH/MSHA APPROVED SCBA AND FULL  
PROTECTIVE EQUIPMENT .

===== Accidental Release Measures =====

Spill Release Procedures:SWEEP UP MATERIAL. AVOID GENERATING DUST.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN SEALED CONTAINER IN COOL, DRY  
LOCATION. AVOID GENERATING DUST.  
Other Precautions:REPORTED CANCER HAZARD. AVOID EYE OR SKIN CONTACT.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:WEAR NIOSH/MSHA APPROVED SCBA.  
Ventilation:USE ONLY IN WELL VENTILATED AREA.  
Protective Gloves:IMPERVIOUS GLOVES .  
Eye Protection:CHEMICAL WORKERS GOGGLES .  
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.  
Supplemental Safety and Health  
NONE SPECIFIED BY MANUFACTURER.

===== Physical/Chemical Properties =====

HCC:T6  
Boiling Pt:B.P. Text:509F,265C  
Vapor Density:9.60  
Spec Gravity:>1(H2O=1)  
Appearance and Odor:OFF-WHITE TO YELLOW-GREEN CRYSTALLINE

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
OXIDIZING AGENTS.

===== Disposal Considerations =====

Waste Disposal Methods:COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR  
LOCAL REGULATIONS.

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assume responsibility for the suitability of this information to their  
particular situation.

MSDS Number: **N0090** \* \* \* \* \* *Effective Date: 08/10/04* \* \* \* \* \* *Supersedes: 11/02/01*

## **MSDS** Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# NAPHTHALENE

## 1. Product Identification

**Synonyms:** Naphthene; mothballs; tar camphor; naphthaliin; white-tar

**CAS No.:** 91-20-3

**Molecular Weight:** 128.16

**Chemical Formula:** C<sub>10</sub>H<sub>8</sub>

**Product Codes:**

J.T. Baker: 2718

Mallinckrodt: 6348

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Naphthalene	91-20-3	90 - 100%	Yes

## 3. Hazards Identification

**Emergency Overview**

-----

**WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN REACTION. MAY AFFECT LIVER, KIDNEY, BLOOD AND CENTRAL NERVOUS SYSTEM. COMBUSTIBLE.**

**J.T. Baker SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

---

Health Rating: 2 - Moderate  
Flammability Rating: 2 - Moderate  
Reactivity Rating: 0 - None  
Contact Rating: 2 - Moderate  
Lab Protective Equip: GOGGLES; LAB COAT  
Storage Color Code: Red (Flammable)

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### **Potential Health Effects**

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#### **Inhalation:**

Inhalation of dust or vapors can cause headache, nausea, vomiting, extensive sweating, and disorientation. The predominant reaction is delayed intravascular hemolysis with symptoms of anemia, fever, jaundice, and kidney or liver damage.

#### **Ingestion:**

Toxic. Can cause headache, profuse perspiration, listlessness, dark urine, nausea, vomiting and disorientation. Intravascular hemolysis may also occur with symptoms similar to those noted for inhalation. Severe cases may produce coma with or without convulsions. Death may result from renal failure.

#### **Skin Contact:**

Can irritate the skin and, on prolonged contact, may cause rashes and allergy. "Sensitized" individuals may suffer a severe dermatitis.

#### **Eye Contact:**

Vapors and solid causes irritation, redness and pain. Very high exposures can damage the nerves of the eye.

#### **Chronic Exposure:**

Has led to cataract formation in eyes. May cause skin allergy.

#### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin, blood or vascular disorders or impaired respiratory function may be more susceptible to the effects of the substance. Particularly susceptible individuals are found in the general population, most commonly in dark skinned races.

---

## **4. First Aid Measures**

#### **Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

#### **Ingestion:**

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

Wash skin with soap or mild detergent and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

---

## 5. Fire Fighting Measures

**Fire:**

Flash point: 87C (189F) CC

Autoignition temperature: 526C (979F)

Combustible. May be ignited by heat, sparks or flame. May burn rapidly with flare-burning effect. Fire may produce irritating or poisonous gases.

**Explosion:**

Explosive limits, volume % in air: lel: 0.9; uel: 5.9. Above flashpoint, vapor-air mixtures are explosive within flammable limits noted above. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire or explosion.

**Fire Extinguishing Media:**

Dry chemical, foam, water or carbon dioxide. Foam or direct water spray on molten naphthalene may cause extensive foaming. Molten naphthalene spatters in contact with water; apply water from as far a distance as possible.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Vapors can flow along surfaces to distant ignition source and flash back.

---

## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Keep away from moisture and oxidizers. Containers of this material may be hazardous when empty since they retain

product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

- OSHA Permissible Exposure Limit (PEL):  
10 ppm, 50 mg/m<sup>3</sup>.

- ACGIH Threshold Limit Value (TLV):

TWA= 10 ppm, 52 mg/m<sup>3</sup>

STEL= 15 ppm, 79 mg/m<sup>3</sup>.

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and particulate filter (NIOSH type P95 or R95 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an organic vapor cartridge and particulate filter (NIOSH P100 or R100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Please note that N series filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### **Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

### **Appearance:**

White crystals.

### **Odor:**

Strong coal tar odor (moth balls).

### **Solubility:**

Insoluble in water.

### **Specific Gravity:**

1.2

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

No information found.

**Boiling Point:**

218C (424F)

**Melting Point:**

80C (176F)

**Vapor Density (Air=1):**

4.4

**Vapor Pressure (mm Hg):**

1 @ 53C (127F)

**Evaporation Rate (BuAc=1):**

&lt; 1

## 10. Stability and Reactivity

**Stability:**

Stable at room temperature in sealed containers. Sublimes appreciably at temperatures above melting point.

**Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Strong oxidizers, strong alkalis and strong mineral acids, mixtures of aluminum trichloride and benzoyl chloride. Reacts violently with chromic anhydride. Melted naphthalene will attack some forms of plastics, rubber, and coatings.

**Conditions to Avoid:**

Avoid heat, sparks, flames and other ignition sources and incompatibles.

## 11. Toxicological Information

Oral rat LD50: 490 mg/kg;

Inhalation rat LC50: 340 mg/m<sup>3</sup>, 1 hour;

Skin rabbit LD50: > 20 g/kg;

Irritation data: skin (open Draize) rabbit 495 mg, mild; eye (standard Draize) rabbit 100 mg, mild;

Investigated as a tumorigen, mutagen and reproductive effector.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Naphthalene (91-20-3)	No	No	None

---

## 12. Ecological Information

**Environmental Fate:**

When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released to water, this material is expected to quickly evaporate. When released into water, this material may biodegrade to a moderate extent. When released into the water, this material is expected to have a half-life between 1 and 10 days. This material may bioaccumulate to some extent. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day.

**Environmental Toxicity:**

No information found.

---

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

---

## 14. Transport Information

**Domestic (Land, D.O.T.)**  
-----

**Proper Shipping Name:** NAPHTHALENE, REFINED

**Hazard Class:** 4.1

**UN/NA:** UN1334

**Packing Group:** III

**Information reported for product/size:** 1KG

**International (Water, I.M.O.)**  
-----

**Proper Shipping Name:** NAPHTHALENE, REFINED

**Hazard Class:** 4.1

**UN/NA:** UN1334

**Packing Group:** III

**Information reported for product/size:** 1KG

**International (Air, I.C.A.O.)**  
-----

**Proper Shipping Name:** NAPHTHALENE, REFINED

**Hazard Class:** 4.1

**UN/NA:** UN1334

**Packing Group:** III

**Information reported for product/size:** 1KG

## 15. Regulatory Information

```

-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA  EC   Japan  Australia
-----
Naphthalene (91-20-3)                         Yes  Yes  Yes    Yes
  
```

```

-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  DSL   NDSL  Phil.
-----
Naphthalene (91-20-3)                         Yes   Yes  No    Yes
  
```

```

-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-  -SARA 313-----
RQ      TPQ      List  Chemical Catg.
-----
Naphthalene (91-20-3)                         No     No    Yes   No
  
```

```

-----\Federal, State & International Regulations - Part 2\-----
Ingredient                                     CERCLA  -RCRA-  -TSCA-
                                     261.33  8(d)
-----
Naphthalene (91-20-3)                         100     U165    No
  
```

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: Yes      Fire: Yes      Pressure: No  
 Reactivity: No      (Pure / Solid)

**Australian Hazchem Code:** 2Z

**Poison Schedule:** S6

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 2 Flammability: 2 Reactivity: 0

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN

REACTION. MAY AFFECT LIVER, KIDNEY, BLOOD AND CENTRAL NERVOUS SYSTEM. COMBUSTIBLE.

**Label Precautions:**

Avoid contact with eyes, skin and clothing.  
 Avoid prolonged or repeated contact with skin.  
 Avoid breathing dust.  
 Avoid breathing vapor.  
 Keep container closed.  
 Use only with adequate ventilation.  
 Wash thoroughly after handling.  
 Keep away from heat, sparks and flame.

**Label First Aid:**

In all cases call a physician. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

**Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

\*\*\*\*\*

**Prepared by:** Environmental Health & Safety  
 Phone Number: (314) 654-1600 (U.S.A.)

MSDS Number: **P1949** \* \* \* \* \* Effective Date: **05/19/08** \* \* \* \* \* Supersedes: **08/24/05**

<b>MSDS</b>	<b>Material Safety Data Sheet</b>		24 Hour Emergency Telephone: 908-859-2151 CHEMTREC: 1-800-424-9300
			National Response in Canada CANUTEC: 613-996-6666
From: Mallinckrodt Baker, Inc. 222 Red School Lane Phillipsburg, NJ 08865		 	Outside U.S. and Canada Chemtrec: 703-527-3887
			NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.
All non-emergency questions should be directed to Customer Service (1-800-582-2637) for assistance.			

## PHENOL, CRYSTALS

### 1. Product Identification

**Synonyms:** Carbolic acid; Phenic acid; Phenylic acid; Hydroxybenzene; Phenol, fused; Monohydroxybenzene; Phenol, solid  
**CAS No.:** 108-95-2  
**Molecular Weight:** 94.11  
**Chemical Formula:** C<sub>6</sub>H<sub>5</sub>OH  
**Product Codes:**  
 J.T. Baker: 2858, 2862, 4056  
 Mallinckrodt: 0028, 0052, 0273, 0605, H602

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Phenol	108-95-2	99 - 100%	Yes

### 3. Hazards Identification

#### Emergency Overview

**POISON! DANGER! MAY BE FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. RAPIDLY ABSORBED THROUGH SKIN. CORROSIVE. CAUSES SEVERE BURNS TO EVERY AREA OF CONTACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. COMBUSTIBLE.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

Health Rating: 3 - Severe (Poison)  
 Flammability Rating: 2 - Moderate  
 Reactivity Rating: 1 - Slight  
 Contact Rating: 4 - Extreme (Corrosive)  
 Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER  
 Storage Color Code: White Stripe (Store Separately)

#### Potential Health Effects

The major hazard of phenol is its ability to penetrate the skin rapidly, particularly when liquid, causing severe injury which can be fatal. Phenol also has a strong corrosive effect on body tissue causing severe chemical burns. Due to its local anesthetizing properties, skin burns may be painless.

#### Inhalation:

Breathing vapor, dust or mist results in digestive disturbances (vomiting, difficulty in swallowing, diarrhea, loss of appetite). Will irritate, possibly burn respiratory tract. Other symptoms listed under ingestion may also occur.

#### Ingestion:

Poison. Symptoms may include burning pain in mouth and throat, abdominal pain, nausea, vomiting, headache, dizziness, muscular weakness, central nervous system effects, increase in heart rate, irregular breathing, coma, and possibly death. Acute exposure is also associated with kidney and liver damage. Ingestion of 1 gram has been lethal to humans.

#### Skin Contact:

Corrosive. Rapidly absorbed through the skin with systemic poisoning effects to follow. Discoloration and severe burns may occur, but may be disguised by a loss in pain sensation.

#### Eye Contact:

Corrosive. Eye burns with redness, pain, blurred vision may occur. May cause severe damage and blindness.

#### Chronic Exposure:

Repeated exposure may cause symptoms described for acute poisoning as well as eye and skin discoloration.

**Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin, eye or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this substance.

---

## 4. First Aid Measures

IN CASE OF PHENOL POISONING, start first aid treatment immediately, then get medical attention. People administering first aid should take precautions to avoid contact with phenol. A phenol antidote kit (castor oil or other vegetable oil, polyethylene glycol 300) should be available in any phenol work area. Actions to be taken in case of phenol poisoning should be planned and practiced before beginning work with phenol. Castor oil and or polyethylene glycol can be given by a first responder before medical help arrives.

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion:**

If swallowed, immediately administer castor oil or other vegetable oil. Never give anything by mouth to an unconscious person. Be ready to induce vomiting at the advice of physician or poison control center. Castor oil (or vegetable oil) dosage should be between 15 and 30 cc. Get medical attention immediately.

**Skin Contact:**

In case of skin contact, immediately flush skin with large amounts of water while removing contaminated clothing and shoes. As soon as possible, repeatedly apply polyethylene glycol to affected area. Destroy contaminated clothing and shoes. Flush skin with water for at least 30 minutes. It is very important to avoid rubbing or wiping affected parts which would aggravate irritation and cause product dispersion. Continue treatment until the burned area changes color from white to pink. Expect that this can take a long period of time (20 minutes or more). The polyethylene glycol application should be done during transportation to the hospital. If polyethylene glycol is not available, flush with water for at least 30 minutes prior to going to hospital. Get medical attention immediately.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**Note to Physician:**

Treat ingestion with gastric lavage using 40% aqueous Bacto-Peptone, milk or water until phenolic odor is eliminated. Then give 15 to 50 cc castor or vegetable oil. Debride necrotic skin. Monitor vital signs, fluid status, electrolytes, BUN, renal and hepatic function, and electrocardiogram. Manage sedation, seizures, renal failure, and fluid electrolyte imbalances symptomatically as indicated.

---

## 5. Fire Fighting Measures

**Fire:**

Flash point: 79C (174F) CC

Autoignition temperature: 715C (1319F)

Flammable limits in air % by volume:

lcl: 1.3; ucl: 8.6

Combustible. Contact with strong oxidizers may cause fire.

**Explosion:**

Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Sealed containers may rupture when heated.

**Fire Extinguishing Media:**

Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Structural firefighter's protective clothing is ineffective for fires involving this material. Stay away from sealed containers.

---

## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water.

Pick up spill for recovery or disposal and place in a closed container. Do not flush to the sewer. Dry lime or soda ash may be used on spill for neutralization. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

---

## 7. Handling and Storage

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Store separately from reactive or combustible materials, and out of direct sunlight. Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating dust and/or static electricity. Empty only into inert or non-flammable atmosphere. Emptying contents into a non-inert atmosphere where flammable vapors may be present could cause a flash fire or explosion due to electrostatic discharge. All phenol workers should be properly trained on its hazards and the proper protective measures required. This training should also include emergency actions. All phenol operations should be enclosed to eliminate any potential exposure routes. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

Phenol:

-OSHA Permissible Exposure Limit (PEL):

5 ppm (TWA) (skin)

-ACGIH Threshold Limit Value (TLV):

5 ppm (TWA) (skin)

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge and dust/mist filter may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Butyl rubber and neoprene are suitable materials for personal protective equipment.

**Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. Physical and Chemical Properties

**Appearance:**

Colorless to light pink crystals.

**Odor:**

Sharp, medicinal, sweet, tarry.

**Solubility:**

1 g/15 ml of water; very soluble in alcohol.

**Specific Gravity:**

1.06 @ 20C/4C

**pH:**

ca. 6.0 Aqueous solution

**% Volatiles by volume @ 21C (70F):**

100

**Boiling Point:**

182C (360F)

**Melting Point:**

43C (109F)

**Vapor Density (Air=1):**

3.2

**Vapor Pressure (mm Hg):**

0.4 @ 20C (68F)

**Evaporation Rate (BuAc=1):**

< 0.01

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Heat will contribute to instability.

**Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition. Toxic gases and vapors may be released if involved in a fire.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Oxidizers, aluminum chloride and nitrobenzene, calcium hypochlorite, butadiene, halogens, formaldehyde, mineral oxidizing acids, isocyanates, sodium nitrite and many other materials. Hot liquid phenol will attack aluminum, magnesium, lead, and zinc metals.

**Conditions to Avoid:**

Heat, flames, ignition sources and incompatibles.

## 11. Toxicological Information

Oral rat LD50: 317 mg/Kg; skin rabbit LD50:630 mg/kg; inhalation rat LC50: 316 mg/m3; irritation data: skin rabbit, standard Draize, 500 mg/24H severe; eye rabbit, standard Draize 5 mg/30S rinse, mild. Investigated as a tumorigen, mutagen, reproductive effector.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Phenol (108-95-2)	No	No	3

## 12. Ecological Information

**Environmental Fate:**

When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is not expected to leach into groundwater. When released into the soil, this material may evaporate to a moderate extent. When released into the soil, this material is expected to have a half-life between 1 and 10 days. When released into water, this material is expected to readily biodegrade. When released into water, this material is not expected to evaporate significantly. When released into water, this material is expected to have a half-life between 10 and 30 days. This material has an estimated bioconcentration

factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis. When released into the air, this material is expected to have a half-life of less than 1 day.

**Environmental Toxicity:**

This material is expected to be toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.

### 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### 14. Transport Information

**Domestic (Land, D.O.T.)**

-----  
**Proper Shipping Name:** PHENOL, SOLID  
**Hazard Class:** 6.1  
**UN/NA:** UN1671  
**Packing Group:** II  
**Information reported for product/size:** 2.5KG

**International (Water, I.M.O.)**

-----  
**Proper Shipping Name:** PHENOL, SOLID  
**Hazard Class:** 6.1  
**UN/NA:** UN1671  
**Packing Group:** II  
**Information reported for product/size:** 2.5KG

### 15. Regulatory Information

```
-----\Chemical Inventory Status - Part 1\-----
Ingredient                               TSCA  EC   Japan  Australia
-----
Phenol (108-95-2)                       Yes  Yes  Yes    Yes
```

```
-----\Chemical Inventory Status - Part 2\-----
Ingredient                               Korea  DSL   NDSL  Phil.
-----
Phenol (108-95-2)                       Yes   Yes  No    Yes
```

```
-----\Federal, State & International Regulations - Part 1\-----
Ingredient                               -SARA 302-  -SARA 313-
RQ   TPQ   List  Chemical Catg.
-----
Phenol (108-95-2)                       1000  500*  Yes   No
```

```
-----\Federal, State & International Regulations - Part 2\-----
Ingredient                               -RCRA-  -TSCA-
CERCLA  261.33  8(d)
-----
Phenol (108-95-2)                       1000    U188   No
```

Chemical Weapons Convention: No    TSCA 12(b): No    CDTA: No  
SARA 311/312: Acute: Yes    Chronic: Yes    Fire: Yes    Pressure: No  
Reactivity: No    (Pure / Solid)

**Australian Hazchem Code:** 2X

**Poison Schedule:** S6

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

### 16. Other Information

**NFPA Ratings:** Health: 4 Flammability: 2 Reactivity: 0

**Label Hazard Warning:**

POISON! DANGER! MAY BE FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. RAPIDLY ABSORBED THROUGH SKIN. CORROSIVE. CAUSES SEVERE BURNS TO EVERY AREA OF CONTACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. COMBUSTIBLE.

**Label Precautions:**

Do not breathe dust.  
Do not get in eyes, on skin, or on clothing.  
Keep container closed.

Use only with adequate ventilation.  
Wash thoroughly after handling.  
Keep away from heat, sparks and flame.

**Label First Aid:**

IN ALL CASES, GET MEDICAL ATTENTION IMMEDIATELY. KEEP A PHENOL ANTIDOTE KIT in area of product use or storage. Administer castor oil and/or polyethylene glycol per pre-planned directions. If swallowed, immediately administer castor oil or other vegetable oil. Never give anything by mouth to an unconscious person. In case of skin contact, immediately flush skin with large amounts of water while removing contaminated clothing and shoes. As soon as possible, repeatedly apply polyethylene glycol to affected area. Destroy contaminated clothing and shoes. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes while lifting lower and upper eyelids.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

**Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy.**

**This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.**

**Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.**

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\*\*\*\*\*

**Prepared by:** Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)

## SUPELCO INC -- 48499, INDENO (1,2,3-CD) PYRENE 10MG -- 6810-00N032522

## ===== Product Identification =====

Product ID:48499, INDENO (1,2,3-CD) PYRENE 10MG

MSDS Date:06/06/1985

FSC:6810

NIIN:00N032522

MSDS Number: BNSSK

=== Responsible Party ===

Company Name:SUPELCO INC

Address:SUPELCO PARK

City:BELLEFONTE

State:PA

ZIP:16823-0048

Country:US

Info Phone Num:814-359-3441

Emergency Phone Num:814-359-3441

CAGE:54968

=== Contractor Identification ===

Company Name:SIGMA-ALDRICH INC.

Address:3050 SPRUCE STREET

Box:14508

City:ST. LOUIS

State:MO

ZIP:63103

Country:US

Phone:314-771-5765/414-273-3850X5996

CAGE:54968

## ===== Composition/Information on Ingredients =====

Ingred Name:INDENO 1,2,3-CD PYRENE

CAS:193-39-5

RTECS #:NK9300000

EPA Rpt Qty:100 LBS

DOT Rpt Qty:100 LBS

## ===== Hazards Identification =====

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:REPORTED ANIMAL CARCINOGEN.

Explanation of Carcinogenicity:INDENO(1,2,3-CD) PYRENE: GROUP 2B(IARC),  
ANTICIPATED TO BE CARCINOGEN (NTP).

Effects of Overexposure:NONE SPECIFIED BY MANUFACTURER.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

## ===== First Aid Measures =====

First Aid:EYES: FLUSH WITH WATER FOR AT LEAST 15 MIN. SKIN: FLUSH WITH  
LARGE VOLUMES OF WATER. REMOVE CONTAMINATED CLOTHING. INHAL: MOVE  
TO FRESH AIR. IF BREATHING STOPS, GIVE ARTF RESP. INGEST: IMMED  
CONTACT A PHYSICIAN.

## ===== Fire Fighting Measures =====

Flash Point:400F,204C

Extinguishing Media:CO2, DRY CHEMICAL.

Fire Fighting Procedures:WEAR NIOSH/MSHA APPROVED SCBA AND FULL  
PROTECTIVE EQUIPMENT .

===== Accidental Release Measures =====

Spill Release Procedures:SWEEP UP MATERIAL. AVOID GENERATING DUST.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN SEALED CONTR IN COOL, DRY  
LOCATION. KEEP AWAY FROM OXIDIZERS. STORE IN DRY, WELL VENTILATED  
AREA.

Other Precautions:REPORTED CANCER HAZARD. AVOID EYE OR SKIN CONTACT.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:WEAR NIOSH/MSHA APPROVED SCBA AND FULL  
PROTECTIVE EQUIPMENT .

Ventilation:USE ONLY IN EXHAUST HOOD.

Protective Gloves:NEOPRENE GLOVES.

Eye Protection:CHEMICAL WORKERS GOGGLES .

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health  
NONE SPECIFIED BY MANUFACTURER.

===== Physical/Chemical Properties =====

HCC:T6

Melt/Freeze Pt:M.P/F.P Text:324F,162C

Vapor Pres:0.10

Appearance and Odor:YELLOW CRYSTALS

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
OXIDIZING AGENTS. METALLIC SODIUM & POTASSIUM.

===== Disposal Considerations =====

Waste Disposal Methods:COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR  
LOCAL REGULATIONS.

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document should seek competent professional advice to verify and  
assume responsibility for the suitability of this information to their  
particular situation.



MSDS Number: **A7441** \* \* \* \* \* *Effective Date: 05/26/09* \* \* \* \* \* *Supercedes: 08/17/06*



From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. And Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# ARSENIC, 1,000 UG/ML OR 10,000 UG/ML

## 1. Product Identification

**Synonyms:** None

**CAS No.:** Not applicable to mixtures.

**Molecular Weight:** Not applicable to mixtures.

**Chemical Formula:** Not applicable to mixtures.

**Product Codes:** 5704, 5718, 6442

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Arsenic	7440-38-2	0.1 - 1%	Yes
Nitric Acid	7697-37-2	< 4%	Yes
Water	7732-18-5	> 95%	No

## 3. Hazards Identification

**Emergency Overview**

**DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED. AFFECTS LIVER, KIDNEYS, LUNGS AND TEETH. CANCER HAZARD. CONTAINS INORGANIC ARSENIC WHICH CAN CAUSE CANCER. Risk of cancer depends on duration and level of exposure.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

---

Health Rating: 3 - Severe (Cancer Causing)

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 3 - Severe (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD;  
PROPER GLOVES

Storage Color Code: White (Corrosive)

---

### **Potential Health Effects**

---

Nitric acid is extremely hazardous; it is corrosive, reactive, an oxidizer, and a poison. The health effects from exposure to diluted forms of this chemical are not well documented. They are expected to be less severe than those for concentrated forms which are referenced in the descriptions below.

#### **Inhalation:**

Corrosive! Inhalation of vapors can cause breathing difficulties and lead to pneumonia and pulmonary edema, which may be fatal. Other symptoms may include coughing, choking, and irritation of the nose, throat, and respiratory tract. Arsenic may cause inflammation of the mucous membranes with cough and foamy sputum, restlessness, dyspnea, cyanosis, and rales. Symptoms like those from ingestion exposure may follow. May cause pulmonary edema.

#### **Ingestion:**

Corrosive! Swallowing nitric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. Arsenic is highly toxic! May cause burning in esophagus, vomiting, and bloody diarrhea. Symptoms of cold and clammy skin, low blood pressure, weakness, headache, cramps, convulsions, and coma may follow. May cause damage to liver and kidneys. A suspected fetal toxin. Death may occur from circulatory failure. Estimated lethal dose 120 milligrams.

#### **Skin Contact:**

Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and stain skin a yellow or yellow-brown color.

#### **Eye Contact:**

Corrosive! Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.

#### **Chronic Exposure:**

Long-term exposure to concentrated vapors may cause erosion of teeth and lung damage. Long-term exposures seldom occur due to the corrosive properties of the acid. Arsenic on repeated or prolonged skin contact may cause bronzing of the skin, edema, dermatitis, and lesions. Repeated or prolonged inhalation of dust may cause damage to the nasal septum. Chronic exposure from inhalation or ingestion may cause hair and weight loss, a garlic odor

to the breath and perspiration, excessive salivation and perspiration, central nervous system damage, hepatitis, gastrointestinal disturbances, cardiovascular damage, and kidney and liver damage. Arsenic compounds are known human carcinogens and may be teratogenic based on effects in laboratory animals.

**Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders, eye disease, or cardiopulmonary diseases may be more susceptible to the effects of this substance.

---

## 4. First Aid Measures

Immediate first aid treatment reduces the health effects of this substance. First aid procedures given apply to concentrated solutions. Exposures to dilute solutions may not require these extensive first aid procedures.

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:**

If swallowed, give large quantities of water to drink and get medical attention immediately. Never give anything by mouth to an unconscious person.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately. Contaminated work clothes should be laundered by individuals who have been informed of the hazards of exposure to this substance.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**Note to Physician:**

If emesis is unsuccessful after two doses of Ipecac, consider gastric lavage. Monitor urine arsenic level. Alkalinization of urine may help prevent disposition of red cell breakdown products in renal tubular cells. If acute exposure is significant, maintain high urine output and monitor volume status, preferably with central venous pressure line. Abdominal X-rays should be done routinely for all ingestions. Chelation therapy with BAL, followed by n-penicillamine is recommended, but specific dosing guidelines are not clearly established.

---

## 5. Fire Fighting Measures

**Fire:**

Not combustible, but concentrated material is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

**Explosion:**

Concentrated material reacts explosively with combustible organic or readily oxidizable materials such as: alcohols, turpentine, charcoal, organic refuse, metal powder, hydrogen sulfide, etc. Reacts with most metals to release hydrogen gas which can form explosive

mixtures with air.

**Fire Extinguishing Media:**

If involved in a fire, use water spray.

**Special Information:**

Increases the flammability of combustible, organic and readily oxidizable materials. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker NEUTRASORB® acid neutralizers are recommended for spills of this product.

---

## 7. Handling and Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Do not wash out container and use it for other purposes. When diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. Wear special protective equipment (Sec. 8) for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower, dispose of outer clothing, change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

For Nitric Acid:

OSHA Permissible Exposure Limit (PEL):

2 ppm (TWA)

ACGIH Threshold Limit Value (TLV):

2 ppm (TWA); 4 ppm (STEL)

For Inorganic Arsenic compounds (as As):

- OSHA Permissible Exposure Limit (PEL):

10 ug/m<sup>3</sup> (TWA), 5 ug/m<sup>3</sup>(Action Level), cancer hazard.

- ACGIH Threshold Limit Value (TLV):

0.01 mg/m<sup>3</sup> (TWA), A1, confirmed human carcinogen.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus. Canister-type respirators using sorbents are ineffective.

**Skin Protection:**

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

**Other Control Measures:**

Any area where inorganic arsenic is stored, handled, used, etc., must be established as a 'Regulated Area' with controlled access, limited to authorized persons. Containers of inorganic arsenic and Regulated Areas must be labeled to show a CANCER SUSPECT AGENT is present. Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing arsenic or lead compounds are handled, processed, or stored. See OSHA substance-specific standard for more information on personal protective equipment, engineering and work practice controls, medical surveillance, record keeping, and reporting requirements. (arsenic: 29 CFR 1910.1018; lead: 29 CFR 1910.1025).

---

## 9. Physical and Chemical Properties

**Appearance:**

Clear, colorless liquid.

**Odor:**

Odorless.

**Solubility:**

Infinitely soluble.

**Specific Gravity:**

No information found.

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

> 99

**Boiling Point:**

No information found.

**Melting Point:**

No information found.

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Containers may burst when heated.

**Hazardous Decomposition Products:**

When heated to decomposition, emits toxic nitrogen oxides fumes and hydrogen nitrate. Emits toxic fumes of arsenic when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

A dangerously powerful oxidizing agent, concentrated nitric acid is incompatible with most substances, especially strong bases, metallic powders, carbides, hydrogen sulfide, turpentine, and combustible organics.

**Conditions to Avoid:**

Heat, incompatibles.

## 11. Toxicological Information

**Toxicological Data:**

For arsenic: oral rat LD50: 763 mg/kg. Investigated as a tumorigen, mutagen, reproductive effector. For Nitric Acid: Investigated as a mutagen and reproductive effector.

**Carcinogenicity:**

For arsenic and inorganic arsenic compounds:

Regulated by OSHA as a carcinogen.

EPA / IRIS classification: Group A - Known human carcinogen.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Arsenic (7440-38-2)	Yes	No	1
Nitric Acid (7697-37-2)	No	No	None
Water (7732-18-5)	No	No	None

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

---

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

---

## 14. Transport Information

**Domestic (Land, D.O.T.)**  
-----**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(NITRIC ACID)**Hazard Class:** 8**UN/NA:** UN3264

Packing Group: III

**Information reported for product/size:** 150ML**International (Water, I.M.O.)**  
-----**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(NITRIC ACID)**Hazard Class:** 8**UN/NA:** UN3264

Packing Group: III

**Information reported for product/size:** 150ML**International (Air, I.C.A.O.)**  
-----**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(NITRIC ACID)**Hazard Class:** 8**UN/NA:** UN3264

Packing Group: III

**Information reported for product/size:** 150ML

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Arsenic (7440-38-2)	Yes	Yes	No	Yes
Nitric Acid (7697-37-2)	Yes	Yes	Yes	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	--Canada--		
		DSL	NDSL	Phil.
Arsenic (7440-38-2)	Yes	Yes	No	Yes
Nitric Acid (7697-37-2)	Yes	Yes	No	Yes
Water (7732-18-5)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Arsenic (7440-38-2)	No	No	Yes	Arsenic comp
Nitric Acid (7697-37-2)	1000	1000	Yes	No
Water (7732-18-5)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
Arsenic (7440-38-2)	1	No	No
Nitric Acid (7697-37-2)	1000	No	No
Water (7732-18-5)	No	No	No

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
 Reactivity: No      (Mixture / Liquid)

### WARNING:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** S6

### WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 3 Flammability: 0 Reactivity: 0

### Label Hazard Warning:

DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL

BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED. AFFECTS LIVER, KIDNEYS, LUNGS AND TEETH. CANCER HAZARD. CONTAINS INORGANIC ARSENIC WHICH CAN CAUSE CANCER. Risk of cancer depends on duration and level of exposure.

**Label Precautions:**

- Do not get in eyes, on skin, or on clothing.
- Do not breathe vapor or mist.
- Use only with adequate ventilation.
- Wash thoroughly after handling.
- Keep container closed.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases get medical attention immediately.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

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\*\*\*\*\*

**Prepared by:** Environmental Health & Safety  
Phone Number: (314) 654-1600 (U.S.A.)

MSDS Number: **B0336** \* \* \* \* \* *Effective Date: 11/21/08* \* \* \* \* \* *Supersedes: 01/16/06*

**MSDS**

**Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



Mallinckrodt  
CHEMICALS



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# BARIUM ACETATE

## 1. Product Identification

**Synonyms:** Barium diacetate; acetic acid, barium salt

**CAS No.:** 543-80-6

**Molecular Weight:** 255.43

**Chemical Formula:** Ba(CH<sub>3</sub>COO)<sub>2</sub>

**Product Codes:**

J.T. Baker: 0942, 0943

Mallinckrodt: 3716

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Barium Acetate	543-80-6	99 - 100%	Yes

## 3. Hazards Identification

**Emergency Overview**

-----

**DANGER! MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED.  
CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

---

Health Rating: 3 - Severe (Poison)

Flammability Rating: 1 - Slight

Reactivity Rating: 0 - None

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Blue (Health)

---

### **Potential Health Effects**

---

#### **Inhalation:**

May cause irritation to the nose, throat, and respiratory tract. Symptoms may include sore throat, coughing, and shortness of breath. Systemic poisoning may occur in sensitive individuals with symptoms similar to those of ingestion.

#### **Ingestion:**

May cause tightness of the muscles of the face and neck, vomiting, diarrhea, abdominal pain, muscular tremors, anxiety, weakness, labored breathing, cardiac irregularity, convulsions, and death from cardiac and respiratory failure. Estimated lethal dose lies between 1 to 15 grams. Death may occur within hours or up to a few days. May cause kidney damage.

#### **Skin Contact:**

May cause irritation with redness and pain.

#### **Eye Contact:**

May cause irritation, redness and pain.

#### **Chronic Exposure:**

No information found.

#### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin and nervous system disorders or impaired respiratory or kidney function may be more susceptible to the effects of this substance.

---

## **4. First Aid Measures**

#### **Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

#### **Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

#### **Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

**Note to Physician:**

Precipitate ingested soluble barium compounds as benign insoluble barium sulfate using an Epsom (MgSO<sub>4</sub>) or a Glauber's (Na<sub>2</sub>SO<sub>4</sub>) salt solution. Dilute copiously with water or milk. Evacuate via nasogastric aspiration or induction of emesis. Monitor electrolytes, especially potassium (treat for hypokalemia), electrocardiogram and rhythm, and acid/base status. Induce brisk diuresis. Calcium gluconate may be helpful for muscle spasms. Provide oxygen by nasal cannula or mask and other supportive treatment for symptoms as clinically indicated.

---

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

For Soluble Barium Compounds:

OSHA Permissible Exposure Limit (PEL):

0.5 mg (Ba)/m<sup>3</sup>

ACGIH Threshold Limit Value (TLV):

0.5 mg (Ba)/m<sup>3</sup> A4 - not classifiable as a human carcinogen

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece particulate respirator (NIOSH type N100 filters) may be worn for up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear protective gloves and clean body-covering clothing.

### **Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

### **Appearance:**

White crystals.

### **Odor:**

Slight acetic acid odor.

### **Solubility:**

1 g/1.5 ml water

### **Density:**

2.47

### **pH:**

No information found.

### **% Volatiles by volume @ 21C (70F):**

0

### **Boiling Point:**

Not applicable.

### **Melting Point:**

No information found.

### **Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

May produce acrid smoke and irritating fumes when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

No incompatibility data found.

**Conditions to Avoid:**

Heat and incompatibles.

## 11. Toxicological Information

Oral rat LD50: 921 mg/kg

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Barium Acetate (543-80-6)	No	No	None

## 12. Ecological Information

**Environmental Fate:**

This material may bioaccumulate to some extent.

**Environmental Toxicity:**

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material

may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

### Domestic (Land, D.O.T.)

**Proper Shipping Name:** BARIUM COMPOUND, N.O.S. (BARIUM ACETATE)

**Hazard Class:** 6.1

**UN/NA:** UN1564

**Packing Group:** III

**Information reported for product/size:** 100LB

### International (Water, I.M.O.)

**Proper Shipping Name:** BARIUM COMPOUND, N.O.S. (BARIUM ACETATE)

**Hazard Class:** 6.1

**UN/NA:** UN1564

**Packing Group:** III

**Information reported for product/size:** 100LB

### International (Air, I.C.A.O.)

**Proper Shipping Name:** BARIUM COMPOUND, N.O.S. (BARIUM ACETATE)

**Hazard Class:** 6.1

**UN/NA:** UN1564

**Packing Group:** III

**Information reported for product/size:** 100LB

## 15. Regulatory Information

```

-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA  EC   Japan  Australia
-----
Barium Acetate (543-80-6)                     Yes  Yes  Yes    Yes
  
```

```

-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  --Canada--  Phil.
                                     Korea  DSL   NDSL
-----
Barium Acetate (543-80-6)                     No    Yes   No    Yes
  
```

```

-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-  -SARA 313-
                                     RQ   TPQ      List  Chemical Catg.
  
```

Barium Acetate (543-80-6)	No	No	No	Barium compo
-----\Federal, State & International Regulations - Part 2\-----				
Ingredient	CERCLA		-RCRA- 261.33	-TSCA- 8 (d)
Barium Acetate (543-80-6)	No		No	No

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: No      Fire: No      Pressure: No  
 Reactivity: No      (Pure / Solid)

**Australian Hazchem Code: 2Z**

**Poison Schedule: S6**

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: **3** Flammability: **0** Reactivity: **0**

**Label Hazard Warning:**

DANGER! MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

**Label Precautions:**

- Do not breathe dust.
- Avoid contact with eyes, skin and clothing.
- Keep container closed.
- Use only with adequate ventilation.
- Wash thoroughly after handling.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. In all cases call a physician.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

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**Prepared by:** Environmental Health & Safety  
Phone Number: (314) 654-1600 (U.S.A.)

# Material Safety Data Sheet

## Cadmium metal, granular

ACC# 03720

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Cadmium metal, granular**Catalog Numbers:** 61213-5000, C3-500**Synonyms:** None.**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7440-43-9	Cadmium	100	231-152-8

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: silver white granules.

**Danger!** Flammable solid. May be fatal if inhaled. Harmful if swallowed. Causes eye, skin, and respiratory tract irritation. Contains cadmium. Cancer hazard. Avoid creating dust. Can cause lung and kidney disease. Inhalation of fumes may cause metal-fume fever. Air sensitive. May cause reproductive and fetal effects.

**Target Organs:** Blood, kidneys, liver, lungs, skeletal structures, prostate.

#### Potential Health Effects

**Eye:** Causes eye irritation.**Skin:** Causes skin irritation.**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion may produce fluid loss, acute renal failure, and cardiopulmonary depression.**Inhalation:** May be fatal if inhaled. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. Damage may be delayed. May cause nausea, vomiting, abdominal pain, diarrhea, chest tightness, weakness, and delayed pulmonary edema. In humans inhalation causes proteinuria, an excess of protein in the urine.**Chronic:** May cause respiratory tract cancer. Repeated inhalation may cause chronic bronchitis. Chronic inhalation may cause nasal septum ulceration and perforation. Cadmium and compounds may cause lung, liver and kidney damage and lung and prostate cancer in humans. May cause loss of smell, emphysema, anemia, bone demineralization, and lung fibrosis. The primary target organ

for chronic cadmium disease is clearly the kidney.

## Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** POISON material. If inhaled, get medical aid immediately. Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Attempt rescue only after notifying at least one other person of the emergency and putting into effect established emergency procedures. Do not become a casualty yourself.

**Notes to Physician:** Administration of calcium disodium EDTA may be useful in acute poisoning with its use at the discretion of qualified medical personnel. Persons with kidney disease, chronic respiratory disease, liver disease, or skin disease may be at increased risk from exposure to this substance.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material can spontaneously ignite (pyrophoric) when exposed to air at normal or slightly elevated temperatures. Dust can be an explosion hazard when exposed to heat or flame. Flammable solid. May burn rapidly with flare burning effect. May re-ignite after fire is extinguished. Dangerous fire hazard in the form of dust when exposed to heat or flame.

**Extinguishing Media:** Use dry sand, graphite powder, dry sodium chloride-based extinguishers.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 4; Flammability: 2; Instability: 1

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Place under an inert atmosphere.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Use spark-proof tools

and explosion proof equipment. Avoid contact with skin and eyes. Do not breathe dust, mist, or vapor. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Handle under an inert atmosphere. Store protected from air. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:** Keep away from heat and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not expose to air. Store under an inert atmosphere.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood. See 29CFR 1910.1027 for regulations applying to all occupational exposures to cadmium and cadmium compounds, in all forms.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Cadmium	0.01 mg/m <sup>3</sup> TWA; 0.002 mg/m <sup>3</sup> TWA (respirable fraction)	9 mg/m <sup>3</sup> IDLH (dust)	5 æg/m <sup>3</sup> TWA; 0.1 mg/m <sup>3</sup> TWA (fume, applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect); 0.2 mg/m <sup>3</sup> TWA (dust, applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect); 0.3 mg/m <sup>3</sup> Ceiling (fume, applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect); 0.6 mg/m <sup>3</sup> Ceiling (dust, applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect); 2.5 æg/m <sup>3</sup> Action Level; 5 æg/m <sup>3</sup> TWA (Do not eat, drink or chew tobacco or gum or apply cosmetics in regulated areas. Carcinogen - dust can cause lung and kidney disease. See 29 CFR 1910.1027)

**OSHA Vacated PELs:** Cadmium: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Granules  
**Appearance:** silver white  
**Odor:** odorless  
**pH:** Not available.  
**Vapor Pressure:** Not applicable.  
**Vapor Density:** Not available.  
**Evaporation Rate:** Not applicable.  
**Viscosity:** Not applicable.  
**Boiling Point:** 765 deg C @ 760 mmHg  
**Freezing/Melting Point:** 321 deg C  
**Decomposition Temperature:** Not available.  
**Solubility:** Insoluble.  
**Specific Gravity/Density:** 8.64 @ 25°C  
**Molecular Formula:** Cd  
**Molecular Weight:** 112.40

## Section 10 - Stability and Reactivity

**Chemical Stability:** Oxidizes when exposed to air. Easily tarnishes in moist air. Powder or liquid is pyrophoric. Contact with acid liberates gas.

**Conditions to Avoid:** Ignition sources, dust generation, excess heat, prolonged exposure to air.

**Incompatibilities with Other Materials:** Strong oxidizing agents, acids, sulfur, zinc, selenium, tellurium.

**Hazardous Decomposition Products:** Toxic cadmium oxide fumes.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 7440-43-9: EU9800000

**LD50/LC50:**

CAS# 7440-43-9:

Inhalation, rat: LC50 = 25 mg/m<sup>3</sup>/30M;

Oral, mouse: LD50 = 890 mg/kg;

Oral, rat: LD50 = 2330 mg/kg;

**Carcinogenicity:**

CAS# 7440-43-9:

- **ACGIH:** A2 - Suspected Human Carcinogen

- **California:** carcinogen, initial date 10/1/87
- **NTP:** Known carcinogen
- **IARC:** Group 1 carcinogen

**Epidemiology:** Occupational exposure to cadmium has been implicated in a significant increase in prostate and respiratory tract cancer. There is evidence of a significant excess of respiratory cancer deaths among a cohort of cadmium production workers, and concluded that cadmium and its compounds are potential carcinogens.

**Teratogenicity:** Oral, rat: TDLo = 155 mg/kg (male 13 week(s) pre-mating and female 13 week (s) pre-mating - 3 week(s) after conception) Effects on Newborn - growth statistics (e.g.%, reduced weight gain) and Effects on Newborn - behavioral.; Oral, rat: TDLo = 23 mg/kg (female 1-22 day(s) after conception) Specific Developmental Abnormalities - blood and lymphatic systems (including spleen and marrow).; Oral, mouse: TDLo = 1700 mg/kg (female 8-12 day(s) after conception) Effects on Newborn - viability index (e.g., # alive at day 4 per # born alive) and Effects on Newborn - growth statis

**Reproductive Effects:** Oral, rat: TDLo = 21500 ug/kg (multigenerations) Fertility - pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea).; Intraperitoneal, rat: TDLo = 1124 ug/kg (male 1 day(s) pre-mating) Paternal Effects - spermatogenesis (incl. genetic material, sperm morphology, motility, and count).

**Mutagenicity:** Micronucleus Test: Mouse, Embryo = 6 umol/L.; Cytogenetic Analysis: Hamster, Ovary = 1 umol/L.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Rainbow trout: TLm = 30 ppm; 24 Hr; Hard water Fish: Striped bass: LC50 = 0.001 ppm; 24-48 Hr; Static bioassay Fish: Fathead Minnow: TL50 = 7.2 ppm; 96 Hr; Unspecified Fish: Bluegill/Sunfish: LCO = 0.08 ppm; 96 Hr; Static bioassay (Hard water) No data available.

**Environmental:** Cadmium can enter the air from natural sources.

**Physical:** No information available.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	TOXIC SOLIDS, FLAMMABLE, ORGANIC, N.O.S.	Toxic Solid, Flammable, Organic, N.O.S. (CADMIUM METAL)

<b>Hazard Class:</b>	6.1	6.1
<b>UN Number:</b>	UN2930	UN2930
<b>Packing Group:</b>	I	I

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7440-43-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 7440-43-9: 10 lb final RQ (no reporting of releases of this hazardous substance is required)

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 7440-43-9: immediate, delayed, fire.

#### Section 313

This material contains Cadmium (CAS# 7440-43-9, 100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

CAS# 7440-43-9 (listed as Cadmium compounds) is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CAS# 7440-43-9 is listed as a Priority Pollutant under the Clean Water Act. CAS# 7440-43-9 is listed as a Toxic Pollutant under the Clean Water Act.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 7440-43-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

#### The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Cadmium, a chemical known to the state of California to cause cancer. WARNING: This product contains Cadmium, a chemical known to the state of California to cause male reproductive toxicity.

California No Significant Risk Level: CAS# 7440-43-9: 0.05 æg/day NSRL (inhalation)

### European/International Regulations

#### European Labeling in Accordance with EC Directives

**Hazard Symbols:**

T+ F

**Risk Phrases:**

- R 11 Highly flammable.
- R 25 Toxic if swallowed.
- R 26 Very toxic by inhalation.
- R 45 May cause cancer.

**Safety Phrases:**

- S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 53 Avoid exposure - obtain special instructions before use.

**WGK (Water Danger/Protection)**

CAS# 7440-43-9: No information available.

**Canada - DSL/NDSL**

CAS# 7440-43-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D1A, B4.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 7440-43-9 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
--

**MSDS Creation Date:** 6/28/1999**Revision #7 Date:** 2/13/2008

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*



From: Avantor Performance Materials, Inc.  
Saucon Valley Plaza  
3477 Corporate Parkway  
Suite #200  
Center Valley, PA 18034



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

**NOTE:** CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service, 1-855-AVANTOR (855-282-6867) for assistance.

## CALCIUM, 1,000 ug/ml or 10,000 ug/ml

### 1. Product Identification

**Synonyms:** None

**CAS No.:** Not applicable to mixtures.

**Molecular Weight:** Not applicable to mixtures.

**Chemical Formula:** CaCO<sub>3</sub> and HNO<sub>3</sub> in H<sub>2</sub>O

**Product Codes:** 5710, 5724, 6448

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Calcium Carbonate	471-34-1	0.1 - 3%	Yes
Nitric Acid	7697-37-2	< 4%	Yes
Water	7732-18-5	> 93%	No

### 3. Hazards Identification

#### Emergency Overview

**DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED. VAPOR IRRITATING TO EYES AND RESPIRATORY TRACT. INHALATION MAY CAUSE LUNG AND TOOTH DAMAGE.**

**J.T. Baker SAF-T-DATA<sup>™</sup>** Ratings (Provided here for your convenience)

Health Rating: 3 - Severe (Life)

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 3 - Severe (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: White (Corrosive)

## Potential Health Effects

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Nitric acid is extremely hazardous; it is corrosive, reactive, an oxidizer, and a poison.

### **Inhalation:**

Corrosive! Inhalation of vapors can cause breathing difficulties and lead to pneumonia and pulmonary edema, which may be fatal. Other symptoms may include coughing, choking, and irritation of the nose, throat, and respiratory tract.

### **Ingestion:**

Corrosive! Swallowing nitric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract.

### **Skin Contact:**

Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and stain skin a yellow or yellow-brown color.

### **Eye Contact:**

Corrosive! Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.

### **Chronic Exposure:**

Long-term exposure to concentrated vapors may cause erosion of teeth and lung damage. Long-term exposures seldom occur due to the corrosive properties of the acid.

### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders, eye disease, or cardiopulmonary diseases may be more susceptible to the effects of this substance.

---

## 4. First Aid Measures

Immediate first aid treatment reduces the health effects of this substance.

### **Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

### **Ingestion:**

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

### **Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

### **Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

### **Fire:**

Not combustible, but concentrated material is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

### **Explosion:**

Concentrated material reacts explosively with combustible organic or readily oxidizable materials such as: alcohols, turpentine, charcoal, organic refuse, metal powder, hydrogen sulfide, etc. Reacts with most metals to release hydrogen gas which can form explosive mixtures with air.

### **Fire Extinguishing Media:**

If involved in a fire, use water spray.

**Special Information:**

Increases the flammability of combustible, organic and readily oxidizable materials. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker NEUTRASORB® acid neutralizers are recommended for spills of this product.

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## 7. Handling and Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Do not wash out container and use it for other purposes. When diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

For Nitric Acid:

OSHA Permissible Exposure Limit (PEL):

2 ppm (TWA)

ACGIH Threshold Limit Value (TLV):

2 ppm (TWA); 4 ppm (STEL)

-OSHA Permissible Exposure Limit (PEL):

15 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable dust for calcium carbonate

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, wear a supplied air, full-facepiece respirator, airtight hood, or full-facepiece self-contained breathing apparatus. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134). Canister-type respirators using sorbents are ineffective.

**Skin Protection:**

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

**Appearance:**

Clear colorless liquid.

**Odor:**

Odorless.

**Solubility:**

Completely soluble in water.

**Specific Gravity:**

No information found.

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

> 95

**Boiling Point:**

No information found.

**Melting Point:**

No information found.

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

No information found.

---

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

When heated to decomposition, emits toxic nitrogen oxides fumes and hydrogen nitrate. Caustic fumes of calcium oxide may form when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

A dangerously powerful oxidizing agent, concentrated nitric acid is incompatible with most substances, especially strong bases, metallic powders, carbides, hydrogen sulfide, turpentine, and combustible organics.

**Conditions to Avoid:**

Heat, incompatibles.

---

## 11. Toxicological Information

For Nitric Acid: Investigated as a mutagen and reproductive effector.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Calcium Carbonate (471-34-1)	No	No	None
Nitric Acid (7697-37-2)	No	No	None
Water (7732-18-5)	No	No	None

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## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

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## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14. Transport Information

**Domestic (Land, D.O.T.)**  
-----

**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

**Hazard Class:** 8

**UN/NA:** UN3264

Packing Group: III

**Information reported for product/size:** 150ML

**International (Water, I.M.O.)**  
-----

**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

**Hazard Class:** 8

**UN/NA:** UN3264

Packing Group: III

**Information reported for product/size:** 150ML

**International (Air, I.C.A.O.)**  
-----

**Proper Shipping Name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

**Hazard Class:** 8

**UN/NA:** UN3264

Packing Group: III

**Information reported for product/size:** 150ML

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## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Calcium Carbonate (471-34-1)	Yes	Yes	Yes	Yes
Nitric Acid (7697-37-2)	Yes	Yes	Yes	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

Ingredient	Korea	DSL	Phil.
		-----Canada-----	

Calcium Carbonate (471-34-1)	Yes	Yes	No	Yes
Nitric Acid (7697-37-2)	Yes	Yes	No	Yes
Water (7732-18-5)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----

Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Calcium Carbonate (471-34-1)	No	No	No	No
Nitric Acid (7697-37-2)	1000	1000	Yes	No
Water (7732-18-5)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
Calcium Carbonate (471-34-1)	No	No	No
Nitric Acid (7697-37-2)	1000	No	No
Water (7732-18-5)	No	No	No

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
Reactivity: No      (Mixture / Liquid)

**Australian Hazchem Code:** 2PE

**Poison Schedule:** S5

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 3 Flammability: 0 Reactivity: 0 Other: **Oxidizer**

**Label Hazard Warning:**

DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED. VAPOR IRRITATING TO EYES AND RESPIRATORY TRACT. INHALATION MAY CAUSE LUNG AND TOOTH DAMAGE.

**Label Precautions:**

Do not get in eyes, on skin, or on clothing.

Do not breathe vapor or mist.

Use only with adequate ventilation.

Wash thoroughly after handling.

Keep container closed.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If swallowed, DO NOT INDUCE VOMITING.

Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases get medical attention immediately.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

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\*\*\*\*\*

**Prepared by: Environmental Health & Safety**

MSDS Number: **C5170** \* \* \* \* \* *Effective Date: 11/21/08* \* \* \* \* \* *Supersedes: 02/23/06*

## **MSDS** Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# COPPER METAL

## 1. Product Identification

**Synonyms:** C.I. 77400; Arwood Copper

**CAS No.:** 7440-50-8

**Molecular Weight:** 63.546

**Chemical Formula:** Cu

**Product Codes:**

J.T. Baker: 1714, 1720, 1732, 1736

Mallinckrodt: 1733, 4649

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Copper	7440-50-8	90 - 100%	Yes

## 3. Hazards Identification

**Emergency Overview**

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**WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE LIVER AND KIDNEYS. CHRONIC EXPOSURE MAY CAUSE TISSUE DAMAGE.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

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Health Rating: 3 - Severe (Life)

Flammability Rating: 1 - Slight

Reactivity Rating: 2 - Moderate

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD;  
PROPER GLOVES

Storage Color Code: Green (General Storage)

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### **Potential Health Effects**

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#### **Inhalation:**

Inhalation of dusts and fumes of metallic copper causes irritation of the upper respiratory tract, congestion of nasal mucous membranes, ulceration and perforation of the nasal septum, and pharyngeal congestion. Inhalation of copper fumes may give rise to metal fume fever (high temperature, metallic taste, nausea, coughing, general weakness, muscle aches, and exhaustion).

#### **Ingestion:**

Copper ingestion causes nausea, vomiting, abdominal pain, metallic taste, and diarrhea. Ingestion of large doses may cause stomach and intestine ulceration, jaundice, and kidney and liver damage.

#### **Skin Contact:**

Causes irritation to skin. Symptoms include redness, itching, and pain. Exposure to copper dust may cause a greenish-black skin discoloration.

#### **Eye Contact:**

Small copper particles in the eyes may cause irritation, discoloration, and damage.

#### **Chronic Exposure:**

Prolonged or repeated exposure to copper can discolor skin and hair and irritate the skin; may cause mild dermatitis, runny nose, and irritation of the mucous membranes. Repeated ingestion may damage the liver and kidneys. Repeated inhalation can cause chronic respiratory disease.

#### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function or pre-existing Wilson's disease may be more susceptible to the effects of this material.

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## **4. First Aid Measures**

#### **Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

#### **Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Skin Contact:**

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard since the bulk solid does not burn, but very finely divided particles (ultra-fine powder) may burn in air.

**Explosion:**

Not considered to be an explosion hazard. Reactions with incompatibles may pose an explosion hazard. Liquid copper explodes on contact with water. High concentrations of finely divided copper particles in the air may present an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Avoid exposure to air and moisture. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

### Airborne Exposure Limits:

Copper Dust and Mists, as Cu:

- OSHA Permissible Exposure Limit (PEL) -

1 mg/m<sup>3</sup> (TWA)

- ACGIH Threshold Limit Value (TLV) -

1 mg/m<sup>3</sup> (TWA)

Copper Fume:

- OSHA Permissible Exposure Limit (PEL) -

0.1 mg/m<sup>3</sup> (TWA)

- ACGIH Threshold Limit Value (TLV) -

0.2 mg/m<sup>3</sup> (TWA)

### Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece particulate respirator (NIOSH type N100 filters) may be worn for up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

### Appearance:

Reddish, metallic solid.

### Odor:

Odorless.

### Solubility:

Insoluble in water.

### Density:

8.94

### pH:

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

2595C (4703F)

**Melting Point:**

1083C (1981F)

**Vapor Density (Air=1):**

Not applicable.

**Vapor Pressure (mm Hg):**

1 @ 1628C (2962F)

**Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Copper becomes dull when exposed to air; on exposure to moist air it gradually converts to the carbonate. On long standing, a white, highly explosive peroxide deposit may form.

**Hazardous Decomposition Products:**

No information found.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Copper is incompatible with oxidizers, alkalis, acetylene, chlorine plus oxygen difluoride, phosphorus, nitric acid, potassium peroxide, 1-bromo-2-propyne, sulfur plus chlorates. Reacts violently with ammonium nitrate, bromates, iodates, chlorates, ethylene oxide, hydrozoic acid, potassium oxide, dimethyl sulfoxide plus trichloroacetic acid, hydrogen peroxide, sodium peroxide, sodium azide, sulfuric acid, hydrogen sulfide plus air, and lead azide. A potentially explosive reaction occurs with acetylenic compounds. Copper ignites on contact with chlorine, fluorine (above 121C), chlorine trifluoride, and hydrazinum nitrate (above 70C). An incandescent reaction occurs with potassium dioxide.

**Conditions to Avoid:**

Incompatibles and prolonged exposure to air and moisture.

## 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure. Investigated as a tumorigen and a reproductive effector.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Copper (7440-50-8)	No	No	None

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

```
-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA  EC   Japan  Australia
-----
Copper (7440-50-8)                             Yes  Yes  No     Yes
```

```
-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  DSL  NDSL  Phil.
-----
Copper (7440-50-8)                             Yes   Yes  No    Yes
```

```
-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-  -SARA 313-
RQ  TPQ  List  Chemical Catg.
-----
Copper (7440-50-8)                             No   No   Yes   No
```

```
-----\Federal, State & International Regulations - Part 2\-----
Ingredient                                     -RCRA-  -TSCA-
CERCLA  261.33  8(d)
-----
Copper (7440-50-8)                             5000   No    No
```

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No  
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No  
Reactivity: No (Pure / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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## 16. Other Information

**NFPA Ratings:** Health: **2** Flammability: **0** Reactivity: **0**

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE LIVER AND KIDNEYS. CHRONIC EXPOSURE MAY CAUSE TISSUE DAMAGE.

**Label Precautions:**

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Avoid breathing dust or vapors.

Keep container closed.

Use only with adequate ventilation.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

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\*\*\*\*\*

**Prepared by:** Environmental Health & Safety  
Phone Number: (314) 654-1600 (U.S.A.)

MSDS Number: **L2347** \* \* \* \* \* *Effective Date: 09/15/09* \* \* \* \* \* *Supersedes: 07/05/07*

# **MSDS** Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

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Outside U.S. and Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

## LEAD METAL

### 1. Product Identification

**Synonyms:** Granular lead, pigment metal; C.I. 77575

**CAS No.:** 7439-92-1

**Molecular Weight:** 207.19

**Chemical Formula:** Pb

**Product Codes:**

J.T. Baker: 2256, 2266

Mallinckrodt: 5668

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Lead	7439-92-1	95 - 100%	Yes

### 3. Hazards Identification

**Emergency Overview**

-----

**POISON! DANGER! MAY BE FATAL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. NEUROTOXIN. AFFECTS THE GUM TISSUE, CENTRAL NERVOUS SYSTEM, KIDNEYS, BLOOD AND REPRODUCTIVE SYSTEM. POSSIBLE CANCER HAZARD. MAY CAUSE CANCER BASED ON ANIMAL DATA. Risk of cancer depends on duration and level of exposure.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

---

Health Rating: 3 - Severe (Cancer Causing)

Flammability Rating: 3 - Severe (Flammable)

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate (Life)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: Red (Flammable)

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### **Potential Health Effects**

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#### **Inhalation:**

Lead can be absorbed through the respiratory system. Local irritation of bronchia and lungs can occur and, in cases of acute exposure, symptoms such as metallic taste, chest and abdominal pain, and increased lead blood levels may follow. See also Ingestion.

#### **Ingestion:**

**POISON!** The symptoms of lead poisoning include abdominal pain and spasms, nausea, vomiting, headache. Acute poisoning can lead to muscle weakness, "lead line" on the gums, metallic taste, definite loss of appetite, insomnia, dizziness, high lead levels in blood and urine with shock, coma and death in extreme cases.

#### **Skin Contact:**

Lead and lead compounds may be absorbed through the skin on prolonged exposure; the symptoms of lead poisoning described for ingestion exposure may occur. Contact over short periods may cause local irritation, redness and pain.

#### **Eye Contact:**

Absorption can occur through eye tissues but the more common hazards are local irritation or abrasion.

#### **Chronic Exposure:**

Lead is a cumulative poison and exposure even to small amounts can raise the body's content to toxic levels. The symptoms of chronic exposure are like those of ingestion poisoning; restlessness, irritability, visual disturbances, hypertension and gray facial color may also be noted.

#### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing kidney, nerve or circulatory disorders or with skin or eye problems may be more susceptible to the effects of this substance.

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## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

---

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard. Powder/dust is flammable when heated or exposed to flame.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire. Do not allow water runoff to enter sewers or waterways.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Can produce toxic lead fumes at elevated temperatures and also react with oxidizing materials.

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## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Areas in which exposure to lead metal or lead compounds may occur should be identified by signs or appropriate means, and access to the area should be limited to authorized persons. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

For lead, metal and inorganic dusts and fumes, as Pb:

-OSHA Permissible Exposure Limit (PEL): 0.05 mg/m<sup>3</sup> (TWA)

For lead, elemental and inorganic compounds, as Pb:

-ACGIH Threshold Limit Value (TLV): 0.05 mg/m<sup>3</sup> (TWA), A3 animal carcinogen

ACGIH Biological Exposure Indices (BEI): 30 ug/100ml, notation B (see actual Indices for more information).

For lead, inorganic:

-NIOSH Recommended Exposure Limit (REL): 0.1 mg/m<sup>3</sup> (TWA)

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, a half-face high efficiency particulate respirator (NIOSH type N100 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece high efficiency particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### **Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

### **Other Control Measures:**

Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing lead compounds are handled, processed, or stored. See OSHA substance-specific standard for more information on personal protective equipment, engineering and work practice controls, medical surveillance, record keeping, and reporting requirements. (29 CFR 1910.1025).

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## 9. Physical and Chemical Properties

**Appearance:**

Small, white to blue-gray metallic shot or granules.

**Odor:**

Odorless.

**Solubility:**

Insoluble in water.

**Density:**

11.34

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

1740C (3164F)

**Melting Point:**

327.5C (622F)

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

1.77 @ 1000C (1832F)

**Evaporation Rate (BuAc=1):**

No information found.

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## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Does not decompose but toxic lead or lead oxide fumes may form at elevated temperatures.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Ammonium nitrate, chlorine trifluoride, hydrogen peroxide, sodium azide, zirconium, disodium acetylide, sodium acetylide and oxidants.

**Conditions to Avoid:**

Heat, flames, ignition sources and incompatibles.

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## 11. Toxicological Information

**Toxicological Data:**

Investigated as a tumorigen, mutagen, reproductive effector.

**Reproductive Toxicity:**

Lead and other smelter emissions are human reproductive hazards. (Chemical Council on Environmental Quality; Chemical Hazards to Human Reproduction, 1981).

**Carcinogenicity:**

EPA / IRIS classification: Group B2 - Probable human carcinogen, sufficient animal evidence.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Lead (7439-92-1)	No	No	2B

## 12. Ecological Information

**Environmental Fate:**

When released into the soil, this material is not expected to leach into groundwater. This material may bioaccumulate to some extent.

**Environmental Toxicity:**

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Lead (7439-92-1)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	--Canada--		
		DSL	NDSL	Phil.
Lead (7439-92-1)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Lead (7439-92-1)	No	No	Yes	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
Lead (7439-92-1)	10	No	No

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
Reactivity: No      (Pure / Solid)

**WARNING:**

THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** S6

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: **3** Flammability: **1** Reactivity: **0**

**Label Hazard Warning:**

POISON! DANGER! MAY BE FATAL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. NEUROTOXIN. AFFECTS THE GUM TISSUE, CENTRAL NERVOUS SYSTEM, KIDNEYS, BLOOD AND REPRODUCTIVE SYSTEM. POSSIBLE CANCER HAZARD. MAY CAUSE CANCER BASED ON ANIMAL DATA. Risk of cancer depends on duration and level of exposure.

**Label Precautions:**

Do not get in eyes, on skin, or on clothing.  
Do not breathe dust.  
Keep container closed.  
Use only with adequate ventilation.  
Wash thoroughly after handling.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give

anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

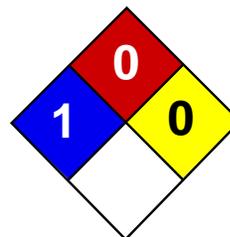
**Disclaimer:**

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**Prepared by:** Environmental Health & Safety  
Phone Number: (314) 654-1600 (U.S.A.)



Health	1
Fire	0
Reactivity	0
Personal Protection	E

## Material Safety Data Sheet

### Magnesium sulfate anhydrous MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Magnesium sulfate anhydrous

**Catalog Codes:** SLM2992, SLM2227

**CAS#:** 7487-88-9

**RTECS:** OM4500000

**TSCA:** TSCA 8(b) inventory: Magnesium sulfate anhydrous

**CI#:** Not available.

**Synonym:**

**Chemical Formula:** MgSO<sub>4</sub>

**Contact Information:**

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**

1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Magnesium sulfate anhydrous	7487-88-9	100

**Toxicological Data on Ingredients:** Not applicable.

#### Section 3: Hazards Identification

**Potential Acute Health Effects:**

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

#### Section 4: First Aid Measures

**Eye Contact:** Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.

**Skin Contact:**

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used.

Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

**Serious Skin Contact:** Not available.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:** Not available.

**Ingestion:**

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

### Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not applicable.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

### Section 6: Accidental Release Measures

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

### Section 7: Handling and Storage

**Precautions:** No specific safety phrase has been found applicable for this product.

**Storage:**

No specific storage is required. Use shelves or cabinets sturdy enough to bear the weight of the chemicals. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

### Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

### Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** 120.38 g/mole

**Color:** Not available.

**pH (1% soln/water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:** Easily soluble in cold water.

### Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:** Not available.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** No.

### Section 11: Toxicological Information

**Routes of Entry:** Ingestion.

**Toxicity to Animals:**

LD50: Not available. LC50: Not available.

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:**

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Human: passes through the placenta, excreted in maternal milk.

**Special Remarks on other Toxic Effects on Humans:** Not available.

### Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are more toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

### Section 13: Disposal Considerations

**Waste Disposal:**

### Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

### Section 15: Other Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: Magnesium sulfate anhydrous

**Other Regulations:** Not available..

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL (EEC):**

This product is not classified according to the EU regulations.

**HMIS (U.S.A.):**

**Health Hazard:** 1

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):**

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

## Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/10/2005 08:22 PM

**Last Updated:** 11/01/2010 12:00 PM

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.*

MSDS Number: **M1599** \* \* \* \* \* *Effective Date: 08/20/08* \* \* \* \* \* *Supersedes: 12/19/05*

## **MSDS** Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# MERCURY

## 1. Product Identification

**Synonyms:** Quicksilver; hydrargyrum; Liquid Silver

**CAS No.:** 7439-97-6

**Molecular Weight:** 200.59

**Chemical Formula:** Hg

**Product Codes:**

J.T. Baker: 2564, 2567, 2569

Mallinckrodt: 1278, 1280, 1288

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Mercury	7439-97-6	90 - 100%	Yes

## 3. Hazards Identification

**Emergency Overview**

-----

**DANGER! CORROSIVE. CAUSES BURNS TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE FATAL IF SWALLOWED OR INHALED. HARMFUL IF ABSORBED THROUGH SKIN. AFFECTS THE KIDNEYS AND CENTRAL NERVOUS SYSTEM. MAY CAUSE ALLERGIC SKIN REACTION.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

---

Health Rating: 4 - Extreme (Life)

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 3 - Severe (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: White (Corrosive)

---

### **Potential Health Effects**

---

#### **Inhalation:**

Mercury vapor is highly toxic via this route. Causes severe respiratory tract damage. Symptoms include sore throat, coughing, pain, tightness in chest, breathing difficulties, shortness of breath, headache, muscle weakness, anorexia, gastrointestinal disturbance, ringing in the ear, liver changes, fever, bronchitis and pneumonitis. Can be absorbed through inhalation with symptoms similar to ingestion.

#### **Ingestion:**

May cause burning of the mouth and pharynx, abdominal pain, vomiting, corrosive ulceration, bloody diarrhea. May be followed by a rapid and weak pulse, shallow breathing, paleness, exhaustion, tremors and collapse. Delayed death may occur from renal failure. Gastrointestinal uptake of mercury is less than 5% but its ability to penetrate tissues presents some hazard. Initial symptoms may be thirst, possible abdominal discomfort.

#### **Skin Contact:**

Causes irritation and burns to skin. Symptoms include redness and pain. May cause skin allergy and sensitization. Can be absorbed through the skin with symptoms to parallel ingestion.

#### **Eye Contact:**

Causes irritation and burns to eyes. Symptoms include redness, pain, blurred vision; may cause serious and permanent eye damage.

#### **Chronic Exposure:**

Chronic exposure through any route can produce central nervous system damage. May cause muscle tremors, personality and behavior changes, memory loss, metallic taste, loosening of the teeth, digestive disorders, skin rashes, brain damage and kidney damage. Can cause skin allergies and accumulate in the body. Repeated skin contact can cause the skin to turn gray in color. A suspected reproductive hazard; may damage the developing fetus and decrease fertility in males and females.

#### **Aggravation of Pre-existing Conditions:**

Persons with nervous disorders, or impaired kidney or respiratory function, or a history of allergies or a known sensitization to mercury may be more susceptible to the effects of the substance.

## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

---

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire. Do not allow water runoff to enter sewers or waterways.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Undergoes hazardous reactions in the presence of heat and sparks or ignition. Smoke may contain toxic mercury or mercuric oxide. Smoke may contain toxic mercury or mercuric oxide.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from vapor.

Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate misting. Sprinkle area with sulfur or calcium polysulfide to suppress mercury. Do not flush to sewer. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker CINNASORB® and RESISORB® are recommended for spills of this product.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Do not use or store on porous work surfaces (wood, unsealed concrete, etc.). Follow strict hygiene practices. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

- OSHA Acceptable Ceiling Concentration:

mercury and mercury compounds: 0.1 mg/m<sup>3</sup> (TWA), skin

- ACGIH Threshold Limit Value (TLV):

inorganic and metallic mercury, as Hg: 0.025 mg/m<sup>3</sup> (TWA) skin, A4 Not classifiable as a human carcinogen.

- ACGIH Biological Exposure Indices:

total inorganic mercury in urine (preshift): 35 ug/g creatinine;

total inorganic mercury in blood (end of shift): 15 ug/l.

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, a half-face respirator with a mercury vapor or chlorine gas cartridge may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with a mercury vapor or chlorine gas cartridge may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

**WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### **Eye Protection:**

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

**Appearance:**

Silver-white, heavy, mobile, liquid metal.

**Odor:**

Odorless.

**Solubility:**

Insoluble in water.

**Density:**

13.55

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

100

**Boiling Point:**

356.7C (675F)

**Melting Point:**

-38.87C (-38F)

**Vapor Density (Air=1):**

7.0

**Vapor Pressure (mm Hg):**

0.0018 @ 25C (77F)

**Evaporation Rate (BuAc=1):**

4

---

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

At high temperatures, vaporizes to form extremely toxic fumes.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Acetylenes, ammonia, ethylene oxide, chlorine dioxide, azides, metal oxides, methyl silane, lithium, rubidium, oxygen, strong oxidants, metal carbonyls.

**Conditions to Avoid:**

Heat, flames, ignition sources, metal surfaces and incompatibles.

---

## 11. Toxicological Information

**Toxicological Data:**

Investigated as a tumorigen, mutagen, reproductive effector.

**Reproductive Toxicity:**

All forms of mercury can cross the placenta to the fetus, but most of what is known has

been learned from experimental animals. See Chronic Health Hazards.

**Carcinogenicity:**

EPA / IRIS classification: Group D1 - Not classifiable as a human carcinogen.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Mercury (7439-97-6)	No	No	3

## 12. Ecological Information

**Environmental Fate:**

This material has an experimentally-determined bioconcentration factor (BCF) of greater than 100. This material is expected to significantly bioaccumulate.

**Environmental Toxicity:**

This material is expected to be toxic to aquatic life. The LC50/96-hour values for fish are less than 1 mg/l.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

**Domestic (Land, D.O.T.)**

**Proper Shipping Name:** RQ, MERCURY

**Hazard Class:** 8

**UN/NA:** UN2809

**Packing Group:** III

**Information reported for product/size:** 1LB

**International (Water, I.M.O.)**

**Proper Shipping Name:** MERCURY

**Hazard Class:** 8

**UN/NA:** UN2809

**Packing Group:** III

**Information reported for product/size:** 1LB

## 15. Regulatory Information

```

-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA   EC     Japan  Australia
-----
Mercury (7439-97-6)                           Yes   Yes   No     Yes

```

```

-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  DSL   NDSL   Phil.
-----
Mercury (7439-97-6)                           Yes   Yes   No     Yes

```

```

-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-  -SARA 313-
RQ      TPQ      List  Chemical Catg.
-----
Mercury (7439-97-6)                           No   No     Yes    No

```

```

-----\Federal, State & International Regulations - Part 2\-----
Ingredient                                     -RCRA-    -TSCA-
CERCLA  261.33   8(d)
-----
Mercury (7439-97-6)                           1        U151    No

```

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
Reactivity: No      (Pure / Liquid)

### WARNING:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

**Australian Hazchem Code: 2Z**

**Poison Schedule: S7**

### WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: **3** Flammability: **0** Reactivity: **0**

### Label Hazard Warning:

DANGER! CORROSIVE. CAUSES BURNS TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE FATAL IF SWALLOWED OR INHALED. HARMFUL IF ABSORBED THROUGH SKIN. AFFECTS THE KIDNEYS AND CENTRAL NERVOUS SYSTEM. MAY CAUSE ALLERGIC SKIN REACTION.

### Label Precautions:

Do not get in eyes, on skin, or on clothing.

Do not breathe vapor.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases get medical attention immediately.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

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\*\*\*\*\*

**Prepared by:** Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)

MSDS Number: S1106 \* \* \* \* \* Effective Date: 02/16/06 \* \* \* \* \* Supersedes: 05/08/03

	24 Hour Emergency Telephone: 908-859-2151 CHEMTREC: 1-800-424-9300
	National Response in Canada CANUTEC: 613-996-6666 Outside U.S. And Canada Chemtrec: 703-527-3887
From: Mallinckrodt Baker, Inc. 222 Red School Lane Phillipsburg, NJ 08865	
NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.	

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

## Selenium

### 1. Product Identification

**Synonyms:** Elemental Selenium; Selen; C.I. 77805  
**CAS No.:** 7782-49-2  
**Molecular Weight:** 78.96  
**Chemical Formula:** Se  
**Product Codes:** 3395

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Selenium	7782-49-2	90 - 100%	Yes

### 3. Hazards Identification

#### Emergency Overview

**WARNING! CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED. AFFECTS LIVER, KIDNEYS, BLOOD, SPLEEN.**

**J.T. Baker SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

Health Rating: 3 - Severe (Life)  
 Flammability Rating: 0 - None  
 Reactivity Rating: 1 - Slight  
 Contact Rating: 2 - Moderate  
 Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES  
 Storage Color Code: Blue (Health)

#### Potential Health Effects

##### Inhalation:

Severe irritant to the respiratory system. Soreness, coughing, labored breathing are symptoms which may subside and return. Lung edema may occur in acute cases. Cases with flu-like symptoms resembling metal fume fever within 24 hours of exposure have been reported.

##### Ingestion:

May cause severe irritation to the mouth and throat. Gastrointestinal disturbances may be expected with nausea, abdominal pain, and vomiting.

##### Skin Contact:

Causes severe irritation. Symptoms include redness, itching and pain.

##### Eye Contact:

May cause severe irritation, redness, pain.

##### Chronic Exposure:

Chronic exposure may cause odor of garlic on breath, fatigue, irritability, respiratory tract irritation, gastrointestinal irritation, metallic taste, and allergic eye reaction. Based on animal studies, may cause blood, liver, kidney and spleen effects.

##### Aggravation of Pre-existing Conditions:

Person with a history of asthma, allergies, or known sensitization to selenium, or with a history of other chronic respiratory disease, gastrointestinal disturbances, disorders of the liver or kidneys, or recurrent dermatitis would be expected to be at increased risk from exposure.

### 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:**

Do NOT induce vomiting. Give large amounts of water. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

---

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

-OSHA Permissible Exposure Limit (PEL):  
0.2 mg/m<sup>3</sup>, Selenium Compounds, as Se

-ACGIH Threshold Limit Value (TLV):

0.2 mg/m<sup>3</sup>, Selenium & Compounds, as Se

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

**Appearance:**

Small blue-black metallic shot.

**Odor:**

Odorless.

**Solubility:**

Insoluble in water.

**Specific Gravity:**

4.26-4.81

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

690C (1274F)

**Melting Point:**

170 - 217C (338 - 423F)

**Vapor Density (Air=1):**

Not applicable.

**Vapor Pressure (mm Hg):**

Not applicable.

**Evaporation Rate (BuAc=1):**

Not applicable.

---

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Toxic oxides of selenium form when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Strong oxidizers, strong acids, and a wide range of other materials.

**Conditions to Avoid:**

Moisture and incompatibles.

---

## 11. Toxicological Information

**Toxicological Data:**

Oral Rat LD50: 6700 mg/kg. Investigated as a tumorigen and a reproductive effector.

**Carcinogenicity:**

EPA / IRIS classification: Group D1 - Not classifiable as a human carcinogen.

```

-----\Cancer Lists\-----
Ingredient                               ---NTP Carcinogen---
Known      Anticipated      IARC Category
-----
Selenium (7782-49-2)                    No           No           3
  
```

---

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

---

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

---

## 14. Transport Information

Not regulated.

---

## 15. Regulatory Information

```

-----\Chemical Inventory Status - Part 1\-----
Ingredient                               TSCA  EC   Japan  Australia
-----
Selenium (7782-49-2)                    Yes   Yes  No     Yes

-----\Chemical Inventory Status - Part 2\-----
Ingredient                               --Canada--
Korea  DSL  NDSL  Phil.
-----
Selenium (7782-49-2)                    Yes   Yes  No     Yes

-----\Federal, State & International Regulations - Part 1\-----
Ingredient                               -SARA 302-  -SARA 313-
RQ     TPQ     List  Chemical Catg.
-----
Selenium (7782-49-2)                    No     No    No     Selenium cmp
  
```

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8 (d)
Selenium (7782-49-2)	100	No	No

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
 Reactivity: No      (Pure / Solid)

**Australian Hazchem Code: 2Z**

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 2 Flammability: 0 Reactivity: 0

**Label Hazard Warning:**

WARNING! CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED. AFFECTS LIVER, KIDNEYS, BLOOD, SPLEEN.

**Label Precautions:**

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Avoid breathing dust.

Do not breathe mist.

Use only with adequate ventilation.

**Label First Aid:**

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*  
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 \*\*\*\*\*

**Prepared by:** Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)

MSDS Number: **Z0855** \* \* \* \* \* *Effective Date: 11/21/08* \* \* \* \* \* *Supersedes: 03/16/06*

**MSDS**

**Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# ZINC METAL GRANULAR

## 1. Product Identification

**Synonyms:** Granular zinc; mossy zinc; CI77945; CI Pigment Black 16

**CAS No.:** 7440-66-6

**Molecular Weight:** 65.37

**Chemical Formula:** Zn

**Product Codes:**

J.T. Baker: 4240, 4244, 4248, 4252, 4260, 4270, 4274

Mallinckrodt: 8693, 8701

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Zinc	7440-66-6	99 - 100%	Yes
Lead	7439-92-1	0 - 0.1%	Yes

## 3. Hazards Identification

### Emergency Overview

-----  
**WARNING! HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR. WATER REACTIVE. MAY AFFECT THE GUM TISSUE, CENTRAL NERVOUS SYSTEM, KIDNEYS, BLOOD AND REPRODUCTIVE SYSTEM (lead component).**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

-----

Health Rating: 2 - Moderate (Cancer)

Flammability Rating: 2 - Moderate

Reactivity Rating: 2 - Moderate

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD;  
PROPER GLOVES

Storage Color Code: Green (General Storage)

-----

### **Potential Health Effects**

-----

#### **Inhalation:**

No adverse effects expected but dust may cause mechanical irritation. The effects may be expected to resemble those of inhaling an inert dust; possible difficulty in breathing, sneezing, coughing. When heated, the fumes are highly toxic and may cause fume fever.

#### **Ingestion:**

Extremely large oral dosages may produce gastrointestinal disturbances, due both to mechanical effects and the possibility of reaction with gastric juice to produce zinc chloride. Pain, stomach cramps and nausea could occur in aggravated cases.

#### **Skin Contact:**

May cause irritation.

#### **Eye Contact:**

May cause irritation.

#### **Chronic Exposure:**

No adverse health effects expected.

#### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders or impaired respiratory function may be more susceptible to the effects of the substance.

---

## **4. First Aid Measures**

#### **Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

#### **Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

#### **Skin Contact:**

Wipe off excess material from skin then immediately flush skin with plenty of water for at

least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

---

## 5. Fire Fighting Measures

**Fire:**

Autoignition temperature: ca. 460C (ca. 860F)

The listed autoignition temperature is for Zinc powder (layer); dust cloud is ca. 680C (1255F). Zinc powder is not pyrophoric but will burn in air at elevated temperatures. Bulk dust in damp state may heat spontaneously and ignite on exposure to air. Releases flammable hydrogen gas upon contact with acids or alkali hydroxides. Contact with strong oxidizers may cause fire.

**Explosion:**

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**Fire Extinguishing Media:**

Smother with a suitable dry powder (sodium chloride, magnesium oxide, Met-L-X).

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Remove all sources of ignition and provide mild ventilation in area of spill. Substance may be pyrophoric and self-ignite. Clean-up personnel require protective clothing, goggles and dust/mist respirators. Sweep or vacuum up the spill in a manner that does not disperse zinc powder in the air and place the zinc in a closed container for recovery or disposal.

US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

---

## 7. Handling and Storage

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None for Zinc metal.

-OSHA Permissible Exposure Limit (PEL):

10 mg/m<sup>3</sup> (TWA), for zinc oxide fume

-ACGIH Threshold Limit Value (TLV):

10 mg/m<sup>3</sup> (TWA), Inhalable fraction, A4 Not classifiable as a human carcinogen for zinc oxide.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece particulate respirator (NIOSH type N100 filters) may be worn for up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

**Appearance:**

Gray-blue granular or shiny, irregular lumps.

**Odor:**

Odorless.

**Solubility:**

Insoluble in water.

**Specific Gravity:**

7.14

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

907C (1665F)

**Melting Point:**

419C (786F)

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

1 @ 487C (909F)

**Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Moist zinc dust can react exothermically and ignite spontaneously in air.

**Hazardous Decomposition Products:**

Hydrogen in moist air, zinc oxide with oxygen at high temperature. Zinc metal, when melted, produces zinc vapor which oxidizes and condenses in air to form zinc fume.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Zinc powder can react violently with water, sulfur and halogens. Dangerous or potentially dangerous with strong oxidizing agents, lower molecular weight chlorinated hydrocarbons, strong acids and alkalis.

**Conditions to Avoid:**

Heat, flames, ignition sources and incompatibles.

## 11. Toxicological Information

Zinc: Irritation skin, human: 300 ug/3D-I mild; investigated as a mutagen.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Zinc (7440-66-6)	No	No	None
Lead (7439-92-1)	No	No	2B

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

Freshwater Algae:96 Hr EC50 Selenastrum capricornutum: 30 3g/L

Freshwater Fish:96 Hr LC50 Pimephales promelas: 6.4 mg/L

Water Flea Data: 72 Hr EC50 water flea: 5 3g/L

Dangerous to the environment. Very toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

```
-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA   EC    Japan  Australia
-----
Zinc (7440-66-6)                               Yes   Yes   No     Yes
Lead (7439-92-1)                               Yes   Yes   Yes    Yes
```

```
-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  --Canada--
                                     DSL    NDSL   Phil.
-----
Zinc (7440-66-6)                               Yes   Yes   No     Yes
Lead (7439-92-1)                               Yes   Yes   No     Yes
```

```
-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-  -----SARA 313-----
                                     RQ    TPQ    List  Chemical Catg.
-----
Zinc (7440-66-6)                               No    No     Yes    No
Lead (7439-92-1)                               No    No     Yes    No
```

```
-----\Federal, State & International Regulations - Part 2\-----
Ingredient                                     CERCLA  -RCRA-  -TSCA-
                                     261.33  8(d)
-----
Zinc (7440-66-6)                               1000   No     No
Lead (7439-92-1)                               10     No     No
```

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No  
SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No  
Reactivity: Yes (Mixture / Solid)

**WARNING:**

THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** S6

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

---

## 16. Other Information

**NFPA Ratings:** Health: 1 Flammability: 1 Reactivity: 1 Other: **Water reactive**

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR. WATER REACTIVE. MAY AFFECT THE GUM TISSUE, CENTRAL NERVOUS SYSTEM, KIDNEYS, BLOOD AND REPRODUCTIVE SYSTEM (lead component).

**Label Precautions:**

Avoid breathing dust.  
Avoid contact with eyes, skin and clothing.  
Keep away from heat and flame.  
Keep container closed.  
Use with adequate ventilation.  
Wash thoroughly after handling.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

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\*\*\*\*\*

**Prepared by:** Environmental Health & Safety  
Phone Number: (314) 654-1600 (U.S.A.)



# International Chemical Safety Cards

## DIELDRIN

ICSC: 0787

DIELDRIN

HEOD

1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro,endo,exo-1,4:5,8-dimethanonaphthalene

C<sub>12</sub>H<sub>8</sub>Cl<sub>6</sub>O

Molecular mass: 381

CAS # 60-57-1

RTECS # IO1750000

ICSC # 0787

UN # 2761

EC # 602-049-00-9

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Not combustible. Liquid formulations containing organic solvents may be flammable.		In case of fire in the surroundings: all extinguishing agents allowed.
<b>EXPLOSION</b>	Explosion hazard will depend on the solvent used or on the characteristics of the dust.		
<b>EXPOSURE</b>		PREVENT DISPERSION OF DUST! STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
• <b>INHALATION</b>	(see Ingestion).	Ventilation (not if powder).	Fresh air, rest. Refer for medical attention.
• <b>SKIN</b>	MAY BE ABSORBED! See Ingestion.	Protective gloves. Rubber boots.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
• <b>EYES</b>	Redness.	Safety goggles or face shield.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>	Convulsions. Dizziness. Headache. Nausea. Vomiting. Weakness.	Do not eat, drink, or smoke during work.	Do NOT induce vomiting. Rest. Refer for medical attention.
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Sweep spilled substance into sealable containers. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment (extra personal protection: complete protective clothing including self-contained breathing apparatus).	Separated from food and feedstuffs. Cool. Dry.	Do not transport with food and feedstuffs. T+ symbol R: 25-27-40-48 S: 22-36/37-45 UN Hazard Class: 6.1 UN Packing Group: I	

Marine pollutant.

**SEE IMPORTANT INFORMATION ON BACK****ICSC: 0787**

Prepared in the context of cooperation between the International Programme on Chemical Safety &amp; the Commission of the European Communities © IPCS CEC 1993

# International Chemical Safety Cards

**DIELDRIIN****ICSC: 0787**

<b>I M P O R T A N T  D A T A</b>	<b>PHYSICAL STATE; APPEARANCE:</b> COLOURLESS CRYSTALS.	<b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body through the skin and by ingestion.
	<b>PHYSICAL DANGERS:</b>  <b>CHEMICAL DANGERS:</b> The substance decomposes on heating producing toxic and corrosive fumes (chlorine fumes, hydrogen chloride). Reacts with oxidants, concentrated mineral acids, acid acatalysts, metals (copper, iron). Attacks metal due to the slow formation of hydrogen chloride in storage.	<b>INHALATION RISK:</b> Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly on spraying.
	<b>OCCUPATIONAL EXPOSURE LIMITS (OELs):</b> TLV (as TWA): ppm; 0.25 mg/m <sup>3</sup> (skin) (ACGIH 1991-1992).	<b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The substance may cause effects on the central nervous system, resulting in convulsions. Medical observation is indicated.
		<b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> The substance may be found in the human placenta.
<b>PHYSICAL PROPERTIES</b>	Melting point: 175-176°C Relative density (water = 1): 1.62 Solubility in water: None	Vapour pressure, Pa at 20°C: 0.0004 Octanol/water partition coefficient as log Pow: 6.2
<b>ENVIRONMENTAL DATA</b>	Dieldrin persists in the environment: 50% disappear after 4 to 7 years. This substance may be hazardous to the environment; special attention should be given to birds and water organisms. In the food chain important to humans, bioaccumulation takes place, specifically in aquatic organisms.	
<b>NOTES</b>		
Technical dieldrin (95%) consists of light tan flakes with a mild odour. Carrier solvents used in commercial formulations may change physical and toxicological properties. Do NOT take working clothes home. The recommendations on this Card also apply to ICSC # 0774 (aldrin). Alvit, Octalox, Quintox, Illoxol, Panoram D-31, Dieldrite, Dorytox, Compound 497 are trade names.		
Transport Emergency Card: TEC (R)-61G53b		
<b>ADDITIONAL INFORMATION</b>		
© IPCS, CEC, 1993		
<b>ICSC: 0787</b>	<b>DIELDRIIN</b>	

**IMPORTANT LEGAL**

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**NOTICE:**

in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use.

# International Chemical Safety Cards

## LINDANE

**ICSC: 0053**

LINDANE  
gamma-1,2,3,4,5,6-Hexachlorocyclohexane  
gamma-BHC  
gamma-HCH  
 $C_6H_6Cl_6$   
Molecular mass: 290.8

CAS # 58-89-9  
RTECS # GV4900000  
ICSC # 0053  
UN # 2761  
EC # 602-043-00-6

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Not combustible. Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: all extinguishing agents allowed.
<b>EXPLOSION</b>	Risk of fire and explosion if formulations contain flammable/explosive solvents.		In case of fire: keep drums, etc., cool by spraying with water.
<b>EXPOSURE</b>		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	
• <b>INHALATION</b>	Convulsions. Cough. Dizziness. Headache. Nausea. Weakness. Tremors. Paresthesias. Symptoms may be delayed (see Notes).	Avoid inhalation of fine dust and mist. Local exhaust or breathing protection.	Fresh air, rest. Artificial respiration if indicated. Refer for medical attention.
• <b>SKIN</b>	MAY BE ABSORBED!	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention. Wear protective gloves when administering first aid.
• <b>EYES</b>	Redness.	Face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>	Abdominal pain. Diarrhoea (further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Give a slurry of activated charcoal in water to drink. Do NOT induce vomiting. Give plenty of water to drink. Rest. Refer for medical attention.
<b>SPILLAGE DISPOSAL</b>	<b>STORAGE</b>		<b>PACKAGING &amp;</b>

		<b>LABELLING</b>
Do NOT wash away into sewer. Sweep spilled substance into non-metallic sealable containers, then remove to safe place (extra personal protection: P3 filter respirator for toxic particles).	Provision to contain effluent from fire extinguishing. Separated from bases, food and feedstuffs and metals.	Do not transport with food and feedstuffs. T symbol N symbol R: 23/24/25-36/38-50/53 S: (1/2-)13-45-60-61 UN Hazard Class: 6.1 UN Packing Group: III Severe marine pollutant.
<b>SEE IMPORTANT INFORMATION ON BACK</b>		
<b>ICSC: 0053</b>	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities © IPCS CEC 1993	

# International Chemical Safety Cards

## LINDANE

**ICSC: 0053**

<b>I M P O R T A N T A T A</b>	<p><b>PHYSICAL STATE; APPEARANCE:</b> ODOURLESS, WHITE CRYSTALLINE POWDER.</p> <p><b>CHEMICAL DANGERS:</b> On contact with hot surfaces or flames this substance decomposes forming toxic and corrosive fumes including phosgene and hydrogen chloride. The substance decomposes on contact with alkalis producing trichlorobenzene, or on contact with powdered iron, aluminum and zinc.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS (OELs):</b> TLV: ppm; 0.5 mg/m<sup>3</sup> (as TWA) (skin) (ACGIH 1994-1995). MAK: ppm; 0.5 mg/m<sup>3</sup>; skin (1992).</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation and through the skin, and by ingestion.</p> <p><b>INHALATION RISK:</b> Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The substance irritates the eyes and the respiratory tract. The substance may cause effects on the central nervous system, resulting in convulsions and respiratory failure and collapse. Exposure may result in death. Medical observation is indicated.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the liver and kidneys.</p>
<b>PHYSICAL PROPERTIES</b>	Boiling point: 323°C Melting point: 113°C Relative density (water = 1): 1.87	Solubility in water: none Vapour pressure, Pa at 20°C: 0.0012 Octanol/water partition coefficient as log Pow: 3.61- 3.72
<b>ENVIRONMENTAL DATA</b>	The substance is very toxic to aquatic organisms. In the food chain important to humans, bioaccumulation takes place, specifically in fish. It is strongly advised not to let the chemical enter into the environment, especially in soil, because it persists in the environment. &FIG13	

**NOTES**

Depending on the degree of exposure, periodic medical examination is indicated. Carrier solvents used in commercial formulations may change physical and toxicological properties. The relation between odour and the occupational exposure limit cannot be indicated. Do NOT take working clothes home. Gammexane, Tri-6, Lindafor, Lindatox, Agroicide, Isotox, Esoderm, Aparasin are trade names.

Transport Emergency Card: TEC (R)-61G53c  
NFPA Code: H2; F0; R0

**ADDITIONAL INFORMATION****ICSC: 0053****LINDANE**

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**IMPORTANT  
LEGAL  
NOTICE:**

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## CHEM SERVICE INC -- ENDRIN, F98 -- 6810-00N069925

## ===== Product Identification =====

Product ID:ENDRIN, F98  
 MSDS Date:11/02/1992  
 FSC:6810  
 NIIN:00N069925  
 MSDS Number: CBKZJ  
 === Responsible Party ===  
 Company Name:CHEM SERVICE INC  
 Box:3108  
 City:WEST CHESTER  
 State:PA  
 ZIP:19381  
 Country:US  
 Info Phone Num:215-692-3026  
 Emergency Phone Num:215-692-3026  
 CAGE:84898

## === Contractor Identification ===

Company Name:CHEM SERVICE INC  
 Box:3108  
 City:WEST CHESTER  
 State:PA  
 ZIP:19381  
 Country:US  
 Phone:215-692-3026  
 CAGE:84898  
 Company Name:CHEM SERVICE, INC  
 Address:660 TOWER LN  
 Box:599  
 City:WEST CHESTER  
 State:PA  
 ZIP:19301-9650  
 Country:US  
 Phone:610-692-3026  
 CAGE:8Y898

## ===== Composition/Information on Ingredients =====

Ingred Name:1,4:5,8-DIMETHANONAPHTHALENE,  
 1,2,3,4,10,10-HEXACHLORO-6,7-EPOXY-1,4,4A,5,6,7,8,8A-OCTAHYDRO-,  
 ENDO, ENDO-; (ING 2)

CAS:72-20-8  
 RTECS #:IO1575000  
 OSHA PEL:0.1 MG/M3, S  
 ACGIH TLV:0.1 MG/M3, S  
 EPA Rpt Qty:1 LB  
 DOT Rpt Qty:1 LB

Ingred Name:ING 1: (ENDRIN) (SARA 302) (CERCLA)  
 RTECS #:9999999ZZ

Ingred Name:FIRST AID PROC: IF SWALLOWED. DO NOT ADMIN LIQS/INDUCE  
 VOMITING TO AN UNCONS/CONVULSING PERS. IF PATIENT IS VOMIT(ING 4)  
 RTECS #:9999999ZZ

Ingred Name:ING 3: WATCH CLOSELY TO MAKE SURE AIRWAY DOES NOT BECOME  
 OBSTRUCTED BY VOMIT. GET MED ATTN IF NEC. ANTIDOTE:(ING 5)

RTECS #:9999999ZZ

Ingred Name:ING 4: DIAZEPAM/IV GLUCOSE/B VITAMINS/LGE AMTS OF ACTIVATED  
CHARCOAL AND SALINE LAXATIVES. OXYGEN MAY BE NECESSARY.

RTECS #:9999999ZZ

=====  
Hazards Identification  
=====

LD50 LC50 Mixture:LD50: (ORAL,RAT) 8 MG/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:CONT LENSES SHOULD NOT BE WORN IN  
LABORATORY. ALL CHEMICALS SHOULD BE CONSIDERED HAZARDOUS - AVOID  
DIRECT PHYSICAL CONTACT! MAY BE FATAL IF ABSORBED THRU SKIN! MAY BE  
FATAL IF INHALED! MAY BE FATAL IF SWALLOWED! CAN CAUSE NERVOUS  
SYSTEM INJURY. CAN CAUSE EYE IRRITATION. BASED ON THE TOXICITY OF  
CMPDS(EFTS OF OVEREXP)

Explanation of Carcinogenicity:NOT RELEVANT.

Effects of Overexposure:HLTH HAZ: OF SIMILAR STRUCTURE THIS MATL IS  
HAZARDOUS. CAN CAUSE GASTRO-INTESTINAL DISTURBANCES. PRLNGD EXPOS  
MAY CAUSE NAUSEA/HDCH/DIZZ &/EYE DMG. CAN CAUSE DELAYED ADVERSE  
HEALTH EFFECTS. CAN CAUSE GENERAL FEELING OF DISORIENTATION. CAN  
CAUSE CONVULSIONS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

=====  
First Aid Measures  
=====

First Aid:AN ANTIDOTE IS A SUBSTANCE INTENDED TO COUNTERACT EFT OF  
POIS. IF SHOULD BE ADMIN ONLY BY MD/EMER PERS. MD ADVICE CAN BE  
OBTAINED FROM POIS CNTRL CNTR. SKIN: FLUSH CONTINUOUSLY W/WATER FOR  
AT LEAST 15 -20 MINS. SKIN: FLUSH W/WATER FOR 15-20MINS. IF NO  
BURNS HAVE OCCURRED-USE SOAP & WATER CLEANSE SKIN. INHAL: REMOVE  
PATIENT TO FRESH AIR. ADMIN O\*2 IF PATIENT IS HAVING DFCLTY BRTHG.  
IF (SUPDAT)

=====  
Fire Fighting Measures  
=====

Extinguishing Media:CARBON DIOXIDE, DRY CHEMICAL POWDER OR SPRAY. NO  
EXPLOSION LIMITS ARE AVAILABLE FOR THIS COMPOUND.

Fire Fighting Procedures:WEAR NIOSH/MSHA APPROVED SCBA & FULL  
PROTECTIVE EQUIPMENT.

Unusual Fire/Explosion Hazard:NONE SPECIFIED BY MANUFACTURER.

=====  
Accidental Release Measures  
=====

Spill Release Procedures:EVAC AREA. WEAR APPROP OSHA REG EQUIP. VENT  
AREA. SWEEP UP & PLACE IN AN APPROPRIATE CONTAINER. HOLD FOR  
DISPOSAL. WASH CONTAMINATED SURFACES TO REMOVE ANY RESIDUES.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

=====  
Handling and Storage  
=====

Handling and Storage Precautions:KEEP TIGHTLY CLOSED. STORE IN COOL DRY  
PLACE. STORE ONLY WITH COMPATIBLE CHEMICALS.

Other Precautions:AVOID CONTACT W/SKIN, EYES & CLTHG. DO NOT BREATH  
VAPORS. THIS PRODUCT FURNISHED FOR LABORATORY USE ONLY! OUR  
PRODUCTS MAY NOT BE USED AS DRUGS, COSMETICS, AGRICULTURAL OR  
PESTICIDAL PRODUCTS, FOOD AD DITIVES/HOUSEHOLD CHEMICALS.

=====  
Exposure Controls/Personal Protection  
=====

Respiratory Protection:USE NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN.

Ventilation:THIS CHEMICAL SHOULD BE HANDLED ONLY IN A HOOD.

Protective Gloves:IMPERVIOUS GLOVES.

Eye Protection:ANSI APPRVD CHEM WORKERS GOGGS.

Other Protective Equipment:EMERGENCY EYEWASH & DELUGE SHOWER MEETING ANSI DESIGN CRITERIA.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

FIRST AID PROC: PATIENT HAS STOPPED BREATHING ADMIN ARTF RESP. IF PATIENT IS IN CARDIAC ARREST ADMIN CPR. CONTINUE LIFE SUPPORTING MEASURES UNTIL MED ASSIST HAS ARRIVED. REMOVE & WASH CONTAMD CLTHG. I F PATIENT IS EXHIBITING SIGNS OF SHOCK - KEEP WARM & QUIET. CONT POIS CNTRL CNTR IMMED IF NEC. INDUCE VOMITING(ING 3)

===== Physical/Chemical Properties =====

Melt/Freeze Pt:M.P/F.P Text:>439F,>226C

Vapor Pres:2E-7 @ 25C

Solubility in Water:INSOL(IMMISCIBLE)

Appearance and Odor:COLORLESS CRYSTALLINE SOLID.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

STRONG ACIDS, STRONG OXIDIZING AGENTS.

Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products:NONE SPECIFIED BY MANUFACTURER.

===== Disposal Considerations =====

Waste Disposal Methods:BURN IN A CHEMICAL INCINERATOR EQUIPPED W/AN AFTERBURNER AND SCRUBBER. DISPOSE OF IN ACCORDANCE W/LOCAL, STATE & FEDERAL REGULATIONS.

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**MATERIALS BROUGHT TO SITE**

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MSDS Number: **A2052** \* \* \* \* \* *Effective Date: 09/22/09* \* \* \* \* \* *Supercedes: 08/03/07*



From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. And Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

## ALCONOX®

### 1. Product Identification

**Synonyms:** Proprietary blend of sodium linear alkylaryl sulfonate, alcohol sulfate, phosphates, and carbonates.

**CAS No.:** Not applicable.

**Molecular Weight:** Not applicable to mixtures.

**Chemical Formula:** Not applicable to mixtures.

**Product Codes:** A461

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Alconox® proprietary detergent mixture	N/A	90 - 100%	Yes

### 3. Hazards Identification

Emergency Overview

**CAUTION! MAY BE HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

---

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Green (General Storage)

---

### **Potential Health Effects**

---

#### **Inhalation:**

May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

#### **Ingestion:**

May cause irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

#### **Skin Contact:**

No adverse effects expected.

#### **Eye Contact:**

May cause irritation, redness and pain.

#### **Chronic Exposure:**

No information found.

#### **Aggravation of Pre-existing Conditions:**

No information found.

---

## **4. First Aid Measures**

#### **Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

#### **Ingestion:**

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention.

#### **Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

#### **Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

---

## **5. Fire Fighting Measures**

**Fire:**

Not expected to be a fire hazard.

**Explosion:**

No information found.

**Fire Extinguishing Media:**

Dry chemical, foam, water or carbon dioxide.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. When mixed with water, material foams profusely. Small amounts of residue may be flushed to sewer with plenty of water.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Moisture may cause material to cake. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

**Appearance:**

White powder interspersed with cream colored flakes.

**Odor:**

No information found.

**Solubility:**

Moderate (1-10%)

**Specific Gravity:**

No information found.

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

No information found.

**Melting Point:**

No information found.

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

No information found.

---

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

No information found.

**Conditions to Avoid:**

No information found.

---

## 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Alconox® proprietary detergent mixture	No	No	None

## 12. Ecological Information

### Environmental Fate:

This product is biodegradable.

### Environmental Toxicity:

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Alconox® proprietary detergent mixture	Yes	No	No	No

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	--Canada--			
	Korea	DSL	NDSL	Phil.

Alconox® proprietary detergent mixture	No	No	Yes	No
---	----	----	-----	----

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Alconox® proprietary detergent mixture	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
Alconox® proprietary detergent mixture	No	No	No

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: No      Fire: No      Pressure: No  
 Reactivity: No      (Pure / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: **0** Flammability: **0** Reactivity: **0**

**Label Hazard Warning:**

CAUTION! MAY BE HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

**Label Precautions:**

Avoid contact with eyes.  
 Keep container closed.  
 Use with adequate ventilation.  
 Avoid breathing dust.  
 Wash thoroughly after handling.

**Label First Aid:**

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. In all cases, get medical attention.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

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\*\*\*\*\*

**Prepared by:** Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)

## UNOCAL CHEMICALS DIV UNION OIL CO OF CALIFORNIA -- ANTIFREEZE -- 6850-00-664-1403

## ===== Product Identification =====

Product ID:ANTIFREEZE  
 MSDS Date:03/21/1989  
 FSC:6850  
 NIIN:00-664-1403  
 MSDS Number: BJPTD  
 === Responsible Party ===  
 Company Name:UNOCAL CHEMICALS DIV UNION OIL CO OF CALIFORNIA  
 Address:1345 N MEACHAM RD  
 City:SCHAUMBURG  
 State:IL  
 ZIP:60195  
 Country:US  
 Info Phone Num:312-490-2539  
 Emergency Phone Num:312-490-2539  
 CAGE:5W323

## ===== Contractor Identification =====

Company Name:UNOCAL CHEMICALS DIV UNION OIL CO OF CALIFORNIA  
 Address:1345 N MEACHAM RD  
 Box:City:SCHAUMBURG  
 State:IL  
 ZIP:60195  
 Country:US  
 Phone:800-967-7601  
 CAGE:5W323

## ===== Composition/Information on Ingredients =====

Ingred Name:ETHYLENE GLYCOL (SARA III)  
 CAS:107-21-1  
 RTECS #:KW2975000  
 Fraction by Wt: 92-97%  
 Other REC Limits:NONE SPECIFIED  
 OSHA PEL:C 50 PPM  
 ACGIH TLV:C 50 PPM,VAPOR; 9192  
 EPA Rpt Qty:1 LB  
 DOT Rpt Qty:1 LB

Ingred Name:DIETHYLENE GLYCOL  
 CAS:111-46-6  
 RTECS #:ID5950000  
 Other REC Limits:NONE SPECIFIED

## ===== Hazards Identification =====

LD50 LC50 Mixture:ACUTE ORAL LD50 (HUMAN) IS 1500 MG/KG  
 Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
 Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
 Health Hazards Acute and Chronic:ACUTE: INGESTION:ABDOMINAL DISCOMFORT  
 OR PAIN, NAUSEA, CENTRAL NERVOUS SYSTEM DEPRESSION. SEVERE KIDNEY  
 AND LIVER DAMAGE FROM LARGE AMOUNTS; MAY BE FATAL.  
 INHALATION:IRRITATION OF THE NOSE AND THROAT. EYE:DISCOMFORT WITH  
 TRANSIENT CONJUNCTIVITIS. CHRONIC: INHALATION OF MIST MAY PRODUCE  
 SIGNS OF CNS DISTURBANCES.  
 Explanation of Carcinogenicity:NONE OF THE COMPOUNDS IN THIS PRODUCT IS

LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

Effects of Overexposure:MAY CAUSE DIZZINESS, MALAISE, LUMBAR PAIN, UREMIA, AND CENTRAL NERVOUS SYSTEM DEPRESSION. MAY CAUSE EYE, SKIN & RESPIRATORY TRACT IRRITATION.

Medical Cond Aggravated by Exposure:PERSONS WITH A HISTORY OF KIDNEY OR LIVER DISORDERS MAYBE AT INCREASED RISK FROM EXPOSURE.

===== First Aid Measures =====

First Aid:INHALATION: REMOVE TO FRESH AIR. CALL A PHYSICIAN IF DISCOMFORT PERSISTS. EYE: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES. CALL A PHYSICIAN. SKIN: WASH WITH PLENTY OF SOAP & WATER. REM OVE CONTAMINATED CLOTHING/SHOES. INGESTION: IF CONSCIOUS, GIVE 2 GLASSES OF WATER TO DRINK AND INDUCE VOMITING WITH IPECAC SYRUP-NOTHING BY MOUTH IF UNCONSCIOUS. CALL A PHYSICIAN IMMEDIATELY.

===== Fire Fighting Measures =====

Flash Point Method:COC

Flash Point:250F,121C

Lower Limits:1.6

Upper Limits:10.8

Extinguishing Media:USE CARBON DIOXIDE, FOAM, OR DRY CHEMICAL. WATER MAY BE INEEFFECTIVE.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.

Unusual Fire/Explosion Hazard:FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS. HEATED VAPORS MAY CAUSE FLASH BACK.

===== Accidental Release Measures =====

Spill Release Procedures:SMALL SPILL: WIPE/SOAK UP WITH PAPER TOWEL OR INERT ABSORBENT. PUT IN DISPOSAL CONTAINER. FLUSH RESIDUE WITH WATER. LARGE SPILL: VENTILATE AREA. IF POSSIBLE, STOP LEAK. DIKE TO RETAIN RUN OFF. VACUUM UP FREE LIQUID. FLUSH RESIDUE WITH WATER.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER. WATER DILUTION RECOMMENDED.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL VENTILATED AREA. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. PROTECT CONTAINERS FROM PHYSICAL DAMAGE.

Other Precautions:DO NOT TAKE INTERNALLY. DO NOT BREATHE MIST. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. AVOID CONTACT WITH EYES. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. FOR INDUSTRIAL USE ONLY.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:IF VENTILATION DOES NOT MAINTAIN INHALATION EXPOSURES BELOW PEL(TLV), USE NIOSH/MSHA APPROVED ORGANIC VAPOR CARTRIDGE AND DUST/MIST PRE-FILTER RESPIRATORS AS PER CURRENT 29 CFR 1910.134, INSTRUCTIONS/ WARNINGS AND NIOSH-RESPIRATOR SELECTION.

Ventilation:MECHANICAL (GENERAL) ROOM VENTILATION IS ADEQUATE IF USE IS ENCLOSED. LOCAL EXHAUST IS NEEDED IF VENTED INTO WORK AREA.

Protective Gloves:NEOPRENE, NITRILE, PVC OR NATURAL RUBBER

Eye Protection:SAFETY GOGGLES WITH OPTIONAL FACE SHIELD

Other Protective Equipment:EYE WASH STATION AND SAFETY SHOWER.

INDUSTRIAL-TYPE WORK CLOTHING AND APRON AS REQUIRED.

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.

Supplemental Safety and Health

DO NOT TAKE INTERNALLY. DO NOT GET ON SKIN OR IN EYES. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. DO NOT BREATHE MISTS. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING OR SMOKING OR USING REST ROOM.

===== Physical/Chemical Properties =====

HCC:N1

Boiling Pt:B.P. Text:330F,166C

Vapor Pres:0.06 @20C

Vapor Density:2.1 AIR=1

Spec Gravity:1.108

Solubility in Water:COMPLETE

Appearance and Odor:CLEAR GREEN LIQUID - SLIGHT ODOR

Percent Volatiles by Volume:NEG.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS

Stability Condition to Avoid:HIGH TEMPERATURES, SPARKS, AND OPEN FLAMES

Hazardous Decomposition Products:CARBON MONOXIDE AND CARBON DIOXIDE

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSAL SHOULD BE MADE BY INCINERATION IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. AT VERY LOW CONCENTRATIONS IN WATER, DISPOSE OF THIS MATERIAL IN A BIOLOGICAL WASTE WATER TREATMENT PLANT.

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# Material Safety Data Sheet

## Bentonite

ACC# 02585

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Bentonite**Catalog Numbers:** B235-500**Synonyms:** Bentonite magma; Southern bentonite; tixoton; VOLCLAY bentonite; Wilkinitite.**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
1302-78-9	BENTONITE	100	215-108-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: cream to gray brown powder.

**Warning!** Causes eye, skin, and respiratory tract irritation. May cause cancer based on animal studies. Hygroscopic (absorbs moisture from the air). The toxicological properties of this material have not been fully investigated.

**Target Organs:** Respiratory system, eyes, skin.

#### Potential Health Effects

**Eye:** Causes eye irritation. May cause chemical conjunctivitis.

**Skin:** Causes skin irritation.

**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation. The toxicological properties of this substance have not been fully investigated.

**Inhalation:** Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. When inhaled as a dust or fume, may cause benign pneumoconiosis. Can produce delayed pulmonary edema.

**Chronic:** May cause cancer according to animal studies. Effects may be delayed. Chronic inhalation may cause lung changes, chest pain, breath shortness, and bronchitis.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

**Storage:** Store in a cool, dry place. Store in a tightly closed container. Store protected from moisture.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs

BENTONITE

none listed

none listed

none listed

**OSHA Vacated PELs:** BENTONITE: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Appearance:** cream to gray brown

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:**Not applicable.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:**Not available.

**Decomposition Temperature:**Not available.

**Solubility:** Insoluble in water.

**Specific Gravity/Density:**Not available.

**Molecular Formula:**Not applicable.

**Molecular Weight:**Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Hygroscopic: absorbs moisture or water from the air.

**Conditions to Avoid:** Incompatible materials, excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Moisture, Increase volume significantly when water is added..

**Hazardous Decomposition Products:** Exposure to moist air or water.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 1302-78-9: CT9450000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 1302-78-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found  
Effects of Bentonite in workers in processing plant experienced a very high incidence of bronchial asthma, (25%) in workers examined. This was attributed to the irritating action of the bentonite dust on the bronchial epithelium.

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 1302-78-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**Section 313** No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 1302-78-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

XI

**Risk Phrases:**

R 36/37/38 Irritating to eyes, respiratory system and skin.

**Safety Phrases:**

S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

CAS# 1302-78-9: No information available.

**Canada - DSL/NDSL**

CAS# 1302-78-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

**Section 16 - Additional Information**

**MSDS Creation Date:** 12/12/1997

**Revision #8 Date:** 6/13/2008

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*

## SANEX CHEMICALS, INCORPORATED -- DEET (INSECT REPELLANT) -- 6840-00-753-4963

## ===== Product Identification =====

Product ID:DEET (INSECT REPELLANT)  
MSDS Date:01/01/1987  
FSC:6840  
NIIN:00-753-4963  
MSDS Number: BFNFR  
=== Responsible Party ===  
Company Name:SANEX CHEMICALS, INCORPORATED  
Address:21 WEBSTER STREET  
City:NORTH TONAWANDA  
State:NY  
ZIP:14120-5809  
Country:US  
Info Phone Num:416-677-4890 - CANADA #  
Emergency Phone Num:716-694-9325  
CAGE:1EW21

=== Contractor Identification ===  
Company Name:SANEX CHEMICALS, INC.  
Address:15 WEBSTER STREET  
Box:City:NORTH TONAWANDA  
State:NY  
ZIP:14120  
Country:US  
CAGE:1EW21

## ===== Composition/Information on Ingredients =====

Ingred Name:N,N'-DIETHYL-M-TOLUAMIDE CONTAINING 5% RELATED COMPOUNDS.  
CAS:134-62-3  
RTECS #:XS3675000  
Fraction by Wt: 75%.

Ingred Name:ETHYL ALCOHOL (ETHANOL)  
CAS:64-17-5  
RTECS #:KQ6300000  
Fraction by Wt: 25%.  
OSHA PEL:1000 PPM  
ACGIH TLV:1000 PPM; 9192

## ===== Hazards Identification =====

LD50 LC50 Mixture:LD50 (ORAL RAT) = 2000 MG/KG  
Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:NOT KNOWN  
Effects of Overexposure:INHALATION AND SWALLOWING CAN CAUSE  
DIZZINESS,DROWSINESS,NAUSEA AND VOMITING.

## ===== First Aid Measures =====

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING GIVE CPR;  
IF BREATHING DIFFICULT GIVE OXYGEN. EYE:IMMEDIATELY FLUSH WITH  
PLENTY OF WATER. SKIN: WASH WITH SOAP & WATER. REMOVE CONTAMINATED  
CLOTHING & SHOES. INGESTION: DO NOT INDUCE VOMITING. NOTHING BY  
MOUTH IF UNCONSCIOUS.

=====  
Fire Fighting Measures  
=====

Flash Point Method:TCC  
Flash Point:73F,23C  
Extinguishing Media:CARBON DIOXIDE, FOAM, DRY CHEM.  
Fire Fighting Procedures:NONE  
Unusual Fire/Explosion Hazard:NOT ESTABLISHED.

=====  
Accidental Release Measures  
=====

Spill Release Procedures:LARGE SPILL (> GAL): REMOVE IGNITION SOURCES, VENTILATE AREA WELL. ABSORB WITH VERMICULITE OR OTHER MATERIALS, SUCH AS SAWDUST, RAGS, PAPER & PLACE IN CLOSED CONTAINER. USE NON SPARKING TOOLS. WEAR PROPER PROTECTIVE EQUIPMENT DURING CLEAN UP PROCEDURES

=====  
Handling and Storage  
=====

Handling and Storage Precautions:NONE NORMALLY REQUIRED. KEEP CONTAINERS TIGHTLY CLOSED.  
Other Precautions:AVOID REPEATED USE OF THE PRODUCT. READ INSTRUCTIONS BEFORE USE.

=====  
Exposure Controls/Personal Protection  
=====

Respiratory Protection:NONE NORMALLY REQUIRED.  
Ventilation:GENERAL ROOM VENTILATION. FOR BULK HANDLING: LOCAL EXHAUST TO ELIMINATE MISTS/FUMES/GASES.  
Protective Gloves:IF NEEDED, USE RUBBER GLOVES  
Eye Protection:IF NEEDED, USE SAFETY/CHEM GOGGLES  
Other Protective Equipment:NONE  
Supplemental Safety and Health  
MSDS RECEIVED FROM SANEX WAS UNDATED. ACUTE ORAL LD50 RAT=2000MG/KG/. AT THE TIME (6/25/90) OF UPDATE THIS ENTRY, SUPPLIER DID NOT HAVE MSDS FOR THIS PRODUCT. HEALTH/SPILL DATA ESTABLISHED BY DGSC.

=====  
Physical/Chemical Properties  
=====

HCC:F3  
Boiling Pt:B.P. Text:171F,77C  
Vapor Pres:31.  
Spec Gravity:0.9414  
Evaporation Rate & Reference:1.7  
Appearance and Odor:CLEAR LIQUID, VERY MILD ODOR.

=====  
Stability and Reactivity Data  
=====

Stability Indicator/Materials to Avoid:YES  
Stability Condition to Avoid:VERY HIGH TEMP.  
Hazardous Decomposition Products:INCOMPLETELY BURNED CARBON PRODUCTS, CO\*2, CO.

=====  
Disposal Considerations  
=====

Waste Disposal Methods:KEEP IN COVERED DRUMS, PENDING DISPOSAL. HANDLE & DISPOSE IN FULL COMPLIANCE WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE, & LOCAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):  
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of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.

## AMOCO OIL COMPANY -- LS NO. 2 DIESEL FUEL -- 9140-00-286-5295

## ===== Product Identification =====

Product ID:LS NO. 2 DIESEL FUEL  
MSDS Date:09/24/1993  
FSC:9140  
NIIN:00-286-5295  
MSDS Number: BJPSJ  
=== Responsible Party ===  
Company Name:AMOCO OIL COMPANY  
Address:200 EAST RANDOLPH DRIVE  
City:CHICAGO  
State:IL  
ZIP:60601  
Country:US  
Info Phone Num:312-856-3907  
Emergency Phone Num:800-447-8735/800-424-9300  
Preparer's Name:DONALD M. BARKER,DIR  
CAGE:15958

## === Contractor Identification ===

Company Name:AMOCO OIL CO  
Address:200 E RANDOLPH DR  
Box:City:CHICAGO  
State:IL  
ZIP:60601-6401  
Country:US  
Phone:312-856-3907- EM HLTH: 800 447-8735  
CAGE:15958  
Company Name:SPENCER OIL CORP (810-775-5022)  
CAGE:5W753

## ===== Composition/Information on Ingredients =====

Ingred Name:PETROLEUM DISTILLATE, NO. 2 FUEL OIL  
CAS:68476-30-2  
RTECS #:LS8930000  
Fraction by Wt: N/GIVEN  
Other REC Limits:NONE RECOMMENDED

Ingred Name:NAPHTHALENE (SARA III)  
CAS:91-20-3  
RTECS #:QJ0525000  
Fraction by Wt: 1%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:10 PPM  
ACGIH TLV:10 PPM/15 STEL; 9394  
EPA Rpt Qty:100 LBS  
DOT Rpt Qty:100 LBS

Ingred Name:XYLENES (O-,M-,P- ISOMERS) (SARA III)  
CAS:1330-20-7  
RTECS #:ZE2100000  
Fraction by Wt: 1%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:100 PPM  
ACGIH TLV:100 PPM/150STEL;9394  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

=====  
 ===== Hazards Identification =====  
 =====

LD50 LC50 Mixture:LD50,ORAL FOR SIMILAR PRODUCT >5G/KG.  
 Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
 Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
 Health Hazards Acute and Chronic:NO SIGNIFICANT EYE HEALTH HAZ  
 IDENTIFIED. CAN CAUSE SKIN IRRIT ON PROLONG/REPEAT CONTACT. NO  
 SIGNIFICANT INHAL HEALTH HAZ IDENTIFIED FOR THE LIQUID FUEL.LOW  
 VISCOSITY PRODUCT. HARMFUL OR FATAL IF SWAL LOWED & THEN ASPIRATED  
 INTO LUNGS CAUSING CHEM PNEUMONIA & DEATH. KIDNEY DAMAGE IN MALE  
 RATS W/MATLS OF THIS TYPE.  
 Explanation of Carcinogenicity:PER MSDS NO INGRED PRESENT @ LEVELS FOR  
 CARCINO.NIOSH RECOMMENDS WHOLE DIESEL EXHAUST REGARDED AS POTENTIAL  
 OCCUP CARCIN  
 Effects of Overexposure:INHAL OF VAPORS FROM HEATED MATL IN CONFINED  
 AREA CAUSES DIZZINESS, HEADACHE, NAUSEA, POSSIBLE IRRIT OF  
 EYE/NOSE/THROAT.  
 Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MFG.

=====  
 ===== First Aid Measures =====  
 =====

First Aid:EYE:FLUSH W/PLENTY OF WATER. SKIN:WASH W/SOAP & WATER. REMOVE  
 CONTAMIN CLOTHING/SHOE. INHAL:IF ADVERSE EFFECTS OCCUR REMOVE TO  
 UNCONTAMINATED AREA. INGEST:DO NOT INDUCE VOMIT. GET IMMED MED  
 ATTN.

=====  
 ===== Fire Fighting Measures =====  
 =====

Flash Point Method:TCC  
 Flash Point:120F,49C  
 Lower Limits:0.6  
 Upper Limits:7.5  
 Extinguishing Media:AGENTS APPROVED FOR CLASS B HAZ (E.G. DRY CHEMICAL,  
 CARBON DIOXIDE, HALOGENATED AGENTS, FOAM, STEAM) OR WATER FOG.  
 Fire Fighting Procedures:NONE SPECIFIED BY MFG; HOWEVER WEAR  
 APPROPRIATE PROTECTIVE EQUIPMENT.  
 Unusual Fire/Explosion Hazard:COMBUSTIBLE LIQUID.

=====  
 ===== Accidental Release Measures =====  
 =====

Spill Release Procedures:REMOVE OR SHUT OFF ALL SOURCES OF IGNITION.  
 PREVENT SPREADING BY DIKING, DITCHING, OR ABSORBING ON INERT  
 MATERIALS. IF SPILLED INTO WATERS FO USA IT MAY BE REPORTABLE UNDER  
 33 CFR PART 153 IF IT PRODU CES A SHEEN.  
 Neutralizing Agent:NONE SPECIFIED BY MFG.

=====  
 ===== Handling and Storage =====  
 =====

Handling and Storage Precautions:STORE IN COMBUSTILBLE LIQUIDS STORAGE  
 AREA. STORE AWAY FROM HEAT, IGNITIN SOURCES, AND OPEN FLAME IN  
 ACCORDANCE W/APPLICABLE FED/STATE/LOC REGS.  
 Other Precautions:THE CONTAINER FOR THIS PRODUCT CAN PRESENT EXPLOSION  
 OR FIRE HAZARDS, EVEN WHEN EMPTIED. TO AVOID RISK OF INJURY, DO NOT  
 CUT, PUNCTURE OR WELD ON OR NEAR THIS CONTIANER.

=====  
 ===== Exposure Controls/Personal Protection =====  
 =====

Respiratory Protection:NONE SPECIFIED BY MFG. HOWEVER, USE WITH  
 ADEQUATE VENTILATION. IF AIR CONTAMINANTS LEVEL ABOVE ESTABLISHED

EXPOUSRE LIMITS USE APPROPRIATE NIOSH APPROVED RESP.  
Ventilation:USE WITH ADEQUATE VENTILATION.  
Protective Gloves:WEAR PROTECTIVE GLOVES.  
Eye Protection:NONE REQUIRED;HOWEVER USE EYE PROTECTION  
Other Protective Equipment:WEAR PROTECTIVE CLOTHING IF PROLONG/REPEAT  
CONTACT. EYE PROTECTION IS GOOD INDUSTRIAL PRACTICE.  
Work Hygienic Practices:WASH HANDS AFTER HANDLING.PRACTICE GOOD  
PERSONAL HYGENIC PRACTICES.THOROUGHLY CLEAN & DRY CONTAMIN CLOTHING  
BEFORE REUSE  
Supplemental Safety and Health  
BOILING PT RANGE:340F-675F APPROX. FROM SKIN-PAINTING STUDIES OF PETRO  
DISTILLATES OF SIMILAR COMPOSITION & DISTILLATE RANGE HAS BEEN  
SHOWN THESE MATLS OFTEN POSSES WEAK CARCINOGENIC ACTIVITY IN LAB A  
NIMALS.MFG HAVE CHOSEN TO BE CAUTIOUS IN LIGHT OF FINDINGS W/OTHER  
DISTILLATED STREAMS.

===== Physical/Chemical Properties =====

HCC:F4  
Boiling Pt:B.P. Text:340F,171C  
Spec Gravity:0.85-0.88  
Viscosity:>1.8 CST  
Solubility in Water:NEGLIGIBLE (<0.1%)  
Appearance and Odor:CLEAR, WATER SHITE TO BLUE-GREEN LIQUID.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
AVOID CHLORINE, FLUORINE, AND OTHER STRONG OXIDIZERS.  
Stability Condition to Avoid:KEEP AWAY FROM IGNITIN SOURCES (E.G. HEAT  
AND OPEN FLAMES).  
Hazardous Decomposition Products:INCOMPLETE BURNING CAN PRODUCE CARBON  
MONOXIDE &/OR CARBON DIOXIDE AND OTHER HARMFUL PRODUCTS.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSAL MUST BE IN ACCORDANCE W/APPLICABLE  
LOCAL, STATE AND FEDERAL REGULATIONS. ENCLOSED-CONTROLLED  
INCINERATIN IS RECOMMENDED UNLESS DIRECTED OTHERWISE BY APPLICABLE  
ORDINANCES. PRODUCT EXEMPT FRO M CERCLA REPORTING REQMTS UNDER  
40CFRPART302.4.

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assume responsibility for the suitability of this information to their  
particular situation.

## CHEVRON -- UNLEADED GASOLINE, CPS201110 -- 9130-00N018990

## ===== Product Identification =====

Product ID:UNLEADED GASOLINE, CPS201110

MSDS Date:03/06/1991

FSC:9130

NIIN:00N018990

MSDS Number: CFZGX

=== Responsible Party ===

Company Name:CHEVRON

Box:4054

City:RICHMOND

State:CA

ZIP:94804

Country:US

Info Phone Num:800-582-3835

Emergency Phone Num:800-582-3835

CAGE:0AHD1

=== Contractor Identification ===

Company Name:CHEVRON ENVIRONMENTAL HEALTH CENTER INC

Address:15299 SAN PABLO AVE

Box:4054

City:RICHMOND

State:CA

ZIP:94804

Country:US

Phone:800-582-3835

CAGE:0AHD1

## ===== Composition/Information on Ingredients =====

Ingred Name:ING 12:BE EPIGENETIC PROCESS UNIQUE TO FEMALE MOUSE. INHAL  
EXPOS TO WHOLE GAS VAP ALSO CAUSED KIDNEY DMG & (ING 14)  
RTECS #:9999999ZZ

Ingred Name:ING 13:EVENTUALLY KIDNEY CANCER IN MALE RATS. NOTE:TOLUENE  
APPEARS ON NAVY LIST OF OCCUP CHEM REPRO HAZS. SEEK (ING 15)  
RTECS #:9999999ZZ

Ingred Name:ING 14:CONSULTATION FROM APPROP HLTH PROFESSIONALS  
CONCERNING LATEST HAZ LIST INFO & SAFE HNDLG & EXPOS INFO (ING 16)  
RTECS #:9999999ZZ

Ingred Name:ING 15:. FOR MORE COMPLETE INFORMATION, CONTACT NEHC .  
RTECS #:9999999ZZ

Ingred Name:FIRST AID PROC:OBTAINED, THEN TAKE PERS & PROD CNTNR TO  
NEAREST MED EMER TREATMENT CENTER/HOSPITAL. NOTE TO MD: (ING 18)  
RTECS #:9999999ZZ

Ingred Name:ING 17:INGESTION OF THIS PRODUCT OR SUBSEQUENT VOMITING CAN  
RESULT IN ASPIRATION WHICH CAN CAUSE PNEUMONITIS.  
RTECS #:9999999ZZ

Ingred Name:SPILL PROC:REPORTING SPILLS OF THIS MATL THAT COULD REACH  
ANY SURF WATERS. TOLL FREE NUMBER FOR U.S. COAST GUARD(ING 20)  
RTECS #:9999999ZZ

Ingred Name:ING 19:NATIONAL RESPONSE CENTER IS (800) 424-8802.  
RTECS #:9999999ZZ

Ingred Name:WASTE DISP METH:CONTAM MATLS IN DISPOSABLE CNTNRS & DISPOSE  
OF IN A MANNER CONSISTENT W/APPLIC REGS. CONT LOC (ING 22)  
RTECS #:9999999ZZ

Ingred Name:ING 21:ENVIRONMENTAL OR HEALTH AUTHORITIES FOR APPROVED  
DISPOSAL OF THIS MATERIAL.  
RTECS #:9999999ZZ

Ingred Name:ING 11:LIVER TUMORS IN FEMALE MICE. MECHANISM OF THIS  
RESPONSE IS STILL BEING INVESTIGATED BUT IT IS THOUGHT TO (ING 13)  
RTECS #:9999999ZZ

Ingred Name:GASOLINE  
CAS:8006-61-9  
RTECS #:LX3300000  
Fraction by Wt: 100%  
OSHA PEL:300 PPM  
ACGIH TLV:300 PPM;500 STEL

Ingred Name:BENZENE, ETHYL-; (ETHYLBENZENE) (SARA 313)  
CAS:100-41-4  
RTECS #:DA0700000  
Fraction by Wt: <1.4%  
OSHA PEL:100 PPM  
ACGIH TLV:100 PPM;125 STEL  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:P-XYLENE; (P-DIMETHYLBENZENE) (SARA 313) (CERCLA)  
CAS:106-42-3  
RTECS #:ZE2625000  
Fraction by Wt: <0.9%  
OSHA PEL:100 PPM  
ACGIH TLV:100 PPM;150 STEL  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:M-XYLENE; (M-DIMETHYLBENZENE) (SARA 313) (CERCLA)  
CAS:108-38-3  
RTECS #:ZE2275000  
Fraction by Wt: <4.6%  
OSHA PEL:100 PPM  
ACGIH TLV:100 PPM;150 STEL  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:O-XYLENE; (O-DIMETHYLBENZENE) (SARA 313) (CERCLA)  
CAS:95-47-6  
RTECS #:ZE2450000  
Fraction by Wt: <2.2%  
OSHA PEL:100 PPM  
ACGIH TLV:100 PPM;150 STEL  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:TOLUENE (SARA 313) (CERCLA)  
CAS:108-88-3

RTECS #:XS5250000  
 Fraction by Wt: <6.5%  
 OSHA PEL:200 PPM  
 ACGIH TLV:50 PPM, S  
 EPA Rpt Qty:1000 LBS  
 DOT Rpt Qty:1000 LBS

Ingred Name:HEXANE; (N-HEXANE) (CERCLA)  
 CAS:110-54-3  
 RTECS #:MN9275000  
 Fraction by Wt: <3%  
 OSHA PEL:500 PPM  
 ACGIH TLV:50 PPM  
 EPA Rpt Qty:1 LB  
 DOT Rpt Qty:1 LB

Ingred Name:CYCLOHEXANE (SARA 313) (CERCLA)  
 CAS:110-82-7  
 RTECS #:GU6300000  
 Fraction by Wt: <2.4%  
 OSHA PEL:300 PPM  
 ACGIH TLV:300 PPM  
 EPA Rpt Qty:1000 LBS  
 DOT Rpt Qty:1000 LBS

Ingred Name:METHYL TERT-BUTYL ETHER (SARA 313) (CERCLA)  
 CAS:1634-04-4  
 RTECS #:KN5250000  
 Fraction by Wt: <15%  
 OSHA PEL:N/K  
 ACGIH TLV:N/K  
 EPA Rpt Qty:1 LB  
 DOT Rpt Qty:1 LB

Ingred Name:BENZENE (SARA 313) (CERCLA). OSHA PEL:1 PPM TWA; 5 PPM STEL (MFR).  
 CAS:71-43-2  
 RTECS #:CY1400000  
 Fraction by Wt: <4.9%  
 OSHA PEL:SEE INGREDIENT  
 ACGIH TLV:10 PPM  
 EPA Rpt Qty:10 LBS  
 DOT Rpt Qty:10 LBS

Ingred Name:SUPDAT:(CALLED ASPIR). CAN CAUSE SEV INJURY TO LUNGS & DEATH. LIFETIME INHAL OF WHOLE GAS VAP HAS CAUSED INCR (ING 12)  
 RTECS #:9999999ZZ

===== Hazards Identification =====

LD50 LC50 Mixture:LD50:(ORAL,RAT) >5 ML/KG.  
 Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
 Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
 Health Hazards Acute and Chronic:EYE CONT:SLIGHTLY IRRIT & COULD CAUSE PRLNG (DAYS) IMPAIRMENT OF VISION. SIGNS & SYMPS MAY INCL PAIN, TEARS, SWELL, REDNESS & BLURRED VISION. VAPS, FUMES/SPRAY MIST COULD ALSO CAUSE SIMILAR SIGNS & SY MPS. SKIN IRRIT:RPTD CONT MAY CAUSE SKIN TO CRACK/DRY FROM DEFAT ACTION. INHAL:SLIGHTLY TOX. TARGET (EFTS OF OVEREXP)  
 Explanation of Carcinogenicity:BENZENE:IARC MONOGRAPHS, SUPP, VOL 7, PG

120, 1987:GRP 1. NTP 7TH ANNUAL RPT ON CARCINS, 1994:KNOWN TO BE (SUPP DATA)

Effects of Overexposure:HLTH HAZ:ORGAN:NERV SYS. CONCS >1000 PPM MAY CAUSE CNS EFTS SUCH AS HDCH, DIZZ, LOSS OF APPETITE, WEAK & LOSS OF COORD. CONCS >5000 PPM MAY CAUSE LOSS OF CONSCIOUSNESS, COMA & DEATH. INGEST:SLIGHTLY TOX IF SWALLOWED. TARGET ORGAN:NERV SYS.SIGNS & SYMPS OF CNS EFTS MAY INCL HDCH, DIZZ, LOSS OF APPETITE, WEAK & (SUPDAT)

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

===== First Aid Measures =====

First Aid:EYES:FLUSH IMMED W/FRESH WATER FOR AT LST 15 MINS WHILE HOLDING LIDS OPEN. REMOVE CONT LENSES IF WORN. IF IRRIT PERSISTS, SEE MD. SKIN:WASH THORO W/SOAP & WATER. REMOVE & WASH CONTAM CLTHG. INHAL:MOVE TO FRESH AIR. IF ANY EFTS CONTINUE, SEE MD. INGEST:GIVE WATER/MILK TO DRINK & TELEPHONE FOR MED ADVICE. DO NOT MAKE PERS VOMIT UNLESS DIRECTED TO DO SO BY MED PERS. IF MED ADVICE CANNOT BE (ING 17)

===== Fire Fighting Measures =====

Flash Point Method:PMCC

Flash Point:<-49F,<-45C

Lower Limits:1.4%

Upper Limits:7.6%

Extinguishing Media:FIRE FIGHTING FOAM:ALCOHOL RESISTANT TYPE (AR). AFFF, CO\*2, DRY CHEMICAL.

Fire Fighting Procedures:USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT .

Unusual Fire/Explosion Hazard:EXTREME FIRE HAZ. LIQ VERY QUICKLY EVAPS, EVEN AT LOW TEMPS & FORMS VAP (FUMES) WHICH CAN CATCH FIRE & BURN W/EXPLO VIOLENCE. INVISIBLE VAP SPREADS (SUPP DATA)

===== Accidental Release Measures =====

Spill Release Procedures:ELIM ALL SOURCES OF IGNIT. CLEAN UP SPILLS IMMED, OBSERVING PRECS IN PROT EQUIP SECTION. MATL IS CONSIDERED TO BE WATER POLLUTANT & RELS SHOULD BE PREVENTED FROM CONTAM SOIL & WATER & FROM ENTERING DR AINAGE & SEWER SYS. U.S.A. REGS REQ (ING 19)

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

===== Handling and Storage =====

Handling and Storage Precautions:USE ONLY AS MOTOR FUEL. DO NOT USE FOR CLEANING, PRESS APPLIANCE FUEL/ANY OTHER SUCH USE. USE ONLY IN WELL VENTED AREA. KEEP OUT OF REACH OF CHILDREN.

Other Precautions:DO NOT USE/STORE NEAR FLAME, SPKS/HOT SURFS. KEEP CNTNR CLSD. DO NOT TRANSFER LIQ TO UNLABELED CNTNR. DO NOT WELD, HEAT/DRILL CNTNR. REPLACE CAP/BUNG. EMPTIED CNTNR STILL CNTNS HAZ/EXPLO VAP/LIQ. READ & OBSERVE ALL PRECS ON PROD LABEL.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NO SPECIAL PROTECTION IS NORMALLY REQUIRED. HOWEVER, IF OPERATING CONDITIONS CREATE AIRBORNE CONCENTRATIONS WHICH EXCEED RECOMMENDED EXPOSURE STANDARDS, USE OF A NIOSH APPROVED RESPIRATOR IS REQUIRED.

Ventilation:USE ONLY IN WELL VENTILATED AREAS.

Protective Gloves:IMPERVIOUS GLOVES .  
Eye Protection:ANSI APPROVED CHEM WORKERS GOGGS .  
Other Protective Equipment:ANSI APPROVED EYE WASH FOUNTAIN & DELUGE  
SHOWER . CONTACT CAN BE MINIMIZED BY WEARING PROTECTIVE CLOTHING.  
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.  
Supplemental Safety and Health  
EXPLO HAZ:EASILY & CAN BE SET ON FIRE BY MANY SOURCES SUCH AS PILOT  
LIGHTS, WELDING EQUIP & ELEC MOTORS & SWITCHES. EXPLAN OF  
CARCIN:CARCIN. OSHA REGULATED:29 CFR 1910.1028. HUMAN:MYELOID  
LEUKEMIA, HO DGKINS DISEASE, LYMPHOMA. EFTS OF OVEREXP:LOSS OF  
COORD. SUBSTANCE CAN DIRECTLY ENTER LUNGS IF IT IS SWALLOWED (ING  
11)

===== Physical/Chemical Properties =====

Boiling Pt:B.P. Text:>77F,>25C  
Vapor Pres:5-15 @100F  
Vapor Density:3-4  
Spec Gravity:0.7-0.8  
Solubility in Water:INSOLUBLE  
Appearance and Odor:ORANGE TO BRONZE LIQUID.  
Percent Volatiles by Volume:>99

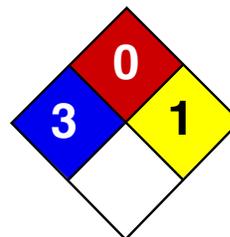
===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
MAY REACT W/STRONG OXIDIZING AGENTS, SUCH AS CHLORATES, NITRATES,  
PEROXIDES, ETC.  
Stability Condition to Avoid:NEVER SIPHON GASOLINE BY MOUTH.  
Hazardous Decomposition Products:NORMAL COMBUSTION FORMS CARBON DIOXIDE  
& WATER VAPOR; INCOMPLETE COMBUSTION CAN PRODUCE CARBON MONOXIDE.

===== Disposal Considerations =====

Waste Disposal Methods:DISP MUST BE I/A/W FED, STATE & LOC REGS . CLEAN  
UP SM SPILLS USING APPROP TECHNIQUES SUCH AS SORBENT MATLS/PUMPING.  
WHERE FEASIBLE & APPROP, REMOVE CONTAM SOIL. FOLLOW PRESCRIBED  
PROCS FOR REPO RTING & RESPONDING TO LGR RELS. PLACE (ING 21)

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particular situation.



Health	3
Fire	0
Reactivity	1
Personal Protection	

## Material Safety Data Sheet

### Hydrochloric acid MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Hydrochloric acid

**Catalog Codes:** SLH1462, SLH3154

**CAS#:** Mixture.

**RTECS:** MW4025000

**TSCA:** TSCA 8(b) inventory: Hydrochloric acid

**CI#:** Not applicable.

**Synonym:** Hydrochloric Acid; Muriatic Acid

**Chemical Name:** Not applicable.

**Chemical Formula:** Not applicable.

**Contact Information:**

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**

1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Hydrogen chloride	7647-01-0	20-38
Water	7732-18-5	62-80

**Toxicological Data on Ingredients:** Hydrogen chloride: GAS (LC50): Acute: 4701 ppm 0.5 hours [Rat].

#### Section 3: Hazards Identification

**Potential Acute Health Effects:**

Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant, corrosive), of ingestion, . Slightly hazardous in case of inhalation (lung sensitizer). Non-corrosive for lungs. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Potential Chronic Health Effects:**

Slightly hazardous in case of skin contact (sensitizer). **CARCINOGENIC EFFECTS:** Classified 3 (Not classifiable for human.) by IARC [Hydrochloric acid]. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance may be toxic to kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, Circulatory System, teeth. Repeated or prolonged exposure to the substance can produce target

organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

#### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Ingestion:**

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Serious Ingestion:** Not available.

#### Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** of metals

**Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of open flames and sparks, of shocks.

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:**

Non combustible. Calcium carbide reacts with hydrogen chloride gas with incandescence. Uranium phosphide reacts with hydrochloric acid to release spontaneously flammable phosphine. Rubidium acetylene carbides burns with slightly warm hydrochloric acid. Lithium silicide in contact with hydrogen chloride becomes incandescent. When dilute hydrochloric acid is used, gas spontaneously flammable in air is evolved. Magnesium boride treated with concentrated hydrochloric acid produces spontaneously flammable gas. Cesium acetylene carbide burns hydrogen chloride gas. Cesium carbide ignites in contact with hydrochloric acid unless acid is dilute. Reacts with most metals to produce flammable Hydrogen gas.

**Special Remarks on Explosion Hazards:**

Hydrogen chloride in contact with the following can cause an explosion, ignition on contact, or other violent/vigorous reaction: Acetic anhydride AgClO + CCl4 Alcohols + hydrogen cyanide, Aluminum Aluminum-titanium alloys (with HCl vapor), 2-Amino ethanol, Ammonium hydroxide, Calcium carbide Ca3P2 Chlorine + dinitroanilines (evolves gas), Chlorosulfonic acid Cesium carbide Cesium acetylene carbide, 1,1-Difluoroethylene Ethylene diamine Ethylene imine, Fluorine, HClO4 Hexalithium disilicide H2SO4 Metal acetylides or carbides, Magnesium boride, Mercuric sulfate, Oleum, Potassium permanganate, beta-Propiolactone Propylene oxide Rubidium carbide, Rubidium, acetylene carbide Sodium (with aqueous HCl), Sodium hydroxide Sodium tetraselenium, Sulfonic acid, Tetraselenium tetranitride, U3P4 , Vinyl acetate. Silver perchlorate with carbon tetrachloride in the presence of hydrochloric acid produces trichloromethyl perchlorate which detonates at 40 deg. C.

## Section 6: Accidental Release Measures

### Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.

### Large Spill:

Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## Section 7: Handling and Storage

### Precautions:

Keep locked up.. Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, organic materials, metals, alkalis, moisture. May corrode metallic surfaces. Store in a metallic or coated fiberboard drum using a strong polyethylene inner package.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Personal Protection:

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

CEIL: 5 (ppm) from OSHA (PEL) [United States] CEIL: 7 (mg/m3) from OSHA (PEL) [United States] CEIL: 5 from NIOSH CEIL: 7 (mg/m3) from NIOSH TWA: 1 STEL: 5 (ppm) [United Kingdom (UK)] TWA: 2 STEL: 8 (mg/m3) [United Kingdom (UK)] Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid.

**Odor:** Pungent. Irritating (Strong.)

**Taste:** Not available.

**Molecular Weight:** Not applicable.

**Color:** Colorless to light yellow.

**pH (1% soln/water):** Acidic.

**Boiling Point:**

108.58 C @ 760 mm Hg (for 20.22% HCl in water) 83 C @ 760 mm Hg (for 31% HCl in water) 50.5 C (for 37% HCl in water)

**Melting Point:**

-62.25°C (-80°F) (20.69% HCl in water) -46.2 C (31.24% HCl in water) -25.4 C (39.17% HCl in water)

**Critical Temperature:** Not available.

**Specific Gravity:**

1.1- 1.19 (Water = 1) 1.10 (20%and 22% HCl solutions) 1.12 (24% HCl solution) 1.15 (29.57% HCl solution) 1.16 (32% HCl solution) 1.19 (37% and 38%HCl solutions)

**Vapor Pressure:** 16 kPa (@ 20°C) average

**Vapor Density:** 1.267 (Air = 1)

**Volatility:** Not available.

**Odor Threshold:** 0.25 to 10 ppm

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, diethyl ether.

**Solubility:** Soluble in cold water, hot water, diethyl ether.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials, water

**Incompatibility with various substances:**

Highly reactive with metals. Reactive with oxidizing agents, organic materials, alkalis, water.

**Corrosivity:**

Extremely corrosive in presence of aluminum, of copper, of stainless steel(304), of stainless steel(316). Non-corrosive in presence of glass.

**Special Remarks on Reactivity:**

Reacts with water especially when water is added to the product. Absorption of gaseous hydrogen chloride on mercuric sulfate becomes violent @ 125 deg. C. Sodium reacts very violently with gaseous hydrogen chloride. Calcium phosphide and hydrochloric acid undergo very energetic reaction. It reacts with oxidizers releasing chlorine gas. Incompatible with, alkali metals, carbides, borides, metal oxides, vinyl acetate, acetylides, sulphides, phosphides, cyanides, carbonates. Reacts with most metals to produce flammable Hydrogen gas. Reacts violently (moderate reaction with heat of evolution) with water especially when water is added to the product. Isolate hydrogen chloride from heat, direct sunlight, alkalies (reacts vigorously), organic materials, and oxidizers (especially nitric acid and chlorates), amines, metals, copper and alloys (e.g. brass), hydroxides, zinc (galvanized materials), lithium silicide (incandescence), sulfuric acid(increase in temperature and pressure) Hydrogen chloride gas is emitted when this product is in contact with sulfuric acid. Adsorption of Hydrochloric Acid onto silicon dioxide results in exothermic reaction. Hydrogen chloride causes aldehydes and epoxides to violently polymerize. Hydrogen chloride or Hydrochloric Acid in contact with the following can cause explosion or ignition on contact or

**Special Remarks on Corrosivity:**

Highly corrosive. Incompatible with copper and copper alloys. It attacks nearly all metals (mercury, gold, platinum, tantalum, silver, and certain alloys are exceptions). It is one of the most corrosive of the nonoxidizing acids in contact with copper alloys. No corrosivity data on zinc, steel. Severe Corrosive effect on brass and bronze

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation.

**Toxicity to Animals:**

Acute oral toxicity (LD50): 900 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 1108 ppm, 1 hours [Mouse]. Acute toxicity of the vapor (LC50): 3124 ppm, 1 hours [Rat].

**Chronic Effects on Humans:**

CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for human.) by IARC [Hydrochloric acid]. May cause damage to the following organs: kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, Circulatory System, teeth.

**Other Toxic Effects on Humans:**

Very hazardous in case of skin contact (corrosive, irritant, permeator), of ingestion, . Hazardous in case of eye contact (corrosive), of inhalation (lung corrosive).

**Special Remarks on Toxicity to Animals:**

Lowest Published Lethal Doses (LDL/LCL) LDL [Man] -Route: Oral; 2857 ug/kg LCL [Human] - Route: Inhalation; Dose: 1300 ppm/30M LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M

**Special Remarks on Chronic Effects on Humans:**

May cause adverse reproductive effects (fetotoxicity). May affect genetic material.

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: Corrosive. Causes severe skin irritation and burns. Eyes: Corrosive. Causes severe eye irritation/conjunctivitis, burns, corneal necrosis. Inhalation: May be fatal if inhaled. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. Inhalation of hydrochloric acid fumes produces nose, throat, and laryngeal burning, and irritation, pain and inflammation, coughing, sneezing, choking sensation, hoarseness, laryngeal spasms, upper respiratory tract edema, chest pains, as well as headache, and palpitations. Inhalation of high concentrations can result in corrosive burns, necrosis of bronchial epithelium, constriction of the larynx and bronchi, nasospetal perforation, glottal closure, occur, particularly if exposure is prolonged. May affect the liver. Ingestion: May be fatal if swallowed. Causes irritation and burning, ulceration, or perforation of the gastrointestinal tract and resultant peritonitis, gastric hemorrhage and infection. Can also cause nausea, vomiting (with "coffee ground" emesis), diarrhea, thirst, difficulty swallowing, salivation, chills, fever, uneasiness, shock, strictures and stenosis (esophageal, gastric, pyloric). May affect behavior (excitement), the cardiovascular system (weak rapid pulse, tachycardia), respiration (shallow respiration), and urinary system (kidneys- renal failure, nephritis). Acute exposure via inhalation or ingestion can also cause erosion of tooth enamel. Chronic Potential Health Effects: dyspnea, bronchitis. Chemical pneumonitis and pulmonary edema can also

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

**DOT Classification:** Class 8: Corrosive material

**Identification:** : Hydrochloric acid, solution UNNA: 1789 PG: II

**Special Provisions for Transport:** Not available.

## Section 15: Other Regulatory Information

### Federal and State Regulations:

Connecticut hazardous material survey.: Hydrochloric acid Illinois toxic substances disclosure to employee act: Hydrochloric acid Illinois chemical safety act: Hydrochloric acid New York release reporting list: Hydrochloric acid Rhode Island RTK hazardous substances: Hydrochloric acid Pennsylvania RTK: Hydrochloric acid Minnesota: Hydrochloric acid Massachusetts RTK: Hydrochloric acid Massachusetts spill list: Hydrochloric acid New Jersey: Hydrochloric acid New Jersey spill list: Hydrochloric acid Louisiana RTK reporting list: Hydrochloric acid Louisiana spill reporting: Hydrochloric acid California Director's List of Hazardous Substances: Hydrochloric acid TSCA 8(b) inventory: Hydrochloric acid TSCA 4(a) proposed test rules: Hydrochloric acid SARA 302/304/311/312 extremely hazardous substances: Hydrochloric acid SARA 313 toxic chemical notification and release reporting: Hydrochloric acid CERCLA: Hazardous substances.: Hydrochloric acid: 5000 lbs. (2268 kg)

### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

### Other Classifications:

#### WHMIS (Canada):

CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive liquid.

#### DSCL (EEC):

R34- Causes burns. R37- Irritating to respiratory system. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### HMIS (U.S.A.):

**Health Hazard:** 3

**Fire Hazard:** 0

**Reactivity:** 1

**Personal Protection:**

#### National Fire Protection Association (U.S.A.):

**Health:** 3

**Flammability:** 0

**Reactivity:** 1

**Specific hazard:**

#### Protective Equipment:

Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

## Section 16: Other Information

**References:**

-Hawley, G.G.. The Condensed Chemical Dictionary, 11e ed., New York N.Y., Van Nostrand Reinold, 1987. -SAX, N.I. Dangerous Properties of Industrial Materials. Toronto, Van Nostrand Reinold, 6e ed. 1984. -The Sigma-Aldrich Library of Chemical Safety Data, Edition II. -Guide de la loi et du règlement sur le transport des marchandises dangereuses au Canada. Centre de conformité international Ltée. 1986.

**Other Special Considerations:** Not available.

**Created:** 10/09/2005 05:45 PM

**Last Updated:** 11/01/2010 12:00 PM

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# International Chemical Safety Cards

## ISOBUTENE

ICSC: 1027

ISOBUTENE  
Isobutylene  
2-Methylpropene  
(cylinder)  
 $C_4H_8/CH_2=C(CH_3)_2$   
Molecular mass: 56.1

CAS # 115-11-7  
RTECS # UD0890000  
ICSC # 1027  
UN # 1055  
EC # 601-012-00-4

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Extremely flammable.	NO open flames, NO sparks, and NO smoking. NO contact with oxidizing materials.	Shut off supply; if not possible and no risk to surroundings, let the fire burn itself out; in other cases extinguish with sand, powder, carbon dioxide.
<b>EXPLOSION</b>	Gas/air mixtures are explosive. Risk of fire and explosion on contact with oxidants, halogens (see Chemical Dangers).	Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding). Use non-sparking handtools.	In case of fire: keep drums, etc., cool by spraying with water. Combat fire from a sheltered position.
<b>EXPOSURE</b>			
• <b>INHALATION</b>	Dizziness. Drowsiness. Dullness. Nausea. Unconsciousness. Vomiting.	Closed system and ventilation.	Fresh air, rest. Artificial respiration if indicated. Refer for medical attention.
• <b>SKIN</b>	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention.
• <b>EYES</b>	Frostbite.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>			
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Evacuate danger area! Consult an expert! Ventilation. Remove all sources of ignition. Do NOT wash away into sewer. NEVER direct water jet on liquid (extra personal protection: self-	Fireproof. Separated from incompatible substances (see Chemical Dangers). Cool.	F symbol F+ symbol R: 12 S: (2-)9-16-33	

contained breathing apparatus).

Note: C  
UN Hazard Class: 2.1**SEE IMPORTANT INFORMATION ON BACK****ICSC: 1027**

Prepared in the context of cooperation between the International Programme on Chemical Safety &amp; the Commission of the European Communities © IPCS CEC 1993

# International Chemical Safety Cards

## ISOBUTENE

**ICSC: 1027**

<b>I M P O R T A N T D A T A</b>	<p><b>PHYSICAL STATE; APPEARANCE:</b> COLOURLESS COMPRESSED LIQUEFIED GAS OR COLOURLESS VOLATILE LIQUID, WITH CHARACTERISTIC ODOUR.</p> <p><b>PHYSICAL DANGERS:</b> The gas is heavier than air and may travel along the ground; distant ignition possible, and may accumulate in low ceiling spaces causing deficiency of oxygen. As a result of flow, agitation, etc., electrostatic charges can be generated.</p> <p><b>CHEMICAL DANGERS:</b> The substance can presumably form explosive peroxides. The substance is able to polymerize with fire or explosion hazard. Reacts violently with oxidants, chlorine, fluorine, nitrogen oxides, hydrogen chloride, hydrogen bromide, causing fire and explosion hazard.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS (OELs):</b> MAK not established.</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation.</p> <p><b>INHALATION RISK:</b> On loss of containment this liquid evaporates very quickly causing supersaturation of the air with serious risk of suffocation when in confined areas. A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> Rapid evaporation of the liquid may cause frostbite. The substance may cause effects on the central nervous system. Exposure may result in death. Medical observation is indicated.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b></p>
	<p><b>PHYSICAL PROPERTIES</b></p> <p>Boiling point: -6.9°C Melting point: -140.3°C Relative density (water = 1): 0.59 Solubility in water: practically insoluble Vapour pressure, kPa at 20°C: 1976</p>	<p>Relative vapour density (air = 1): 1.94 Flash point: flammable°C Auto-ignition temperature: 465°C Explosive limits, vol% in air: 1.8-9.6%</p>
<b>ENVIRONMENTAL DATA</b>		
<b>NOTES</b>		
<p>Density of the liquid at boiling point: 0.605 kg/l. High concentrations in the air cause a deficiency of oxygen with the risk of unconsciousness or death. Check oxygen content before entering area. Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.</p> <p style="text-align: right;">Transport Emergency Card: TEC (R)-502 NFPA Code: H 1; F 4; R 0;</p>		
<b>ADDITIONAL INFORMATION</b>		

**ICSC: 1027****ISOBUTENE**

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**IMPORTANT  
LEGAL  
NOTICE:**

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## MATERIAL SAFETY DATA SHEET

EQUILON MSDS: 52500E-06 01/04/99

SH/CG4 HEAVY DUTY MOTOR OIL 15W-40

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE

EQUIVA SERVICES: 877-276-7283

CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE

877-276-7285

NAME AND ADDRESS

EQUILON ENTERPRISES LLC

PRODUCT STEWARDSHIP

P.O. BOX 674414

HOUSTON, TX 77267-4414

## SECTION I

## NAME

PRODUCT: SH/CG4 HEAVY DUTY MOTOR OIL 15W-40

CHEM NAME: MIXTURE (SEE SECTION II-A)

CHEM FAMILY: PETROLEUM HYDROCARBON: MOTOR OIL

SHELL CODE: 50019

HEALTH HAZARD: 1 FIRE HAZARD: 1 REACTIVITY: 0

## SECTION II-A

## PRODUCT/INGREDIENT

NO.	COMPOSITION	CAS NO.	PERCENT
P	SH/CG4 HEAVY DUTY MOTOR OIL 15W-40		
1	HYDROTREATED HEAVY PARAFFINIC DISTILLATE	64742-54-7	40-95
2	SOLVENT DEWAXED, HEAVY PARAFFINIC DISTILLATE	64742-65-7	0-55
3	HYDROTREATED RESIDUAL OIL	64742-57-0	5-15
4	HYDROTREATED SPENT LUBRICATING OIL	64742-58-1	5-10
5	SOLVENT DEWAXED RESIDUAL OILS	64742-62-7	5-10
6	ADDITIVES CONTAINING	MIXTURE	2-3
6A	ZINC COMPOUND		1-2
NFPA HAZARD RATING: HEALTH 0 FIRE 1 REACTIVITY 0			

## SECTION II-B

## ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		
1	>5.0 G/KG, RAT*	>5.0 G/KG, RABBIT*	

## SECTION III

## HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE THAN MINIMALLY IRRITATING TO THE EYES.

SKIN CONTACT: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE THAN MILDLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE VARIOUS SKIN DISORDERS SUCH AS DERMATITIS, FOLLICULITIS OR OIL ACNE.

INHALATION: INHALATION OF VAPORS (GENERATED AT HIGH TEMPERATURES ONLY) OR OIL MIST OF THIS PRODUCT MAY RESULT IN MILD IRRITATION TO THE NOSE, THROAT AND RESPIRATORY TRACT.

INGESTION: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE THAN SLIGHTLY TOXIC IF SWALLOWED.

SIGNS AND SYMPTOMS: IRRITATION AS NOTED ABOVE.

AGGRAVATED MEDICAL CONDITIONS:

PREEXISTING SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO

THIS PRODUCT.

OTHER HEALTH EFFECTS:

THIS PRODUCT AND ITS COMPONENTS ARE NOT CLASSIFIED AS CARCINOGENS BY INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC), NATIONAL TOXICOLOGY PROGRAM (NTP) OR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER HAS DETERMINED THAT THERE IS SUFFICIENT EVIDENCE FOR THE CARCINOGENICITY IN EXPERIMENTAL ANIMALS OF USED MOTOR OILS. HANDLING PROCEDURES AND SAFETY PRECAUTIONS IN THE MSDS SHOULD BE FOLLOWED TO MINIMIZE EMPLOYEE'S EXPOSURE.

---

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

---

COMP NO.	OSHA PEL/TWA	OSHA PEL/CEILING	ACGIH TLV/TWA	ACGIH TLV/STEL	OTHER
P	5 MG/M3*		5 MG/M3*	10 MG/M3*	

\*OIL MIST, MINERAL

---

SECTION V EMERGENCY AND FIRST AID PROCEDURES

---

EYE CONTACT: FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING/SHOES AND WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

INHALATION: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.\*

NOTE TO PHYSICIAN: \*IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

---

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

---

NONE IDENTIFIED

---

SECTION VII PHYSICAL DATA

---

BOILING POINT (DEG F): NOT APPLICABLE	SPECIFIC GRAVITY (H2O = 1): 0.8844	VAPOR PRESSURE (MM HG): <0.1
MELTING POINT (DEG F): -20 (POUR POINT)	SOLUBILITY IN WATER: NEGLIGIBLE	VAPOR DENSITY (AIR = 1): NOT AVAILABLE
EVAPORATION RATE (NORMAL BUTYL ACETATE = 1): NOT AVAILABLE		VISCOSITY: 101 (CS @ 104 DEG F)
APPEARANCE AND ODOR: DARK RED LIQUID; STRONG HYDROCARBON ODOR		
PHYS/CHEM PROPERTIES: SEE ABOVE FOR DETAILS		

---

SECTION VIII FIRE AND EXPLOSION HAZARDS

---

FLASH POINT AND METHOD: 415 DEG. F. (PMCC)

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: N/AV HIGHER: N/AV

EXTINGUISHING MEDIA:

USE WATER FOG, FOAM, DRY CHEMICAL OR CO<sub>2</sub>. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:

MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE IDENTIFIED

---

SECTION IX

REACTIVITY

---

STABILITY: STABLE HAZARDOUS POLYMERIZATION WILL NOT OCCUR  
CONDITIONS AND MATERIALS TO AVOID:

AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID, PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

---

SECTION X

EMPLOYEE PROTECTION

---

RESPIRATORY PROTECTION:

IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS AND PARTICULATES.

PROTECTIVE CLOTHING

AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT. AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE BEST PROTECTION IS PROVIDED BY NITRILE GLOVES.

ADDITIONAL PROTECTIVE MEASURES:

NONE IDENTIFIED

---

SECTION XI

ENVIRONMENTAL PROTECTION

---

SPILL OR LEAK PROCEDURES:

MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS. \*\*\* LARGE SPILLS \*\*\* WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. \*\*\* SMALL SPILLS \*\*\* TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY.

---

SECTION XII

SPECIAL PRECAUTIONS

---

STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS, OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES INCLUDING SHOES CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

---

SECTION XIII

TRANSPORTATION REQUIREMENTS

---

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:

NOT HAZARDOUS BY D.O.T. REGULATIONS.

DOT PROPER SHIPPING NAME: NOT APPLICABLE

OTHER REQUIREMENTS: NOT APPLICABLE

---

SECTION XIV

OTHER REGULATORY CONTROLS

---

THIS PRODUCT IS LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES. PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

---

SECTION XV

STATE REGULATORY INFORMATION

---

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	CAS NO	PERCENT	STATE CODE
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ZINC COMPOUND	NONE	1-2	MA, NJ
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CA = CALIFORNIA HAZ. SUBST. LIST; CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT = CONNECTICUT TOXIC. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

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SECTION XVI

SPECIAL NOTES

---

PRODUCT NAME CHANGED; FORMERLY 'HEAVY DUTY II MOTOR OIL 15W-40'.  
ADDITIONAL CHANGES WERE MADE TO THE EDS IN SECTIONS III AND IV.

---

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF EQUIVA SERVICES, LLC AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF EQUIVA SERVICES, LLC.

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ENVIRONMENTAL DATA SHEET

EQUILON EDS: 52500E

SH/CG4 HEAVY DUTY MOTOR OIL 15W-40

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE

GENERAL MSDS ASSISTANCE

EQUIVA SERVICES: 877-276-7283  
 CHEMTREC: 800-424-9300

877-276-7285

NAME AND ADDRESS

EQUILON ENTERPRISES  
 PRODUCT STEWARDSHIP  
 P.O. BOX 674414  
 HOUSTON, TX 77267-4414

PRODUCT CODE: 50019

SECTION I PRODUCT COMPOSITION

NO.	COMPOSITION	CAS	PERCENT
P	SH/CG4 HEAVY DUTY MOTOR OIL 15W-40	MIXTURE	100
1	HYDROTREATED HEAVY PARAFFINIC DISTILLATE	64742-54-7	40-95
2	SOLVENT DEWAXED, HEAVY PARAFFINIC DISTIL LATE	64742-65-7	0-55
3	HYDROTREATED RESIDUAL OIL	64742-57-0	5-15
4	HYDROTREATED SPENT LUBRICATING OIL	64742-58-1	5-10
5	SOLVENT DEWAXED RESIDUAL OILS	64742-62-7	5-10
6	ADDITIVES CONTAINING	MIXTURE	2-3
6A	ZINC COMPOUND		1-2

SECTION II SARA TITLE III INFORMATION

NO.	EHS RQ (*1)	EHS TPQ (*2)	SEC-313 (*3)	313 CATEGORY (*4)	311/312 CATEGORY (*5)
6A			YES	ZINC COMPOUND	

- \*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302  
 \*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302  
 \*3 = TOXIC CHEMICAL, SEC 313  
 \*4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM  
 \*5 = CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)  
 HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD  
 H-2 = DELAYED (CHRONIC) HEALTH HAZARD  
 PHYSICAL: P-3 = FIRE HAZARD  
 P-4 = SUDDEN RELEASE OF PRESSURE HAZARD  
 P-5 = REACTIVE HAZARD

SECTION III ENVIRONMENTAL RELEASE INFORMATION

THIS PRODUCT IS COVERED BY EPA'S COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) PETROLEUM EXCLUSION. THEREFORE, RELEASES TO AIR, LAND, OR WATER ARE NOT REPORTABLE UNDER CERCLA ("SUPERFUND"). HOWEVER, UNDER SECTION 311 OF EPA'S CLEAN WATER ACT (CWA), THIS PRODUCT IS CONSIDERED AN OIL. AS SUCH, SPILLS INTO OR LEADING TO SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802.

THIS PRODUCT IS AN OIL UNDER 49 CFR (DOT) PART 130. IF SHIPPED BY RAIL OR HIGHWAY IN A TANK WITH A CAPACITY OF 3,500 GALLONS OR MORE, IT IS SUBJECT TO THE REQUIREMENTS OF PART 130. MIXTURE SOLUTIONS IN WHICH THIS PRODUCT IS PRESENT AT 10% OR MORE MAY ALSO BE SUBJECT TO THIS RULE.

SECTION IV RCRA INFORMATION

IF THIS PRODUCT BECOMES A WASTE, IT WOULD NOT BE A HAZARDOUS WASTE BY RCRA CRITERIA (40 CFR 261). PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN

## COMPLIANCE WITH LOCAL REGULATIONS.

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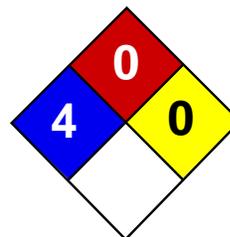
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KAREN G. HAYNES  
-----  
EQUIVA SERVICES LLC  
P.O. BOX 674414  
HOUSTON, TX 77267-4414

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL  
(877) 276-7285

FOR EMERGENCY ASSISTANCE PLEASE CALL  
EQUIVA SERVICES LLC: (877) 276-7283  
CHEMTREC: (800) 424-9300

}



Health	3
Fire	0
Reactivity	0
Personal Protection	

## Material Safety Data Sheet

### Nitric acid, 65% MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Nitric acid, 65%

**Catalog Codes:** SLN2161

**CAS#:** Mixture.

**RTECS:** Not applicable.

**TSCA:** TSCA 8(b) inventory: Water; Nitric acid, fuming

**CI#:** Not applicable.

**Synonym:** Nitric Acid, 65%

**Chemical Name:** Not applicable.

**Chemical Formula:** Not applicable.

**Contact Information:**

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**

1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Water	7732-18-5	35
Nitric acid, fuming	7697-37-2	65

**Toxicological Data on Ingredients:** Nitric acid, fuming: VAPOR (LC50): Acute: 244 ppm 0.5 hours [Rat]. 344 ppm 0.5 hours [Rat].

#### Section 3: Hazards Identification

**Potential Acute Health Effects:**

Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant, corrosive), of ingestion, . Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to lungs, mucous membranes, upper respiratory

tract, skin, eyes, teeth. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

#### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Ingestion:**

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Serious Ingestion:** Not available.

#### Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** of combustible materials

**Explosion Hazards in Presence of Various Substances:**

Explosive in presence of reducing materials, of organic materials, of metals, of alkalis. Non-explosive in presence of open flames and sparks, of shocks.

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:**

Flammable in presence of cellulose or other combustible materials. Phosphine, hydrogen sulfide, selenide all ignite when fuming nitric acid is dripped into gas. (Nitric Acid, fuming)

**Special Remarks on Explosion Hazards:**

Reacts explosively with metallic powders, carbides, cyanides, sulfides, alkalies and turpentine. Can react explosively with many reducing agents. Arsine, phosphine, tetraborane all oxidized explosively in presence of nitric acid. Cesium and rubidium

acetylides explode in contact with nitric acid. Explosive reaction with Nitric Acid + Nitrobenzene + water. Detonation with Nitric Acid + 4-Methylcyclohexane. (Nitric acid, fuming)

## Section 6: Accidental Release Measures

### Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.

### Large Spill:

Corrosive liquid. Oxidizing material. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## Section 7: Handling and Storage

### Precautions:

Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals, acids, alkalis, moisture. May corrode metallic surfaces. Store in a metallic or coated fiberboard drum using a strong polyethylene inner package.

### Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers. Do not store above 23°C (73.4°F).

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Personal Protection:

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

TWA: 2 STEL: 4 (ppm) from ACGIH (TLV) [United States] TWA: 2 STEL: 4 from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid.

**Odor:** Acrid. Disagreeable and choking. (Strong.)

**Taste:** Not available.

**Molecular Weight:** Not applicable.

**Color:** Colorless to light yellow.

**pH (1% soln/water):** Acidic.

**Boiling Point:** 121°C (249.8°F)

**Melting Point:** -41.6°C (-42.9°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 1.408 (Water = 1)

**Vapor Pressure:** 6 kPa (@ 20°C)

**Vapor Density:** 2.5 (Air = 1)

**Volatility:** Not available.

**Odor Threshold:** 0.29 ppm

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, diethyl ether.

**Solubility:**

Easily soluble in cold water, hot water. Soluble in diethyl ether.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials

**Incompatibility with various substances:**

Highly reactive with alkalis. Reactive with reducing agents, combustible materials, organic materials, metals, acids.

**Corrosivity:**

Extremely corrosive in presence of aluminum, of copper. Non-corrosive in presence of glass, of stainless steel(304), of stainless steel(316), of brass.

**Special Remarks on Reactivity:**

A strong oxidizer. Reacts violently with alcohol, organic material, turpene, charcoal. Violent reaction with Nitric acid + Acetone and Sulfuric acid. Nitric Acid will react with water or steam to produce heat and toxic, corrosive and flammable vapors. (Nitric acid, fuming)

**Special Remarks on Corrosivity:**

In presence of traces of oxides, it attacks all base metals except aluminum and special chromium steels. It will attack some forms of plastics, rubber, and coatings. No corrosive effect on bronze. No corrosivity data for zinc, and steel

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:**

LD50: Not available. LC50: Not available.

**Chronic Effects on Humans:**

Contains material which may cause damage to the following organs: lungs, mucous membranes, upper respiratory tract, skin, eyes, teeth.

**Other Toxic Effects on Humans:**

Extremely hazardous in case of inhalation (lung corrosive). Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (corrosive), of ingestion, .

**Special Remarks on Toxicity to Animals:** LDL - Lowest Published Lethal Dose [Human] - Route: Oral; Dose: 430 mg/kg (Nitric acid, fuming)

**Special Remarks on Chronic Effects on Humans:**

May cause adverse reproductive effects (effects on newborn and fetotoxicity) based on animal data. (Nitric acid, fuming)

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: Severely irritates skin. Causes skin burns and may cause deep and penetrating ulcers of the skin with a characteristic yellow to brownish discoloration. May be fatal if absorbed through skin. Eyes: Severely irritates eyes. Causes eye burns. May cause irreversible eye injury. Ingestion: May be fatal if swallowed. Causes serious gastrointestinal tract irritation or burns with nausea, vomiting, severe abdominal pain, and possible "coffee grounds" appearance of the vomitus . May cause perforation of the digestive tract. Inhalation: May be fatal if inhaled. Vapor is extremely hazardous. Vapor may cause nitrous gas poisoning. Effects may be delayed. May cause irritation of the mucous membranes and respiratory tract with burning pain in the nose and throat, coughing, sneezing, wheezing, shortness of breath and pulmonary edema. Other symptoms may include nausea, and vomiting. Chronic Potential Health Effects: Repeated inhalation may produce changes in pulmonary function and/or chronic bronchitis. It may also affect behavior (headache, dizziness, drowsiness, muscle contraction or spasticity, weakness, loss of coordinaton, mental confusion), and urinary system (kidney faillure, decreased urinary output after several hours of

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

**DOT Classification:** Class 8: Corrosive material

**Identification:** : Nitric acid UNNA: 2031 PG: II

**Special Provisions for Transport:** Marine Pollutant

## Section 15: Other Regulatory Information

**Federal and State Regulations:**

New York release reporting list: Nitric acid, fuming Rhode Island RTK hazardous substances: Nitric acid, fuming Pennsylvania RTK: Nitric acid, fuming Florida: Nitric acid, fuming Minnesota: Nitric acid, fuming Massachusetts RTK: Nitric acid, fuming

New Jersey: Nitric acid, fuming TSCA 8(b) inventory: Water; Nitric acid, fuming SARA 302/304/311/312 extremely hazardous substances: Nitric acid, fuming SARA 313 toxic chemical notification and release reporting: Nitric acid, fuming 65% CERCLA: Hazardous substances.: Nitric acid, fuming: 1000 lbs. (453.6 kg);

**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**Other Classifications:**

**WHMIS (Canada):**

CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive liquid.

**DSCL (EEC):**

R8- Contact with combustible material may cause fire. R35- Causes severe burns. S23- Do not breathe gas/fumes/vapour/spray [\*\*\*] S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36- Wear suitable protective clothing. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**HMIS (U.S.A.):**

**Health Hazard:** 3

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:**

**National Fire Protection Association (U.S.A.):**

**Health:** 4

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

## Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/10/2005 10:59 AM

**Last Updated:** 11/01/2010 12:00 PM

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## SCOTT SPECIALTY GASES -- NITROGEN -- 6830-01-096-7474

## ===== Product Identification =====

Product ID:NITROGEN  
MSDS Date:10/16/1996  
FSC:6830  
NIIN:01-096-7474  
MSDS Number: BXWDV  
=== Responsible Party ===  
Company Name:SCOTT SPECIALTY GASES  
Address:ROUTE 611 NORTH  
Box:D-11  
City:PLUMSTEADVILLE  
State:PA  
ZIP:18949  
Country:US  
Info Phone Num:215-766-8861  
Emergency Phone Num:215-766-8861  
CAGE:51847

=== Contractor Identification ===  
Company Name:SCOTT SPECIALTY GASES  
Address:6141 EASTON RD (6141 ROUTE 611)  
Box:310  
City:PLUMSTEADVILLE  
State:PA  
ZIP:18934  
Country:US  
Phone:215-766-8861/ FAX: 215-766-0416  
CAGE:51847

## ===== Composition/Information on Ingredients =====

Ingred Name:NITROGEN  
CAS:7727-37-9  
RTECS #:QW9700000  
Fraction by Wt: >99%  
Other REC Limits:NONE RECOMMENDED  
ACGIH TLV:ASPHYXIAN; 9596

## ===== Hazards Identification =====

LD50 LC50 Mixture:NOT RELEVANT  
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:TARGET ORGANS:LUNGS. ACUTE- NITROGEN  
IS NONTOXIC BUT MAY PRODUCE SUFFOCATION BY DISPLACING OXYGEN. THIS  
PRODUCT IS A GAS. CANNOT BE SWALLOWED. CHRONIC- NONE.  
Explanation of Carcinogenicity:NONE  
Effects of Overexposure:DIZZINESS, RAPID RESPIRATION, MUSCULAR  
INCOORDINATION, WEAKENED SPEECH LEADING TO THE INABILITY TO UTTER  
SOUNDS, RAPID REDUCTION IN THE ABILITY TO PERFORM MOVEMENTS,  
REDUCED CONSCIOUSNESS OF SURROUNDING, FATIGUE, NAUSEA, VOMITING,  
UNCONSCIOUSNESS AND DEATH  
Medical Cond Aggravated by Exposure:NONE

## ===== First Aid Measures =====

First Aid:PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF

OVEREXPOSURE. RESCUE PERSONNEL SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS. INHALED:REMOVE TO FRESH AIR. PROVIDE OXYGEN/CPR IF NEEDED. SKIN:NON E. EYES:NONE. ORAL:NONE.

===== Fire Fighting Measures =====

Flash Point:NONE  
Lower Limits:NOT RELEVANT  
Upper Limits:NOT RELEVANT  
Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL FOR SURROUNDING FIRE. NITROGEN CANNOT CATCH FIRE.  
Fire Fighting Procedures:WEAR SELF CONTAINED BREATHING APPARATUS. IMMEDIATELY DELUGE CONTAINERS WITH WATER SPRAY FROM MAXIMUM DISTANCE UNTIL COOL, THEN MOVE CONTAINERS AWAY IF NO RISK.  
Unusual Fire/Explosion Hazard:CYLINDERS MAY RUPTURE DUE TO HEAT OF FIRE. NO PART OF CYLINDER SHOULD BE SUBJECTED TO A TEMPERATURE HIGHER THAN 52C ( 125F).

===== Accidental Release Measures =====

Spill Release Procedures:USE APPROPRIATE PROTECTIVE EQUIPMENT. VENTILATE AREA. REMOVE LEAKING CYLINDER TO EXHAUST HOOD OR SAFE OUTDOOR AREA. SHUT OFF SOURCE OF LEAK IF POSSIBLE. REMOVE HEAT SOURCES.  
Neutralizing Agent:NOT RELEVANT

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN COOL, DRY, VENTILATED AREA. KEEP OUT OF REACH OF SMALL CHILDREN. STORE UPRIGHT AND FIRMLY SECURED  
Other Precautions:WASH HANDS AFTER HANDLING. NEVER CARRY A COMPRESSED GAS CYLINDER IN AN ENCLOSED SPACE SUCH AS A CAR TRUNK, VAN OR STATION VAGON. USE ONLY IN WELL VENTILATED AREA. DO NOT DRAG, SLIDE OR ROLL CYLINDERS. USE A SUITABLE HAND TRUCK TO MOVE THEM.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NONE NORMALLY REQUIRED. IN EMERGENCIES, WEAR A NIOSH-APPROVED POSITIVE PRESSURE AIR LINE WITH MASK OR SELF-CONTAINED BREATHING APPARATUS.  
Ventilation:LOCAL EXHAUST  
Protective Gloves:ANY MATERIAL WHEN HANDLING CYLINDERS  
Eye Protection:SAFETY GLASSES/GOGGLES RECOMMENDED  
Other Protective Equipment:SAFETY SHOES  
Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.  
Supplemental Safety and Health

===== Physical/Chemical Properties =====

HCC:G3  
NRC/State Lic Num:NOT RELEVANT  
Boiling Pt:B.P. Text:-320F,-196C  
Melt/Freeze Pt:M.P/F.P Text:-346F,-210C  
Vapor Density:0.967  
Spec Gravity:GAS  
Viscosity:NOT RELEVANT  
Evaporation Rate & Reference:NOT RELEVANT  
Solubility in Water:1.485 CM3/100 CM3

Appearance and Odor:COLORLESS, ODORLESS GAS

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
LITHIUM AT HIGH TEMPERATURES  
Stability Condition to Avoid:EXCESSIVE HEAT  
Hazardous Decomposition Products:NONE

===== Disposal Considerations =====

Waste Disposal Methods:SLOWLY RELEASE INTO ATMOSPHERE OR RETURN IN THE SHIPPING CONTAINER PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE. FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS

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## TEXAS INDUSTRIES, INC. -- PORTLAND CEMENT -- 5610-00-242-3792

## ===== Product Identification =====

Product ID:PORTLAND CEMENT  
MSDS Date:11/01/1985  
FSC:5610  
NIIN:00-242-3792  
MSDS Number: BJVZF  
=== Responsible Party ===  
Company Name:TEXAS INDUSTRIES, INC.  
Address:715 AVE H. EAST  
City:ARLINGTON  
State:TX  
ZIP:76010  
Info Phone Num:(817) 640-1701  
Emergency Phone Num:(817) 640-1701  
CAGE:0B3F8

=== Contractor Identification ===  
Company Name:TEXAS INDUSTRIES, INC  
Address:715 AVE H. EAST  
Box:City:ARLINGTON  
State:TX  
ZIP:76010  
Phone:(214) 637-3100  
CAGE:0B3F8

## ===== Composition/Information on Ingredients =====

Ingred Name:PORTLAND CEMENT  
CAS:65997-15-1  
RTECS #:VV8770000  
Fraction by Wt: 58%  
Other REC Limits:50 MPPCF (MSHA)  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9293

Ingred Name:CALCIUM CARBONATE (MARBLE) (LIMESTONE)  
CAS:1317-65-3  
RTECS #:EV9580000  
Fraction by Wt: 40%  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9192

Ingred Name:GYPSUM  
CAS:13397-24-5  
RTECS #:MG2360000  
Fraction by Wt: 2%  
Other REC Limits:5 MG/CUM RESP DUST  
OSHA PEL:15 MG/CUM TOTAL DUST  
ACGIH TLV:10 MG/CUM

## ===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:EYES/SKIN: DUST CAN CAUSE  
INFLAMMATION OF THE CORNEA, IRRITATION & ALKALI BURNS. INHALATION:  
IRRITATION TO NASAL PASSAGES, PULMONARY DISEASES, PNEUMONOCOCONIOSIS

& SILICOSIS.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:EYES/SKIN: DUST CAN CAUSE INFLAMMATION OF THE CORNEA, IRRITATION, ALKALI BURNS, & ALLERGIC DERMATITIS.

INHALATION: IRRITATION TO NASAL PASSAGES, PULMONARY DISEASES, PNEUMONOCOCONIOSIS & SILICOSIS.

Medical Cond Aggravated by Exposure:RESPIRATORY DISORDERS/DISEASES, DERMATITIS, OTHER SKIN DISORDERS, & HYPERSENSITIVE.

=====  
First Aid Measures  
=====

First Aid:EYES: FLUSH W/PLENTY OF WATER FOR AT LEAST 15 MINS. SKIN: WASH W/SOAP & WATER. INHALATION: REMOVE TO FRESH AIR. GIVE CPR OR OXYGEN IF NEEDED. OBTAIN MEDICAL ATTENTION IN ALL CASES.

=====  
Fire Fighting Measures  
=====

Flash Point:WILL NOT IGNITE

Unusual Fire/Explosion Hazard:CONTACT W/STRONG ACIDS MAY PRODUCE A VIOLENT, EXOTHERMIC REACTION & MAY EVOLVE TOXIC GASES OR VAPORS, DEPENDING UPON THE ACID INVOLVED.

=====  
Accidental Release Measures  
=====

Spill Release Procedures:CLEAN-UP OF SPILLS MAY REQUIRE PERSONAL PROTECTION EQUIPMENT.

=====  
Handling and Storage  
=====

Handling and Storage Precautions:STORE AWAY FROM STRONG ACIDS.

UNINTENTIONAL CONTACT W/WATER SHOULD BE AVOIDED TO PRESERVE PRODUCT. MATERIAL IS HIGHLY ALKALINE.

Other Precautions:AVOID CONTACT W/SKIN, EYES & CLOTHING.

=====  
Exposure Controls/Personal Protection  
=====

Respiratory Protection:USE NIOSH/MSHA APPROVED FOR PROTECTION AGAINST SILICA & NUISANCE DUSTS.

Ventilation:PROVIDE MECHANICAL/LOCAL EXHAUST VENTILATION TO KEEP <TLV.

Protective Gloves:RUBBER, PVC, NEOPRENE, IMPERVIOUS

Eye Protection:GOGGLES

Other Protective Equipment:RUBBER HIGH TOP BOOTS, BARRIER CREAMS, ARM SLEEVES & APRON

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

=====  
Physical/Chemical Properties  
=====

Spec Gravity:2.80-2.17

Solubility in Water:SLIGHT (0.1-1.0%)

Appearance and Odor:FINE GREY POWDER W/N ODOR

Percent Volatiles by Volume:0%

=====  
Stability and Reactivity Data  
=====

Stability Indicator/Materials to Avoid:YES

STRONG ACIDS

Hazardous Decomposition Products:VAPORS & TOXIC GASES

=====  
Disposal Considerations  
=====

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE W/LOCAL, STATE, &  
FEDERAL REGULATIONS.

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particular situation.

## FAIRFIELD AMERICAN CORP -- 82680 PERMANONE TICK REPELLENT -- 6840-00F029029

## ===== Product Identification =====

Product ID:82680 PERMANONE TICK REPELLENT

MSDS Date:07/31/1991

FSC:6840

NIIN:00F029029

MSDS Number: BRVJJ

=== Responsible Party ===

Company Name:FAIRFIELD AMERICAN CORP

Address:201 RT 17 N

City:RUTHERFORD

State:NJ

ZIP:07070

Country:US

Info Phone Num:201-507-4880

Emergency Phone Num:201-507-4880

Preparer's Name:REGULATORY DEPARTMENT

CAGE:66146

=== Contractor Identification ===

Company Name:FAIRFIELD AMERICAN CORP AN AOSI CO

Address:201 RT 17 NORTH

Box:City:RUTHERFORD

State:NJ

ZIP:07070

Country:US

Phone:201-507-4880

CAGE:66146

## ===== Composition/Information on Ingredients =====

Ingred Name:WEIGHT PER GALLON IN POUNDS: 6.597

RTECS #:9999999WG

Ingred Name:KEROSENE (PETROLEUM), HYDROTREATED; PETROLEUM DISTILLATE,  
HYDROTREATED , (MINERAL SPIRITS)

CAS:64742-47-8

RTECS #:OA5504000

Fraction by Wt: 4.50%

Ingred Name:PERMETHRIN

CAS:52645-53-1

RTECS #:GZ1255000

Fraction by Wt: 0.50%

ACGIH TLV:NOT EST.

Ingred Name:STODDARD SOLVENT (PETROLEUM DISTILLATE), MINERAL SPIRITS

CAS:8052-41-3

RTECS #:WJ8925000

Fraction by Wt: 5.50%

Other REC Limits:350 MG/CUM

OSHA PEL:500 PPM

ACGIH TLV:100 PPM; 9293

## ===== Hazards Identification =====

LD50 LC50 Mixture:LD50 ORAL (RAT): >5 G/KG

Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:SLIGHT IRRITANT TO EYES.  
Explanation of Carcinogenicity:NONE

=====  
First Aid Measures  
=====

First Aid:INGESTION: CONTACT A PHYSICIAN OR POISON CONTROL CENTER.  
EYES: FLUSH W/PLENTY OF WATER. SKIN: WASH W/SOAP & WATER.  
INHALATION: REMOVE TO FRESH AIR. OBTAIN MEDICAL ATTENTION IN ALL  
CASES.

=====  
Fire Fighting Measures  
=====

Flash Point Method:TCC  
Flash Point:>200F  
Extinguishing Media:FOAM, CO2, DRY CHEMICAL & WATER FOG.

=====  
Accidental Release Measures  
=====

Spill Release Procedures:SOAK UP W/ABSORBENT MATERIAL SUCH AS SAND,  
SAWDUST, EARTH, FULLER'S EARTH ETC. DISPOSE OF W/CHEMICAL WASTE.

=====  
Handling and Storage  
=====

Handling and Storage Precautions:CONTENTS UNDER PRESSURE. DON'T STORE  
NEAR HEAT OR OPEN FLAME. DON'T PUNCTURE OR INCINERATE CONTAINER.  
AVOID CONTACT W/FACE, EYES, & SKIN.  
Other Precautions:EXPOSURE TO TEMPERATURES >130F MAY CAUSE BURSTING.  
DON'T CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.  
PRODUCT SHOULD NOT BE APPLIED TO CLOTHING WHILE IT IS BEING WORN.  
AVOID BREATHING VAPO RS OR SPRAY MIST. SEE SUPP

=====  
Exposure Controls/Personal Protection  
=====

Ventilation:NORMAL (MECHANICAL) EXHAUST  
Protective Gloves:RUBBER OR IMPERVIOUS  
Eye Protection:SAFETY GLASSES OR GOGGLES  
Work Hygienic Practices:REMOVE/LAUNDER CONTAMINATED CLOTHING BEFORE  
REUSE. WASH THOUROUGHLY AFTER HANDLING & BEFORE EATING OR SMOKING.  
Supplemental Safety and Health  
PRECAUTIONS CONT.: UNDER NO CIRCUMSTANCES SHOULD BARE SKIN/CLOTHING ON  
THE BODY BE TREATED. DON'T ALLOW CONTACT W/TREATED SURFACES UNTIL  
SPRAY HAS DRIED. DON'T ALLOW SPRAY TO CONTACT FOOD/WATER SUPPLI ES.  
DON'T ALLOW USE BY SMALL CHILDREN WITHOUT CLOSE ADULT SUPERVIOSION.

=====  
Physical/Chemical Properties  
=====

Spec Gravity:0.792  
Solubility in Water:MISICIBLE  
Appearance and Odor:MILKY WHITE PRESSURIZED LIQUID W/MILD MOTHBALL-LIKE  
ODOR.  
Percent Volatiles by Volume:>40

=====  
Stability and Reactivity Data  
=====

Stability Indicator/Materials to Avoid:YES  
STRONG OXIDIZING AGENTS  
Stability Condition to Avoid:HEAT OR OPEN FLAME

=====  
Disposal Considerations  
=====

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE W/LOCAL, STATE, & FEDERAL REGULATIONS. CONTAINER DISPOSAL: REPLACE CAP, WRAP CONTAINER IN SEVERAL LAYERS OF NEWSPAPER. DISCARD IN TRASH. DON'T INCINERATE OR PUNCTURE.

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## ASHLAND CHEMICAL COMPANY -- TRISODIUM PHOSPHATE -- 6810-01-082-5415

## ===== Product Identification =====

Product ID:TRISODIUM PHOSPHATE  
 MSDS Date:08/05/1998  
 FSC:6810  
 NIIN:01-082-5415  
 MSDS Number: CHQLP  
 === Responsible Party ===  
 Company Name:ASHLAND CHEMICAL COMPANY  
 Box:2219  
 City:COLUMBUS  
 State:OH  
 ZIP:43216-2219  
 Country:US  
 Info Phone Num:614-790-3333/800-325-3751  
 Emergency Phone Num:800-274-5236 OR 800-ASHLAND  
 CAGE:34897

## === Contractor Identification ===

Company Name:ASHLAND CHEMICAL CO  
 Box:2219  
 City:COLUMBUS  
 State:OH  
 ZIP:43216-2219  
 Country:US  
 Phone:614-790-3333/800-274-5263  
 CAGE:34897  
 Company Name:JEM SALES INC INCHEMCO DIV  
 Address:430 LAVENDER DR  
 Box:City:ROME  
 State:GA  
 ZIP:30165-2262  
 Country:US  
 Phone:706-232-1709  
 CAGE:0AZD7

## ===== Composition/Information on Ingredients =====

Ingred Name:SODIUM PHOSPHATE, TRIBASIC (SARA III)  
 CAS:10101-89-0  
 RTECS #:TC9575000  
 Fraction by Wt: 100%  
 Other REC Limits:NONE SPECIFIED  
 EPA Rpt Qty:5000 LBS  
 DOT Rpt Qty:5000 LBS

## ===== Hazards Identification =====

LD50 LC50 Mixture:ORAL RAT LD50 IS 7400 MG/KG  
 Routes of Entry: Inhalation:NO Skin:YES Ingestion:YES  
 Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
 Health Hazards Acute and Chronic:SODIUM PHOSPHATE IS SEVERLY IRRITATING  
 TO BODY TISSUES, ESPECIALLY MOIST ONES SUCH AS THE MUCOUS  
 MEMBRANES. DUSTS WILL IRRITATE THE UPPER RESPIRATORY TRACT CAUSING  
 COUGHING.  
 Explanation of Carcinogenicity:SODIUM PHOSPHATE IS NOT LISTED AS A  
 CARCINOGEN BY IARC, NTP, OR OSHA.  
 Effects of Overexposure:EYE:SEVERE IRRITATION. SKIN:IRRITATION,

POSSIBLE DERMATITIS. INHALED;RESPIRATORY  
IRRITATION, COUGHING, CHOKING, LARGE QUANTITIES MAY BE TOXIC.  
INGESTED:IRRITATION, BURNS OF MOUTH & THROAT. WILL PRODUCE NA  
USEA, VOMITING, DIARRHEA.

Medical Cond Aggravated by Exposure:NONE GIVEN BY MANUFACTURER.

=====  
===== First Aid Measures =====

First Aid:EYE:FLUSH W/WATER 15 MIN, HOLD LIDS OPEN. SKIN:REMOVE  
CONTAMINATED CLOTHING AND LAUNDRER BEFORE REUSE. WASH WITH SOAP &  
WATER. INHALED:REMOVE TO FRESH AIR. RESTORE BREATHING AS NEEDED.  
INGESTED:GIVE 2 LARGE GLASSES OF MILK OR WATER AND IMMEDIATELY  
INDUCE VOMITING. GIVE NOTHING BY MOUTH IF UNCONSCIOUS. GET  
IMMEDIATE MEDICAL CARE.

=====  
===== Fire Fighting Measures =====

Flash Point:NON-FLAMMABLE

Extinguishing Media:PRODUCT IS NON FLAMMABLE. EXTINGUISH FIRE WITH  
MEDIA APPROPRIATE FOR SOURCE OF FIRE.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA &  
FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER  
SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.

Unusual Fire/Explosion Hazard:FIRE OR EXCESSIVE HEAT MAY CAUSE  
PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS.

=====  
===== Accidental Release Measures =====

Spill Release Procedures:SWEEP,VACUUM OR OTHERWISE COLLECT, BEING  
CAREFUL NOT TO RAISE DUST. THEN FLUSH AREA WITH WATER.

Neutralizing Agent:NONE

=====  
===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A COOL, DRY AREA, PROTECTED  
FROM MOISTURE. KEEP TIGHTLY CLOSED.

Other Precautions:NONE

=====  
===== Exposure Controls/Personal Protection =====

Respiratory Protection:RESPIRATOR WILL NOT NORMALLY BE NECESSARY. USE  
NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR OR RESPIRATOR FOR  
DUST/MIST IF EXPOSURE IS ABOVE THE TLV/PEL. SEE 29 CFR 1910.134 FOR  
REGULATIONS PERTAINING TO RESPIRATOR USE.

Ventilation:NORMAL ROOM VENTILATION IS SUFFICIENT. SUPPLEMENT WITH  
LOCAL EXHAUST IF PEL/TLV IS EXCEEDED.

Protective Gloves:RUBBER,VINYL OR OTHER IMPERVIOUS

Eye Protection:SAFETY GLASSES OR SPLASH GOGGLES

Other Protective Equipment:SAFETY SHOWER AND EYE WASH STATION, WORK  
CLOTHING TO PROTECT AGAINST SKIN CONTACT.

Work Hygienic Practices:USE GOOD CHEMICAL HYGIENE PRACTICE. AVOID  
UNNECESSARY CONTACT.

Supplemental Safety and Health

MANUFACTURER'S MSDS NO. 00004079-005.001

=====  
===== Physical/Chemical Properties =====

HCC:B3

Spec Gravity:1.620 @ 68F

pH:12

Appearance and Odor:WHITE CRYSTALLINE POWDER.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
STRONG ACIDS, IRON AND OTHER HEAVY METALS.  
Stability Condition to Avoid:HEAT  
Hazardous Decomposition Products:OXIDES OF PHOSPHORUS

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE I/A/W ALL FEDERAL, STATE AND LOCAL  
REGULATIONS. MANUFACTURER MAKES NO SUGGESTION OF DISPOSAL METHOD.

Disclaimer (provided with this information by the compiling agencies):  
This information is formulated for use by elements of the Department  
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assume responsibility for the suitability of this information to their  
particular situation.

**APPENDIX C**  
**OSHA INFORMATION POSTER**

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# Job Safety and Health

## It's the law!

# OSHA

Occupational Safety  
and Health Administration  
U.S. Department of Labor

### EMPLOYEES:

- You have the right to notify your employer or OSHA about workplace hazards. You may ask OSHA to keep your name confidential.
- You have the right to request an OSHA inspection if you believe that there are unsafe and unhealthful conditions in your workplace. You or your representative may participate in that inspection.
- You can file a complaint with OSHA within 30 days of retaliation or discrimination by your employer for making safety and health complaints or for exercising your rights under the *OSH Act*.
- You have the right to see OSHA citations issued to your employer. Your employer must post the citations at or near the place of the alleged violations.
- Your employer must correct workplace hazards by the date indicated on the citation and must certify that these hazards have been reduced or eliminated.
- You have the right to copies of your medical records and records of your exposures to toxic and harmful substances or conditions.
- Your employer must post this notice in your workplace.
- You must comply with all occupational safety and health standards issued under the *OSH Act* that apply to your own actions and conduct on the job.

### EMPLOYERS:

- You must furnish your employees a place of employment free from recognized hazards.
- You must comply with the occupational safety and health standards issued under the *OSH Act*.

This free poster available from OSHA –  
*The Best Resource for Safety and Health*



Free assistance in identifying and correcting hazards or complying with standards is available to employers, without citation or penalty, through OSHA-supported consultation programs in each state.

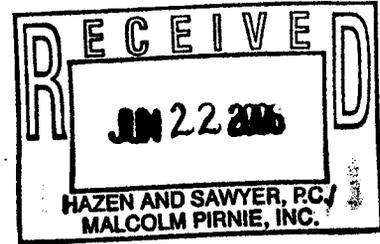
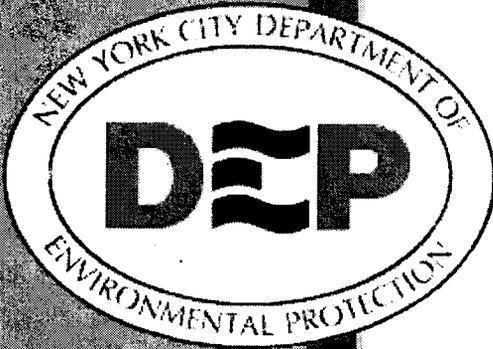
**1-800-321-OSHA**  
[www.osha.gov](http://www.osha.gov)

**ATTACHMENT 1**  
**NYSDEC SPILL PROCEDURES**

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CMJV **FILE COPY**

CM Chrono



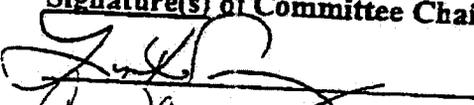
THE CITY OF NEW YORK  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

# **ENVIRONMENTAL, HEALTH & SAFETY POLICIES AND PROCEDURES**

**Vol. 2  
Spill Prevention, Environmental Release  
Reporting & Investigation**

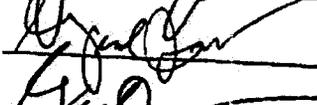
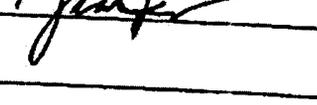
**Environmental Coordination Committee Approval**

The New York City Department of Environmental Protection's Environmental Coordination Committee has reviewed this document and by signing below agree that it adequately defines the program necessary to address regulatory requirements for their Bureau operations and commit to the policies and/or procedures contained within (or substantially equivalent procedures, if Bureau specific amendment is required).

<u>Revision / Action</u>	<u>Signature(s) of Committee Chair</u>	Date:
<u>Revision 0. Authorization</u>		<u>08/22/02</u>
<u>Revision 1. Authorization</u>	<u>Ann Marie Byrnes</u>	<u>10/29/04</u>
<u>Revision 2. Authorization</u>	<u>Christie Tancin</u>	<u>03/31/06</u>
_____	_____	Date: _____

**Agency Compliance Office Certification**

I, a duly authorized representative of the DEP Agency Compliance Office, have reviewed this document, have found it to be acceptable and authorize its use for all DEP operations.

<u>Revision / Action</u>	<u>Signature(s)</u>	Date:
<u>Revision 0. Authorization</u>		<u>8/22/02</u>
<u>Revision 1. Authorization</u>		<u>10/29/04</u>
<u>Revision 2. Authorization</u>		<u>3/31/06</u>
_____	_____	Date: _____

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### 1 Purpose

The purpose of this procedure is to prevent releases when possible and to ensure that all incidents that result in spills of petroleum, hazardous substances, wastewater/sewage or other pollutants are properly reported, both within DEP and to appropriate regulatory agencies. In an emergency, facility Emergency Action/Response Plans or Contingency Plans are the primary reference for immediate action. Actions necessary to protect life and health are the first priority in any emergency.

### 2 Scope

This procedure applies to all releases of petroleum, hazardous substances, wastewater/sewage or other pollutants on DEP property or at field work locations, whether or not caused by DEP activities or those of its contractors. This procedure does not apply to transportation accidents or other releases caused by third parties unrelated to DEP water or wastewater operations in New York City or its watersheds, although DEP may respond to these incidents as part of its water supply protection and City Hazmat technical support roles. This procedure also does not apply to routine self-reporting required under established permits.

### 3 Responsibilities

The following responsibilities generally apply throughout DEP, although Bureaus and individual facilities may develop more detailed Manuals and Emergency Plans that can deviate from these responsibilities. This is acceptable as long as responsibilities are clearly assigned:

**Employee:** It is the responsibility of all employees to prevent releases when possible and to immediately report any release of petroleum, a hazardous substance, wastewater/sewage or other pollutant, as described in the procedure below.

**Responsible Manager:** The highest ranking manager or supervisor within each DEP Bureau at each facility (or whose employees perform field operations outside of fixed facilities) is the "**Responsible Manager**" for that Bureau/Office's operation. The **Responsible Manager** must make the necessary calls to Division/Bureau management and Division/Bureau EH&S staff for assistance and must cooperate in reporting and investigation.

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**Contract Supervisor:** The senior staff person overseeing a remediation project will be referred to as the “*Contract Supervisor*.” *Contract Supervisor* has many definitions, depending on the Contract and/or managing Bureau:

- For contracts managed by BEDC Design, the *Contract Supervisor* is the Lead Project Engineer;
- For contracts managed by BEDC Construction, the *Contract Supervisor* is the DEP Resident Engineer, or the DEP employee directly responsible for overseeing the consultant Resident Engineer when a Construction Manager (CM) is responsible for resident engineering;
- For contracts managed by various BWS divisions, the *Contract Supervisor* is the Director of the Division who hired the Contractor or his/her designee (e.g., Project Manager); and
- For contracts managed by BWSO, the *Contract Supervisor* is the BWSO Manager (Director, Chief, Deputy Chief, etc.) responsible for managing and overseeing the contract or his/her designee (e.g., Project Manager).

**National Response Center:** The National Response Center (NRC) maintains a 24 hour per day, 7 day a week, 365 day a year Operations Call Center where all information is received via a toll-free number, entered directly into an on-line data base system, and electronically disseminated as part of the National Response System.

NRC is the single contact point for reporting all pollution incidents. It acts as a national 911 service for environmental incidents. Calling the toll-free number fulfills nearly all federal requirements for reporting oil and chemical spills, spills of nuclear material, chemical and biological warfare agents, train derailments, and pipeline spills.

The following are examples of incidents that warrant a call to the NRC:

Oil Spills: The responsible party shall notify the NRC as soon as he becomes aware of an oil spill from a vessel or facility operating *in or along U.S. navigable waters*.

Chemical Spills: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires that all spills of hazardous substances (including radionuclides) exceeding reportable quantities, be reported by the responsible party to the NRC.

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Transportation Accidents: Transportation accidents involving hazardous materials, including radioactive substances, must be reported to the NRC immediately by the carrier when, as a direct result of the materials: a person is killed; a person receives injuries requiring hospitalization; property damage exceeds \$50,000; or fire, breakage, or spillage of an etiologic agent occurs.

#### 4 Spill Prevention

A large portion of DEP spills are a result of improperly maintained or damaged equipment. Equipment includes, but is not limited to, vehicles, construction equipment, pumps, meters, storage tanks, etc. **Responsible Managers** must prevent spills within their respective facility/work group by employing the following measures, where/when applicable:

- Utilizing checklists to conduct pre-use inspections of equipment;
- Emphasizing proper materials handling and container storage inspection practices;
- Using manufacturer recommended Maintenance Procedures (MPs) to develop in-house MPs for certain types of equipment or activities where there is no adequate preventive maintenance (PM) schedule in place. If neither exists, the facility shall develop equipment-specific MPs;
- Using breakaway or quick disconnect hoses and/or absorbent drip pads during product or fuel transfer and dispensing activities;
- Ensuring the proper labeling of valves and ports transferring or receiving chemical or petroleum products;
- Installing secondary containment devices (e.g., drip pans) on equipment;
- Scheduling replacement of damaged or old equipment; and
- Utilizing any other appropriate spill prevention measures.

The following sections describe the specific procedures to be followed for handling spills that occur within the Bureau of Water Supply (BWS), Bureau of Water & Sewer Operations (BWSO), Bureau of Wastewater Treatment (BWT), and Bureau of Engineering Design & Construction (BEDC).

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## 5 Bureau of Water Supply (BWS) - Protocol for Reporting Spills/Releases

### 5.1 Initial Notification

Upon discovery of a spill/release, any DEP Employee or DEP Contractor (the "Discoverer") who becomes aware of any spill/release of a petroleum product, sewage and/or wastewater, hazardous substance, or other pollutant that occurs on DEP property or may potentially impact the DEP watershed/water supply shall:

- Immediately notify Supervisors/Co-workers, if they are or may be in IMMEDIATE DANGER;
- If medical attention is required, contact Emergency 911;
- **Immediately contact their respective Supervisor and *EH&S staff member* on duty to determine if the spill is at or above the NYSDEC *reportable quantity*; AND**
- **Immediately call the BWS DEP Police Croton Command Center (CCC) at 888-426-7433\* and provide as much of the information below as possible:**
  - Location of incident;
  - Time of incident;
  - Material released;
  - Status of staff (injuries, if any);
  - Name, position, and contact information of "discoverer";
  - Duration and estimated quantity of material released; and
  - Estimated impact to the environment and site weather conditions; AND
  - Whether or not the spill is at or above the NYSDEC *reportable quantity* and requires that DEP Police call NYSDEC for a Spill Number – **There is a 2-hour time limit to make this determination and contact NYSDEC.**
- **Except for:**

*Incidental releases of hazardous substances or petroleum.* These are releases of small quantities, such as a few ounces, that result from equipment maintenance, repair or leakage, which have impacted only an impervious surface. Only releases which are contained and collected before reaching the environment (land or waters of the State of New York) would fall under this definition.

**\*BWS personnel working IN CITY:** BWS personnel working IN CITY (i.e., DWQC personnel based in Queens, New York) are directed to **call the BWSO EHS On-Call phone number (646-879-3315) instead of the Croton Command Center** as indicated above.

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**BWS Wastewater Treatment Plant Operators:** In addition to the aforementioned notification requirements, ALL BWS Wastewater Treatment Plant (WWTP) Operators must report all wastewater/sewage releases as directed by the facility's respective State Pollutant Discharge Elimination Systems (SPDES) permit(s) to NYSDEC directly as mandated by **6 NYCRR Subpart 750-2.7 Incident Reporting**. These reporting requirements may include, but not be limited to, Anticipated Non-Compliance, 2-Hour Oral reporting of By-pass, Upset or Other Incident, 24-Hour Oral reporting of Bypass, Upset or Other Incident, 5 Day Written Incident Report and any additional reporting as required under the facility-specific issued SPDES Permit.

### **5.2 Role of BWS DEP Police Croton Command Center (CCC)**

Upon notification of a spill/release by the Discoverer or participating Division ***EH&S staff member***, **AND NO LATER THAN 2-HOURS FROM INITIAL DISCOVERY**, the CCC is responsible for:

- Contacting NYSDEC, if the spill is at or above the NYSDEC *reportable quantity*, to relay spill/release information provided by the Discoverer or participating ***EH&S staff member*** and obtaining a Spill Number (IF issued by NYSDEC);
- If needed, dispatching BWS HazMat, Engineering (for spills of sewage and/or wastewater), BWS DEP Police, and/or any additional local authorities for emergency response; and
- If required, contacting the National Response Center (NRC) at (800) 424-8802.

### **5.3 Environmental Release Investigation – PART 1 of the ERR**

For all spills/releases (except “incidental” releases), and after contacting the CCC [or the BWSO EHS On-Call phone number (646-879-3315) if working IN CITY], the Discoverer and/or participating Division ***EH&S staff member*** must:

- Complete PART 1 of the Environmental Release Report (ERR – Attachment A) **no later than 48 hours from initial discovery**, and fax to Bureau EH&S at (914) 773-4530; the CCC [or the 24-hour DEP On-Call phone number if working IN CITY] shall provide the assigned Spill Number (IF provided by NYSDEC), to be included in PART 1 of the ERR.

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#### **5.4 Environmental Release Investigation**

After the initial notifications and any necessary emergency response efforts are completed, the participating Division *EH&S staff member* (with assistance from the Discoverer, if necessary) shall conduct the necessary investigation to properly complete applicable sections of PARTs 2 and 3 of the ERR. PARTs 2 and 3 of the ERR shall be completed no later than six (6) days after discovery of the spill/release, unless outstanding circumstances warrant additional time for investigation (i.e., sampling/remediation event). These Sections also applies to spills or releases of wastewater and/or sewage at BWS WWTPs.

#### **5.5 Communicating Corrective Actions**

When the investigation is complete, the participating Division *EH&S staff member* shall inform his/her respective *Division Director* of any spill prevention recommendations that require follow-up. It is the responsibility of the affected *Division Director* (or designee) to ensure that all recommendations are properly resolved and documented in the ERR. Whenever a recommendation is not or cannot be implemented, a written explanation shall be documented in PART 3 of the ERR (or attached to ERR). The ERR will not be "closed" until all recommendations are resolved and documented.

#### **5.6 ERR Closure**

The affected *Division Director* (or designee) and the Bureau E, H & S Director (or designee) shall periodically check the status of completion of all spill prevention recommendations until they are properly resolved and documented in the ERR, within six (6) days of initial spill/release discovery, unless outstanding circumstances warrant additional time for investigation (i.e., sampling/remediation event). Final and/or Closed ERRs shall then be transmitted to *Bureau EH&S (fax to 914-773-4530)* for tracking purposes.

#### **5.7 Recordkeeping**

Copies of all closed ERRs shall be maintained by *Division EH&S* and *Bureau EH&S* for a minimum of five (5) years. Records of any training provided to fulfill any recommendations shall also be maintained by *Division EH&S* for a minimum of five (5) years.

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## 6 Bureau of Water and Sewer Operations (BWSO) - Protocol for Reporting Spills/Releases

### 6.1 Initial Notification – Part 1 of the ERR

Any Employee or contractor who becomes aware of a release of petroleum, hazardous substance or other pollutant shall immediately notify:

- Supervisors/Co-workers, if they are or may be in IMMEDIATE DANGER.
- **Emergency (911)** IF the incident CLEARLY REQUIRES EMERGENCY RESPONDERS (because it presents obvious danger to employees or the public); If employee doesn't have access to a phone, notify a facility Supervisor.
- The **Responsible Manager** or highest ranking Supervisor on duty, REGARDLESS OF THE SIZE OF THE RELEASE or whether it is inside a containment area.

Upon being notified of a release, the facility Responsible Manager or highest ranking Supervisor on duty for the operation must immediately notify BWSO Bureau EHS staff verbally either during regular business hours (9:00 am to 5:00 pm Monday through Friday) or the on-call Bureau EHS representative (via the 24-hour On-Call phone number 1-646-879-3248) and the Emergency Communications Center (212-689-1620) after business hours for all spills, **except:**

*Incidental releases of hazardous substances or petroleum.* These are releases of small quantities, such as a few ounces, that result from equipment maintenance, repair or leakage, which have impacted only an impervious surface. As addressed in BWSO spill training, only releases which are contained and collected before reaching the environment would fall under this definition. This exception (incidental releases of hazardous substances and petroleum) only applies to immediate notification of BWSO Bureau EHS. The spill is still logged and tracked by the facility for report to Bureau EHS in a facility monthly incidental spill log. If there is any uncertainty about a spill falling into this category, then Bureau EHS must be contacted immediately.

For all other spill incidents, the initial notification **MUST BE MADE VERBALLY TO AN EHS STAFF MEMBER** in order to guarantee that there will be a timely response to the spill. A voice mail, e-mail or fax is **NOT** acceptable as an initial notification. Notification can be

made to any BWSO EHS staff member, an Environmental or Health and Safety representative or the 24 hour On-Call representative. BWSO Bureau EHS maintains and distributes to its facilities an "EHS Contact List," which provides a list of all EHS employees and their contact numbers, for 24/7 support for releases or other emergencies.

Within **24 HOURS** of initial spill notification to Bureau EHS, the facility **Responsible Manager** must also provide Bureau EHS with Part 1 of the DEP Environmental Release Report (ERR - **Attachment A**) with as much of the information as is available, especially material released, quantity, and where the material was released.

## 6.2 Bureau EHS Assistance

The BWSO Bureau EHS staff is responsible for providing technical support to the facility to assess the release and, in most incidents, for notifying the appropriate regulatory agency, when required; for preparing and submitting written reports to NYSDEC (1-800-457-7362) and for leading incident investigations, should they be required.

Bureau EHS Staff will:

- Assess the release and assist the facility in release reporting (e.g., estimating the quantity of release) and cleanup.
- **DETERMINE IF REPORTABLE** (to outside agencies).
- If the release is reportable, **REPORT THE RELEASE** as soon as possible [within 2 hours] to the New York State Department of Environmental Conservation (NYSDEC) and, if situation warrants, "immediately" to the National Response Center (NRC). Be sure to get the NYSDEC and NRC spill numbers.
- If warranted, **ACTIVATE** emergency clean-up contractor's response teams to assist in the response and spill clean-up. BWSO Bureau EHS representatives will be on-site to supervise and direct the contractor's remediation efforts.

## 6.3 Environmental Release Investigation – Part 2 of the EER

After the initial notifications and any necessary emergency response are completed, Part 2 of the DEP ERR will be completed. As with Part 1, Part 2 can be completed by the **Responsible Manager** with as much information as available and must be submitted to Bureau EHS within 24 hours. The Bureau EHS Group and Facility EHS Liaison will assist in determining any contributing causes and potential corrective actions to prevent recurrence. This investigation

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by EHS should be initiated as soon as possible and no later than 48 hours after the discovery of the spill. The Deputy Commissioner, Director, and Bureau EHS Director shall be informed of all recommendations arising from the investigation. All recommendations will then be assigned by the *Director* to the appropriate staff (e.g., operations, maintenance, engineering, or contract personnel) for prompt follow-up.

**6.4 Closeout of Spill Cases – PART 3 of the ERR**

The Bureau EHS staff will periodically check the status of all open spill cases and implementation of any spill prevention recommendations until they are all properly resolved. When all actions regarding a spill have been completed, Part 3 of the ERR will be completed, with a copy of the report stored in Bureau EHS files and the affected facility files.

**6.5 Communicating Results**

All Contractor Representative(s) and DEP employees will be advised of any actions or new operating instructions resulting from the spill incident that may affect them as soon as they are to be implemented. The immediate Supervisor will review the incident investigation results and recommendations with all affected personnel during the next scheduled Safety Meeting. In addition, incident investigation findings will be communicated to all contract employees if relevant to their job tasks. All facility and contract personnel informed of investigation results must sign and date an attendance sheet.

**6.6 Recordkeeping**

Copies of all ERRs shall be maintained by Bureau EHS for a minimum of 5 years. Records (i.e., sign-in sheets and attached summaries) of any training program provided to fulfill spill prevention recommendations shall also be maintained by EHS for a minimum of 5 years.

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## 7 Bureau of Wastewater Treatment (BWT) - Protocol for Reporting Spills/Releases

### 7.1 Initial Notification

Any Employee who becomes aware of a release of petroleum, hazardous substance or other pollutants at a BWT facility shall immediately notify:

- Supervisors/Co-workers IF they may be or are in IMMEDIATE DANGER.
- **911** IF the incident CLEARLY REQUIRES EMERGENCY RESPONDERS (because it presents obvious danger to employees or the public).
- The **Responsible Manager** or highest ranking Supervisor on duty, REGARDLESS OF THE SIZE OF THE RELEASE or whether it is inside a containment area.

Upon being notified of a release, the facility **Responsible Manager** or highest ranking Supervisor on duty for the operation will immediately refer to the BWT Emergency Procedures Manual for guidance AND notify Bureau EHS staff during regular business hours (6:30 am to 4:00 pm Monday through Friday) or, when after business hours, the on-call Bureau EHS representative directly, for all releases. Bureau EHS will review the incident with the **Responsible Manager** and notify NYSDEC.

Additionally, Bureau EHS will notify the DEP 24 Hour Call Center (212-689-1520) for all releases, **except**:

***Incidental releases of hazardous substances.*** Releases of small quantities that result from equipment maintenance, repair or leakage, or occur when disconnecting lines after deliveries. [Note: All such releases must be contained and collected before reaching the environment].

***Minor releases of petroleum.*** Releases that are less than five gallons AND contained on a non-permeable surface AND are cleaned up within 2 hours.

Make sure to provide Bureau EHS and DEP 24 Hour Call Center with as much of the information on Part 1 of the DEP Environmental Release Report (ERR - **Attachment A**) as is already available, especially material released, quantity, and where the material was released.

Wastewater/sewage releases at BWT Facilities are to be reported as required in the BWT Emergency Procedures Manual, as indicated by the facility's State Pollutant Discharge

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Elimination System (SPDES) permit(s), as mandated by **6 NYCRR Subpart 750-2.7 Incident Reporting**. These reporting requirements may include, but are not limited to, Anticipated Non-Compliance, 2-Hour Oral Reporting of By-pass, Upset or Other Incident, 24-Hour Oral Reporting of Bypass, Upset or Other Incident, 5-Day Written Incident Report and any/all Additional Reporting as required by the facility-specific SPDES Permit.

**Supervisors** may be required to follow additional, internal DEP notification protocols and are directed to refer to their Emergency Procedures Manual.

## 7.2 Bureau EHS Assistance/Reporting

The Bureau EHS staff is responsible for providing technical support to the facility to assess the releases, for notifying the appropriate regulatory agencies when required (NYSDEC (1-800-457-7362) and NRC (800-424-8802)), and for participating in incident investigations, if necessary. Bureau EHS will maintain an "EHS On-call List" that provides a list of employees with contact numbers for 24/7 support for releases or other emergencies.

Bureau EHS Staff will:

- Assess the release and assist the facility in release reporting (e.g., estimating the quantity of release) and clean-up.
- Determine if DEP 24 Hour Call Center has been notified. If it is determined that the DEP 24 Hour Call Center should be notified and the facility has not yet done so, the Bureau EHS Staff will notify them.
- If the Bureau HazMat and/or emergency clean-up contractors have not already been mobilized, determine if they should be mobilized to assist in the response and **ACTIVATE RESPONSE TEAMS** if necessary.
- **DETERMINE IF REPORTABLE** (to outside agencies).
- If the release is reportable, **REPORT THE RELEASE** within 2 hours to NYSDEC and "immediately" to the NRC. Be sure to get the NYSDEC and NRC spill numbers.

## 7.3 Environmental Release Investigation – Part 2 of the ERR

When called for, or at the direction of the Bureau's EHS Representative, an incident investigation team will be established to investigate the incident. After the initial notifications and any necessary emergency response are completed, the incident will be investigated and Part 2 of the DEP ERR will be completed. The Bureau EHS Group and Facility EHS Liaison

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will assist in determining any contributing causes and potential corrective actions to prevent recurrence.

The investigation should be initiated as soon as possible and no later than 48 hours after the incident. Part 2 of the ERR should be completed as soon as possible, and no later than 6 days after the release so that it can be used by Bureau EHS Group for written spill reporting.

#### **7.4 Closeout of Spill Cases – PART 3 of the ERR**

The Bureau EHS staff will periodically check the status of all open spill cases and implementation of any spill prevention recommendations until they are all properly resolved. When all actions regarding a spill have been completed, Part 3 of the ERR will be completed, with a copy of the report stored in Bureau EHS files and the affected facility's files.

#### **7.5 Communicating Results**

All Contractor Representative(s) and DEP employees will be advised of any actions or new operating instructions that may affect them as soon as they are to be implemented. The immediate Supervisor will review the incident investigation results and recommendations with all affected personnel during the next scheduled Safety Meeting. In addition, incident investigation findings will be communicated to all contract employees if relevant to their job tasks. All facility and contract personnel informed of investigation results must sign and date an attendance sheet.

#### **7.6 Recordkeeping**

Copies of all ERR forms shall be maintained by Bureau EHS for a minimum of 5 years. Records (i.e., sign-in sheets and attached summaries) of any training program provided to fulfill spill prevention recommendations shall also be maintained by EHS for a minimum of 5 years.

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## 8 Bureau of Engineering, Design and Construction (BEDC) - Protocol for Reporting Spills/Releases

### 8.1 At Bureau of Water Supply (BWS) Sites

Upon discovery of a spill/release, **AND NO LATER THAN 2 HOURS FROM INITIAL DISCOVERY**, any DEP Employee or DEP Contractor (the "Discoverer") who becomes aware of **any** spill/release of a petroleum product, sewage and/or wastewater, hazardous substance, or other pollutant that occurs on DEP property or may potentially impact the DEP watershed/water supply shall:

- Immediately notify Supervisors/Co-workers, if they are or may be in IMMEDIATE DANGER;
- **If medical attention is required, contact Emergency 911;**
- Contact the **Contract Supervisor** or Designee (e.g., Resident Engineer) and provide as much of the information below as possible:
  - Location of incident;
  - Time of incident;
  - Material released;
  - Status of staff (injuries, if any);
  - Name, position, and contact information of "discoverer";
  - Duration and estimated quantity of material released; and
  - Estimated impact to the environment and site weather conditions.

The **Contract Supervisor** shall continue as follows:

- Call the **BWS DEP Police Croton Command Center (CCC) at 888-426-7433**; inform the CCC that the appropriate notifications (including the call to NYSDEC) are being handled by BEDC personnel;
- Call the Safety Consultant's 24 hour hotline;
- Call the Facility Responsible Manager and BWS Bureau EHS (914-773-4418);
- In coordination with the Safety Consultant's on-call representative and Bureau EHS (BEDC), determine if the Spill/Release is reportable to NYSDEC and NRC (if applicable);
- Call NYSDEC spill hotline at 800-457-7362 (and NRC, if applicable) and obtain spill number(s); if reportable, NYSDEC must be notified **NO LATER THAN 2 HOURS FROM THE INITIAL DISCOVERY**;

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- In coordination with the “Discoverer” and BWS Bureau EHS, **complete PART 1 of the Environmental Release Report (ERR – Attachment A) as soon as possible** and fax to BWS **Bureau EHS** at (914) 773-4530;
- E-mail PART 1 of the ERR to the contact list below:
  - To: Deputy Commissioner of BEDC
  - Cc: Commissioner; First Deputy Commissioner; Chief of Staff; General Counsel; Press Office; Office of EHS Compliance; Human Resources; DEP Police; BEDC Directors; Appropriate BEDC Division Chiefs; Bureau EHS Representative; Safety Consultant;
- Fax PART 1 of the ERR to the *DEP Division of Emergency Response and Technical Assessment* at 718-595-4690 if hazardous materials are involved.

**Notes:**

- Refer to BEDC’s latest *Spill/Release Notification Protocol* for names and contact information.
- The **Contract Supervisor** may delegate the above tasks to the consultant Resident Engineer if she/he is not present on the job site.
- All spills/releases must be reported at facilities with BEDC-managed contracts, regardless of reportable quantities.

**8.2 All other Sites (Non-BWS Sites)**

Upon discovery of a spill/release, **AND NO LATER THAN 2 HOURS FROM INITIAL DISCOVERY**, any DEP Employee or DEP Contractor (the “Discoverer”) who becomes aware of any spill/release of a petroleum product, sewage and/or wastewater, hazardous substance, or other pollutant that occurs on DEP property or may potentially impact the DEP water supply shall:

- Immediately notify Supervisors/Co-workers, if they are or may be in IMMEDIATE DANGER;
- **If medical attention is required, contact Emergency 911;**
- Contact the **Contract Supervisor or Designee (e.g., Resident Engineer)** and provide as much of the information below as possible:
  - Location of incident;
  - Time of incident;
  - Material released;

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- Status of staff (injuries, if any);
- Name, position, and contact information of “discoverer”;
- Duration and estimated quantity of material released; and
- Estimated impact to the environment and site weather conditions.

The **Contract Supervisor** will continue as follows:

- Call the Safety Consultant’s 24 hour hotline;
- Call the Facility Responsible Manager;
- In coordination with the Safety Consultant’s on-call representative and Bureau EHS (BEDC), determine if the Spill/Release is reportable to NYSDEC and NRC;
- If reportable, call NYSDEC spill hotline at 800-457-7362 and NRC and obtain spill number(s). NYSDEC must be notified **NO LATER THAN 2 HOURS FROM the INITIAL DISCOVERY**;
- If hazardous materials are involved and spill incident warrants it, call DEP Division of Emergency Response and Technical Assessment at 718-595-4646;
- In coordination with the “Discoverer” and facility Responsible Manager, **complete PART 1 of the ERR as soon as possible**;
- E-mail PART 1 of the ERR to the contact list below:
  - To: Deputy Commissioner of BEDC
  - Cc: Commissioner; First Deputy Commissioner; Chief of Staff; General Counsel; Press Office; Office of EHS Compliance; Human Resources; DEP Police; BEDC Directors; Appropriate BEDC Division Chiefs; Bureau EHS Representative; Safety Consultant;
- Fax PART 1 of the ERR to the *DEP Division of Emergency Response and Technical Assessment* at 718-595-4690 if hazardous materials are involved.

**Notes:**

- Refer to BEDC’s latest *Spill/Release Notification Protocol* for names and contact information.
- The **Contract Supervisor** may delegate the above tasks to the consultant Resident Engineer if she/he is not present on the job site.
- All spills/releases must be reported at facilities with BEDC-managed contracts, regardless of reportable quantities.

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### **8.3 Environmental Release Investigation – PART 2 of the ERR**

If required, form an investigation team in accordance with the Spill Prevention and Spill Reporting Policy. The *Contract Supervisor*, Host Bureau, Bureau EHS and/or their representatives and the contractor responsible for the Spill/Release shall be included as part of the investigation

When the clean-up operation is completed, complete the remainder of the ERR. Make sure that all members of the investigation team agree and sign the ERR.

### **8.4 Closeout of Spill Cases – PART 3 of the ERR**

If applicable, in coordination with Bureau EHS, contact NYSDEC and request the closure of the spill number. Indicate spill number closure date on page 3 of the ERR.

Submit the completed form to Bureau EHS for review and Close-Out. Bureau EHS will provide a copy of the closed-out report to the *Contract Supervisor* (e.g., Resident Engineer), the Host Bureau's Responsible Manager and EHS group, Office of Environmental Health and Safety Compliance (OEHSC) and Division of Emergency Response and Technical Assessment.

### **8.5 Communicating Corrective Actions**

Once the investigation is complete, the *Contract Supervisor* shall inform their respective Division Director and Division EHS personnel of all spill prevention recommendations, if any, that require follow-up. It is the responsibility of the Division Director (or designee) to ensure that all recommendations are properly resolved and documented in the ERR. Whenever a recommendation is not or cannot be implemented, a written explanation shall be documented in PART 3 of the ERR (or attached to ERR). The ERR will not be "closed" until all recommendations are resolved and documented.

### **8.6 Recordkeeping**

Copies of all closed ERR forms shall be maintained by Division EHS for a minimum of 5 years. Records of any training provided to fulfill any spill prevention recommendations in PART 2 of the ERR shall also be maintained by Division EH&S for a minimum of 5 years.

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**9 FLEET Maintenance Personnel (Bureau of Human Resources and Administration; HRA) - Protocol for Reporting Spills/Releases**

**9.1 FLEET Maintenance Personnel working Upstate (within BWS Boundaries)**

FLEET Maintenance personnel working within the boundaries of the Bureau of Water Supply are directed to report spills/release as directed by Sections 5.1 and 5.3. The **FLEET Maintenance Supervisor** is responsible for conducting the necessary investigation required to complete PART 2 of the Environmental Release Report (ERR – Attachment A), communicating corrective actions with **BWS Bureau EH&S**, and providing copies of the closed ERR (ERR PARTs 1 through 3) to **BWS Bureau EH&S** (fax to: 914-773-4530). ERRs are to be closed no later than six (6) days after discovery of the spill/release, unless outstanding circumstances warrant additional time for investigation (i.e., sampling/remediation event). Copies of all closed ERR forms shall be maintained by **FLEET Maintenance EH&S** and **BWS Bureau EH&S** for a minimum of five (5) years.

**9.2 FLEET Maintenance Personnel working In-City**

FLEET Maintenance personnel working In-City (within the boundaries of the five NYC boroughs) are directed to report all spills/release as directed by Section 6.1, except minor releases of petroleum. *Minor releases of petroleum* are defined as releases/spills that are: (1) less than five gallons; (2) contained on a non-permeable surface; and (3) are cleaned up within two hours.

The **FLEET Maintenance Supervisor** is responsible for conducting the necessary investigation required to complete PART 2 of the ERR, and implementing corrective actions for proper ERR closure (PART 3 of the ERR). ERRs are to be closed no later than six (6) days after discovery of the spill/release, unless outstanding circumstances warrant additional time for investigation (i.e., sampling/remediation event). Copies of all closed ERR forms (ERR PARTs 1 though 3) shall be maintained by **FLEET Maintenance EH&S** for a minimum of five (5) years.

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**10 Attachments**

**10.1 Attachment A – Environmental Release Report (ERR)**

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**PART I - INITIAL NOTIFICATION (To Be Completed By The Facility Supervisor On-Duty)**

**FACILITY/CONTACT INFORMATION:**

Reporting Supervisor: \_\_\_\_\_ Facility Phone: \_\_\_\_\_

DEP Bureau/Office: \_\_\_\_\_

Spill Location (facility/building): \_\_\_\_\_

Address: \_\_\_\_\_

Bureau/Office EHS Rep. Contacted: \_\_\_\_\_ Phone: \_\_\_\_\_

**VENDOR/CONTRACTOR INVOLVEMENT:**  Yes  No

Vendor/Contractor Responsible (if any): \_\_\_\_\_ Contract # \_\_\_\_\_

Company Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

**SPILL INFORMATION:**

Start Date, Time of Event     /     /     AM / PM End Date, Time of Event     /     /     AM / PM

Chemical Name: \_\_\_\_\_ CAS No: \_\_\_\_\_

Trade Name: \_\_\_\_\_ Concentration (if applicable) \_\_\_\_\_

Source:  Tank  Tank Truck  Drums  Pipe  Other: \_\_\_\_\_  
 PBS # Tank # Tank Size Leak Rate Vehicle # \_\_\_\_\_

Amount Spilled: \_\_\_\_\_  gal  lbs. Amount Recovered: \_\_\_\_\_  gal  lbs.

How Calculated:  Daily Inventory Record  Meter  Scale  Estimate (how): \_\_\_\_\_

Weather: \_\_\_\_\_ Temp.: \_\_\_\_\_ Wind Direction/Speed: \_\_\_\_\_

Spilled to:  Secondary Containment  Sewer  Storm Drain  Catch Basin  Air  
 Surface Water \*  Soil  Groundwater  Other (list): \_\_\_\_\_

\* Water Body: \_\_\_\_\_

Spill Impact:  Fire  Injury \*\*\*  Fatality \*\*\*  Evacuation  
 Road Closed  Track Closed  Waterway Closed  SPDES Violation  
 Damages (describe): \_\_\_\_\_

\*\*\*No./Type of Injuries/Fatalities: \_\_\_\_\_

**NOTIFICATION INFORMATION:**

DEP 24 Hour/DEP Police Rep. Contacted: \_\_\_\_\_ Date Reported: \_\_\_\_\_ Time \_\_\_\_\_ AM / PM

DEP HAZMAT Rep. Contacted (date and time): \_\_\_\_\_ NYC RQ: \_\_\_\_\_ lb/gal Ref. No.: \_\_\_\_\_

NYS DEC Rep. Contacted (date and time): \_\_\_\_\_ NYS RQ: \_\_\_\_\_ lb/gal Spill No.: \_\_\_\_\_

NRC Rep. Contacted (date and time): \_\_\_\_\_ Federal RQ: \_\_\_\_\_ lb/gal Spill No.: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Release Report Information	Attach a list of all DEP employees providing information used to complete Part I. Where feasible, such personnel should be shown the completed Part I to verify its accuracy prior to its being signed by the Reporting Supervisor.
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**PART 2 - INVESTIGATION/REPORT (To Be Completed By The Investigator or Team)**

**Date Investigation Started:** \_\_\_\_\_ **Time Started:** \_\_\_\_\_ **AM / PM**

**DESCRIPTION OF INCIDENT**

*Provide a summary of the incident, material Spilled, contaminate found, personnel involved (name/title), etc. What, when, where, who, how, and why. Describe operations being conducted. **Fact ONLY.** Avoid speculation.*

Continued - see attached

**CONTRIBUTING FACTORS**

*List and explain all factors potentially contributing to the incident. Consider procedures, training, equipment, communications, human factors, environment or any other factors that contributed to the occurrence or severity.*

Continued - see attached

**Root Cause & Contributing Factors:**

Procedures       Training       Process Design and Controls       Inspection and Prevent Maint

Equipment, Materials or Changes       Human Action       External

Other: Explanation

**CLEANUP**

*Describe who cleaned up, when, how, and any verification/testing.*

Continued - see attached

**CORRECTIVE ACTIONS**

*List each recommendation to prevent reoccurrence. Complete first 3 columns for Investigation and the last 2 columns after implementation (all recommendations must be resolved to close out the case).*

Description of Corrective Action and Intent

Assigned to

Target Date

Date Resolved

Resolution/ Comments

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**CONCLUSIONS**     *Summarize investigation conclusions below.*

**INVESTIGATION TEAM**     *The incident investigation team members who sign below have reviewed and agree with the conclusions of this Spill investigation report.*

Name	Signature	Title/Affiliation	Date

**REPORTS SUBMITTED:**     *Written reports must be sent to DEP Hazmat within 7 days, DEC within 14 days and NRC as soon as possible for Spills above their respective RQs.*

Sent by EHS Rep.: \_\_\_\_\_ Dates:     DEP                     DEC                     NRC

**PART 3 - CLOSEOUT (To Be Completed By The Investigation Team)**

**CLOSEOUT**     *I {Division Director/\_\_\_\_\_} have determined that all of the Corrective Actions listed above have been completed or otherwise addressed as indicated above. {transmit final closeout copy to Bureau/Office EHS}*

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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**DEFINITIONS USED FOR ROOT CAUSE AND CONTRIBUTING FACTORS**

1. Procedures may include, but are not limited to, Policies, procedures, work instructions and plans. Types of procedures may include Environmental, Health & Safety, Administrative, Operating or Maintenance. A Procedural Root Cause or Contributing Factor can be attributed to an incident if:
  - procedures that could have prevented the incident from occurring have not been written.
  - procedures are in place, however, they did not consider the situation in which the incident occurred or contained errors
  - procedures were drafted, but not approved.
  - Procedures exist, but are not typically followed or enforced

A Procedural Root Cause or Contributing Factor does not include conditions in which training was not performed or was inadequate.
2. A Training Root Cause or Contributing Factor can be attributed to an incident if:
  - training that could have reasonably prevented the incident was not provided.
  - training was significantly late
  - training did not address the tasks assigned to the position.
  - training was performed, but not checked to ensure the person understood (e.g. passing a test or observed for proficiency)
3. A Process Design and Controls Root Cause or Contributing Factor can be attributed to an incident if:
  - The process was not designed to address normal operating conditions
  - Insufficient safeguards were in place ( this does not include if safeguards were by-passed)
  - The process does not have controls to manage design parameters, such as level or pressure
4. An Inspection and Preventive Maintenance Root Cause or Contributing Factor can be attributed to an incident if inspection and preventive maintenance were not in accordance with applicable procedures, manufacturer's recommendations, government standards and industry standards and are adequate for the service conditions. If Preventive Maintenance procedures do not exist, it is considered a Procedural Root Cause.
5. An Equipment, Materials or Change Root Cause or Contributing Factor can be attributed to an incident if:
  - the equipment, parts, and materials procured were not as initially specified,
  - the equipment, parts and materials were defective
  - the equipment, parts and materials did not meet or exceeded the applicable specifications.
  - the process has been changed from its design (excluding changes approved by Engineering).
6. A Human Action Root Cause or Contributing Factor can be attributed to an incident if personnel actions, activities and decisions were in accordance with procedures, training and expected workplace standards. This includes both errors and willfully not following standards.
7. An External Root Cause or Contributing Factor can be attributed to an incident if external items, such as weather or third parties (excluding contractors) did not cause or contribute to the incident.
8. An Other Root Cause or Contributing Factor can be attributed to an incident if the incident has not been satisfactorily classified in one or more of the above categories. The Other cause must be identified.

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**PART 1 - INITIAL NOTIFICATION (To Be Completed By The Facility Supervisor On-Duty)**

**FACILITY/CONTACT INFORMATION:**

Reporting Supervisor: \_\_\_\_\_ Facility Phone: \_\_\_\_\_  
DEP Bureau/Office: \_\_\_\_\_  
Spill Location (facility/building): \_\_\_\_\_  
Address: \_\_\_\_\_  
Bureau/Office EHS Rep. Contacted: \_\_\_\_\_ Phone: \_\_\_\_\_

**VENDOR/CONTRACTOR INVOLVEMENT:**

Yes  No

Vendor/Contractor Responsible (if any): \_\_\_\_\_ Contract # \_\_\_\_\_  
Company Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

**SPILL INFORMATION:**

Start Date, Time of Event      /      /      AM / PM End Date, Time of Event      /      /      AM / PM  
Chemical Name: \_\_\_\_\_ CAS No: \_\_\_\_\_  
Trade Name: \_\_\_\_\_ Concentration (if applicable) \_\_\_\_\_  
Source:  Tank  Tank Truck  Drums  Pipe  Other: \_\_\_\_\_  
          PBS #      Tank #      Tank Size      Leak Rate      Vehicle # \_\_\_\_\_  
Amount Spilled: \_\_\_\_\_  gal  lbs. Amount Recovered: \_\_\_\_\_  gal  lbs.  
How Calculated:  Daily Inventory Record  Meter  Scale  Estimate (how): \_\_\_\_\_  
Weather: \_\_\_\_\_ Temp.: \_\_\_\_\_ Wind Direction/Speed: \_\_\_\_\_

Spilled to:  Secondary Containment  Sewer  Storm Drain  Catch Basin  Air  
 Surface Water \*  Soil  Groundwater  Other (list): \_\_\_\_\_  
\* Water Body: \_\_\_\_\_

Spill Impact:  Fire  Injury \*\*\*  Fatality \*\*\*  Evacuation  
 Road Closed  Track Closed  Waterway Closed  SPDES Violation  
 Damages (describe): \_\_\_\_\_

\*\*\*No./Type of Injuries/Fatalities: \_\_\_\_\_

**NOTIFICATION INFORMATION:**

DEP 24 Hour/DEP Police Rep. Contacted: \_\_\_\_\_ Date Reported:           AM / PM  
DEP HAZMAT Rep. Contacted (date and time): \_\_\_\_\_ NYC RQ: \_\_\_\_\_ lb/gal Ref. No.: \_\_\_\_\_  
NYS DEC Rep. Contacted (date and time): \_\_\_\_\_ NYS RQ: \_\_\_\_\_ lb/gal Spill No: \_\_\_\_\_  
NRC Rep. Contacted (date and time): \_\_\_\_\_ Federal RQ: \_\_\_\_\_ lb/gal Spill No: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Release Report Information	Attach a list of all DEP employees providing information used to complete Part I. Where feasible, such personnel should be shown the completed Part I to verify its accuracy prior to its being signed by the Reporting Supervisor.
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**PART 2 - INVESTIGATION/REPORT** (To Be Completed By The Investigator or Team)

**Date Investigation Started:** \_\_\_\_\_ **Time Started:** \_\_\_\_\_ **AM / PM**

**DESCRIPTION OF INCIDENT**

*Provide a summary of the incident, material Spilled, contaminate found, personnel involved (name/title), etc. What, when, where, who, how, and why. Describe operations being conducted. **Fact ONLY.** Avoid speculation.*

Continued - see attached

**CONTRIBUTING FACTORS**

*List and explain all factors potentially contributing to the incident. Consider procedures, training, equipment, communications, human factors, environment or any other factors that contributed to the occurrence or severity.*

Continued - see attached

**Root Cause & Contributing Factors:**

- Procedures                       Training                       Process Design and Controls                       Inspection and Prevent Maint  
 Equipment, Materials or Changes                       Human Action                       External  
 Other: Explanation

**CLEANUP**

*Describe who cleaned up, when, how, and any verification/testing.*

Continued - see attached

**CORRECTIVE ACTIONS**

*List each recommendation to prevent reoccurrence. Complete first 3 columns for Investigation and the last 2 columns after implementation (all recommendations must be resolved to close out the case).*

Description of Corrective Action and Intent	Assigned to	Target Date	Date Resolved	Resolution/ Comments

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**CONCLUSIONS**

*Summarize investigation conclusions below.*

**INVESTIGATION TEAM**

*The incident investigation team members who sign below have reviewed and agree with the conclusions of this Spill investigation report.*

Name	Signature	Title/Affiliation	Date

**REPORTS SUBMITTED:**

*Written reports must be sent to DEP Hazmat within 7 days, DEC within 14 days and NRC as soon as possible for Spills above their respective RQs.*

Sent by EHS Rep.: \_\_\_\_\_ Dates:  DEP  DEC  NRC

**PART 3 - CLOSEOUT (To Be Completed By The Investigation Team)**

**CLOSEOUT**

*I {Division Director/\_\_\_\_\_} have determined that all of the Corrective Actions listed above have been completed or otherwise addressed as indicated above. {transmit final closeout copy to Bureau/Office EHS}*

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**DEFINITIONS USED FOR ROOT CAUSE AND CONTRIBUTING FACTORS**

1. Procedures may include, but are not limited to, Policies, procedures, work instructions and plans. Types of procedures may include Environmental, Health & Safety, Administrative, Operating or Maintenance. A Procedural Root Cause or Contributing Factor can be attributed to an incident if:
  - procedures that could have prevented the incident from occurring have not been written.
  - procedures are in place, however, they did not consider the situation in which the incident occurred or contained errors
  - procedures were drafted, but not approved.
  - Procedures exist, but are not typically followed or enforced

A Procedural Root Cause or Contributing Factor does not include conditions in which training was not performed or was inadequate.
2. A Training Root Cause or Contributing Factor can be attributed to an incident if:
  - training that could have reasonably prevented the incident was not provided.
  - training was significantly late
  - training did not address the tasks assigned to the position.
  - training was performed, but not checked to ensure the person understood (e.g. passing a test or observed for proficiency)
3. A Process Design and Controls Root Cause or Contributing Factor can be attributed to an incident if:
  - The process was not designed to address normal operating conditions
  - Insufficient safeguards were in place ( this does not include if safeguards were by-passed)
  - The process does not have controls to manage design parameters, such as level or pressure
4. An Inspection and Preventive Maintenance Root Cause or Contributing Factor can be attributed to an incident if inspection and preventive maintenance were not in accordance with applicable procedures, manufacturer's recommendations, government standards and industry standards and are adequate for the service conditions. If Preventive Maintenance procedures do not exist, it is considered a Procedural Root Cause.
5. An Equipment, Materials or Change Root Cause or Contributing Factor can be attributed to an incident if:
  - the equipment, parts, and materials procured were not as initially specified,
  - the equipment, parts and materials were defective
  - the equipment, parts and materials did not meet or exceeded the applicable specifications.
  - the process has been changed from its design (excluding changes approved by Engineering).
6. A Human Action Root Cause or Contributing Factor can be attributed to an incident if personnel actions, activities and decisions were in accordance with procedures, training and expected workplace standards. This includes both errors and willfully not following standards.
7. An External Root Cause or Contributing Factor can be attributed to an incident if external items, such as weather or third parties (excluding contractors) did not cause or contribute to the incident.
8. An Other Root Cause or Contributing Factor can be attributed to an incident if the incident has not been satisfactorily classified in one or more of the above categories. The Other cause must be identified.

**SPILL PREVENTION, ENVIRONMENTAL RELEASE REPORTING AND  
INVESTIGATION**

**ATTACHMENT B**

**CONTACT LIST**

NEW YORK CITY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Investigation  
Attachment B**

Revision: 1  
Effective Date: 10/29/04

**Spill reporting**

**FEDERAL:**

National Response Center (NRC): (800) 424-8802.

**STATE:**

Department of Environmental Conservation 24-hour spill response hotline  
(800)-457-7362; outside New York State: 518-457-7362

**IN CITY:**

Department of Environmental Protection 24 Hour Call Center 212-689-1520

**UPSTATE:**

DEP BWS Police Command Center 888-426-7433

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Revision: 1  
Effective Date: 10/29/04

**Regulatory Information Contacts**  
for the programs in the Division of Environmental Remediation

<b>Regulation</b>	<b>Title</b>	<b>Contact</b>
Part 595	Releases of Hazardous Substances	Help-Line <b>1 (518) 402-9549</b>
Part 596	Hazardous Substances Bulk Storage Regulations	
Part 597	List of Hazardous Substances	
Part 598	Handling and Storage of Hazardous Substances	
Part 611	Environmental Priorities and Procedures in Petroleum Cleanup and Removal	
Part 613	Handling and Storage of Petroleum	

**SPILL PREVENTION, ENVIRONMENTAL RELEASE  
REPORTING AND INVESTIGATION**

**ATTACHMENT C**

**ENVIRONMENTAL RELEASE REPORTING GUIDELINES**

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Revision: 0  
Effective Date: 03/08/05

**ENVIRONMENTAL SPILL REPORTING GUIDELINES**

**A. In-City NYC DEP Reporting**

A Spill in one of the five boroughs of New York City requires that reports be made first to DEP “Hazmat” (Division of Emergency Response & Technical Assessment) before reports to state and federal authorities. A spill is “reportable whenever the quantity spilled exceeds the NYC “Spill Bill” Reportable Quantity (RQ), which is often lower than the corresponding State/Federal RQ. Refer to the “DEP Spill Bill” for specific reporting requirements.

Telephone notification is required as soon as possible. Written notification shall be made to the NYCDEP within one week of the spill by certified mail to the following address:

Department of Environmental Protection  
Division of Emergency Response & Technical Assessment  
96-05 Horace Harding Expressway  
Corona, NY 11368  
New York, New York 10007  
ATTN: Hazardous Substances  
Emergency Response Officer

The completed DEP internal Environmental Spill Report and Incident Investigation Report (if any injuries) contains the information needed for the required written report. Additional written reporting requirements, including weekly written status reports for longer term remediation, may be included in Departmental orders issued pursuant to §24-608 and 24-610 of the Administrative Code.

**B. Federal Reporting**

The Nation Response Center (NRC) maintains a 24 hour per day, 7 day a week, 365 day a year Operations Center where all information is received via the toll-free number, entered directly into an on-line data base system, and electronically disseminated as part of the National Response System.

NRC is the single contact point for reporting all pollution incidents. It acts as a national 911 service for environmental incidents. Calling the toll-free number fulfills nearly all federal requirements for reporting oil and chemical spills, spills of nuclear material, chemical and biological warfare agents, train derailments, and pipeline spills.

Once contacted, the NRC Duty Officer will guide the caller through a detailed series of questions to gather as much information as possible concerning the spill. The information is immediately entered into the Incident Reporting Information System (IRIS) and based on several pre-established criteria including material involved, mode of transportation, injuries, damage, and fatalities, select federal agency notification will take place within 15 minutes of receipt. When any of the following incidents occur, the NRC should immediately be contacted by the responsible party via the toll free number.

## **Reporting Requirements:**

### **Oil Spills**

The responsible party shall notify the National Response Center as soon as knowledgeable of an oil spill from a vessel or facility operating:

- ◆ In or along U.S. navigable waters;
- ◆ On the Outer Continental Shelf;
- ◆ In a deepwater port; or
- ◆ From a vessel transporting oil from the Outer Continental Shelf.

In practice, “in or along navigable waters” has been broadly interpreted as any location that could potentially drain to a waterway (i.e., just about everywhere).

### **Chemical Spills**

The Comprehensive Environmental Response, Compensation, and Liability Act requires that all spills of hazardous substances (including radionuclides) exceeding reportable quantities, be reported by the responsible party to the National Response Center. Title 40 of the Code of Federal Regulations Part 302 promulgates reportable quantities and reporting criteria. All the Extremely Hazardous Chemicals (EHS) which overlap with the CERCLA listed chemicals table (40 CFR Part 302.4) should be reported to NRC as well as to the LEPC and SERC.

### **Transportation Accidents**

Transportation accidents involving hazardous materials, including radioactive substances, must be reported to the National Response Center immediately by the carrier when, as a direct result of the materials:

- ◆ A person is killed;
- ◆ A person receives injuries requiring hospitalization;
- ◆ Property damage exceeds \$50,000; or
- ◆ Fire, breakage, or spillage of an etiologic agent occurs.

### **Liquid Pipeline Spills**

The responsible party must call the National Response Center when a pipeline system failure spills a hazardous liquid or carbon dioxide that causes any of the following:

- ◆ An explosion or fire;
- ◆ An escape to the atmosphere of more than five barrels a day of highly volatile liquid or carbon dioxide;
- ◆ A death or injury;
- ◆ Property damage exceeding \$50,000;
- ◆ Pollution of any body of water; or

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- ◆ An incident deemed significant by the operator.

**Gas Pipeline Spills**

Spills of any toxic, corrosive or flammable gas, liquefied natural gas (LNG) or gas from an LNG facility must be reported to the National Response Center by the responsible party when:

- ◆ A death or injury involving patient hospitalization occurs;
- ◆ More than \$50,000 damage occurs (including cost of lost gas)
- ◆ The Spill results in the emergency shutdown of an LNG facility; or
- ◆ An incident is deemed significant by the operator.

**Other Spills**

Discharges from a hazardous waste treatment or storage facility must be reported by the *Responsible Manager* at the facility. Abandoned dump or waste sites should be reported by anyone having knowledge of such a site.

**Incidents Involving Terrorism Or Possible Terrorist Activity**

Any incident related to terrorism or possible terrorist activity requires telephonic notification to the National Response Center. **DO NOT SEND AN ON-LINE REPORT!** This would include bombings, bomb threats, suspicious letters or packages, and incidents related to the intentional spill of chemical/biological/radio active agents. NRC watch standers have been trained to ask specific questions for such reports and will immediately pass the information to the proper agencies for response.

**1.1.1 State Reporting**

The Bureau of Spill Prevention and Response (BSPR) is responsible for the implementation of the New York State Department of Environmental Conservation's (DEC) oil spill cleanup and prevention programs. It is required that any spill or discharge of any quantity of oil or petroleum be reported to the DEC within 2 hours unless they meet all of the following criteria:

- ◆ The spill is known to be less than 5 gallons;
- ◆ The spill is contained and under the control of the spiller;
- ◆ The spill has not and will not reach the State's water or any land; and
- ◆ The spill is cleaned up within 2 hours of discovery.

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Spill of a hazardous substance shall be reported to the DEC within 2 hours when:

- ◆ Quantity is greater than reportable quantity; or
- ◆ Spill results, or may reasonably be expected to result, in a fire with potential off-site impacts; or
- ◆ Spill causes, or may reasonably be expected to cause, an explosion; or
- ◆ Spill causes, or may reasonably be expected to cause, a contravention of air quality standards; or
- ◆ Spill results, or may reasonably be expected to result, in vapors, dust and/or gases that may cause illness or injury to persons, not including persons in a building at the facility where a Spill originates; or
- ◆ Runoff from fire control or dilution waters may cause or contribute to a exceeding water quality standards.

A spill or overflow of a reportable quantity of a hazardous substance to a secondary containment system does not have to be reported within 2 hours if all the following conditions are met:

- ◆ The secondary containment system meets the requirements of NYCRR sections 599.9 and 599.17 (standards for new or modified hazardous substance storage facilities);
- ◆ There is control over the spill or overflow, and it is completely contained within 24 hours; and
- ◆ The total volume of the spill or overflow is recovered or accounted for.

In the event that the spill or overflow is not completely contained within 24 hours, or its total volume is not accounted for within that time, such spill or overflow must be reported within 24 hours of its occurrence. If the secondary containment system does not prevent a reportable quantity of the hazardous substance from reaching the environment, the spill or overflow must be reported at the time the substance reaches the environment, but in no event later than 24 hours from the time of the spill or overflow.

A Reportable Quantity (RQ) is defined in 40 CFR Part 302, 40 CFR Part 355, or 6 NYCRR Part 597. If the RQ for the spilled substance is unknown, assume the RQ has been exceeded and report the spill accordingly.

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1.1.2 Internal Reporting

Following an incident that resulted in a Spill of oil or other hazardous substance, notify management as defined in the procedure.

**SPILL PREVENTION, ENVIRONMENTAL RELEASE REPORTING AND  
INVESTIGATION**

**ATTACHMENT D**

**ENVIRONMENTAL RELEASE INVESTIGATION GUIDELINES**

## GUIDELINES FOR INVESTIGATING CATEGORY III ENVIRONMENTAL INCIDENTS

### A. Initial Data Collection

1. **Survey the Scene:** The incident investigation team will first consult with the emergency responders to determine whether the incident has been stabilized and that there is no remaining imminent danger. Once the emergency responders assess the scene for danger and determine that the incident has been safely mitigated, the incident investigation team will survey the scene and determine the following:
  - Who was involved;
  - What happened to lead to the release;
  - What systems or operations were affected; and
  - When did the actions or steps happen?
2. **Identify Witnesses:** The incident investigation team will identify witnesses to the incident. Each witness will be asked not to discuss the accident with anyone until he/she has been interviewed by the incident investigation team. However, each witness will be asked to immediately prepare a written account of what they experienced.
3. **Secure the Scene:** The incident scene will be secured by the incident investigation team in order to preserve evidence. Any items (e.g., damaged equipment and spill samples) that might help to explain what happened should be left untouched. Coordinate with and defer to police and/or fire investigators before collecting evidence. Disturbing the scene of a police or fire investigation may be a criminal offense.
4. **Collect and Preserve Evidence:** Based upon the nature of the incident and the requirements of outside investigation agencies, the incident investigation team will photograph and/or videotape the area. This includes the point of initiation and the entire affected area. The incident investigation team will collect evidence that contributed to the cause of the accident and is subject to change (e.g., dust, etc.) and document where the evidence was found. Then they will record (e.g., photograph and take notes) the relative locations of people, parts, and materials (i.e., note the positions of valves, switches, and any controls). Finally, they will collect any written documents that may aid the investigation, such as written instructions, container labels, operator logs, and training records. The date and time must be noted on all photographs.
5. **Interview Witnesses:** The incident investigation team will record statements from the operators, persons near the accident, witnesses, and emergency response personnel. Questions should relate to the events leading up to the accident including time of day, weather conditions, what happened, why it happened, and any suggestive corrective actions that should be taken to prevent reoccurrence. The date and time of all interviews must be recorded in interview notes.

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**B. Incident Analysis**

The technique to be used in analyzing a serious incident will be cause and effect analysis. This technique requires that all incident investigation team members review the evidence and then meet as a group to determine root causes of the incident. The facts derived from a review of the evidence will be evaluated in relationship to four categories from which problems may arise. The four categories are the following:

Methods (procedures and practices).

Materials.

Machines.

Manpower (personnel).

# Appendix G



# New York City Transit

# PROJECTS APPLICATION

CPM Outside Projects, Division of Engrg Svcs  
Rajen Udeshi, P.E., Principal Engineer  
2 Broadway, NY, NY 10004, 7<sup>th</sup> Fl.

Office: (646) 252-3117

Fax: (646) 252-4613

Date .. 12/1/11 .....

OUTSIDE PROJECTS

2011 DEC - 1 AM 10:34

NEW YORK CITY TRANSIT  
CPM

Dept of Building Application No. ....

C/N Number .....

Borough of  Bronx  Brooklyn  Manhattan  Queens  Staten Island

Alteration	<input type="checkbox"/>	Project Address: 544 Union Ave
Borings	<input checked="" type="checkbox"/>	
Crane	<input type="checkbox"/>	Cross Street: btw Frost St and Withers St
Demolition	<input type="checkbox"/>	
De-watering	<input type="checkbox"/>	Applicant: Cary Friedman
Hoist	<input type="checkbox"/>	
Master Climber	<input type="checkbox"/>	Company Name: URS Corporation
New Building	<input type="checkbox"/>	
Sidewalk Bridge	<input type="checkbox"/>	Company Address: 1 Penn Plaza Suite 600
Sidewalk/Vault	<input type="checkbox"/>	New York NY 10119
Support of Excavation	<input type="checkbox"/>	Phone Number: 212 736 4444
Gas Station	<input type="checkbox"/>	
Gas Tank Removal	<input type="checkbox"/>	Owner: Heatherwood Properties
Utilities	<input type="checkbox"/>	
Miscellaneous	<input type="checkbox"/>	

1<sup>st</sup> Submission  2<sup>d</sup> Submission  3<sup>d</sup> Submission

4<sup>th</sup> Submission  5<sup>th</sup> Submission  6<sup>th</sup> Submission

NYCT Engineer ... fawzi Shiroben

Remarks Final Submittal, verbal approval given .....

Please allow three weeks for New York City Transit comments



**New York City Transit**

Department of Capital Program Management  
OUTSIDE PROJECTS  
2 Broadway, 7th Floor  
New York, NY 10004

Date: Dec 1, 2011

Building Department Application Number: Boring

- MANHATTAN: Mr. Derek Lee, R.A., 280 Broadway, 3rd Floor, New York, NY 10007
- BROOKLYN: Mr. Thomas Fariello, R.A., 210 Joralemon Street, 8th Floor, Brooklyn, NY 11201
- QUEENS: Mr. Ira M. Gluckman, R.A., 120-55 Queens Blvd., Kew Gardens, NY 11424
- BRONX: Mr. Werner deFoe, P.E., 1932 Arthur Avenue, 5th Floor, Bronx, NY 10457
- STATEN ISLAND: Mr. Marshall Kaminer, P.E., 10 Richmond Terrace, Borough Hall 2nd Floor, SI, NY 10301
- CRANES & DERRICKS: Mr. Ashraf Omran, P.E., Director, 280 Broadway, 5th Floor, New York, NY 10007

LOCATION: 544 Union Ave,  
Brooklyn, NY

APPLICANT: U.R.S.  
Thomas Thomann, PE  
Wayne, New Jersey

DWG NO & DATE: (sheet 1 & 2) dated Nov 7, 2011

Dear Sir:

The above applicant recently submitted drawings of proposed building construction at the above location for our review and approval. The drawings listed above have been reviewed only for possible adverse effects on existing New York City Transit facilities resulting from the proposed building construction.

The drawings listed above are  Approved  Approved Except As Noted

**Subject To:**

- All work being performed in accordance with the approved drawings.
- The building plans meeting the Department of Buildings approval in all other respects.
- The construction materials being used for this project, the testing of materials and the inspection of the work meeting the requirements of the Department of Buildings.
- NYCT review will be required for any revisions to this proposed construction or for the use of cranes for construction in this vicinity.

Two copies of each of the above listed drawings, imprinted with the New York City Transit approval stamp dated Dec 1, 2011 were transmitted to the applicant for submission to your Department for a building permit.

*This letter does not constitute certification by the NYCT pursuant to the Zoning Resolution of the City of New York as to any matter, including, but not limited to, matters arising under Section 95-041 thereof.*

Yours truly,

Examiner: Fabrizi Sharabieim

R. Udeshi  
Rajen Udeshi, P.E.  
Principal Engineer

cc: Applicant

J. Malvasio, P.E. (with 2 copies of drawings for inspection)

R. Udeshi, P.E.

\* T. Jensen, Chief of Bureau Fire Prevention, NYC Fire Department, 9 Metrotech Center, 3<sup>rd</sup> Floor, Brooklyn, NY 11201

Master File

\*(For Tank Installation)

# Appendix H





# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY					<b>BORING NO.:</b> B-3					
<b>CLIENT:</b> Heatherwood					<b>SHEET:</b> 1 of 1					
<b>BORING CONTRACTOR:</b> Zebra					<b>JOB NO.:</b>					
<b>GROUNDWATER:</b> 6'					<b>BORING LOCATION:</b>					
			<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>					
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'				<b>DATE STARTED:</b> 12/7/11
				<b>DIA.</b>	2"					<b>DATE FINISHED:</b> 12/7/11
				<b>WT.</b>	Direct Push					<b>DRILLER:</b> Luke Reiss
				<b>FALL</b>						<b>GEOLOGIST:</b> Megan Dascoli
					* POCKET PENETROMETER READING					<b>REVIEWED BY:</b>

DEPTH FEET	SAMPLE			DESCRIPTION				USCS	Moisture		
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION							
		1	37"	0-4' FILL- Brown sand w/ bricks at 0'-2', coal at 4'				↑ FILL ↓	↓ dry ↓ wet ↓		
5		2	33"	4'-5' Gray FILL- f-m sand and clay, moist, no odor							
				5'-10' Med Gray, FILL- RCA with sand and trace wood wet at 6'							
10		3	32"	9'-10' med gray FILL- clay							
				10'-15' med gray FILL, RCA w/ sand and clay							
15											
		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.							
20		5									
		6									
25		7									
30											

<b>COMMENTS:</b>	<b>PROJECT NO.</b> B-3
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY				<b>BORING NO.:</b> B-4					
<b>CLIENT:</b> Heatherwood				<b>SHEET:</b> 1 of 1					
<b>BORING CONTRACTOR:</b> Zebra				<b>JOB NO.:</b>					
<b>GROUNDWATER:</b> 10'				<b>CAS.</b>		<b>SAMPLER</b>		<b>Length</b>	
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE STARTED:</b> 12/7/11		
				<b>DIA.</b>	2"		<b>DATE FINISHED:</b> 12/7/11		
				<b>WT.</b>	Direct Push		<b>DRILLER:</b> Luke Reiss		
				<b>FALL</b>			<b>GEOLOGIST:</b> Megan Dascoli		
				* POCKET PENETROMETER READING				<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			MATERIAL DESCRIPTION	USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)			
5		1	37"	0-4.5' Med. Brown FILL- sand w/ trace bricks 2'-4' with some RCA and clay	↑ FILL ↓	dry
10		2	42"	4.5'-5' dark gray FILL- silt and sand 5'-10' Med Gray, FILL- clay, trace RCA with some f-m sand moist 5'-7' dry 7'-10'		↓ moist ↓ dry
15		3	32"	10'-12' med gray FILL, RCA w/ sand, gravel, clay wet at 10'		↓ wet ↓
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected. Sampled GW for TAL Metals with temporary well screens from 10'-15'		
25		5				
30		6				
		7				

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b> B-4
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

**PROJECT:** 544 Union Ave, Brooklyn, NY

**CLIENT:** Heatherwood

**BORING CONTRACTOR:** Zebra

**GROUNDWATER:** 5'

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	Length
				DIA.		Macrocore	5'
				WT.		2"	
				FALL		Direct Push	

\* POCKET PENETROMETER READING

**BORING NO.:** B-5

**SHEET:** 1 of 1

**JOB NO.:**

**BORING LOCATION:**

**DATE STARTED:** 12/7/11

**DATE FINISHED:** 12/7/11

**DRILLER:** Luke Reiss

**GEOLOGIST:** Megan Dascoli

**REVIEWED BY:**

DEPTH FEET	SAMPLE			DESCRIPTION	USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)			
5		1	43"	0-4' FILL- brown FILL w/ bricks, coal, clay	↑ FILL ↓	dry ↓ wet moist ↓ wet ↓
			4'-5' with RCA			
10		2	29"	5'-10' med gray, FILL- sand, clay with few bricks, gravel wet at 5'-6' moist 6'-10' at 8' trace yellow paint chip 8'-10' with glass		
15		3	60"	10'-15' wet, med gray FILL- clay, sand, RCA, gravel 13'- with pottery shard		
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.		
25		5				
30		6				
		7				

<b>COMMENTS:</b>	<b>PROJECT NO.</b> B-5
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY			
<b>CLIENT:</b> Heatherwood			
<b>BORING CONTRACTOR:</b> Zebra			
<b>GROUNDWATER:</b> 10'		<b>CAS.</b>	<b>SAMPLER</b>
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>
			<b>TYPE</b>
			<b>DIA.</b>
			<b>WT.</b>
			<b>FALL</b>
* POCKET PENETROMETER READING			

<b>BORING NO.:</b>	B-6
<b>SHEET:</b>	1 of 1
<b>JOB NO.:</b>	
<b>BORING LOCATION:</b>	
<b>DATE STARTED:</b>	12/7/11
<b>DATE FINISHED:</b>	12/7/11
<b>DRILLER:</b>	Luke Reiss
<b>GEOLOGIST:</b>	Megan Dascoli
<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			DESCRIPTION	USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)			
		1	40"	0-3' FILL- med brown sand, silt, cobbles	↑ FILL ↓	dry ↓ moist ↓ wet ↓
5				3'-5' FILL- med brown RCA, sand, clay		
		2	48"	5'-10' dark gray, FILL- sand, silt, clay, RCA		
10				8'-10' with glass		
		3	36"	10'-15' dark gray FILL, RCA, glass, gravel, silt, few sand		
15						
		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.		
20						
		5				
25						
		6				
30						
		7				

**COMMENTS:**  
 \_\_\_\_\_  
 \_\_\_\_\_

<b>PROJECT NO.</b>	B-6
<b>BORING NO.</b>	0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY				<b>BORING NO.:</b> B-7			
<b>CLIENT:</b> Heatherwood				<b>SHEET:</b> 1 of 1			
<b>BORING CONTRACTOR:</b> Zebra				<b>JOB NO.:</b>			
<b>GROUNDWATER:</b> 10'				<b>BORING LOCATION:</b>			
				<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>	
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE STARTED:</b> 12/7/11
				<b>DIA.</b>	2"		<b>DATE FINISHED:</b> 12/7/11
				<b>WT.</b>	Direct Push		<b>DRILLER:</b> Luke Reiss
				<b>FALL</b>			<b>GEOLOGIST:</b> Megan Dascoli
<b>* POCKET PENETROMETER READING</b>							<b>REVIEWED BY:</b>

DEPTH FEET	SAMPLE			MATERIAL DESCRIPTION	USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)			
5		1	49"	0-4' FILL- med brown sand, silt, clay, brick, gravel	FILL ↑ ↓ ↓ ↓	dry ↓ moist ↓ wet ↓
				4'-5' FILL- RCA with possible paint chips		
		2	45"	5'-10' medium gray, FILL- clay, silt, RCA, sand, gravel		
10				8'-10' with glass and pottery shards		
				10'-12' med gray FILL- bricks and cobbles		
15		3	23"	12'-15' dark gray FILL- clay, silt		
				Boring ended at 15'		
20		4		Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known)		
				No PID readings collected.		
25		5				
30		6				
		7				

<b>COMMENTS:</b>	<b>PROJECT NO.</b> B-7
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY				<b>BORING NO.:</b> B-8			
<b>CLIENT:</b> Heatherwood				<b>SHEET:</b> 1 of 1			
<b>BORING CONTRACTOR:</b> Zebra				<b>JOB NO.:</b>			
<b>GROUNDWATER:</b> 10'				<b>BORING LOCATION:</b>			
				<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>	
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE STARTED:</b> 12/8/11
				<b>DIA.</b>	2"		<b>DATE FINISHED:</b> 12/8/11
				<b>WT.</b>	Direct Push		<b>DRILLER:</b> Luke Reiss
				<b>FALL</b>			<b>GEOLOGIST:</b> Megan Dascoli
<b>* POCKET PENETROMETER READING</b>							<b>REVIEWED BY:</b>

DEPTH FEET	SAMPLE			DESCRIPTION				
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION			USCS	Moisture
5		1	42"	0-5' FILL- med brown sand, gravel, cobbles, trace brick, trace coal			FILL ↑	dry ↓
10		2	44"	5'-6' med gray FILL- sand, bricks with silt and vc sand- c gravel 5.5' wet 6'-8' FILL- RCA, silt, sand 8'-10' FILL- RCA with silt and gravel			↓	wet ↓
15		3	43"	10'-15' dark gray FILL- RCA, silt, clay, trace wood  15'- possible start of peat			↓	↓
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.				
25		5						
30		6						
		7						

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b> B-8
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY					<b>BORING NO.:</b> B-9						
<b>CLIENT:</b> Heatherwood					<b>SHEET:</b> 1 of 1						
<b>BORING CONTRACTOR:</b> Zebra					<b>JOB NO.:</b>						
<b>GROUNDWATER:</b> 5'					<b>CAS.</b>		<b>SAMPLER</b>		<b>Length</b>		
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE STARTED:</b> 12/8/11				
				<b>DIA.</b>	2"		<b>DATE FINISHED:</b> 12/8/11				
				<b>WT.</b>	Direct Push		<b>DRILLER:</b> Luke Reiss				
				<b>FALL</b>			<b>GEOLOGIST:</b> Megan Dascoli				
					* POCKET PENETROMETER READING					<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			DESCRIPTION				USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION					
5		1	39"	0'-2' med brown FILL- sand, gravel, coal 2'-5' med gray FILL- vf-c angular sand, trace metal				↑ FILL ↓	dry ↓ wet
10		2	47"	5'-7' med brown FILL- RCA, silt, sand; wet at 5' 7'-8' FILL- sand, trace gravel 8'-10' FILL- RCA, silt, few sand (angular f-c gravel)					
15		3	8"	10'-15' dk gray FILL- sand and f gravel, trace brick					
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.					
25		5							
30		6							
		7							

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b>	B-9
	<b>BORING NO.</b>	0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY					<b>BORING NO.:</b> B-10				
<b>CLIENT:</b> Heatherwood					<b>SHEET:</b> 1 of 1				
<b>BORING CONTRACTOR:</b> Zebra					<b>JOB NO.:</b>				
<b>GROUNDWATER:</b> 10'					<b>BORING LOCATION:</b>				
			<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>				
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'			
				<b>DIA.</b>	2"				
				<b>WT.</b>	Direct Push				
				<b>FALL</b>					
* POCKET PENETROMETER READING							<b>DATE STARTED:</b> 12/8/11		
							<b>DATE FINISHED:</b> 12/8/11		
							<b>DRILLER:</b> Luke Reiss		
							<b>GEOLOGIST:</b> Megan Dascoli		
							<b>REVIEWED BY:</b>		

DEPTH FEET	SAMPLE			DESCRIPTION				USCS	Moisture	
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION						
5		1	44"	0-5' FILL- med brown sand, gravel, cobbles, trace brick, trace coal				FILL	dry	
		2	41"	5'-7' med brown FILL- sand, bricks with silt and vc sand- c gravel				↑ ↓	↓ ↑	
		3	42"	7'-9' dk gray FILL- sand, silt, gravel, clay, moist						
10				9'-10'- med brown FILL- sand, silt with trace brick						
		3	42"	10'-13' med brown FILL- m-vc sand with vf gravel				↓	↓	
15				13'-15' med gray FILL- f-m sand, clay, silt, trace brick				↓	↓	
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.						
25		5								
30		6								
		7								

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b> B-10
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY				<b>BORING NO.:</b> B-11					
<b>CLIENT:</b> Heatherwood				<b>SHEET:</b> 1 of 1					
<b>BORING CONTRACTOR:</b> Zebra				<b>JOB NO.:</b>					
<b>GROUNDWATER:</b> 10'				<b>CAS.</b>		<b>SAMPLER</b>		<b>Length</b>	
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE STARTED:</b> 12/8/11		
				<b>DIA.</b>	2"		<b>DATE FINISHED:</b> 12/8/11		
				<b>WT.</b>	Direct Push		<b>DRILLER:</b> Luke Reiss		
				<b>FALL</b>			<b>GEOLOGIST:</b> Megan Dascoli		
<b>* POCKET PENETROMETER READING</b>							<b>REVIEWED BY:</b>		

DEPTH FEET	SAMPLE			DESCRIPTION				
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION			USCS	Moisture
5		1	44"	0-5' FILL- med brown sand, silt, gravel, brick, RCA			FILL	dry
10		2	48"	5'-7.5' med brown FILL- RCA, silt, clay; 5'-6' wet, 6'-10' moist 7.5'-10' med gray, same as above			↑ ↓	↓ wet moist
15		3	36"	10'-12' dk gray FILL- RCA, silt, clay, sand, gravel, trace brick 12'-15' med gray FILL- same as above with fabric and trace wood				↓ wet
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.				
25		5						
30		6						
		7						

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b> B-11
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY					<b>BORING NO.:</b> B-12						
<b>CLIENT:</b> Heatherwood					<b>SHEET:</b> 1 of 1						
<b>BORING CONTRACTOR:</b> Zebra					<b>JOB NO.:</b>						
<b>GROUNDWATER:</b> 6'					<b>CAS.</b>		<b>SAMPLER</b>		<b>Length</b>		
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE STARTED:</b> 12/8/11				
				<b>DIA.</b>	2"		<b>DATE FINISHED:</b> 12/8/11				
				<b>WT.</b>	Direct Push		<b>DRILLER:</b> Luke Reiss				
				<b>FALL</b>			<b>GEOLOGIST:</b> Megan Dascoli				
					* POCKET PENETROMETER READING					<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			DESCRIPTION				USCS	Moisture	
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION						
5		1	51"	0-5' FILL- med brown sand, silt, gravel, brick, RCA				FILL	dry	
		2	9"	5'-7' light brown FILL- RCA, sand, silt, clay 7'-9' med brown, silt, clay, fine sand, RCA					wet	
10		3	45"	9'-10' med brown same as above 10'-11' same as above 11'-11.5' dark brown fibers with silt 11.5'-15' med gray FILL- RCA, silt, clay, gravel, trace metal, string, rope						
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.						
25		5		Sampled GW for TAL Metals with temporary well screens from 10'-15'						
30		6								
		7								

<b>COMMENTS:</b>	<b>PROJECT NO.</b> B-12
	<b>BORING NO.</b> 0





# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY					<b>BORING NO.:</b> B-15				
<b>CLIENT:</b> Heatherwood					<b>SHEET:</b> 1 of 1				
<b>BORING CONTRACTOR:</b> Zebra					<b>JOB NO.:</b>				
<b>GROUNDWATER:</b> 10'					<b>BORING LOCATION:</b>				
			<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>				
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'			<b>DATE STARTED:</b> 12/8/11
				<b>DIA.</b>	2"				<b>DATE FINISHED:</b> 12/8/11
				<b>WT.</b>	Direct Push				<b>DRILLER:</b> Luke Reiss
				<b>FALL</b>					<b>GEOLOGIST:</b> Megan Dascoli
					* POCKET PENETROMETER READING			<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			DESCRIPTION			
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION		USCS	Moisture
		1	37"	0-3' FILL- med brown sand, gravel, trace brick		FILL ↑ ↓	dry ↓ wet ↓ moist ↓
5				3'-5' FILL- medium gray, mostly RCA, possible paint chips			
		2	40"	5'-7' dark gray FILL- RCA with silt and clay, wet at 5'			
10				7'-10' dk gray FILL- clay, silt, gravel, trace tile at 10'- moist at 7'			
		3	25"	10'-14' dk gray FILL- RCA, clay, sand, trace glass, possible paint chips throughout			
15				14'-15' light gray			
		4		Boring ended at 15'			
20				Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known)			
		5		No PID readings collected.			
25							
		6					
30							
		7					

<b>COMMENTS:</b>	<b>PROJECT NO.</b> B-15
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

**PROJECT:** 544 Union Ave, Brooklyn, NY

**CLIENT:** Heatherwood

**BORING CONTRACTOR:** Zebra

**GROUNDWATER:** 10'

<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>
				Macrocore		5'	
				DIA.		2"	
				WT.		Direct Push	
				FALL			

\* POCKET PENETROMETER READING

**BORING NO.:** B-16

**SHEET:** 1 of 1

**JOB NO.:**

**BORING LOCATION:**

**DATE STARTED:** 12/7/11

**DATE FINISHED:** 12/7/11

**DRILLER:** Luke Reiss

**GEOLOGIST:** Megan Dascoli

**REVIEWED BY:**

DEPTH FEET	SAMPLE			DESCRIPTION			
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION		USCS	Moisture
		1	47"	0-4' FILL- med brown sand, bricks, silt, clay		FILL ↑  ↓	dry ↓  wet ↓
5		2	32"	4'-5' lt brown FILL- RCA, clay, trace concrete, possible paint chips			
				5'-6.5' light brown FILL- RCA 6.5'-7.5' yellow FILL- vf-f sand			
10		3	12"	6.5'-7.5' yellow FILL- vf-f sand 7.5'-10' FILL- clay, gravel, pottery with faint petroleum odor			
15				10'-15' black FILL- RCA, clay, gravel sheen on water, petroleum odor			
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.			
		5					
25		6					
		7					
30							

**COMMENTS:**

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**PROJECT NO.:** B-16

**BORING NO.:** 0

# URS Corporation

## EOPROBE BORING LOG

**PROJECT:** 544 Union Ave, Brooklyn, NY

**BORING NO.:** B-17

**CLIENT:** Heatherwood

**SHEET:** 1 of 1

**BORING CONTRACTOR:** Zebra

**JOB NO.:**

**GROUNDWATER:** 6'

**BORING LOCATION:**

<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>
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**DATE STARTED:** 12/8/11

				<b>DIA.</b>			
--	--	--	--	-------------	--	--	--

**DATE FINISHED:** 12/8/11

				<b>WT.</b>			
--	--	--	--	------------	--	--	--

**DRILLER:** Luke Reiss

				<b>FALL</b>			
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**GEOLOGIST:** Megan Dascoli

\* POCKET PENETROMETER READING

**REVIEWED BY:**

DEPTH FEET	SAMPLE			DESCRIPTION	USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)			
				0-5' FILL- med brown sand, silt, trace coal	FILL ↑  ↓ ↓ ↓ ↓ ↓	dry ↓ ↓ wet ↓ ↓
		1	24"	3'-5' with bricks		
5						
		2	48"	5'-7' med gray FILL-RCA with possible paint chips or shale, sand, clay		
10						
		3	43"	10'-12' same as above 12'-13.5' med gray, same as above 13.5'-15' - med gray silt, clay, fine sand		
15						
		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.		
20						
		5				
25						
		6				
30						
		7				

**COMMENTS:**

**PROJECT NO.:** B-17

**BORING NO.:** 0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY					<b>BORING NO.:</b> B-18						
<b>CLIENT:</b> Heatherwood					<b>SHEET:</b> 1 of 1						
<b>BORING CONTRACTOR:</b> Zebra					<b>JOB NO.:</b>						
<b>GROUNDWATER:</b> 6'					<b>CAS.</b>		<b>SAMPLER</b>		<b>Length</b>		
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE STARTED:</b> 12/8/11				
				<b>DIA.</b>	2"		<b>DATE FINISHED:</b> 12/8/11				
				<b>WT.</b>	Direct Push		<b>DRILLER:</b> Luke Reiss				
				<b>FALL</b>			<b>GEOLOGIST:</b> Megan Dascoli				
					* POCKET PENETROMETER READING					<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			DESCRIPTION				USCS	Moisture		
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION							
		1	35"	0-5' med brown FILL- sand, silt, trace coal, gravel				↑ FILL ↓	dry ↓ wet ↓		
5				5'- with bricks							
		2	36"	5'-7' med brown FILL-same as above							
				7'-10'- dark gray FILL- clay, RCA, trace wood							
10				10'-15' FILL- silt, clay, RCA, gravel, trace paint chips							
		3	37"								
15											
		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.							
20											
		5									
25											
		6									
30											
		7									

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b>	B-18
	<b>BORING NO.</b>	0

# URS Corporation

## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY			
<b>CLIENT:</b> Heatherwood			
<b>BORING CONTRACTOR:</b> Zebra			
<b>GROUNDWATER:</b> 10'		<b>CAS.</b>	<b>SAMPLER</b>
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>
			<b>TYPE</b>
			<b>DIA.</b>
			<b>WT.</b>
			<b>FALL</b>
* POCKET PENETROMETER READING			

<b>BORING NO:</b>	B-19
<b>SHEET:</b>	1 of 1
<b>JOB NO.:</b>	
<b>BORING LOCATION:</b>	
<b>DATE STARTED:</b>	12/7/11
<b>DATE FINISHED:</b>	12/7/11
<b>DRILLER:</b>	Luke Reiss
<b>GEOLOGIST:</b>	Megan Dascoli
<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			MATERIAL DESCRIPTION	USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)			
5		1	30"	0-5' FILL- med brown sand, silt, trace brick, coal, concrete, metal	FILL ↑	dry ↓
10		2	45"	5'-8' dark gray, FILL- RCA, sand, paint chips, glass 6'-8' mod. Petroleum odor, sheen at 7'-7.5', wet at 6' 8'-8.5' med brown FILL clay 8.5'-9' FILL- RCA 9'-10' FILL- clay, RCA, no odor	↓	wet ↓
15		3	25"	10'-15' dark gray FILL- RCA, clay, sand, sheen on water, faint petroleum odor throughout	↓	↓
20		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.		
25		5				
30		6				
		7				

**COMMENTS:**  
 \_\_\_\_\_  
 \_\_\_\_\_

<b>PROJECT NO.</b>	B-19
<b>BORING NO.</b>	0

# URS Corporation

## EOPROBE BORING LOG

**PROJECT:** 544 Union Ave, Brooklyn, NY

**CLIENT:** Heatherwood

**BORING CONTRACTOR:** Zebra

**GROUNDWATER:** 10'

<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>
				Macrocore		5'	
				DIA.		2"	
				WT.		Direct Push	
				FALL			

\* POCKET PENETROMETER READING

**BORING NO.:** B-20

**SHEET:** 1 of 1

**JOB NO.:**

**BORING LOCATION:**

**DATE STARTED:** 12/7/11

**DATE FINISHED:** 12/7/11

**DRILLER:** Luke Reiss

**GEOLOGIST:** Megan Dascoli

**REVIEWED BY:**

DEPTH FEET	SAMPLE			DESCRIPTION			
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION		USCS	Moisture
		1	39"	0-2' FILL- dark brown sand, RCA, brick, coal		FILL ↑  ↓ ↓ ↓ ↓ ↓	dry ↓ ↓ wet ↓ ↓
				2'-4.5' med brown FILL- vf-f sand, trace clay			
5				4.5'-5' dk gray FILL- vf-m sand, trace pottery			
		2	32"	5'-10' dark gray, FILL- soft clay, glass, pottery, gravel, RCA, paint chips mod. petroleum odor throughout, wet at 6'			
				10'-15' dark gray FILL- RCA, clay, silt, paint chips, brick, pottery			
10				15'- possible trace peat			
		4		Boring ended at 15' Sampled 4-6', 8'-10', 10'-12', 12'-14' (hold until results of 10'-12' are known) No PID readings collected.			
20							
		5					
25							
		6					
30							
		7					

<b>COMMENTS:</b>	<b>PROJECT NO.</b> B-20
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

**PROJECT:** 544 Union Ave, Brooklyn, NY  
**CLIENT:** Heatherwood  
**BORING CONTRACTOR:** Zebra

**BORING NO.:** B-2B  
**SHEET:** 1 of 1  
**JOB NO.:**  
**BORING LOCATION:**

<b>GROUNDWATER:</b> 10'				<b>CAS.</b>	<b>SAMPLER</b>	<b>Length</b>	<b>DATE STARTED:</b> 1/14/12
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'	<b>DATE FINISHED:</b> 1/14/12
				<b>DIA.</b>	2"		<b>DRILLER:</b> Charlie Green
				<b>WT.</b>	Direct Push		<b>GEOLOGIST:</b> Mira Abdelaziz
				<b>FALL</b>			<b>REVIEWED BY:</b>
* POCKET PENETROMETER READING							

DEPTH FEET	SAMPLE			DESCRIPTION		USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION			
5		1	35"	0-5' FILL-Brown Med. SAND, Silt, Trace F. Gravel- trace Brick.		▲	dry
10		2	21	5-10' Grayish Black Fine to Med. SAND, trace Silt and Clay. Trace Brick at end of sleeve		▼	moist
15						▼	Wet
20				Boring ended at 10' Well se at 10 feet. 5 feet of PVC screen and 5 Feet of PVC Riser Purged started at 1003 Sampled time at 1030, sample name is B-2B Depth to Water is 3.90 bgs			
25							
30							

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b> B-2B
	<b>BORING NO.</b> 0

# URS Corporation

## EOPROBE BORING LOG

**PROJECT:** 544 Union Ave, Brooklyn, NY

**BORING NO:** B-4B

**CLIENT:** Heatherwood

**SHEET:** 1 of 1

**BORING CONTRACTOR:** Zebra

**JOB NO.:**

**BORING LOCATION:**

**GROUNDWATER:**

**CAS.**

**SAMPLER**

**Length**

<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>		<b>DATE STARTED:</b>	
				<b>DIA.</b>	Macrocore 5'	<b>DATE FINISHED:</b>	1/14/12
				<b>WT.</b>	2"	<b>DRILLER:</b>	Charlie Green
				<b>FALL</b>	Direct Push	<b>GEOLOGIST:</b>	Mira Abdelaziz
<b>* POCKET PENETROMETER READING</b>						<b>REVIEWED BY:</b>	

DEPTH FEET	SAMPLE			DESCRIPTION		USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION			
5		1	40"	0-3' FILL-Brown Med. SAND, Silt, F. Gravel- trace Brick. 3- 3.5 Red Brick 3.5- 5 Brown Med. SAND, SILT, trace to little Clay, trace very fine Gravel		▲	dry ↓ moist ↓ Wet
10		2	32"	5-10' Brown to Grayish black Fine to Med. SAND, trace Silt and Clay. Micaceous Trace Brick at end of sleeve			
15							
20				Boring ended at 10' Well se at 10 feet. 5 feet of PVC screen and 5 Feet of PVC Riser Purged started at 1035 Sampled time at 1045, sample name is B-4B Depth to Water is 4.12 bgs			
25							
30							

**COMMENTS:**  
\_\_\_\_\_  
\_\_\_\_\_

**PROJECT NO.** B-4B

**BORING NO.** 0

# URS Corporation

## EOPROBE BORING LOG

**PROJECT:** 544 Union Ave, Brooklyn, NY

**BORING NO:** B-12B

**CLIENT:** Heatherwood

**SHEET:** 1 of 1

**BORING CONTRACTOR:** Zebra

**JOB NO.:**

**BORING LOCATION:**

**GROUNDWATER:**

**CAS.**

**SAMPLER**

**Length**

**DATE**

**TIME**

**LEVEL**

**TYPE**

**TYPE**

**DIA.**

**WT.**

**FALL**

Macrocore

5'

**DATE STARTED:**

1/14/12

**DATE FINISHED:**

1/14/12

**DRILLER:**

Charlie Green

**GEOLOGIST:**

Mira Abdelaziz

\* POCKET PENETROMETER READING

**REVIEWED BY:**

DEPTH FEET	SAMPLE			DESCRIPTION				USCS	Moisture
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION					
5		1	40"	0-5' FILL-Brown to Black med. SAND, some Silt and fine to med. Gravel Red Brick, wood pieces.				▲	dry
10		2	38"	5'-10' Brown to Black Med SAND, Some Silt and very fine Gravel, Trace Clay					↓ Moist ↓ Wet
15				Boring ended at 10' Well se at 10 feet. 5 feet of PVC screen and 5 Feet of PVC Riser Purged started at 0948 Sampled time at 1000, sample name is B-12B. Dup011412 Taken Depth to Water is 4.88 bgs					
20									
25									
30									

**COMMENTS:**

**PROJECT NO.** B-12B

**BORING NO.** 0

# URS Corporation

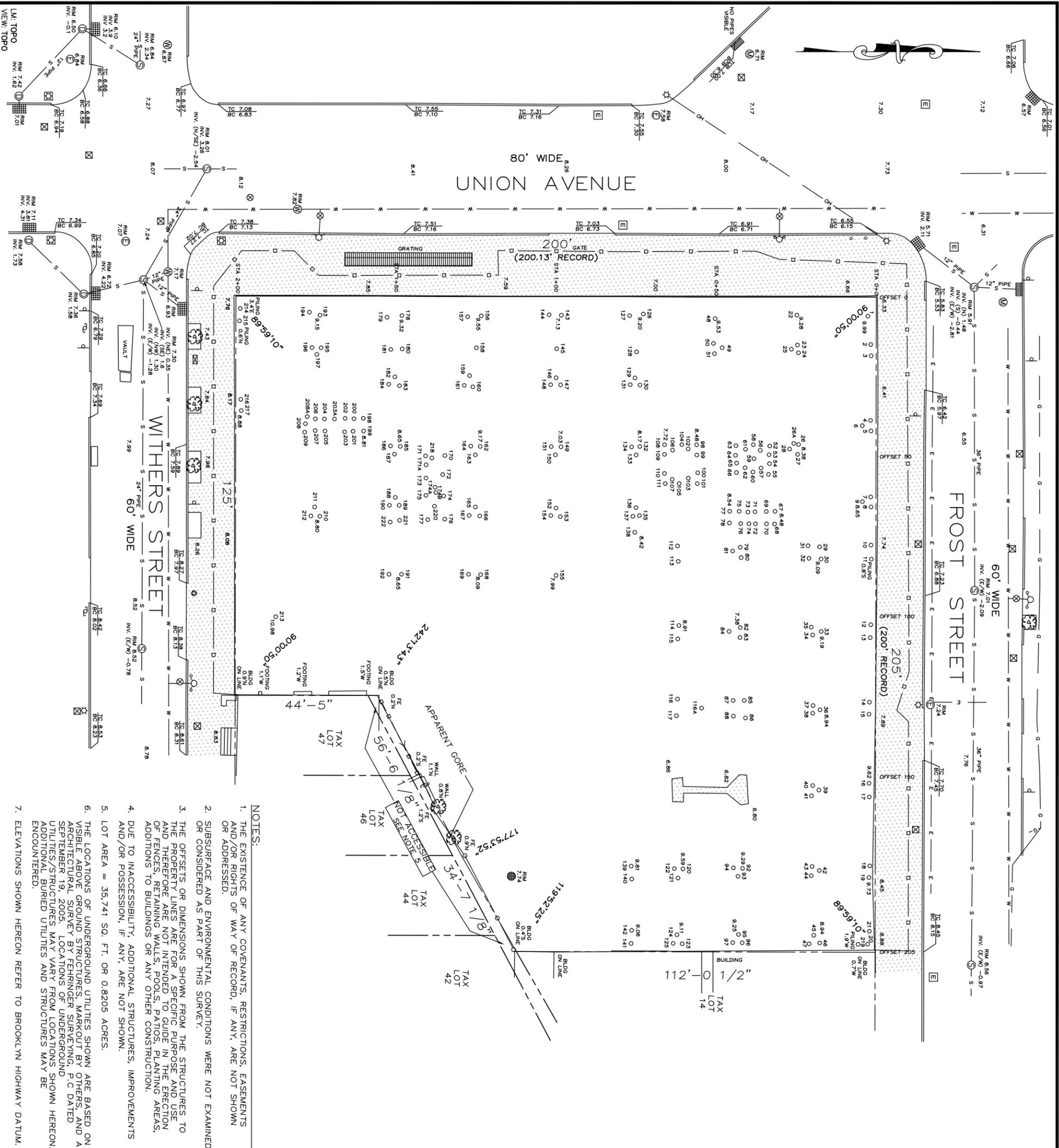
## EOPROBE BORING LOG

<b>PROJECT:</b> 544 Union Ave, Brooklyn, NY					<b>BORING NO.:</b> B-14B				
<b>CLIENT:</b> Heatherwood					<b>SHEET:</b> 1 of 1				
<b>BORING CONTRACTOR:</b> Zebra					<b>JOB NO.:</b>				
<b>GROUNDWATER:</b> 10'					<b>BORING LOCATION:</b>				
<b>CAS.</b>			<b>SAMPLER</b>		<b>Length</b>			<b>DATE STARTED:</b> 1/14/12	
<b>DATE</b>	<b>TIME</b>	<b>LEVEL</b>	<b>TYPE</b>	<b>TYPE</b>	Macrocore	5'		<b>DATE FINISHED:</b> 1/14/12	
				<b>DIA.</b>	2"			<b>DRILLER:</b> Charlie Green	
				<b>WT.</b>	Direct Push			<b>GEOLOGIST:</b> Mira Abdelaziz	
				<b>FALL</b>				<b>REVIEWED BY:</b>	
* POCKET PENETROMETER READING									

DEPTH FEET	SAMPLE			DESCRIPTION					
	STRATA SYMBOL	"S" NO.	REC (in.)	MATERIAL DESCRIPTION			USCS	Moisture	
5		1	32"	0-5' Brown med. SAND, SILT, fine to med. Gravel, Red Brick.			▲	dry	↓ moist ↓ wet
10		2	34"	5-7' Brown Med SAND, SILT, trace Clay and Very Fine Gravel 7-10' Grayish Black med. SAND and Very Fine Gravel, trace Silt and Clay. Micaceous					
15				Boring ended at 10' Well se at 10 feet. 5 feet of PVC screen and 5 Feet of PVC Riser Purged started at 1055 Sampled time at 1108, sample name is B-14B. FB011412 at 1125 Depth to Water is 3.91 bgs					
20									
25									
30									

<b>COMMENTS:</b> _____ _____	<b>PROJECT NO.</b>	B-14B
	<b>BORING NO.</b>	0

# Appendix I



- NOTES:**
1. THE EXISTENCE OF ANY COVENANTS, RESTRICTIONS, EASEMENTS AND/OR RIGHTS OF WAY OF RECORD, IF ANY, ARE NOT SHOWN OR ADDRESSED.
  2. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY.
  3. THE OFFSETS OR DIMENSIONS SHOWN FROM THE STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE AND THEREFORE ARE NOT INTENDED TO GUIDE IN THE ERECTION OF FENCES, RETAINING WALLS, POOLS, PATIOS, PLANTING AREAS, ADDITIONS TO BUILDINGS OR ANY OTHER CONSTRUCTION.
  4. DUE TO INACCESSIBILITY, ADDITIONAL STRUCTURES, IMPROVEMENTS AND/OR POSSESSION, IF ANY, ARE NOT SHOWN.
  5. LOT AREA = 35,741 SQ. FT. OR 0.8205 ACRES.
  6. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE BASED ON VISIBLE ABOVE GROUND STRUCTURES, MARKOUT BY OTHERS, AND A ARCHITECTURAL SURVEY BY FEHRINGER SURVEYING, P.C DATED SEPTEMBER 19, 2005. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED.
  7. ELEVATIONS SHOWN HEREON REFER TO BROOKLYN HIGHWAY DATUM.

LEGEND	
	MASONRY CURB
	DROP CURB
	WALL
	OVERHEAD WIRES
	ELECTRIC LINE
	GAS MAIN
	DRAINAGE LINE
	WATER MAIN
	SANITARY LINE
	GUY WIRE
	UTILITY POLE
	STRUCTURE - MANHOLE
	STRUCTURE - DRAINAGE
	STRUCTURE - ELECTRIC
	STRUCTURE - WATER
	STRUCTURE - SANITARY
	ELECTRIC CONTROL BOX
	GAS VALVE
	WATER VALVE
	FIRE HYDRANT
	TRAFFIC POLE
	SIGNAL BOX
	CATCH BASIN
	DRAINAGE INLET / STRUCTURE
	DRAINAGE INLET / STRUCTURE
	METAL PILING
	SIGN
	LIGHT POLE
	BOLLARD
	CONSTRUCTION FENCE
	CONCRETE
	WATER SAMPLING STATION
	TREE
	TOP/BOTTOM OF CURB
	SPOT ELEVATION

Tax Mpp: BLOCK 2736 LOTS 1, 9, 48
Certifications Individual herein signify that this is a true and correct copy of the original as shown on the field of the property depicted herein was made in accordance with the existing laws of the State of New York and the rules and regulations of the State Association of Professional Land Surveyors. This certification is only for the lands depicted herein and is not a certification of title, zoning or other matters. It is not intended to be used as evidence in any court of law and is not transferable to other persons, entities or subsequent owners.
Handshaded elevations or depths in this survey are a notation of Section 2208 of the New York State Education Law. Copies of this survey map and bearing the lead surveyor's professional seal and signature shall not be considered to be a true and correct copy of the original.
Date: AUGUST 2, 2010
Scale: 1"=20'
Project No. Sheet No. 1 of 1

<b>BBV</b> Barrett Bonacci & Van Weele, PC	175A Commerce Drive Hempstead, NY 11788 F 631.435.1022 www.bbvpcc.com
Civil Engineers Surveyors Planners	

TO/5/2010	PR	ADDITIONAL INFORMATION
Date	By	Revision
Surveyed by: S.K.	Drafted by: D.W.	Checked by: CW

# Appendix J

## Summa Canister Sampling Field Data Sheet

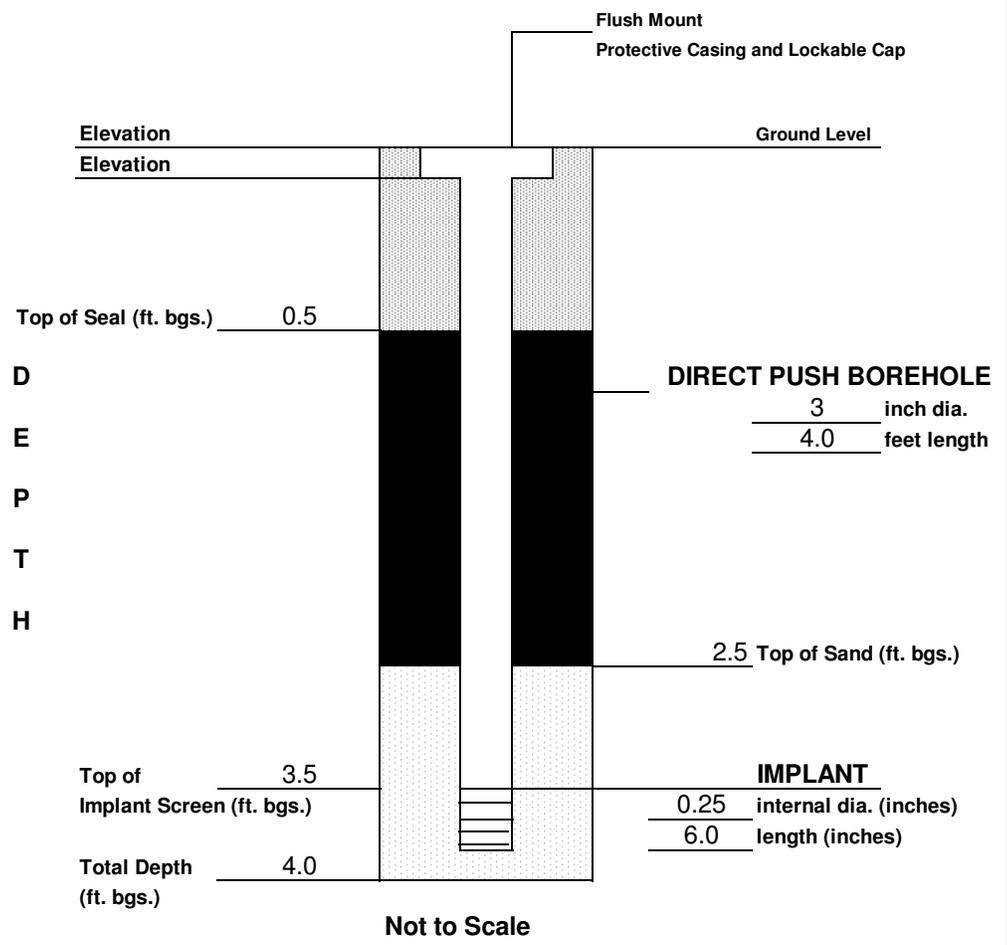
Site: 544 Union Avenue

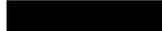
Samplers: M. Abdelaziz

Date: 1/16/2012

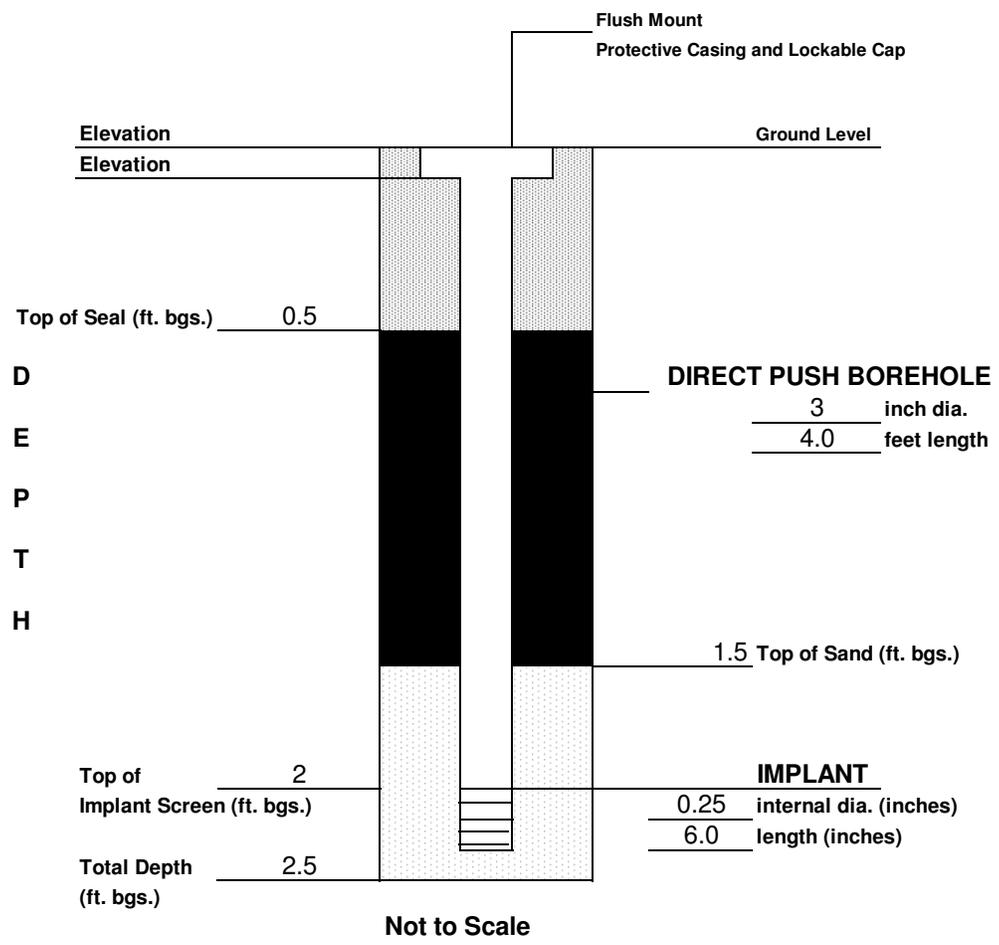
Sample #	SG-1	SG-3	SG-2	SG-4	01162012-AA-1
Location	544 Union				
Summa Canister ID	976	1058	1576	no flow from soil gas point	1255
Flow Controller ID	FC1177	FC3	FC0058		FC0157
Additional Tubing Added	NO/ <b>YES</b> - How much 1ft				
Purge Time (Start)	806	833	810		x
Purge Time (Stop)	814	838	815		x
Total Purge Time (min)	8 min	5 min	5 min		x
Purge Volume	2L	2L	2L		x
PID Test of Purge Air	0	0	0		x
Initial Tracer Gas Results	0	0	100 ppm		x
Pressure Gauge - before sampling	-30	-30	-30		-30
Sample Time (Start)	819	845	921		857
Sample Time (Stop)	1019	1045	1121		1057
Total Sample Time (min)	120	120	120		120
Pressure Gauge - after sampling	0	-1	-1		-6
Sample Volume	6L	6L	6L		6L
Canister Pressure Went To Ambient Pressure?	<b>YES / NO</b>				
Final Tracer Gas Results					
Associated Ambient Air Sample Number	01162012-AA-1	01162012-AA-1	01162012-AA-1	01162012-AA-1	
General Comments:					

<b>DRILLING SUMMARY</b>	
<b>Geologist:</b> Megan Dascoli	
<b>Drilling Company:</b> Zebra Drilling	
<b>Driller:</b> Luke Reiss	
<b>Rig Make/Model:</b> Geoprobe GP18	
<b>Date:</b> 12/8/2011	
<b>GEOLOGIC LOG</b>	
<b>Depth(ft.)</b>	<b>Description</b>
0'-4'	FILL



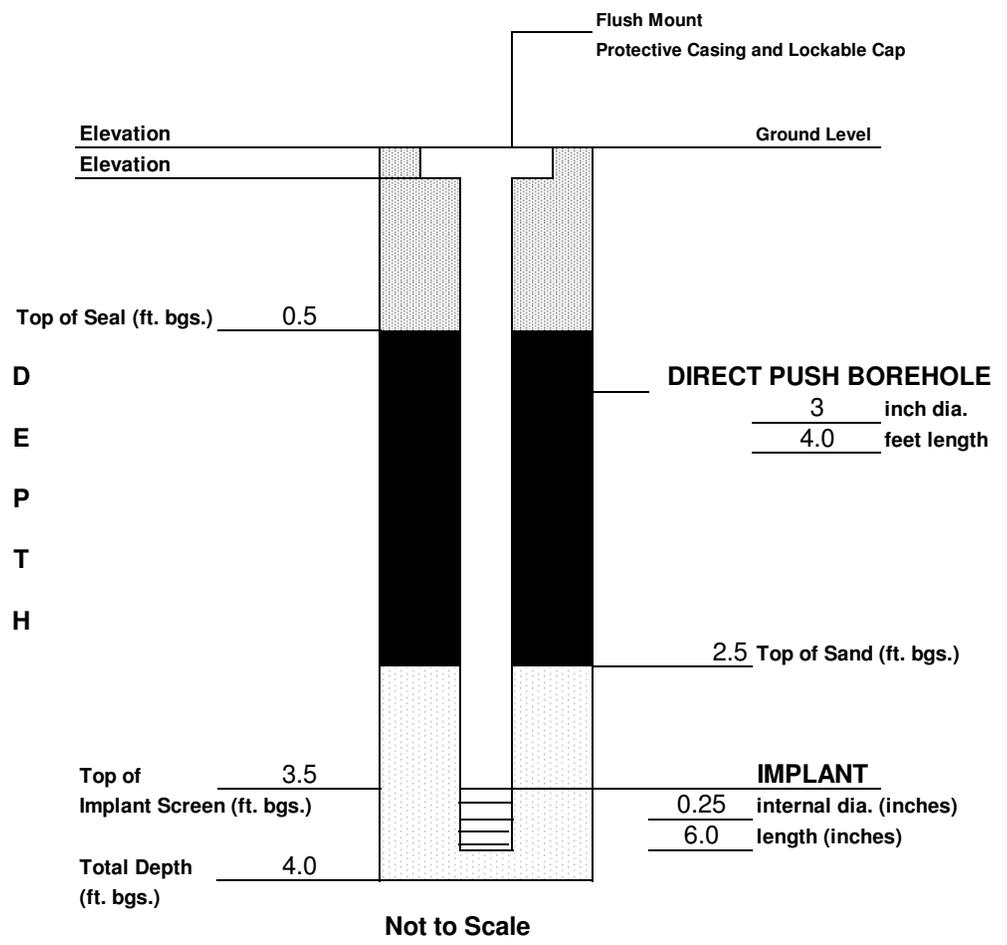
<b>WELL DESIGN</b>		
<b>CASING MATERIAL</b>	<b>SCREEN MATERIAL</b>	<b>FILTER MATERIAL</b>
<b>Surface:</b> Brick sidewalk	<b>Type:</b> 6-inch stainless steel implant	<b>Type:</b> #2 Sand <b>Setting:</b> 2.5-4 ft bgs
<b>Well:</b> 3/8-inch OD polyethylene tubing	<b>Pore Diameter:</b> 0.0057-inch	<b>SEAL MATERIAL</b>
<b>COMMENTS:</b> Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.		<b>LEGEND</b>
		 Cement/Bentonite Grout  Bentonite Seal  Silica Sandpack
<b>Client:</b> 544 Unioncon, LLC	<b>Location:</b> 544 Union Ave, Bklyn, NY	<b>Project No.:</b> 11140128
<b>URS Corporation</b>	<b>SOIL GAS CONDUIT CONSTRUCTION DETAILS</b>	<b>Well Number:</b> SG-01

<b>DRILLING SUMMARY</b>	
<b>Geologist:</b> Megan Dascoli	
<b>Drilling Company:</b> Zebra Drilling	
<b>Driller:</b> Luke Reiss	
<b>Rig Make/Model:</b> Geoprobe GP18	
<b>Date:</b> 12/8/2011	
<b>GEOLOGIC LOG</b>	
<b>Depth(ft.)</b>	<b>Description</b>
0'-4'	FILL



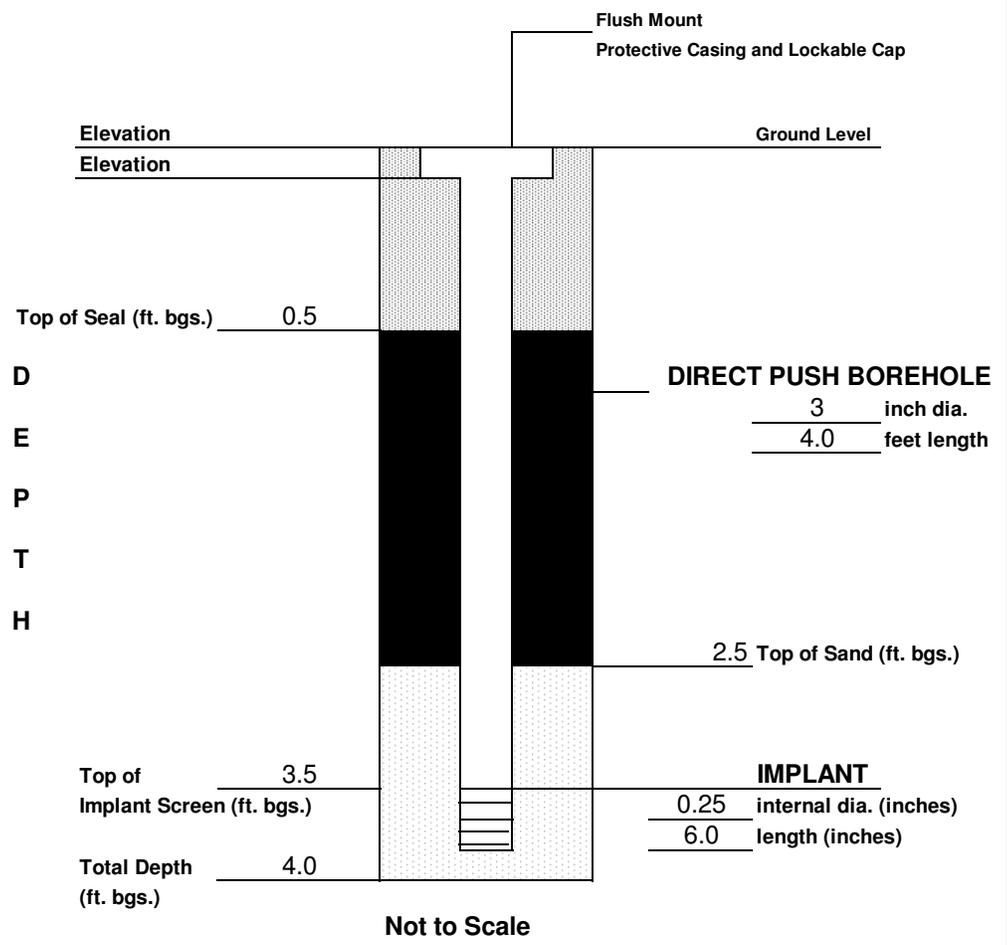
<b>WELL DESIGN</b>		
<b>CASING MATERIAL</b>	<b>SCREEN MATERIAL</b>	<b>FILTER MATERIAL</b>
<b>Surface:</b> Brick sidewalk	<b>Type:</b> 6-inch stainless steel implant	<b>Type:</b> #2 Sand <b>Setting:</b> 1.5-2.5
<b>Well:</b> 3/8-inch OD polyethylene tubing	<b>Pore Diameter:</b> 0.0057-inch	<b>SEAL MATERIAL</b>
		<b>Type:</b> Bentonite <b>Setting:</b> 0.5- 1.5 ft Concrete <b>Setting:</b> 0- 0.5 ft
<b>COMMENTS:</b> Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.		<b>LEGEND</b>
		Cement/Bentonite Grout
		Bentonite Seal
		Silica Sandpack
<b>Client:</b> 544 Unioncon, LLC	<b>Location:</b> 544 Union Ave, Bklyn, NY	<b>Project No.:</b> 11140128
<b>URS Corporation</b>	<b>SOIL GAS CONDUIT CONSTRUCTION DETAILS</b>	<b>Well Number:</b> SG-02

<b>DRILLING SUMMARY</b>	
<b>Geologist:</b> Megan Dascoli	
<b>Drilling Company:</b> Zebra Drilling	
<b>Driller:</b> Luke Reiss	
<b>Rig Make/Model:</b> Geoprobe GP18	
<b>Date:</b> 12/8/2011	
<b>GEOLOGIC LOG</b>	
<b>Depth(ft.)</b>	<b>Description</b>
0'-4'	FILL



<b>WELL DESIGN</b>		
<b>CASING MATERIAL</b>	<b>SCREEN MATERIAL</b>	<b>FILTER MATERIAL</b>
<b>Surface:</b> Brick sidewalk	<b>Type:</b> 6-inch stainless steel implant	<b>Type:</b> #2 Sand <b>Setting:</b> 2.5-4 ft bgs
<b>Well:</b> 3/8-inch OD polyethylene tubing	<b>Pore Diameter:</b> 0.0057-inch	<b>SEAL MATERIAL</b>
		<b>Type:</b> Bentonite <b>Setting:</b> 0.5- 2.5 ft Concrete <b>Setting:</b> 0- 0.5 ft
<b>COMMENTS:</b> Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.		<b>LEGEND</b>
		Cement/Bentonite Grout
		Bentonite Seal
		Silica Sandpack
<b>Client:</b> 544 Unioncon, LLC	<b>Location:</b> 544 Union Ave, Bklyn, NY	<b>Project No.:</b> 11140128
<b>URS Corporation</b>	<b>SOIL GAS CONDUIT CONSTRUCTION DETAILS</b>	<b>Well Number:</b> <b>SG-03</b>

<b>DRILLING SUMMARY</b>	
<b>Geologist:</b> Megan Dascoli	
<b>Drilling Company:</b> Zebra Drilling	
<b>Driller:</b> Luke Reiss	
<b>Rig Make/Model:</b> Geoprobe GP18	
<b>Date:</b> 12/8/2011	
<b>GEOLOGIC LOG</b>	
<b>Depth(ft.)</b>	<b>Description</b>
0'-4'	FILL



<b>WELL DESIGN</b>		
<b>CASING MATERIAL</b>	<b>SCREEN MATERIAL</b>	<b>FILTER MATERIAL</b>
<b>Surface:</b> Brick sidewalk	<b>Type:</b> 6-inch stainless steel implant	<b>Type:</b> #2 Sand <b>Setting:</b> 2.5-4 ft bgs
<b>Well:</b> 3/8-inch OD polyethylene tubing	<b>Pore Diameter:</b> 0.0057-inch	<b>SEAL MATERIAL</b>
<b>COMMENTS:</b> Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.		<b>LEGEND</b>
		 Cement/Bentonite Grout  Bentonite Seal  Silica Sandpack
<b>Client:</b> 544 Unioncon, LLC	<b>Location:</b> 544 Union Ave, Bklyn, NY	<b>Project No.:</b> 11140128
<b>URS Corporation</b>	<b>SOIL GAS CONDUIT CONSTRUCTION DETAILS</b>	<b>Well Number:</b> <b>SG-04</b>

# Appendix K

February 01, 2012

Robert Wolff  
URS Corporation- New York  
1 Penn Plaza Suite 600  
New York, NY 10119

RE: Project: 544 Union Ave.  
Pace Project No.: 10180974

Dear Robert Wolff:

Enclosed are the analytical results for sample(s) received by the laboratory on January 19, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carolynne Trout

carolynne.trout@pacelabs.com  
Project Manager

Enclosures

cc: Accounts Payable, URS Corporation



**REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: 544 Union Ave.

Pace Project No.: 10180974

### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alaska Certification #: UST-078

Alaska Certification #MN00064

Arizona Certification #: AZ-0014

Arkansas Certification #: 88-0680

California Certification #: 01155CA

EPA Region 8 Certification #: Pace

Florida/NELAP Certification #: E87605

Georgia Certification #: 959

Idaho Certification #: MN00064

Illinois Certification #: 200011

Iowa Certification #: 368

Kansas Certification #: E-10167

Louisiana Certification #: 03086

Louisiana Certification #: LA080009

Maine Certification #: 2007029

Maryland Certification #: 322

Michigan DEQ Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace

Montana Certification #: MT CERT0092

Nevada Certification #: MN\_00064

Nebraska Certification #: Pace

New Jersey Certification #: MN-002

New Mexico Certification #: Pace

New York Certification #: 11647

North Carolina Certification #: 530

North Dakota Certification #: R-036

North Dakota Certification #: R-036A

Ohio VAP Certification #: CL101

Oklahoma Certification #: D9921

Oklahoma Certification #: 9507

Oregon Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification

Tennessee Certification #: 02818

Texas Certification #: T104704192

Washington Certification #: C754

Wisconsin Certification #: 999407970

## REPORT OF LABORATORY ANALYSIS

Page 2 of 22

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## SAMPLE SUMMARY

Project: 544 Union Ave.

Pace Project No.: 10180974

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10180974001	SG_1	Air	01/16/12 10:19	01/19/12 10:04
10180974002	SG_2	Air	01/16/12 11:21	01/19/12 10:04
10180974003	SG_3	Air	01/16/12 10:45	01/19/12 10:04
10180974004	01162012_AA_1	Air	01/16/12 10:57	01/19/12 10:04
10180974005	CAN ID 1640	Air		01/19/12 10:04

## REPORT OF LABORATORY ANALYSIS

Page 3 of 22

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### SAMPLE ANALYTE COUNT

Project: 544 Union Ave.

Pace Project No.: 10180974

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10180974001	SG_1	TO-15	DR1	61
10180974002	SG_2	TO-15	DR1	61
10180974003	SG_3	TO-15	DR1	61
10180974004	01162012_AA_1	TO-15	DR1	61

### REPORT OF LABORATORY ANALYSIS

Page 4 of 22

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### ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: SG_1	Lab ID: 10180974001	Collected: 01/16/12 10:19	Received: 01/19/12 10:04	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Acetone	7.3	ug/m3	0.81	1.69		01/30/12 20:42	67-64-1	SS
Benzene	0.57	ug/m3	0.55	1.69		01/30/12 20:42	71-43-2	
Benzyl chloride	ND	ug/m3	1.8	1.69		01/30/12 20:42	100-44-7	
Bromodichloromethane	ND	ug/m3	2.4	1.69		01/30/12 20:42	75-27-4	
Bromoform	ND	ug/m3	3.5	1.69		01/30/12 20:42	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.69		01/30/12 20:42	74-83-9	
1,3-Butadiene	ND	ug/m3	0.76	1.69		01/30/12 20:42	106-99-0	
2-Butanone (MEK)	ND	ug/m3	1.0	1.69		01/30/12 20:42	78-93-3	
Carbon disulfide	1.1	ug/m3	1.1	1.69		01/30/12 20:42	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.1	1.69		01/30/12 20:42	56-23-5	
Chlorobenzene	ND	ug/m3	1.6	1.69		01/30/12 20:42	108-90-7	
Chloroethane	ND	ug/m3	0.91	1.69		01/30/12 20:42	75-00-3	
Chloroform	ND	ug/m3	1.7	1.69		01/30/12 20:42	67-66-3	
Chloromethane	ND	ug/m3	0.71	1.69		01/30/12 20:42	74-87-3	
Cyclohexane	ND	ug/m3	1.1	1.69		01/30/12 20:42	110-82-7	
Dibromochloromethane	ND	ug/m3	2.9	1.69		01/30/12 20:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.7	1.69		01/30/12 20:42	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.0	1.69		01/30/12 20:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.0	1.69		01/30/12 20:42	541-73-1	
1,4-Dichlorobenzene	124	ug/m3	2.0	1.69		01/30/12 20:42	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.7	1.69		01/30/12 20:42	75-71-8	
1,1-Dichloroethane	21.3	ug/m3	1.4	1.69		01/30/12 20:42	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.69	1.69		01/30/12 20:42	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.4	1.69		01/30/12 20:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.69		01/30/12 20:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.69		01/30/12 20:42	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.6	1.69		01/30/12 20:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.69		01/30/12 20:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.69		01/30/12 20:42	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.4	1.69		01/30/12 20:42	76-14-2	
Ethanol	37.5	ug/m3	3.2	1.69		01/30/12 20:42	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.69		01/30/12 20:42	141-78-6	
Ethylbenzene	ND	ug/m3	1.5	1.69		01/30/12 20:42	100-41-4	
4-Ethyltoluene	ND	ug/m3	4.2	1.69		01/30/12 20:42	622-96-8	
n-Heptane	ND	ug/m3	1.4	1.69		01/30/12 20:42	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.7	1.69		01/30/12 20:42	87-68-3	
n-Hexane	9.2	ug/m3	1.2	1.69		01/30/12 20:42	110-54-3	
2-Hexanone	ND	ug/m3	1.4	1.69		01/30/12 20:42	591-78-6	
Methylene Chloride	12.2	ug/m3	1.2	1.69		01/30/12 20:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.4	1.69		01/30/12 20:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.2	1.69		01/30/12 20:42	1634-04-4	
Naphthalene	14.6	ug/m3	4.6	1.69		01/30/12 20:42	91-20-3	L1
2-Propanol	ND	ug/m3	4.2	1.69		01/30/12 20:42	67-63-0	
Propylene	ND	ug/m3	0.59	1.69		01/30/12 20:42	115-07-1	
Styrene	ND	ug/m3	1.5	1.69		01/30/12 20:42	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.2	1.69		01/30/12 20:42	79-34-5	
Tetrachloroethene	3.0	ug/m3	1.2	1.69		01/30/12 20:42	127-18-4	

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### ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: <b>SG_1</b>		Lab ID: <b>10180974001</b>	Collected: 01/16/12 10:19	Received: 01/19/12 10:04	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	1.0	1.69		01/30/12 20:42	109-99-9	
Toluene	<b>11.7</b>	ug/m3	1.3	1.69		01/30/12 20:42	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.7	1.69		01/30/12 20:42	120-82-1	
1,1,1-Trichloroethane	<b>82.8</b>	ug/m3	1.9	1.69		01/30/12 20:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.93	1.69		01/30/12 20:42	79-00-5	
Trichloroethene	<b>11.0</b>	ug/m3	0.93	1.69		01/30/12 20:42	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.9	1.69		01/30/12 20:42	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.7	1.69		01/30/12 20:42	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.7	1.69		01/30/12 20:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.7	1.69		01/30/12 20:42	108-67-8	
Vinyl acetate	ND	ug/m3	1.2	1.69		01/30/12 20:42	108-05-4	
Vinyl chloride	ND	ug/m3	0.44	1.69		01/30/12 20:42	75-01-4	
m&p-Xylene	ND	ug/m3	3.0	1.69		01/30/12 20:42	179601-23-1	
o-Xylene	ND	ug/m3	1.5	1.69		01/30/12 20:42	95-47-6	

## ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: SG_2	Lab ID: 10180974002	Collected: 01/16/12 11:21	Received: 01/19/12 10:04	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Acetone	6.3 ug/m3		0.60	1.26		01/30/12 20:13	67-64-1	SS
Benzene	0.83 ug/m3		0.41	1.26		01/30/12 20:13	71-43-2	
Benzyl chloride	ND ug/m3		1.3	1.26		01/30/12 20:13	100-44-7	
Bromodichloromethane	ND ug/m3		1.8	1.26		01/30/12 20:13	75-27-4	
Bromoform	ND ug/m3		2.6	1.26		01/30/12 20:13	75-25-2	
Bromomethane	ND ug/m3		1.0	1.26		01/30/12 20:13	74-83-9	
1,3-Butadiene	ND ug/m3		0.57	1.26		01/30/12 20:13	106-99-0	
2-Butanone (MEK)	0.77 ug/m3		0.76	1.26		01/30/12 20:13	78-93-3	
Carbon disulfide	ND ug/m3		0.79	1.26		01/30/12 20:13	75-15-0	
Carbon tetrachloride	ND ug/m3		0.81	1.26		01/30/12 20:13	56-23-5	
Chlorobenzene	ND ug/m3		1.2	1.26		01/30/12 20:13	108-90-7	
Chloroethane	ND ug/m3		0.68	1.26		01/30/12 20:13	75-00-3	
Chloroform	ND ug/m3		1.2	1.26		01/30/12 20:13	67-66-3	
Chloromethane	ND ug/m3		0.53	1.26		01/30/12 20:13	74-87-3	
Cyclohexane	ND ug/m3		0.86	1.26		01/30/12 20:13	110-82-7	
Dibromochloromethane	ND ug/m3		2.1	1.26		01/30/12 20:13	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/m3		2.0	1.26		01/30/12 20:13	106-93-4	
1,2-Dichlorobenzene	ND ug/m3		1.5	1.26		01/30/12 20:13	95-50-1	
1,3-Dichlorobenzene	ND ug/m3		1.5	1.26		01/30/12 20:13	541-73-1	
1,4-Dichlorobenzene	129 ug/m3		1.5	1.26		01/30/12 20:13	106-46-7	
Dichlorodifluoromethane	ND ug/m3		1.3	1.26		01/30/12 20:13	75-71-8	
1,1-Dichloroethane	ND ug/m3		1.0	1.26		01/30/12 20:13	75-34-3	
1,2-Dichloroethane	ND ug/m3		0.52	1.26		01/30/12 20:13	107-06-2	
1,1-Dichloroethene	ND ug/m3		1.0	1.26		01/30/12 20:13	75-35-4	
cis-1,2-Dichloroethene	ND ug/m3		1.0	1.26		01/30/12 20:13	156-59-2	
trans-1,2-Dichloroethene	ND ug/m3		1.0	1.26		01/30/12 20:13	156-60-5	
1,2-Dichloropropane	ND ug/m3		1.2	1.26		01/30/12 20:13	78-87-5	
cis-1,3-Dichloropropene	ND ug/m3		1.2	1.26		01/30/12 20:13	10061-01-5	
trans-1,3-Dichloropropene	ND ug/m3		1.2	1.26		01/30/12 20:13	10061-02-6	
Dichlorotetrafluoroethane	ND ug/m3		1.8	1.26		01/30/12 20:13	76-14-2	
Ethanol	46.9 ug/m3		2.4	1.26		01/30/12 20:13	64-17-5	
Ethyl acetate	1.3 ug/m3		0.92	1.26		01/30/12 20:13	141-78-6	
Ethylbenzene	1.2 ug/m3		1.1	1.26		01/30/12 20:13	100-41-4	
4-Ethyltoluene	ND ug/m3		3.2	1.26		01/30/12 20:13	622-96-8	
n-Heptane	2.6 ug/m3		1.0	1.26		01/30/12 20:13	142-82-5	
Hexachloro-1,3-butadiene	ND ug/m3		2.8	1.26		01/30/12 20:13	87-68-3	
n-Hexane	3.3 ug/m3		0.91	1.26		01/30/12 20:13	110-54-3	
2-Hexanone	ND ug/m3		1.0	1.26		01/30/12 20:13	591-78-6	
Methylene Chloride	0.95 ug/m3		0.89	1.26		01/30/12 20:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/m3		1.0	1.26		01/30/12 20:13	108-10-1	
Methyl-tert-butyl ether	ND ug/m3		0.92	1.26		01/30/12 20:13	1634-04-4	
Naphthalene	11.0 ug/m3		3.4	1.26		01/30/12 20:13	91-20-3	L1
2-Propanol	4.8 ug/m3		3.2	1.26		01/30/12 20:13	67-63-0	
Propylene	ND ug/m3		0.44	1.26		01/30/12 20:13	115-07-1	
Styrene	ND ug/m3		1.1	1.26		01/30/12 20:13	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/m3		0.88	1.26		01/30/12 20:13	79-34-5	
Tetrachloroethene	ND ug/m3		0.87	1.26		01/30/12 20:13	127-18-4	

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## ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: <b>SG_2</b>		Lab ID: <b>10180974002</b>	Collected: 01/16/12 11:21	Received: 01/19/12 10:04	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	0.76	1.26		01/30/12 20:13	109-99-9	
Toluene	<b>21.3</b>	ug/m3	0.97	1.26		01/30/12 20:13	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.2	1.26		01/30/12 20:13	120-82-1	
1,1,1-Trichloroethane	<b>12.7</b>	ug/m3	1.4	1.26		01/30/12 20:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.69	1.26		01/30/12 20:13	79-00-5	
Trichloroethene	<b>72.9</b>	ug/m3	0.69	1.26		01/30/12 20:13	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.4	1.26		01/30/12 20:13	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.0	1.26		01/30/12 20:13	76-13-1	
1,2,4-Trimethylbenzene	<b>1.4</b>	ug/m3	1.3	1.26		01/30/12 20:13	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.26		01/30/12 20:13	108-67-8	
Vinyl acetate	ND	ug/m3	0.89	1.26		01/30/12 20:13	108-05-4	
Vinyl chloride	ND	ug/m3	0.33	1.26		01/30/12 20:13	75-01-4	
m&p-Xylene	<b>3.2</b>	ug/m3	2.2	1.26		01/30/12 20:13	179601-23-1	
o-Xylene	ND	ug/m3	1.1	1.26		01/30/12 20:13	95-47-6	

## ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: SG_3	Lab ID: 10180974003	Collected: 01/16/12 10:45	Received: 01/19/12 10:04	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Acetone	45.5	ug/m3	0.76	1.58		01/30/12 21:10	67-64-1	SS
Benzene	0.74	ug/m3	0.51	1.58		01/30/12 21:10	71-43-2	
Benzyl chloride	ND	ug/m3	1.7	1.58		01/30/12 21:10	100-44-7	
Bromodichloromethane	ND	ug/m3	2.2	1.58		01/30/12 21:10	75-27-4	
Bromoform	ND	ug/m3	3.3	1.58		01/30/12 21:10	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.58		01/30/12 21:10	74-83-9	
1,3-Butadiene	ND	ug/m3	0.71	1.58		01/30/12 21:10	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.95	1.58		01/30/12 21:10	78-93-3	
Carbon disulfide	6.8	ug/m3	1.0	1.58		01/30/12 21:10	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.0	1.58		01/30/12 21:10	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.58		01/30/12 21:10	108-90-7	
Chloroethane	1.6	ug/m3	0.85	1.58		01/30/12 21:10	75-00-3	
Chloroform	ND	ug/m3	1.6	1.58		01/30/12 21:10	67-66-3	
Chloromethane	ND	ug/m3	0.66	1.58		01/30/12 21:10	74-87-3	
Cyclohexane	1.2	ug/m3	1.1	1.58		01/30/12 21:10	110-82-7	
Dibromochloromethane	ND	ug/m3	2.7	1.58		01/30/12 21:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.5	1.58		01/30/12 21:10	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.9	1.58		01/30/12 21:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.9	1.58		01/30/12 21:10	541-73-1	
1,4-Dichlorobenzene	33.6	ug/m3	1.9	1.58		01/30/12 21:10	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.6	1.58		01/30/12 21:10	75-71-8	
1,1-Dichloroethane	123	ug/m3	1.3	1.58		01/30/12 21:10	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.65	1.58		01/30/12 21:10	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.58		01/30/12 21:10	75-35-4	
cis-1,2-Dichloroethene	7.4	ug/m3	1.3	1.58		01/30/12 21:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.58		01/30/12 21:10	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.58		01/30/12 21:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.5	1.58		01/30/12 21:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.5	1.58		01/30/12 21:10	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.2	1.58		01/30/12 21:10	76-14-2	
Ethanol	21.9	ug/m3	3.0	1.58		01/30/12 21:10	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.58		01/30/12 21:10	141-78-6	
Ethylbenzene	ND	ug/m3	1.4	1.58		01/30/12 21:10	100-41-4	
4-Ethyltoluene	ND	ug/m3	4.0	1.58		01/30/12 21:10	622-96-8	
n-Heptane	ND	ug/m3	1.3	1.58		01/30/12 21:10	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.5	1.58		01/30/12 21:10	87-68-3	
n-Hexane	29.0	ug/m3	1.1	1.58		01/30/12 21:10	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.58		01/30/12 21:10	591-78-6	
Methylene Chloride	95.1	ug/m3	1.1	1.58		01/30/12 21:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.3	1.58		01/30/12 21:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.2	1.58		01/30/12 21:10	1634-04-4	
Naphthalene	ND	ug/m3	4.3	1.58		01/30/12 21:10	91-20-3	
2-Propanol	4.5	ug/m3	4.0	1.58		01/30/12 21:10	67-63-0	
Propylene	ND	ug/m3	0.55	1.58		01/30/12 21:10	115-07-1	
Styrene	ND	ug/m3	1.4	1.58		01/30/12 21:10	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.58		01/30/12 21:10	79-34-5	
Tetrachloroethene	ND	ug/m3	1.1	1.58		01/30/12 21:10	127-18-4	

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## ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: <b>SG_3</b>	Lab ID: <b>10180974003</b>	Collected: 01/16/12 10:45	Received: 01/19/12 10:04	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	0.95	1.58		01/30/12 21:10	109-99-9	
Toluene	<b>6.4</b>	ug/m3	1.2	1.58		01/30/12 21:10	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.6	1.58		01/30/12 21:10	120-82-1	
1,1,1-Trichloroethane	<b>116</b>	ug/m3	1.7	1.58		01/30/12 21:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.87	1.58		01/30/12 21:10	79-00-5	
Trichloroethene	<b>7.4</b>	ug/m3	0.87	1.58		01/30/12 21:10	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.7	1.58		01/30/12 21:10	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.5	1.58		01/30/12 21:10	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.6	1.58		01/30/12 21:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.6	1.58		01/30/12 21:10	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.58		01/30/12 21:10	108-05-4	
Vinyl chloride	ND	ug/m3	0.41	1.58		01/30/12 21:10	75-01-4	
m&p-Xylene	ND	ug/m3	2.8	1.58		01/30/12 21:10	179601-23-1	
o-Xylene	ND	ug/m3	1.4	1.58		01/30/12 21:10	95-47-6	

## ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: 01162012_AA_1	Lab ID: 10180974004	Collected: 01/16/12 10:57	Received: 01/19/12 10:04	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Acetone	6.1 ug/m3		0.72	1.49		01/27/12 22:06	67-64-1	
Benzene	1.8 ug/m3		0.48	1.49		01/27/12 22:06	71-43-2	
Benzyl chloride	ND ug/m3		1.6	1.49		01/27/12 22:06	100-44-7	
Bromodichloromethane	ND ug/m3		2.1	1.49		01/27/12 22:06	75-27-4	
Bromoform	ND ug/m3		3.1	1.49		01/27/12 22:06	75-25-2	
Bromomethane	ND ug/m3		1.2	1.49		01/27/12 22:06	74-83-9	
1,3-Butadiene	ND ug/m3		0.67	1.49		01/27/12 22:06	106-99-0	
2-Butanone (MEK)	2.4 ug/m3		0.89	1.49		01/27/12 22:06	78-93-3	
Carbon disulfide	ND ug/m3		0.94	1.49		01/27/12 22:06	75-15-0	
Carbon tetrachloride	ND ug/m3		0.95	1.49		01/27/12 22:06	56-23-5	
Chlorobenzene	ND ug/m3		1.4	1.49		01/27/12 22:06	108-90-7	
Chloroethane	ND ug/m3		0.80	1.49		01/27/12 22:06	75-00-3	
Chloroform	ND ug/m3		1.5	1.49		01/27/12 22:06	67-66-3	
Chloromethane	0.98 ug/m3		0.63	1.49		01/27/12 22:06	74-87-3	
Cyclohexane	ND ug/m3		1.0	1.49		01/27/12 22:06	110-82-7	
Dibromochloromethane	ND ug/m3		2.5	1.49		01/27/12 22:06	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/m3		2.4	1.49		01/27/12 22:06	106-93-4	
1,2-Dichlorobenzene	ND ug/m3		1.8	1.49		01/27/12 22:06	95-50-1	
1,3-Dichlorobenzene	ND ug/m3		1.8	1.49		01/27/12 22:06	541-73-1	
1,4-Dichlorobenzene	4.1 ug/m3		1.8	1.49		01/27/12 22:06	106-46-7	
Dichlorodifluoromethane	3.1 ug/m3		1.5	1.49		01/27/12 22:06	75-71-8	
1,1-Dichloroethane	ND ug/m3		1.2	1.49		01/27/12 22:06	75-34-3	
1,2-Dichloroethane	ND ug/m3		0.61	1.49		01/27/12 22:06	107-06-2	
1,1-Dichloroethene	ND ug/m3		1.2	1.49		01/27/12 22:06	75-35-4	
cis-1,2-Dichloroethene	ND ug/m3		1.2	1.49		01/27/12 22:06	156-59-2	
trans-1,2-Dichloroethene	ND ug/m3		1.2	1.49		01/27/12 22:06	156-60-5	
1,2-Dichloropropane	ND ug/m3		1.4	1.49		01/27/12 22:06	78-87-5	
cis-1,3-Dichloropropene	ND ug/m3		1.4	1.49		01/27/12 22:06	10061-01-5	
trans-1,3-Dichloropropene	ND ug/m3		1.4	1.49		01/27/12 22:06	10061-02-6	
Dichlorotetrafluoroethane	ND ug/m3		2.1	1.49		01/27/12 22:06	76-14-2	
Ethanol	17.8 ug/m3		2.8	1.49		01/27/12 22:06	64-17-5	
Ethyl acetate	ND ug/m3		1.1	1.49		01/27/12 22:06	141-78-6	
Ethylbenzene	ND ug/m3		1.3	1.49		01/27/12 22:06	100-41-4	
4-Ethyltoluene	ND ug/m3		3.7	1.49		01/27/12 22:06	622-96-8	
n-Heptane	ND ug/m3		1.2	1.49		01/27/12 22:06	142-82-5	
Hexachloro-1,3-butadiene	ND ug/m3		3.3	1.49		01/27/12 22:06	87-68-3	
n-Hexane	3.6 ug/m3		1.1	1.49		01/27/12 22:06	110-54-3	
2-Hexanone	ND ug/m3		1.2	1.49		01/27/12 22:06	591-78-6	
Methylene Chloride	2.5 ug/m3		1.1	1.49		01/27/12 22:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/m3		1.2	1.49		01/27/12 22:06	108-10-1	
Methyl-tert-butyl ether	ND ug/m3		1.1	1.49		01/27/12 22:06	1634-04-4	
Naphthalene	ND ug/m3		4.0	1.49		01/27/12 22:06	91-20-3	
2-Propanol	ND ug/m3		3.7	1.49		01/27/12 22:06	67-63-0	
Propylene	ND ug/m3		0.52	1.49		01/27/12 22:06	115-07-1	
Styrene	ND ug/m3		1.3	1.49		01/27/12 22:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/m3		1.0	1.49		01/27/12 22:06	79-34-5	
Tetrachloroethene	ND ug/m3		1.0	1.49		01/27/12 22:06	127-18-4	

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### ANALYTICAL RESULTS

Project: 544 Union Ave.

Pace Project No.: 10180974

Sample: 01162012_AA_1		Lab ID: 10180974004	Collected: 01/16/12 10:57	Received: 01/19/12 10:04	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	0.89	1.49		01/27/12 22:06	109-99-9	
Toluene	4.5	ug/m3	1.1	1.49		01/27/12 22:06	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1.49		01/27/12 22:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.6	1.49		01/27/12 22:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.82	1.49		01/27/12 22:06	79-00-5	
Trichloroethene	ND	ug/m3	0.82	1.49		01/27/12 22:06	79-01-6	
Trichlorofluoromethane	2.0	ug/m3	1.6	1.49		01/27/12 22:06	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.4	1.49		01/27/12 22:06	76-13-1	
1,2,4-Trimethylbenzene	1.5	ug/m3	1.5	1.49		01/27/12 22:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	1.49		01/27/12 22:06	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.49		01/27/12 22:06	108-05-4	
Vinyl chloride	ND	ug/m3	0.39	1.49		01/27/12 22:06	75-01-4	
m&p-Xylene	ND	ug/m3	2.6	1.49		01/27/12 22:06	179601-23-1	
o-Xylene	ND	ug/m3	1.3	1.49		01/27/12 22:06	95-47-6	

### QUALITY CONTROL DATA

Project: 544 Union Ave.  
Pace Project No.: 10180974

QC Batch: AIR/14137      Analysis Method: TO-15  
QC Batch Method: TO-15      Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 10180974004

METHOD BLANK: 1132793      Matrix: Air  
Associated Lab Samples: 10180974004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	01/27/12 09:34	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	01/27/12 09:34	
1,1,2-Trichloroethane	ug/m3	ND	0.55	01/27/12 09:34	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	01/27/12 09:34	
1,1-Dichloroethane	ug/m3	ND	0.82	01/27/12 09:34	
1,1-Dichloroethene	ug/m3	ND	0.81	01/27/12 09:34	
1,2,4-Trichlorobenzene	ug/m3	ND	0.99	01/27/12 09:34	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	01/27/12 09:34	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	01/27/12 09:34	
1,2-Dichlorobenzene	ug/m3	ND	1.2	01/27/12 09:34	
1,2-Dichloroethane	ug/m3	ND	0.41	01/27/12 09:34	
1,2-Dichloropropane	ug/m3	ND	0.94	01/27/12 09:34	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	01/27/12 09:34	
1,3-Butadiene	ug/m3	ND	0.45	01/27/12 09:34	
1,3-Dichlorobenzene	ug/m3	ND	1.2	01/27/12 09:34	
1,4-Dichlorobenzene	ug/m3	ND	1.2	01/27/12 09:34	
2-Butanone (MEK)	ug/m3	ND	0.60	01/27/12 09:34	
2-Hexanone	ug/m3	ND	0.83	01/27/12 09:34	
2-Propanol	ug/m3	ND	2.5	01/27/12 09:34	
4-Ethyltoluene	ug/m3	ND	2.5	01/27/12 09:34	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	01/27/12 09:34	
Acetone	ug/m3	ND	0.48	01/27/12 09:34	
Benzene	ug/m3	ND	0.32	01/27/12 09:34	
Benzyl chloride	ug/m3	ND	1.0	01/27/12 09:34	
Bromodichloromethane	ug/m3	ND	1.4	01/27/12 09:34	
Bromoform	ug/m3	ND	2.1	01/27/12 09:34	
Bromomethane	ug/m3	ND	0.79	01/27/12 09:34	
Carbon disulfide	ug/m3	ND	0.63	01/27/12 09:34	
Carbon tetrachloride	ug/m3	ND	0.64	01/27/12 09:34	
Chlorobenzene	ug/m3	ND	0.94	01/27/12 09:34	
Chloroethane	ug/m3	ND	0.54	01/27/12 09:34	
Chloroform	ug/m3	ND	0.99	01/27/12 09:34	
Chloromethane	ug/m3	ND	0.42	01/27/12 09:34	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	01/27/12 09:34	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	01/27/12 09:34	
Cyclohexane	ug/m3	ND	0.68	01/27/12 09:34	
Dibromochloromethane	ug/m3	ND	1.7	01/27/12 09:34	
Dichlorodifluoromethane	ug/m3	ND	1.0	01/27/12 09:34	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	01/27/12 09:34	
Ethanol	ug/m3	ND	1.9	01/27/12 09:34	
Ethyl acetate	ug/m3	ND	0.73	01/27/12 09:34	
Ethylbenzene	ug/m3	ND	0.88	01/27/12 09:34	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	01/27/12 09:34	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 544 Union Ave.

Pace Project No.: 10180974

METHOD BLANK: 1132793

Matrix: Air

Associated Lab Samples: 10180974004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/m3	ND	1.8	01/27/12 09:34	
Methyl-tert-butyl ether	ug/m3	ND	0.73	01/27/12 09:34	
Methylene Chloride	ug/m3	ND	0.71	01/27/12 09:34	
n-Heptane	ug/m3	ND	0.83	01/27/12 09:34	
n-Hexane	ug/m3	ND	0.72	01/27/12 09:34	
Naphthalene	ug/m3	ND	2.7	01/27/12 09:34	
o-Xylene	ug/m3	ND	0.88	01/27/12 09:34	
Propylene	ug/m3	ND	0.35	01/27/12 09:34	
Styrene	ug/m3	ND	0.87	01/27/12 09:34	
Tetrachloroethene	ug/m3	ND	0.69	01/27/12 09:34	
Tetrahydrofuran	ug/m3	ND	0.60	01/27/12 09:34	
Toluene	ug/m3	ND	0.77	01/27/12 09:34	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	01/27/12 09:34	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	01/27/12 09:34	
Trichloroethene	ug/m3	ND	0.55	01/27/12 09:34	
Trichlorofluoromethane	ug/m3	ND	1.1	01/27/12 09:34	
Vinyl acetate	ug/m3	ND	0.71	01/27/12 09:34	
Vinyl chloride	ug/m3	ND	0.26	01/27/12 09:34	

LABORATORY CONTROL SAMPLE: 1132794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	59.6	107	72-129	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	67.2	96	73-131	
1,1,2-Trichloroethane	ug/m3	55.5	60.4	109	71-128	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	89.3	115	65-132	
1,1-Dichloroethane	ug/m3	41.2	43.8	106	67-132	
1,1-Dichloroethene	ug/m3	40.3	40.8	101	68-134	
1,2,4-Trichlorobenzene	ug/m3	75.5	200	266	48-150	CH,L3
1,2,4-Trimethylbenzene	ug/m3	50	54.2	108	72-127	
1,2-Dibromoethane (EDB)	ug/m3	78.1	82.1	105	75-130	
1,2-Dichlorobenzene	ug/m3	61.2	85.7	140	71-132	CH,L3
1,2-Dichloroethane	ug/m3	41.2	42.2	103	70-131	
1,2-Dichloropropane	ug/m3	47	46.8	100	73-130	
1,3,5-Trimethylbenzene	ug/m3	50	53.8	108	70-133	
1,3-Butadiene	ug/m3	22.5	24.0	107	69-132	
1,3-Dichlorobenzene	ug/m3	61.2	70.4	115	71-128	
1,4-Dichlorobenzene	ug/m3	61.2	62.5	102	72-131	
2-Butanone (MEK)	ug/m3	30	37.3	124	69-131	
2-Hexanone	ug/m3	41.7	46.2	111	71-134	
2-Propanol	ug/m3	25	24.2	97	72-132	
4-Ethyltoluene	ug/m3	50	54.3	109	71-129	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	45.6	109	69-135	
Acetone	ug/m3	24.2	29.3	121	61-139	
Benzene	ug/m3	32.5	36.2	112	69-134	

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### QUALITY CONTROL DATA

Project: 544 Union Ave.

Pace Project No.: 10180974

LABORATORY CONTROL SAMPLE: 1132794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzyl chloride	ug/m3	52.5	55.9	107	70-129	
Bromodichloromethane	ug/m3	68.2	67.3	99	71-130	
Bromoform	ug/m3	105	128	121	70-130	
Bromomethane	ug/m3	39.5	40.7	103	69-125	
Carbon disulfide	ug/m3	31.7	34.2	108	66-131	
Carbon tetrachloride	ug/m3	64	73.7	115	68-128	
Chlorobenzene	ug/m3	46.8	44.5	95	75-128	
Chloroethane	ug/m3	26.8	26.9	100	66-131	
Chloroform	ug/m3	49.7	50.9	102	68-132	
Chloromethane	ug/m3	21	20.6	98	60-139	
cis-1,2-Dichloroethene	ug/m3	40.3	48.0	119	73-130	
cis-1,3-Dichloropropene	ug/m3	46.2	58.7	127	74-134	
Cyclohexane	ug/m3	35	43.6	125	67-136	
Dibromochloromethane	ug/m3	86.6	92.5	107	69-131	
Dichlorodifluoromethane	ug/m3	50.3	49.9	99	67-131	
Dichlorotetrafluoroethane	ug/m3	71.1	78.4	110	66-130	
Ethanol	ug/m3	19.2	18.8	98	69-131	
Ethyl acetate	ug/m3	36.6	42.2	115	71-131	
Ethylbenzene	ug/m3	44.2	48.2	109	69-139	
Hexachloro-1,3-butadiene	ug/m3	108	336	310	41-150	CH,L3
m&p-Xylene	ug/m3	88.3	96.9	110	66-137	
Methyl-tert-butyl ether	ug/m3	36.7	41.6	113	70-132	
Methylene Chloride	ug/m3	35.3	34.5	98	73-134	
n-Heptane	ug/m3	41.7	47.8	115	70-134	
n-Hexane	ug/m3	35.8	39.3	110	65-133	
Naphthalene	ug/m3	53.3	154	289	57-150	CH,L3
o-Xylene	ug/m3	44.2	56.3	127	69-138	
Propylene	ug/m3	17.5	18.8	108	70-134	
Styrene	ug/m3	43.3	47.1	109	72-132	
Tetrachloroethene	ug/m3	69	69.8	101	70-130	
Tetrahydrofuran	ug/m3	30	28.8	96	74-128	SS
Toluene	ug/m3	38.3	41.5	108	71-132	
trans-1,2-Dichloroethene	ug/m3	40.3	41.4	103	72-128	
trans-1,3-Dichloropropene	ug/m3	46.2	54.3	118	73-130	
Trichloroethene	ug/m3	54.6	56.1	103	72-131	
Trichlorofluoromethane	ug/m3	57.1	59.0	103	66-129	
Vinyl acetate	ug/m3	35.8	43.2	121	71-131	
Vinyl chloride	ug/m3	26	25.4	98	70-131	

SAMPLE DUPLICATE: 1133433

Parameter	Units	92110376006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	

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### QUALITY CONTROL DATA

Project: 544 Union Ave.

Pace Project No.: 10180974

SAMPLE DUPLICATE: 1133433

Parameter	Units	92110376006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	ND	ND		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	8.8	9.0	2	25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	11.3	10.8	4	25	
4-Ethyltoluene	ug/m3	ND	ND		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	20.6	20.7	.3	25	
Benzene	ug/m3	1.4	1.4	.4	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	1.8	1.7	4	25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	ND	ND		25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	47.6	45.9	3	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.9	2.8	2	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	25.9	26.3	1	25	
Ethyl acetate	ug/m3	18.3	18.3	.3	25	
Ethylbenzene	ug/m3	ND	.96J		25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	ND	ND		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	39.6	38.8	2	25	
n-Heptane	ug/m3	17.1	17.0	.7	25	
n-Hexane	ug/m3	11.8	11.3	4	25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	ND	ND		25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	

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### QUALITY CONTROL DATA

Project: 544 Union Ave.

Pace Project No.: 10180974

SAMPLE DUPLICATE: 1133433

Parameter	Units	92110376006 Result	Dup Result	RPD	Max RPD	Qualifiers
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	123	122	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	3.2	3.0	5	25	
Trichlorofluoromethane	ug/m3	7.8	7.7	.5	25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

### QUALITY CONTROL DATA

Project: 544 Union Ave.

Pace Project No.: 10180974

QC Batch: AIR/14147 Analysis Method: TO-15  
 QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
 Associated Lab Samples: 10180974001, 10180974002, 10180974003

METHOD BLANK: 1133564 Matrix: Air

Associated Lab Samples: 10180974001, 10180974002, 10180974003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	01/30/12 15:01	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	01/30/12 15:01	
1,1,2-Trichloroethane	ug/m3	ND	0.55	01/30/12 15:01	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	01/30/12 15:01	
1,1-Dichloroethane	ug/m3	ND	0.82	01/30/12 15:01	
1,1-Dichloroethene	ug/m3	ND	0.81	01/30/12 15:01	
1,2,4-Trichlorobenzene	ug/m3	ND	0.99	01/30/12 15:01	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	01/30/12 15:01	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	01/30/12 15:01	
1,2-Dichlorobenzene	ug/m3	ND	1.2	01/30/12 15:01	
1,2-Dichloroethane	ug/m3	ND	0.41	01/30/12 15:01	
1,2-Dichloropropane	ug/m3	ND	0.94	01/30/12 15:01	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	01/30/12 15:01	
1,3-Butadiene	ug/m3	ND	0.45	01/30/12 15:01	
1,3-Dichlorobenzene	ug/m3	ND	1.2	01/30/12 15:01	
1,4-Dichlorobenzene	ug/m3	ND	1.2	01/30/12 15:01	
2-Butanone (MEK)	ug/m3	ND	0.60	01/30/12 15:01	
2-Hexanone	ug/m3	ND	0.83	01/30/12 15:01	
2-Propanol	ug/m3	ND	2.5	01/30/12 15:01	
4-Ethyltoluene	ug/m3	ND	2.5	01/30/12 15:01	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	01/30/12 15:01	
Acetone	ug/m3	ND	0.48	01/30/12 15:01	
Benzene	ug/m3	ND	0.32	01/30/12 15:01	
Benzyl chloride	ug/m3	ND	1.0	01/30/12 15:01	
Bromodichloromethane	ug/m3	ND	1.4	01/30/12 15:01	
Bromoform	ug/m3	ND	2.1	01/30/12 15:01	
Bromomethane	ug/m3	ND	0.79	01/30/12 15:01	
Carbon disulfide	ug/m3	ND	0.63	01/30/12 15:01	
Carbon tetrachloride	ug/m3	ND	0.64	01/30/12 15:01	
Chlorobenzene	ug/m3	ND	0.94	01/30/12 15:01	
Chloroethane	ug/m3	ND	0.54	01/30/12 15:01	
Chloroform	ug/m3	ND	0.99	01/30/12 15:01	
Chloromethane	ug/m3	ND	0.42	01/30/12 15:01	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	01/30/12 15:01	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	01/30/12 15:01	
Cyclohexane	ug/m3	ND	0.68	01/30/12 15:01	
Dibromochloromethane	ug/m3	ND	1.7	01/30/12 15:01	
Dichlorodifluoromethane	ug/m3	ND	1.0	01/30/12 15:01	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	01/30/12 15:01	
Ethanol	ug/m3	ND	1.9	01/30/12 15:01	
Ethyl acetate	ug/m3	ND	0.73	01/30/12 15:01	
Ethylbenzene	ug/m3	ND	0.88	01/30/12 15:01	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	01/30/12 15:01	

Date: 02/01/2012 01:04 PM

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 544 Union Ave.

Pace Project No.: 10180974

METHOD BLANK: 1133564

Matrix: Air

Associated Lab Samples: 10180974001, 10180974002, 10180974003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/m3	ND	1.8	01/30/12 15:01	
Methyl-tert-butyl ether	ug/m3	ND	0.73	01/30/12 15:01	
Methylene Chloride	ug/m3	ND	0.71	01/30/12 15:01	
n-Heptane	ug/m3	ND	0.83	01/30/12 15:01	
n-Hexane	ug/m3	ND	0.72	01/30/12 15:01	
Naphthalene	ug/m3	ND	2.7	01/30/12 15:01	
o-Xylene	ug/m3	ND	0.88	01/30/12 15:01	
Propylene	ug/m3	ND	0.35	01/30/12 15:01	
Styrene	ug/m3	ND	0.87	01/30/12 15:01	
Tetrachloroethene	ug/m3	ND	0.69	01/30/12 15:01	
Tetrahydrofuran	ug/m3	ND	0.60	01/30/12 15:01	
Toluene	ug/m3	ND	0.77	01/30/12 15:01	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	01/30/12 15:01	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	01/30/12 15:01	
Trichloroethene	ug/m3	ND	0.55	01/30/12 15:01	
Trichlorofluoromethane	ug/m3	ND	1.1	01/30/12 15:01	
Vinyl acetate	ug/m3	ND	0.71	01/30/12 15:01	
Vinyl chloride	ug/m3	ND	0.26	01/30/12 15:01	

LABORATORY CONTROL SAMPLE: 1133565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	50.7	91	72-129	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	62.4	89	73-131	
1,1,2-Trichloroethane	ug/m3	55.5	55.6	100	71-128	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	76.9	99	65-132	
1,1-Dichloroethane	ug/m3	41.2	37.0	90	67-132	
1,1-Dichloroethene	ug/m3	40.3	35.6	88	68-134	
1,2,4-Trichlorobenzene	ug/m3	75.5	164	218	48-150	L3
1,2,4-Trimethylbenzene	ug/m3	50	48.7	97	72-127	
1,2-Dibromoethane (EDB)	ug/m3	78.1	74.9	96	75-130	
1,2-Dichlorobenzene	ug/m3	61.2	79.5	130	71-132	
1,2-Dichloroethane	ug/m3	41.2	37.4	91	70-131	
1,2-Dichloropropane	ug/m3	47	42.8	91	73-130	
1,3,5-Trimethylbenzene	ug/m3	50	49.4	99	70-133	
1,3-Butadiene	ug/m3	22.5	22.0	98	69-132	
1,3-Dichlorobenzene	ug/m3	61.2	66.6	109	71-128	
1,4-Dichlorobenzene	ug/m3	61.2	57.2	94	72-131	
2-Butanone (MEK)	ug/m3	30	31.0	103	69-131	
2-Hexanone	ug/m3	41.7	44.6	107	71-134	
2-Propanol	ug/m3	25	22.9	92	72-132	
4-Ethyltoluene	ug/m3	50	48.0	96	71-129	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	43.4	104	69-135	
Acetone	ug/m3	24.2	26.6	110	61-139	SS
Benzene	ug/m3	32.5	34.8	107	69-134	

Date: 02/01/2012 01:04 PM

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 544 Union Ave.

Pace Project No.: 10180974

LABORATORY CONTROL SAMPLE: 1133565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzyl chloride	ug/m3	52.5	52.5	100	70-129	
Bromodichloromethane	ug/m3	68.2	61.0	89	71-130	
Bromoform	ug/m3	105	104	99	70-130	
Bromomethane	ug/m3	39.5	35.0	89	69-125	
Carbon disulfide	ug/m3	31.7	26.6	84	66-131	
Carbon tetrachloride	ug/m3	64	64.0	100	68-128	
Chlorobenzene	ug/m3	46.8	40.5	87	75-128	
Chloroethane	ug/m3	26.8	24.1	90	66-131	
Chloroform	ug/m3	49.7	44.4	89	68-132	
Chloromethane	ug/m3	21	18.4	88	60-139	
cis-1,2-Dichloroethene	ug/m3	40.3	44.3	110	73-130	
cis-1,3-Dichloropropene	ug/m3	46.2	55.3	120	74-134	
Cyclohexane	ug/m3	35	35.3	101	67-136	
Dibromochloromethane	ug/m3	86.6	87.4	101	69-131	
Dichlorodifluoromethane	ug/m3	50.3	50.5	100	67-131	
Dichlorotetrafluoroethane	ug/m3	71.1	70.6	99	66-130	
Ethanol	ug/m3	19.2	15.0	78	69-131	
Ethyl acetate	ug/m3	36.6	40.1	109	71-131	
Ethylbenzene	ug/m3	44.2	43.4	98	69-139	
Hexachloro-1,3-butadiene	ug/m3	108	294	271	41-150	L3
m&p-Xylene	ug/m3	88.3	86.3	98	66-137	
Methyl-tert-butyl ether	ug/m3	36.7	35.2	96	70-132	
Methylene Chloride	ug/m3	35.3	30.6	87	73-134	
n-Heptane	ug/m3	41.7	49.1	118	70-134	
n-Hexane	ug/m3	35.8	37.1	103	65-133	
Naphthalene	ug/m3	53.3	138	258	57-150	L1
o-Xylene	ug/m3	44.2	43.6	99	69-138	
Propylene	ug/m3	17.5	18.1	103	70-134	
Styrene	ug/m3	43.3	42.8	99	72-132	
Tetrachloroethene	ug/m3	69	63.2	92	70-130	
Tetrahydrofuran	ug/m3	30	28.4	95	74-128	SS
Toluene	ug/m3	38.3	38.6	101	71-132	
trans-1,2-Dichloroethene	ug/m3	40.3	35.5	88	72-128	
trans-1,3-Dichloropropene	ug/m3	46.2	49.6	108	73-130	
Trichloroethene	ug/m3	54.6	52.1	95	72-131	
Trichlorofluoromethane	ug/m3	57.1	55.9	98	66-129	
Vinyl acetate	ug/m3	35.8	38.1	106	71-131	
Vinyl chloride	ug/m3	26	23.3	89	70-131	

## QUALIFIERS

Project: 544 Union Ave.

Pace Project No.: 10180974

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

### ANALYTE QUALIFIERS

- |    |   |
|----|---|
| CH | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.   |
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.  |
| L3 | Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |
| SS | This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.              |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 544 Union Ave.

Pace Project No.: 10180974

<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
10180974001	SG_1	TO-15	AIR/14147		
10180974002	SG_2	TO-15	AIR/14147		
10180974003	SG_3	TO-15	AIR/14147		
10180974004	01162012_AA_1	TO-15	AIR/14137		

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
Required Client Information:  
Company: URS  
Address: One Penn Plaza, Suite 600, N.Y. 10119  
Phone: 212-816-0184 Fax: \_\_\_\_\_  
Requested Due Date/TAT: Normal

**Section B**  
Required Project Information:  
Report To: Robert Wolff  
Copy To: \_\_\_\_\_  
Address: Robert.wolff@URS.com  
Purchase Order No.: \_\_\_\_\_  
Project Name: 544 Union Ave.  
Project Number: \_\_\_\_\_

**Section C**  
Invoice Information:  
Attention: Robert Wolff  
Company Name: URS  
Address: One Penn Plaza, Suite 600, N.Y. 10119  
Pace Quote Reference: \_\_\_\_\_  
Pace Project Manager/Sales Rep: \_\_\_\_\_  
Pace Profile #: \_\_\_\_\_

05357 Page: 1 of 1

Program: \_\_\_\_\_  
 UST  Superfund  Emissions  Clean Air Act  
 Voluntary Clean Up  Dry Clean  RCRA  Other   
 Reporting Units: \_\_\_\_\_  
 Location of Sampling by State: N.Y.  
 ug/m<sup>3</sup>  mg/m<sup>3</sup>  
 PPMV  PPMV  
 Other \_\_\_\_\_  
 Report Level: II. \_\_\_ III. \_\_\_ IV. \_\_\_ Other \_\_\_\_\_

ITEM #	AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE TB Tedlar Bag 1 Liter Summa Can 6 Liter Summa Can Low Volume Puff High Volume Puff Other	COLLECTED		Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Pace Lab ID
			COMPOSITE START ENDIGRAB	COMPOSITE - DATE TIME					
1	59-1	6LCO	1/16/12	1219	-30	976	FC0177	021	
2	59-2 (see note @ end of line)	6LCO	1/16/12	1121	-30	1576	FC0058	ENDPSI 5-1 052	
3	59-3	6LCO	1/16/12	1045	-30	1058	FC3	003	
4	01162012-AA-1	6LCO	1/16/12	1057	-30	1255	FC0157	004	
5								025	
6									
7									
8									
9									
10									
11									
12									

**Comments:**  
End PSI For SG-2/5-1  
Mira Abdelgaber/URS  
1/16/12

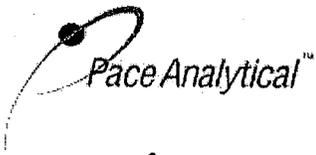
**RELINQUISHED BY / AFFILIATION**  
DATE TIME  
1/19/12 1004 AM @ 2

**ACCEPTED BY / AFFILIATION**  
DATE TIME  
1/19/12 1004 AM @ 2

**SAMPLE CONDITIONS**  
Temp in °C  
Received on Ice  
Custody Sealed Cooler  
Samples Intact

**SAMPLER NAME AND SIGNATURE**  
PRINT Name of SAMPLER: Mira Abdelgaber  
SIGNATURE of SAMPLER: Mira Abdelgaber DATE Signed (MM/DD/YYYY): 1/16/2012

ORIGINAL



**AIR Sample Condition Upon Receipt**

Client Name: URS-NY Project # 1090974

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other FOAMS

Optional  
Proj. Due Date  
Proj. Name

Tracking #: 8987 5488 6979/6946

Date and Initials of person examining contents: 1-19-12 (MS)

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media: <u>AIR (LANS)</u>		11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Samples Received: 5 CANS 5 FC'S 4 samples

Canisters		Flow Controllers		Stand Alone G		Tedlar Bags	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
<u>Slv-1</u>	<u>0976</u>		<u>0177</u>				
<u>" 2</u>	<u>1776</u>		<u>0058</u>				
<u>" 3</u>	<u>1058</u>		<u>0203</u>				
<u>01162012AM</u>	<u>1255</u>		<u>0157</u>				
<u>-</u>	<u>1640</u>		<u>0097</u>				

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Manager Review: [Signature] Date: 1/20/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)  
A106 Rev.01 (22May2009)



# AIR Sample Condition Upon Receipt

Client Name: URS - NY Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Tracking #: 8987 5488 6957

Optional  
Proj. Due Date  
Proj. Name

Date and Initials of person examining contents: 1-19-12 (M)

Item	Response	Comments
Chain of Custody Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	7.
Sufficient Volume:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9. <u>Flow Controllers</u>
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media:	<u>---</u>	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.

Samples Received: 5 FC'S

Canisters		Flow Controllers		Stand Alone G		Tedlar Bags	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
			<u>0175</u>				
			<u>0171</u>				
			<u>0272</u>				
			<u>0275</u>				
			<u>0197</u>				

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: Inn FC originally requested for project - 2 hrs were shipped at later date

Project Manager Review: CPM Date: 1/20/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)  
A106 Rev.01 (22May2009)

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**Project: 544 Union Ave**

**Client PO:** 11140128

**Report To:** URS Corp.  
One Penn Plaza  
Suite 600  
New York, NY 10119

**Attn:** Robert Wolff

**Received Date:** 12/7/2011

**Report Date:** 1/25/2012

**Deliverables:** NYDOH-CatB

**Lab ID:** AC63081

**Lab Project No:** 1120730

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This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAC Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

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*Robin Cousineau*

Robin Cousineau - Quality Assurance Director

OR

Stanley Gilewicz - Laboratory Director

NJ (07071)  
PA (68-00463)

NY (ELAP11408)  
KY (90124)

CT (PH-0671)  
WV (353)

USACE





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## **SDG Narrative**

## HCV Case Narrative/Conformance Summary

Client: URS Corporation  
Project: 544 Union Ave

HCV Project: 1120730

Hampton-Clarke/Veritech (HC-V) received the following samples on December 09, 2011:

<u>Client ID</u>	<u>HCV Sample ID</u>	<u>Matrix</u>	<u>Analysis</u>
B-3 4-6	AC63081-001	Soil	Metals (6010B/7471A)
B-3 6-8	AC63081-002	Soil	Not Analyzed
B-3 8-10	AC63081-003	Soil	Metals (6010B/7471A)
B-3 10-12	AC63081-004	Soil	Metals (6010B/7471A)
B-3 12-14	AC63081-005	Soil	Metals (6010B/7471A)
B-4 4-6	AC63081-006	Soil	Metals (6010B/7471A)
B-4 6-8	AC63081-007	Soil	Not Analyzed
B-4 8-10	AC63081-008	Soil	Metals (6010B/7471A)
B-4 10-12	AC63081-009	Soil	Metals (6010B/7471A)
B-4 12-14	AC63081-010	Soil	Not Analyzed
B-4	AC63081-011	Aqueous	Metals (6010B/7470A)
B-14	AC63081-012	Aqueous	Metals (6010B/7470A)
B-5 4-6	AC63081-013	Soil	Metals (6010B/7471A)
B-5 6-8	AC63081-014	Soil	TCLP Metals (6010B)
B-5 8-10	AC63081-015	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-5 10-12	AC63081-016	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-5 12-14	AC63081-017	Soil	Not Analyzed
B-6 4-6	AC63081-018	Soil	Metals (6010B/7471A)
B-6 6-8	AC63081-019	Soil	Not Analyzed
B-6 8-10	AC63081-020	Soil	Metals (6010B/7471A)
B-6 10-12	AC63081-021	Soil	Metals (6010B/7471A)
B-6 12-14	AC63081-022	Soil	Not Analyzed
B-7 4-6	AC63081-023	Soil	Metals (6010B/7471A)
B-7 6-8	AC63081-024	Soil	TCLP Metals (6010B)
B-7 8-10	AC63081-025	Soil	Metals (6010B/7471A)
B-7 10-12	AC63081-026	Soil	Metals (6010B/7471A)
B-7 12-14	AC63081-027	Soil	Not Analyzed
B-14 4-6	AC63081-028	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-14 6-8	AC63081-029	Soil	Not Analyzed
B-14 8-10	AC63081-030	Soil	Metals (6010B/7471A)
B-14 10-12	AC63081-031	Soil	Metals (6010B/7471A)
B-14 12-14	AC63081-032	Soil	Metals (6010B/7471A)
B-19 4-6	AC63081-033	Soil	Metals (6010B/7471A)
B-19 6-8	AC63081-034	Soil	Not Analyzed
B-19 8-10	AC63081-035	Soil	Metals (6010B/7471A)
B-19 10-12	AC63081-036	Soil	Metals (6010B/7471A)
B-19 12-14	AC63081-037	Soil	Metals (6010B/7471A)
B-20 4-6	AC63081-038	Soil	Metals (6010B/7471A)
B-20 6-8	AC63081-039	Soil	TCLP Metals (6010B)
B-20 8-10	AC63081-040	Soil	Metals (6010B/7471A)
B-20 10-12	AC63081-041	Soil	Metals (6010B/7471A)
B-20 12-14	AC63081-042	Soil	Not Analyzed
B-16 4-6	AC63081-043	Soil	Metals (6010B/7471A)
B-16 6-8	AC63081-044	Soil	Not Analyzed
B-16 8-10	AC63081-045	Soil	Metals (6010B/7471A)
B-16 10-12	AC63081-046	Soil	Metals (6010B/7471A)
B-16 12-14	AC63081-047	Soil	Metals (6010B/7471A), TCLP Metals (6010B/7470A)

*This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.*

### **Metals Analysis:**

The Matrix Spike for batch 11679 had recoveries outside QC limits. However, since the associated Method Blank and Laboratory Control Sample were within control, no corrective action was necessary. Also, the RPD between the QC sample and the Method Replicate is outside QC limits. The MS/MSD RPD is outside the QC limits. The RPD criteria were met between the LCS/LCS Method Replicate. In addition, the serial dilution is outside QC limits, suggesting matrix interference.

The RPD between the QC sample and the Method Replicate is outside QC limits for batch 11715. The MS/MSD RPD is outside the QC limits. The RPD criteria were met between the LCS/LCS Method Replicate.

The Matrix Spike for batch 11678 had recoveries outside QC limits. However, since the associated Method Blank and Laboratory Control Sample were within control, no corrective action was necessary.

The Matrix Spike and the Matrix Spike Duplicate for batch 11681 had recoveries outside QC limits. However, since the associated Method Blank and Laboratory Control Sample were within control, no corrective action was necessary. Also, the serial dilution is outside QC limits, suggesting matrix interference.

### **TCLP Metals Analysis:**

Per client request sample AC63081-047 for Mercury was tumbled outside the hold time.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

\_\_\_\_\_  
Robin Cousineau  
Quality Assurance Director

Or

\_\_\_\_\_  
Stanley Gilewicz  
Laboratory Director

\_\_\_\_\_  
Date

## **Reporting Limit Definitions**

## HCV Reporting Limit Definitions/Data Qualifiers

### REPORTING DEFINITIONS

DF = Dilution Factor

MDL = Method Detection Limit

RL\* = Reporting Limit

ND = Not Detected

RT = Retention Time

NA = Not Applicable

*\*Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

### DATA QUALIFIERS

- B- Indicates analyte was present in the Method Blank and sample.
- d- For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E- Indicates the concentration exceeded the upper calibration range of the instrument.
- J- Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.

## **Data Package Summary Forms**

# HCV Report Of Analysis

**Client:** URS Corp.  
**Project:** 544 Union Ave

**HCV Project #:** 1120730

**Sample ID:** B-3 4-6  
**Lab#:** AC63081-001  
**Matrix:** Soil

**Collection Date:** 12/7/2011  
**Receipt Date:** 12/7/2011

## % Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

## Mercury (Soil/Waste) 7471A

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.099	ND

## Metals Pair 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	13
Lead	1	mg/kg	6.0	630

Sample ID: B-3 8-10  
 Lab#: AC63081-003  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.37

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	6.5
Lead	1	mg/kg	6.5	170

Sample ID: B-3 10-12  
 Lab#: AC63081-004  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		76

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	5.3

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	10
Lead	1	mg/kg	6.6	600

Sample ID: B-3 12-14  
 Lab#: AC63081-005  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		70

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	0.42

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.9	5.5
Lead	1	mg/kg	7.1	71

Sample ID: B-4 4-6  
 Lab#: AC63081-006  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.37

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	5.2
Lead	1	mg/kg	6.5	54

Sample ID: B-4 8-10  
 Lab#: AC63081-008  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	4.3

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	8.7
Lead	1	mg/kg	6.5	490

Sample ID: B-4 10-12  
 Lab#: AC63081-009  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		79

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.49

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	7.8
Lead	1	mg/kg	6.3	360

Sample ID: B-4  
 Lab#: AC63081-011  
 Matrix: Aqueous

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

## Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	5	ug/l	3.5	68

## TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	180	200000
Antimony	1	ug/l	12	37
Arsenic	1	ug/l	7.5	360
Barium	1	ug/l	50	6000
Beryllium	1	ug/l	4.0	14
Cadmium	1	ug/l	3.5	16
Calcium	1	ug/l	2000	350000
Chromium	1	ug/l	50	500
Cobalt	1	ug/l	20	200
Copper	1	ug/l	50	3200
Iron	1	ug/l	280	490000
Lead	1	ug/l	4.0	17000
Magnesium	1	ug/l	2000	56000
Manganese	1	ug/l	40	6600
Nickel	1	ug/l	50	430
Potassium	1	ug/l	5000	54000
Selenium	1	ug/l	40	ND
Silver	1	ug/l	20	ND
Sodium	1	ug/l	5000	49000
Thallium	1	ug/l	10	ND
Vanadium	1	ug/l	50	740
Zinc	1	ug/l	50	5800

Sample ID: B-14  
 Lab#: AC63081-012  
 Matrix: Aqueous

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

## Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	10	ug/l	7.0	140

## TAL Metals 6010

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	180	99000
Antimony	1	ug/l	12	28
Arsenic	1	ug/l	7.5	340
Barium	1	ug/l	50	7200
Beryllium	1	ug/l	4.0	7.2
Cadmium	1	ug/l	3.5	29
Calcium	1	ug/l	2000	420000
Chromium	1	ug/l	50	510
Cobalt	1	ug/l	20	100
Copper	1	ug/l	50	1400
Iron	1	ug/l	280	210000
Lead	1	ug/l	4.0	29000
Magnesium	1	ug/l	2000	41000
Manganese	1	ug/l	40	3200
Nickel	1	ug/l	50	260
Potassium	1	ug/l	5000	35000
Selenium	1	ug/l	40	54
Silver	1	ug/l	20	ND
Sodium	1	ug/l	5000	26000
Thallium	1	ug/l	10	ND
Vanadium	1	ug/l	50	380
Zinc	1	ug/l	50	17000

Sample ID: B-5 4-6  
 Lab#: AC63081-013  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		76

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	3.9

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	19
Lead	1	mg/kg	6.6	940

Sample ID: B-5 6-8  
Lab#: AC63081-014  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		86

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	ND

Sample ID: B-5 8-10  
 Lab#: AC63081-015  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		83

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	0.19

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	5.2
Lead	1	mg/kg	6.0	28

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	2.4

Sample ID: B-5 10-12  
 Lab#: AC63081-016  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		74

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	1.7

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.7	11
Lead	1	mg/kg	6.8	630

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	ND

Sample ID: B-6 4-6  
 Lab#: AC63081-018  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		66

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.13	4.5

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.0	15
Lead	1	mg/kg	7.6	960

Sample ID: B-6 8-10  
Lab#: AC63081-020  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		74

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	2	mg/kg	0.23	8.7

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.7	11
Lead	1	mg/kg	6.8	490

Sample ID: B-6 10-12  
Lab#: AC63081-021  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.099	0.39

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	11
Lead	1	mg/kg	6.0	46

Sample ID: B-7 4-6  
 Lab#: AC63081-023  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		83

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	0.38

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	4.2
Lead	1	mg/kg	6.0	47

Sample ID: B-7 6-8  
Lab#: AC63081-024  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

## TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	ND

Sample ID: B-7 8-10  
 Lab#: AC63081-025  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		76

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	3.1

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	8.9
Lead	1	mg/kg	6.6	810

**TCLP Metals 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	ND

Sample ID: B-7 10-12  
 Lab#: AC63081-026  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	0.48

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	4.9
Lead	1	mg/kg	6.2	97

**TCLP Metals 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	ND

Sample ID: B-14 4-6  
 Lab#: AC63081-028  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		76

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	5.0

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	27
Lead	4	mg/kg	26	16000

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	10	mg/l	1.5	160

Sample ID: B-14 8-10  
 Lab#: AC63081-030  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		63

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	2	mg/kg	0.26	11

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.2	21
Lead	1	mg/kg	7.9	1300

Sample ID: B-14 10-12  
 Lab#: AC63081-031  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		62

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.13	4.0

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.2	26
Lead	1	mg/kg	8.1	980

Sample ID: B-14 12-14  
Lab#: AC63081-032  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		67

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	4	mg/kg	0.50	18

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.0	19
Lead	1	mg/kg	7.5	1500

Sample ID: B-19 4-6  
Lab#: AC63081-033  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		82

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	4.3

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	28
Lead	1	mg/kg	6.1	850

Sample ID: B-19 8-10  
 Lab#: AC63081-035  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		79

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.96

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	17
Lead	1	mg/kg	6.3	230

Sample ID: B-19 10-12  
Lab#: AC63081-036  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.95

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	23
Lead	1	mg/kg	6.5	250

Sample ID: B-19 12-14  
 Lab#: AC63081-037  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		73

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	3.9

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.7	8.3
Lead	1	mg/kg	6.8	810

Sample ID: B-20 4-6  
 Lab#: AC63081-038  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		80

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	2	mg/kg	0.21	2.6

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	7.7
Lead	1	mg/kg	6.2	380

Sample ID: B-20 6-8  
Lab#: AC63081-039  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

## TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	ND

Sample ID: B-20 8-10  
 Lab#: AC63081-040  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		63

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	4	mg/kg	0.53	15

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.2	31
Lead	1	mg/kg	7.9	550

**TCLP Metals 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	ND

Sample ID: B-20 10-12  
 Lab#: AC63081-041  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	2.7

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	7.2
Lead	1	mg/kg	6.5	170

**TCLP Metals 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	ND

Sample ID: B-16 4-6  
 Lab#: AC63081-043  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		68

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	1.0

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.9	8.9
Lead	1	mg/kg	7.4	330

Sample ID: B-16 8-10  
Lab#: AC63081-045  
Matrix: Soil

Collection Date: 12/7/2011  
Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	0.68

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	3.7
Lead	1	mg/kg	6.2	110

Sample ID: B-16 10-12  
 Lab#: AC63081-046  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		80

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	3.6

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	65
Lead	1	mg/kg	6.2	330

Sample ID: B-16 12-14  
 Lab#: AC63081-047  
 Matrix: Soil

Collection Date: 12/7/2011  
 Receipt Date: 12/7/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		74

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	100	mg/kg	11	390

**Mercury (TCLP) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.7	1800
Lead	1	mg/kg	6.8	4700

**TCLP Metals 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	0.21
Lead	1	mg/l	0.15	15

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-001  
 Client Id: B-3 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 84  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	13	1	0.5	50	12/09/11	11678	S13373A	22	P	PEICP1A
7439-92-1	Lead	6.0	630	1	0.5	50	12/09/11	11678	S13373A	22	P	PEICP1A
7439-97-6	Mercury	0.099	ND	1	0.15	25	12/08/11	11678	H13373S	18	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-003  
 Client Id: B-3 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	6.5	1	0.5	50	12/09/11	11678	S13373A	23	P	PEICP1A
7439-92-1	Lead	6.5	170	1	0.5	50	12/09/11	11678	S13373A	23	P	PEICP1A
7439-97-6	Mercury	0.11	0.37	1	0.15	25	12/08/11	11678	H13373S	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-004  
 Client Id: B-3 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	10	1	0.5	50	12/09/11	11678	S13373A	24	P	PEICP1A
7439-92-1	Lead	6.6	600	1	0.5	50	12/09/11	11678	S13373A	24	P	PEICP1A
7439-97-6	Mercury	0.11	5.3	1	0.15	25	12/08/11	11678	H13373S	20	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-005  
 Client Id: B-3 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 70  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	5.5	1	0.5	50	12/19/11	11715	S13406A	41	P	PEICP1A
7439-92-1	Lead	7.1	71	1	0.5	50	12/19/11	11715	S13406A	41	P	PEICP1A
7439-97-6	Mercury	0.12	0.42	1	0.15	25	12/16/11	11715	H13406S	18	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-006  
 Client Id: B-4 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	5.2	1	0.5	50	12/09/11	11678	S13373A	25	P	PEICP1A
7439-92-1	Lead	6.5	54	1	0.5	50	12/09/11	11678	S13373A	25	P	PEICP1A
7439-97-6	Mercury	0.11	0.37	1	0.15	25	12/08/11	11678	H13373S	23	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-008  
 Client Id: B-4 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	8.7	1	0.5	50	12/09/11	11678	S13373A	26	P	PEICP1A
7439-92-1	Lead	6.5	490	1	0.5	50	12/09/11	11678	S13373A	26	P	PEICP1A
7439-97-6	Mercury	0.11	4.3	1	0.15	25	12/08/11	11678	H13373S	24	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-009	% Solid: 79	Lab Name: Veritech	Nras No:
Client Id: B-4 10-12	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.8	1	0.5	50	12/09/11	11678	S13373A	27	P	PEICP1A
7439-92-1	Lead	6.3	360	1	0.5	50	12/09/11	11678	S13373A	27	P	PEICP1A
7439-97-6	Mercury	0.11	0.49	1	0.15	25	12/08/11	11678	H13373S	25	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

### Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-011  
Client Id: B-4  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	200000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-36-0	Antimony	12	37	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-38-2	Arsenic	7.5	360	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-39-3	Barium	50	6000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-41-7	Beryllium	4.0	14	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-43-9	Cadmium	3.5	16	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-70-2	Calcium	2000	350000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-47-3	Chromium	50	500	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-48-4	Cobalt	20	200	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-50-8	Copper	50	3200	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-89-6	Iron	280	490000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-92-1	Lead	4.0	17000	1	50	50	12/13/11	11681	W13377D2	30	P	PEICP2A
7439-95-4	Magnesium	2000	56000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-96-5	Manganese	40	6600	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-97-6	Mercury	3.5	68	5	25	25	12/09/11	11681	13377SWc	20	CV	HGCV1A
7440-02-0	Nickel	50	430	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-09-7	Potassium	5000	54000	1	50	50	12/10/11	11681	SW13377A	13	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-23-5	Sodium	5000	49000	1	50	50	12/10/11	11681	SW13377A	13	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-62-2	Vanadium	50	740	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-66-6	Zinc	50	5800	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A

Comments: \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - Cold Vapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-012  
Client Id: B-14  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	99000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-36-0	Antimony	12	28	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-38-2	Arsenic	7.5	340	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-39-3	Barium	50	7200	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-41-7	Beryllium	4.0	7.2	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-43-9	Cadmium	3.5	29	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-70-2	Calcium	2000	420000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-47-3	Chromium	50	510	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-48-4	Cobalt	20	100	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-50-8	Copper	50	1400	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-89-6	Iron	280	210000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-92-1	Lead	4.0	29000	1	50	50	12/13/11	11681	W13377D2	36	P	PEICP2A
7439-95-4	Magnesium	2000	41000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-96-5	Manganese	40	3200	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-97-6	Mercury	7.0	140	10	25	25	12/09/11	11681	13377SWc	23	CV	HGCV1A
7440-02-0	Nickel	50	260	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-09-7	Potassium	5000	35000	1	50	50	12/10/11	11681	SW13377A	21	P	PEICPRAD1A
7782-49-2	Selenium	40	54	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-23-5	Sodium	5000	26000	1	50	50	12/10/11	11681	SW13377A	21	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-62-2	Vanadium	50	380	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-66-6	Zinc	50	17000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-013  
 Client Id: B-5 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	19	1	0.5	50	12/09/11	11678	S13373A	32	P	PEICP1A
7439-92-1	Lead	6.6	940	1	0.5	50	12/09/11	11678	S13373A	32	P	PEICP1A
7439-97-6	Mercury	0.11	3.9	1	0.15	25	12/08/11	11678	H13373S	26	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-015  
 Client Id: B-5 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 83  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	5.2	1	0.5	50	12/09/11	11678	S13373A	33	P	PEICP1A
7439-92-1	Lead	6.0	28	1	0.5	50	12/09/11	11678	S13373A	33	P	PEICP1A
7439-97-6	Mercury	0.10	0.19	1	0.15	25	12/08/11	11678	H13373S	27	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-016  
 Client Id: B-5 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 74  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	11	1	0.5	50	12/09/11	11678	S13373A	34	P	PEICP1A
7439-92-1	Lead	6.8	630	1	0.5	50	12/09/11	11678	S13373A	34	P	PEICP1A
7439-97-6	Mercury	0.11	1.7	1	0.15	25	12/08/11	11678	H13373S	28	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-018  
 Client Id: B-6 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 66  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	15	1	0.5	50	12/09/11	11678	S13373A	35	P	PEICP1A
7439-92-1	Lead	7.6	960	1	0.5	50	12/09/11	11678	S13373A	35	P	PEICP1A
7439-97-6	Mercury	0.13	4.5	1	0.15	25	12/08/11	11678	H13373S	29	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-020  
 Client Id: B-6 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 74  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	11	1	0.5	50	12/09/11	11678	S13373A	36	P	PEICP1A
7439-92-1	Lead	6.8	490	1	0.5	50	12/09/11	11678	S13373A	36	P	PEICP1A
7439-97-6	Mercury	0.23	8.7	2	0.15	25	12/08/11	11678	H13373S	41	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-021  
 Client Id: B-6 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 84  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	11	1	0.5	50	12/09/11	11678	S13373A	37	P	PEICP1A
7439-92-1	Lead	6.0	46	1	0.5	50	12/09/11	11678	S13373A	37	P	PEICP1A
7439-97-6	Mercury	0.099	0.39	1	0.15	25	12/08/11	11678	H13373S	31	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-023  
 Client Id: B-7 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 83  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	4.2	1	0.5	50	12/09/11	11678	S13373A	38	P	PEICP1A
7439-92-1	Lead	6.0	47	1	0.5	50	12/09/11	11678	S13373A	38	P	PEICP1A
7439-97-6	Mercury	0.10	0.38	1	0.15	25	12/08/11	11678	H13373S	32	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-025  
 Client Id: B-7 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	8.9	1	0.5	50	12/09/11	11678	S13373A	41	P	PEICP1A
7439-92-1	Lead	6.6	810	1	0.5	50	12/09/11	11678	S13373A	41	P	PEICP1A
7439-97-6	Mercury	0.11	3.1	1	0.15	25	12/08/11	11678	H13373S	35	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-026  
 Client Id: B-7 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 81  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	4.9	1	0.5	50	12/09/11	11678	S13373A	42	P	PEICP1A
7439-92-1	Lead	6.2	97	1	0.5	50	12/09/11	11678	S13373A	42	P	PEICP1A
7439-97-6	Mercury	0.10	0.48	1	0.15	25	12/08/11	11678	H13373S	36	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-028  
 Client Id: B-14 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	27	1	0.5	50	12/09/11	11678	S13373A	43	P	PEICP1A
7439-92-1	Lead	26	16000	4	0.5	50	12/12/11	11678	S13373B	11	P	PEICP1A
7439-97-6	Mercury	0.11	5.0	1	0.15	25	12/08/11	11678	H13373S	37	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-030  
Client Id: B-14 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 63  
Units: MG/KG  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.2	21	1	0.5	50	12/09/11	11678	S13373A	44	P	PEICP1A
7439-92-1	Lead	7.9	1300	1	0.5	50	12/09/11	11678	S13373A	44	P	PEICP1A
7439-97-6	Mercury	0.26	11	2	0.15	25	12/08/11	11678	H13373S	42	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-031  
 Client Id: B-14 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 62  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.2	26	1	0.5	50	12/09/11	11678	S13373A	45	P	PEICP1A
7439-92-1	Lead	8.1	980	1	0.5	50	12/09/11	11678	S13373A	45	P	PEICP1A
7439-97-6	Mercury	0.13	4.0	1	0.15	25	12/08/11	11678	H13373S	39	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-032  
 Client Id: B-14 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 67  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	19	1	0.5	50	12/19/11	11715	S13406A	14	P	PEICP1A
7439-92-1	Lead	7.5	1500	1	0.5	50	12/19/11	11715	S13406A	14	P	PEICP1A
7439-97-6	Mercury	0.50	18	4	0.15	25	12/20/11	11715	H13406Sc	14	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-033	% Solid: 82	Lab Name: Veritech	Nras No:
Client Id: B-19 4-6	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	28	1	0.5	50	12/09/11	11678	S13373A	46	P	PEICP1A
7439-92-1	Lead	6.1	850	1	0.5	50	12/09/11	11678	S13373A	46	P	PEICP1A
7439-97-6	Mercury	0.10	4.3	1	0.15	25	12/08/11	11678	H13373S	40	CV	HGCV2A

Comments: \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-035	% Solid: 79	Lab Name: Veritech	Nras No:
Client Id: B-19 8-10	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	17	1	0.5	50	12/09/11	11678	S13373A	14	P	PEICP1A
7439-92-1	Lead	6.3	230	1	0.5	50	12/09/11	11678	S13373A	14	P	PEICP1A
7439-97-6	Mercury	0.11	0.96	1	0.15	25	12/08/11	11678	H13373S	14	CV	HGCV2A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-036  
 Client Id: B-19 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	23	1	0.5	50	12/12/11	11679	S13374A3	22	P	PEICP3A
7439-92-1	Lead	6.5	250	1	0.5	50	12/12/11	11679	S13374A3	22	P	PEICP3A
7439-97-6	Mercury	0.11	0.95	1	0.15	25	12/09/11	11679	H13374Sc	18	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1

### Inorganic Analysis Data Sheet

Sample ID: AC63081-037  
 Client Id: B-19 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 73  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	8.3	1	0.5	50	12/19/11	11715	S13406A	42	P	PEICP1A
7439-92-1	Lead	6.8	810	1	0.5	50	12/19/11	11715	S13406A	42	P	PEICP1A
7439-97-6	Mercury	0.11	3.9	1	0.15	25	12/16/11	11715	H13406S	19	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1

### Inorganic Analysis Data Sheet

Sample ID: AC63081-038  
 Client Id: B-20 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 80  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.7	1	0.5	50	12/12/11	11679	S13374A3	14	P	PEICP3A
7439-92-1	Lead	6.2	380	1	0.5	50	12/12/11	11679	S13374A3	14	P	PEICP3A
7439-97-6	Mercury	0.21	2.6	2	0.15	25	12/09/11	11679	H13374Sc	23	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-040  
 Client Id: B-20 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 63  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.2	31	1	0.5	50	12/12/11	11679	S13374A3	23	P	PEICP3A
7439-92-1	Lead	7.9	550	1	0.5	50	12/12/11	11679	S13374A3	23	P	PEICP3A
7439-97-6	Mercury	0.53	15	4	0.15	25	12/09/11	11679	H13374Sc	27	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-041  
 Client Id: B-20 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	7.2	1	0.5	50	12/12/11	11679	S13374A3	24	P	PEICP3A
7439-92-1	Lead	6.5	170	1	0.5	50	12/12/11	11679	S13374A3	24	P	PEICP3A
7439-97-6	Mercury	0.11	2.7	1	0.15	25	12/09/11	11679	H13374Sc	20	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1

### Inorganic Analysis Data Sheet

Sample ID: AC63081-043  
 Client Id: B-16 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 68  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	8.9	1	0.5	50	12/12/11	11679	S13374A3	25	P	PEICP3A
7439-92-1	Lead	7.4	330	1	0.5	50	12/12/11	11679	S13374A3	25	P	PEICP3A
7439-97-6	Mercury	0.12	1.0	1	0.15	25	12/09/11	11679	H13374Sc	28	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-045  
Client Id: B-16 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 81  
Units: MG/KG  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	3.7	1	0.5	50	12/12/11	11679	S13374A3	26	P	PEICP3A
7439-92-1	Lead	6.2	110	1	0.5	50	12/12/11	11679	S13374A3	26	P	PEICP3A
7439-97-6	Mercury	0.10	0.68	1	0.15	25	12/09/11	11679	H13374Sc	29	CV	HGCV1A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-046	% Solid: 80	Lab Name: Veritech	Nras No:
Client Id: B-16 10-12	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	65	1	0.5	50	12/12/11	11679	S13374A3	27	P	PEICP3A
7439-92-1	Lead	6.2	330	1	0.5	50	12/12/11	11679	S13374A3	27	P	PEICP3A
7439-97-6	Mercury	0.10	3.6	1	0.15	25	12/09/11	11679	H13374Sc	30	CV	HGCV1A

Comments: \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-047	% Solid: 74	Lab Name: Veritech	Nras No:
Client Id: B-16 12-14	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/14/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	1800	1	0.5	50	12/19/11	11715	S13406A	43	P	PEICP1A
7439-92-1	Lead	6.8	4700	1	0.5	50	12/19/11	11715	S13406A	43	P	PEICP1A
7439-97-6	Mercury	11	390	100	0.15	25	12/20/11	11715	H13406Sc	21	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

ICP-AES  
CV  
MS

**VERITECH Wet Chem Form1 Analysis Summary**  
**% Solids**

TestGroupName: % Solids SM2540G

Project #: 1120730

TestGroup: %SOLIDS

Lab#	Client SampleID	Matrix	Dilution:	Result	Units:	RL	Prep Date	Analysis Date	Received Date	Collect Date
AC63081-001	B-3 4-6	Soil	1	84	Percent			12/10/11	12/07/11	12/07/11
AC63081-003	B-3 8-10	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-004	B-3 10-12	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-005	B-3 12-14	Soil	1	70	Percent			12/16/11	12/07/11	12/07/11
AC63081-006	B-4 4-6	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-008	B-4 8-10	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-009	B-4 10-12	Soil	1	79	Percent			12/10/11	12/07/11	12/07/11
AC63081-013	B-5 4-6	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-014	B-5 6-8	Soil	1	86	Percent			12/10/11	12/07/11	12/07/11
AC63081-015	B-5 8-10	Soil	1	83	Percent			12/10/11	12/07/11	12/07/11
AC63081-016	B-5 10-12	Soil	1	74	Percent			12/10/11	12/07/11	12/07/11
AC63081-018	B-6 4-6	Soil	1	66	Percent			12/10/11	12/07/11	12/07/11
AC63081-020	B-6 8-10	Soil	1	74	Percent			12/10/11	12/07/11	12/07/11
AC63081-021	B-6 10-12	Soil	1	84	Percent			12/10/11	12/07/11	12/07/11
AC63081-023	B-7 4-6	Soil	1	83	Percent			12/10/11	12/07/11	12/07/11
AC63081-025	B-7 8-10	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-026	B-7 10-12	Soil	1	81	Percent			12/10/11	12/07/11	12/07/11
AC63081-028	B-14 4-6	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-030	B-14 8-10	Soil	1	63	Percent			12/10/11	12/07/11	12/07/11
AC63081-031	B-14 10-12	Soil	1	62	Percent			12/10/11	12/07/11	12/07/11
AC63081-032	B-14 12-14	Soil	1	67	Percent			12/16/11	12/07/11	12/07/11
AC63081-033	B-19 4-6	Soil	1	82	Percent			12/10/11	12/07/11	12/07/11
AC63081-035	B-19 8-10	Soil	1	79	Percent			12/10/11	12/07/11	12/07/11
AC63081-036	B-19 10-12	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-037	B-19 12-14	Soil	1	73	Percent			12/16/11	12/07/11	12/07/11
AC63081-038	B-20 4-6	Soil	1	80	Percent			12/10/11	12/07/11	12/07/11
AC63081-040	B-20 8-10	Soil	1	63	Percent			12/10/11	12/07/11	12/07/11
AC63081-041	B-20 10-12	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-043	B-16 4-6	Soil	1	68	Percent			12/10/11	12/07/11	12/07/11
AC63081-045	B-16 8-10	Soil	1	81	Percent			12/10/11	12/07/11	12/07/11
AC63081-046	B-16 10-12	Soil	1	80	Percent			12/10/11	12/07/11	12/07/11
AC63081-047	B-16 12-14	Soil	1	74	Percent			12/16/11	12/07/11	12/07/11

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-014	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B-5 6-8	Units: MG/L	Lab Code:	Sdg No:
Matrix: TCLP	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	ND	1	50	50	12/12/11	11680	T13375A	22	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-015  
 Client Id: B-5 8-10  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	2.4	1	50	50	12/12/11	11680	T13375A	23	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-016      % Solid: 0      Lab Name: Veritech      Nras No:  
Client Id: B-5 10-12      Units: MG/L      Lab Code:      Sdg No:  
Matrix: TCLP      Date Rec: 12/8/2011      Contract:      Case No:  
Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	ND	1	50	50	12/12/11	11680	T13375A	24	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-024  
 Client Id: B-7 6-8  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	14	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-025  
Client Id: B-7 8-10  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	45	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-026  
 Client Id: B-7 10-12  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	46	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

### Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-028	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B-14 4-6	Units: MG/L	Lab Code:	Sdg No:
Matrix: TCLP	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	1.5	160	10	50	50	01/17/12	12491	T13480C2	14	P	PEICP2A

Comments: \_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV - Cold Vapor
- MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63081-039  
Client Id: B-20 6-8  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/12/11	11680	T13375A	25	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-040  
Client Id: B-20 8-10  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/12/11	11680	T13375A	26	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-041  
Client Id: B-20 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/12/11	11680	T13375A	27	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-047  
 Client Id: B-16 12-14  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr:
7440-38-2	Arsenic	0.20	0.21	1	50	50	01/16/12	12491	T13480B2	20	P	PEICP2A
7439-92-1	Lead	0.15	15	1	50	50	01/17/12	12491	T13480C2	20	P	PEICP2A
7439-97-6	Mercury	0.00070	ND	1	25	25	01/13/12	12491	H13480T	14	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## **Chain of Custody Forms**

0089  
1120730

**Vertech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004

2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only)

1120730

Page 1 of 6

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
<u>24 Hours (100%)</u>	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQulS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQulS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	<u>Full / Category B</u>	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

Expedited TAT Not Always Available (Please Check with Lab!)

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**Customer Information**

1a) Customer: URS Corp  
 Address: 1 Penn Plaza, Suite 600  
NY, NY 10019  
 1b) Email/Cell/Fax/Ph: Roberta.Wolff@urs.com  
 1c) Send Invoice to: \_\_\_\_\_  
 1d) Send Report to: Bob Wolff

**Project Information**

2a) Project: 544 Union Ave  
Heatherwood  
 2b) Project Mgr: Bob Wolff  
 2c) Project Location (City/State): Brooklyn, NY  
 2d) Quote/PO # (if Applicable): 1140128

FOR LAB USE ONLY

Check If Contingent ==>

**7) Analysis Request**

For EPH Analysis:

**Matrix Codes**  
 DW - Drinking Water S - Soil A - Air  
 GW - Ground Water SL - Sludge OT - Other  
 WW - Waste Water OL - Oil

Sample Type  
 Composite (C)  
 Grab (G)

Metals Hg, Pb, As	TCLP Pb	TCLP As	EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation
X					

**8)**

# of Bottles

None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:
1							

9a) Methanol Bottle Numbers (If Applicable)

9b) Comments

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	Metals Hg, Pb, As	TCLP Pb	TCLP As	EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	8) # of Bottles							9a) Methanol Bottle Numbers (If Applicable)	9b) Comments			
			Date	Time									None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3			Other:		
001	B-3 4-6	S	12/7/11	954	X	X	X						1											
002	B-3 6-8			955	X	X	X						1											Do not analyze per M.D. 12/7/11
003	B-3 8-10			956	X	X	X						1											
004	B-3 10-12			958	X	X	X						1											
005	B-3 12-14			959	X	X	X						1											Hold
006	B-4 4-6			1025	X	X	X						1											
007	B-4 6-8			1027	X	X	X						1											Do not analyze per M.D. 12/7/11
008	B-4 8-10			1029	X	X	X						1											
009	B-4 10-12			1031	X	X	X						1											
010	B-4 12-14			1032	X	X	X						1											Hold

10) Relinquished by:	Accepted by:	Date	Time	Comments, Notes, Special Requirements, HAZARDS
Megan Dascoli	[Signature]	12/7/11	15:00	Note: Check if low-level groundwater methods required to meet current standards in NJ or PA: <input type="checkbox"/> BN or BNA (8270C SIM) <input type="checkbox"/> VOC (8260B SIM or 8011) <input type="checkbox"/> Metals (ICP-MS 200.8 or 6020) Note: Check if applicable: <input type="checkbox"/> Project-Specific Reporting Limits <input type="checkbox"/> High Contaminant Concentrations
[Signature]	[Signature]	12/7/11	16:39	
				Hold - means hold in contingency pending results of above samples. See sampling plan. Call Bob Wolff Cooler Temperature 2-8
11) Sampler (print name): Megan Dascoli				Date: 12/7/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

0090  
1120730

**Ventech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004

2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only) **1120730**

Page **2** of **6**

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQUS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQUS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full / <b>Category B</b>	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

Expedited TAT Not Always Available (Please Check with Lab)!

**Customer Information**

**1a) Customer:** URS Corp  
**Address:** \_\_\_\_\_  
**1b) Email/Cell/Fax/Ph:** \_\_\_\_\_  
**1c) Send Invoice to:** \_\_\_\_\_  
**1d) Send Report to:** \_\_\_\_\_

**Project Information**

**2a) Project:** 544 Union Ave  
Hetherwood  
**2b) Project Mgr:** Bob Wolff  
**2c) Project Location (City/State):** Brooklyn, NY  
**2d) Quote/PO # (If Applicable):** \_\_\_\_\_

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**FOR LAB USE ONLY**

Check If Contingent ==>

**7) Analysis Request**

For EPH Analysis:

**Matrix Codes**  
 DW - Drinking Water    S - Soil    A - Air  
 GW - Ground Water    SL - Sludge    OT - Other  
 WW - Waste Water    OL - Oil

Batch #  
AC63081

Sample Type  
Composite (C)    Grab (G)  
TAL Metals

EPH Cat 1  
EPH Cat 2 Screen/Total  
EPH Cat 2 Fractionation

**8) # of Bottles**

None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:
------	------	---------	------	-----	-------	------	--------

**9a) Methanol Bottle Numbers (If Applicable)**

**9b) Comments**

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis Request							8) # of Bottles	9a) Methanol Bottle Numbers (If Applicable)	9b) Comments		
			Date	Time			EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	None	MeOH	En Core	NaOH				HCl	H2SO4
<u>2011</u>	<u>B-4</u>	<u>GW</u>	<u>12/7/11</u>	<u>1034</u>	<u>G</u>	<u>X</u>												
<u>2012</u>	<u>B-14</u>	<u>GW</u>	<u>12/7/11</u>	<u>1317</u>	<u>G</u>	<u>X</u>												

**10) Relinquished by:** Megan Dando    **Accepted by:** [Signature]    **Date:** 12/7/11    **Time:** 15:00

[Signature]    [Signature]    12/7/11    16:39

**Comments, Notes, Special Requirements, HAZARDS**  
 Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:  
 BN or BNA (8270C SIM)  
 VOC (8260B SIM or 8011)  
 Metals (ICP-MS 200.8 or 6020)    *see p. 1*  
 Note: Check if applicable:  
 Project-Specific Reporting Limits  
 High Contaminant Concentrations

**11) Sampler (print name):** MD    **Date:** 12/7/11

Cooler Temperature  
2.8

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.





0093  
1120730

**Ventech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004  
2 Madison Road, Fairfield, New Jersey 07004  
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only)  
1120730

Page 5 of 6

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQuIS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQuIS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full <u>Category B</u>	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

Expedited TAT Not Always Available (Please Check with Lab)!

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**Customer Information**

1a) Customer: URS Corp  
Address: \_\_\_\_\_  
1b) Email/Cell/Fax/Ph: \_\_\_\_\_  
1c) Send Invoice to: \_\_\_\_\_  
1d) Send Report to: \_\_\_\_\_

**Project Information**

2a) Project: 544 # Union Ave Heatherwood  
2b) Project Mgr: \_\_\_\_\_  
2c) Project Location (City/State): \_\_\_\_\_  
2d) Quote/PO # (If Applicable): \_\_\_\_\_

**FOR LAB USE ONLY**

Check If Contingent ==>>

**7) Analysis Request**

For EPH Analysis:

**Matrix Codes**  
DW - Drinking Water S - Soil A - Air  
GW - Ground Water SL - Sludge OT - Other  
WW - Waste Water OL - Oil

Batch #  
AC63581

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis Request			8) # of Bottles							9a) Methanol Bottle Numbers (If Applicable)	9b) Comments		
			Date	Time			EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3			Other:	
033	B-19 4-6	S	12/7/11	1339	X	X														
034	B-19 6-8			1340	X	X														DO NOT Analyze per MD 12/7/11
035	B-19 8-10			1341	X	X														
036	B-19 10-12			1342	X	X														
037	B-19 12-14			1343	X	X														Hold
038	B-20 4-6			1358	X	X														
039	B-20 4-8			1359	X	X														
040	B-20 8-10			1401	X	X														
041	B-20 10-12			1403	X	X														
042	B-20 12-14			1405	X	X														Hold

10) Relinquished by:	Accepted by:	Date	Time	Comments, Notes, Special Requirements, HAZARDS
<i>[Signature]</i>	<i>[Signature]</i>	12/7/11	15:00	Note: Check if low-level groundwater methods required to meet current standards in NJ or PA: <input type="checkbox"/> BN or BNA (8270C SIM) <input type="checkbox"/> VOC (8260B SIM or 8011) <input type="checkbox"/> Metals (ICP-MS 200.8 or 6020) Note: Check if applicable: <input type="checkbox"/> Project-Specific Reporting Limits <input type="checkbox"/> High Contaminant Concentrations See p. 1
<i>[Signature]</i>	<i>[Signature]</i>	12/7/11	16:39	

Cooler Temperature  
2.8

11) Sampler (print name): MD Date: 12/7/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific  
Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

1120730

**Vertech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004

2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only) 1120730

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**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQulS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQulS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full <u>Category B</u>	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

Expedited TAT Not Always Available (Please Check with Lab)!

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**Customer Information**

1a) Customer: VRS Corp  
 Address: \_\_\_\_\_  
 1b) Email/Cell/Fax/Ph: \_\_\_\_\_  
 1c) Send Invoice to: \_\_\_\_\_  
 1d) Send Report to: \_\_\_\_\_

**Project Information**

2a) Project: 544 Union Ave  
 2b) Project Mgr: \_\_\_\_\_  
 2c) Project Location (City/State): \_\_\_\_\_  
 2d) Quote/PO # (If Applicable): \_\_\_\_\_

**FOR LAB USE ONLY**

Check If Contingent ==>

**7) Analysis Request**

For EPH Analysis:

**Matrix Codes**

DW - Drinking Water S - Soil A - Air  
 GW - Ground Water SL - Sludge OT - Other  
 WW - Waste Water OL - Oil

Sample Type

Composite (C)  
 Grab (G)

Metals Hg, Pb, As

**8)**

# of Bottles

None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:

9a) Methanol Bottle Numbers (If Applicable)

9b) Comments

Batch #

AC63081

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	Metals Hg, Pb, As	7) Analysis Request							8) # of Bottles	9a) Methanol Bottle Numbers (If Applicable)	9b) Comments		
			Date	Time				EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	None	MeOH	En Core	NaOH				HCl	H2SO4
043	B-16 4-6	S	12/7/11	1417	X	X													
044	B-16 6-8	S		1418	X	X													Do not analyze per MD 12/7/11
045	B-16 8-10	S		1419	X	X													
046	B-16 10-12	S		1433	X	X													
047	B-16 12-14	S		1434	X	X													Hold

**10) Relinquished by:**

*Megand...  
R...*

**Accepted by:**

*R...  
C...*

Date: 12/7/11 Time: 15:00

Date: 12/7/11 Time: 16:39

**Comments, Notes, Special Requirements, HAZARDS**

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:  
 BN or BNA (8270C SIM)  
 VOC (8260B SIM or 8011)  
 Metals (ICP-MS 200.8 or 6020) *see p. 1*

Note: Check if applicable:  
 Project-Specific Reporting Limits  
 High Contaminant Concentrations

Cooler Temperature

20

11) Sampler (print name): MD

Date: 12/7/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

# PROJECT MODIFICATIONS

Client: URS-NYC  
Project: 544 Union Ave

HCV Project #: 1120730

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-----  
ben192.168.1.103  
12/15/2011 11:32:02 AM  
-----

Bob,

I have activated the samples below for the requested parameters on one week turnaround time with results due on 12/21.

Thanks and please let me know if you need anything else.  
Ben

-----Original Message-----

From: Wolff, Robert [mailto:robert.wolff@urs.com]  
Sent: Wednesday, December 14, 2011 11:54 AM  
To: bRao@hampton-clarke.com  
Subject: RE: 1120830\_111213164601 544 Union Ave Preliminary Results

Ben, please run additional totals analyses (Hg, Pb and As) on the following contingency samples (12' to 14')

B-1, AC63111-037  
B-3, AC63081-005  
B-12, AC63111-021  
B-13, AC63111-008  
B-14, AC63081-032  
B-15, AC63111-004  
B-16, AC63081-047  
B-17, AC63111-012  
B-19, AC63081-037

Also, run an additional TCLP for Lead on B-1 (12' to 14'), AC63111-037

Robert Wolff  
Principal Environmental Scientist  
Certified URS Project Manager  
One Penn Plaza  
Suite 600  
New York, NY 10119-0698  
Direct Line: 212-896-0185  
Main Line: 212-736-4444  
Fax: 212-629-4249

-----  
ben192.168.1.103  
12/16/2011 9:09:06 AM  
-----

Ben, if you have enough soil volume, I'd like to add a few more TCLPs:

For lead:

B-1 (4-6)  
B-1 (8-10)  
B-1 (10-12)

And, for Arsenic:

# PROJECT MODIFICATIONS

**Client:** URS-NYC  
**Project:** 544 Union Ave

**HCV Project #:** 1120730

B-7 (6-8) - AC63081-024  
B-7 (8-10) - AC63081-025  
B-7 (10-12) - AC63081-026

Robert Wolff  
Principal Environmental Scientist  
Certified URS Project Manager  
One Penn Plaza  
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New York, NY 10119-0698  
Direct Line: 212-896-0185  
Main Line: 212-736-4444  
Fax: 212-629-4249

Above activated with results due on 12/27/11. BR 12/16/11.

-----  
ben192.168.1.103  
1/11/2012 5:38:39 PM  
-----

Bob,

I have activated the samples below for TCLP analysis on 1 week TAT. Results should be available on 1/18/12. We will note the TCLP Hg hold time in the non-conformance.

Thanks and please let me know if you need anything else.  
Ben

-----Original Message-----

From: Wolff, Robert [mailto:robert.wolff@urs.com]  
Sent: Wednesday, January 11, 2012 1:59 PM  
To: bRao@hampton-clarke.com  
Subject: RE: 544 Union Ave

Ben, go ahead and analyze anyway...just note that it exceeded the hold time.

Thanks, Bob

From: Ben Rao [mailto:bRao@hampton-clarke.com]  
Sent: Wednesday, January 11, 2012 1:47 PM  
To: Wolff, Robert  
Subject: RE: 544 Union Ave

Hi Bob,

We checked the volume and we do have enough to perform TCLP on the samples below. I'll activate.

The sample requested for TCLP mercury below, B-16 (12-14) is past hold for TCLP Mercury. Should we proceed with it past hold or should we only analyze for TCLP Arsenic and Pb. TCLP Mercury needed to be tumbled within 28 days. Other metals is 6 months.

Thanks.  
Ben

-----Original Message-----

From: Wolff, Robert [mailto:robert.wolff@urs.com]  
Sent: Wednesday, January 11, 2012 11:17 AM  
To: bRao@hampton-clarke.com  
Subject: RE: 544 Union Ave

# PROJECT MODIFICATIONS

**Client:** URS-NYC

**HCV Project #:** 1120730

**Project:** 544 Union Ave

---

Ben, the client would like to run a few more TCLPs (if you have enough sample volume) for the following samples:

B-2 (8' to 10') for lead - AC63111-039

B-14 (4' to 6') for lead - AC63081-028

B-15 (10' to 12') for arsenic and lead - AC63111-003

B-16 (12' to 14') for mercury, arsenic and lead - AC63081-047

Please provide the quickest TAT possible.

Also you will be receiving four groundwater samples on Monday.

Finally, please issue the final report for the December samples.

Thanks, Bob

Above activated on 1 week TAT. BR 1/11/12.

## CONDITION UPON RECEIPT

Batch Number AC63081

Entered By: Ricardo

Date Entered 12/7/2011 7:07:00 PM

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- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 Yes Are the COC seals intact?
- 4 Yes Please specify the Temperature inside the container (in degC)  
2.8C
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 Yes Do the contents match the COC? If no, specify
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 YES Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 NA Other comments ...Specify
- 14 NA Corrective actions (Specify item number and corrective action taken).

## PRESERVATION DOCUMENT

Batch Number AC63081

Entered By: Ricardo

Date Entered 12/7/2011 7:08:00 PM

Lab#:	Container Siz	Container Typ	Parameter	Preservative	PH
AC63081-001	NA	NA	NA	NA	NA
AC63081-002	NA	NA	NA	NA	NA
AC63081-003	NA	NA	NA	NA	NA
AC63081-004	NA	NA	NA	NA	NA
AC63081-005	NA	NA	NA	NA	NA
AC63081-006	NA	NA	NA	NA	NA
AC63081-007	NA	NA	NA	NA	NA
AC63081-008	NA	NA	NA	NA	NA
AC63081-009	NA	NA	NA	NA	NA
AC63081-010	NA	NA	NA	NA	NA
AC63081-011	1L	P	METALS	HNO3	1
AC63081-012	1L	P	METALS	HNO3	1
AC63081-013	NA	NA	NA	NA	NA
AC63081-014	NA	NA	NA	NA	NA
AC63081-015	NA	NA	NA	NA	NA
AC63081-016	NA	NA	NA	NA	NA
AC63081-017	NA	NA	NA	NA	NA
AC63081-018	NA	NA	NA	NA	NA
AC63081-019	NA	NA	NA	NA	NA
AC63081-020	NA	NA	NA	NA	NA
AC63081-021	NA	NA	NA	NA	NA
AC63081-022	NA	NA	NA	NA	NA
AC63081-023	NA	NA	NA	NA	NA
AC63081-024	NA	NA	NA	NA	NA
AC63081-025	NA	NA	NA	NA	NA
AC63081-026	NA	NA	NA	NA	NA
AC63081-027	NA	NA	NA	NA	NA
AC63081-028	NA	NA	NA	NA	NA
AC63081-029	NA	NA	NA	NA	NA
AC63081-030	NA	NA	NA	NA	NA
AC63081-031	NA	NA	NA	NA	NA
AC63081-032	NA	NA	NA	NA	NA
AC63081-033	NA	NA	NA	NA	NA
AC63081-034	NA	NA	NA	NA	NA
AC63081-035	NA	NA	NA	NA	NA
AC63081-036	NA	NA	NA	NA	NA
AC63081-037	NA	NA	NA	NA	NA
AC63081-038	NA	NA	NA	NA	NA
AC63081-039	NA	NA	NA	NA	NA
AC63081-040	NA	NA	NA	NA	NA
AC63081-041	NA	NA	NA	NA	NA
AC63081-042	NA	NA	NA	NA	NA
AC63081-043	NA	NA	NA	NA	NA
AC63081-044	NA	NA	NA	NA	NA
AC63081-045	NA	NA	NA	NA	NA
AC63081-046	NA	NA	NA	NA	NA
AC63081-047	NA	NA	NA	NA	NA

Internal Chain of Custody

1120730 0100

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63081-001	12/07/11 16:39	RICAR	0	M	Received
AC63081-001	12/07/11 19:06	RICAR	0	M	Login
AC63081-001	12/07/11 19:34	R12	1	A	NONE
AC63081-001	12/08/11 00:38	PA	1	A	mixing
AC63081-001	12/08/11 00:40	R12	1	A	NONE
AC63081-001	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-001	12/08/11 13:32	R12	1	A	NONE
AC63081-001	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-001	12/10/11 15:56	R12	1	A	NONE
AC63081-002	12/07/11 16:39	RICAR	0	M	Received
AC63081-002	12/07/11 19:06	RICAR	0	M	Login
AC63081-002	12/07/11 19:34	R12	1	A	NONE
AC63081-002	12/08/11 00:38	PA	1	A	mixing
AC63081-002	12/08/11 00:40	R12	1	A	NONE
AC63081-003	12/07/11 16:39	RICAR	0	M	Received
AC63081-003	12/07/11 19:06	RICAR	0	M	Login
AC63081-003	12/07/11 19:34	R12	1	A	NONE
AC63081-003	12/08/11 00:38	PA	1	A	mixing
AC63081-003	12/08/11 00:40	R12	1	A	NONE
AC63081-003	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-003	12/08/11 13:32	R12	1	A	NONE
AC63081-003	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-003	12/10/11 15:56	R12	1	A	NONE
AC63081-004	12/07/11 16:39	RICAR	0	M	Received
AC63081-004	12/07/11 19:06	RICAR	0	M	Login
AC63081-004	12/07/11 19:34	R12	1	A	NONE
AC63081-004	12/08/11 00:38	PA	1	A	mixing
AC63081-004	12/08/11 00:40	R12	1	A	NONE
AC63081-004	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-004	12/08/11 13:32	R12	1	A	NONE
AC63081-004	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-004	12/10/11 15:56	R12	1	A	NONE
AC63081-005	12/07/11 16:39	RICAR	0	M	Received
AC63081-005	12/07/11 19:06	RICAR	0	M	Login
AC63081-005	12/07/11 19:34	R12	1	A	NONE
AC63081-005	12/08/11 00:38	PA	1	A	mixing
AC63081-005	12/08/11 00:40	R12	1	A	NONE
AC63081-005	12/15/11 19:05	JU	1	A	TDSI-HG
AC63081-005	12/16/11 09:30	DW	1	M	% SOLIDS
AC63081-005	12/16/11 12:54	R12	1	A	NONE
AC63081-005	12/16/11 15:47	OA	1	A	tdshg
AC63081-005	12/16/11 21:09	R12	1	A	NONE
AC63081-006	12/07/11 16:39	RICAR	0	M	Received
AC63081-006	12/07/11 19:06	RICAR	0	M	Login
AC63081-006	12/07/11 19:34	R12	1	A	NONE
AC63081-006	12/08/11 00:38	PA	1	A	mixing
AC63081-006	12/08/11 00:40	R12	1	A	NONE
AC63081-006	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-006	12/08/11 13:32	R12	1	A	NONE
AC63081-006	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-006	12/10/11 15:56	R12	1	A	NONE
AC63081-007	12/07/11 16:39	RICAR	0	M	Received
AC63081-007	12/07/11 19:06	RICAR	0	M	Login
AC63081-007	12/07/11 19:34	R12	1	A	NONE
AC63081-007	12/08/11 00:38	PA	1	A	mixing
AC63081-007	12/08/11 00:40	R12	1	A	NONE
AC63081-008	12/07/11 16:39	RICAR	0	M	Received
AC63081-008	12/07/11 19:06	RICAR	0	M	Login
AC63081-008	12/07/11 19:34	R12	1	A	NONE
AC63081-008	12/08/11 00:38	PA	1	A	mixing
AC63081-008	12/08/11 00:40	R12	1	A	NONE
AC63081-008	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-008	12/08/11 13:32	R12	1	A	NONE
AC63081-008	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-008	12/10/11 15:56	R12	1	A	NONE
AC63081-009	12/07/11 16:39	RICAR	0	M	Received
AC63081-009	12/07/11 19:06	RICAR	0	M	Login
AC63081-009	12/07/11 19:34	R12	1	A	NONE
AC63081-009	12/08/11 00:38	PA	1	A	mixing
AC63081-009	12/08/11 00:40	R12	1	A	NONE
AC63081-009	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-009	12/08/11 13:32	R12	1	A	NONE
AC63081-009	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-009	12/10/11 15:56	R12	1	A	NONE
AC63081-010	12/07/11 16:39	RICAR	0	M	Received

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63081-010	12/07/11 19:06	RICAR	0	M	Login
AC63081-010	12/07/11 19:34	R12	1	A	NONE
AC63081-010	12/08/11 00:38	PA	1	A	mixing
AC63081-010	12/08/11 00:40	R12	1	A	NONE
AC63081-011	12/07/11 16:39	RICAR	0	M	Received
AC63081-011	12/07/11 19:06	RICAR	0	M	Login
AC63081-011	12/07/11 19:34	R12	1	A	NONE
AC63081-011	12/08/11 12:53	SRB	1	A	tdsw
AC63081-011	12/08/11 13:05	R12	1	A	NONE
AC63081-011	12/08/11 13:27	OA	1	A	tdwhg
AC63081-011	12/08/11 13:57	R12	1	A	NONE
AC63081-012	12/07/11 16:39	RICAR	0	M	Received
AC63081-012	12/07/11 19:06	RICAR	0	M	Login
AC63081-012	12/07/11 19:34	R12	1	A	NONE
AC63081-012	12/08/11 12:53	SRB	1	A	tdsw
AC63081-012	12/08/11 13:05	R12	1	A	NONE
AC63081-012	12/08/11 13:27	OA	1	A	tdwhg
AC63081-012	12/08/11 13:57	R12	1	A	NONE
AC63081-013	12/07/11 16:39	RICAR	0	M	Received
AC63081-013	12/07/11 19:06	RICAR	0	M	Login
AC63081-013	12/07/11 19:34	R12	1	A	NONE
AC63081-013	12/08/11 00:38	PA	1	A	mixing
AC63081-013	12/08/11 00:40	R12	1	A	NONE
AC63081-013	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-013	12/08/11 13:32	R12	1	A	NONE
AC63081-013	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-013	12/10/11 15:56	R12	1	A	NONE
AC63081-014	12/07/11 16:39	RICAR	0	M	Received
AC63081-014	12/07/11 19:06	RICAR	0	M	Login
AC63081-014	12/07/11 19:34	R12	1	A	NONE
AC63081-014	12/08/11 00:45	PA	1	A	mixing
AC63081-014	12/08/11 00:45	R12	1	A	NONE
AC63081-014	12/07/11 19:34	R12	2	A	NONE
AC63081-014	12/08/11 00:44	PA	2	A	mixing
AC63081-014	12/08/11 00:45	R12	2	A	NONE
AC63081-014	12/08/11 19:04	CJA	2	A	tdclp extraction
AC63081-014	12/08/11 19:06	R12	2	A	NONE
AC63081-014	12/10/11 10:32	SDL	2	A	% SOLIDS
AC63081-014	12/10/11 15:56	R12	2	A	NONE
AC63081-015	12/07/11 16:39	RICAR	0	M	Received
AC63081-015	12/07/11 19:06	RICAR	0	M	Login
AC63081-015	12/07/11 19:34	R12	1	A	NONE
AC63081-015	12/08/11 00:44	PA	1	A	mixing
AC63081-015	12/08/11 00:45	R12	1	A	NONE
AC63081-015	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-015	12/08/11 13:32	R12	1	A	NONE
AC63081-015	12/07/11 19:34	R12	2	A	NONE
AC63081-015	12/08/11 00:44	PA	2	A	mixing
AC63081-015	12/08/11 00:45	R12	2	A	NONE
AC63081-015	12/08/11 19:04	CJA	2	A	tdclp extraction
AC63081-015	12/08/11 19:06	R12	2	A	NONE
AC63081-015	12/10/11 10:32	SDL	2	A	% SOLIDS
AC63081-015	12/10/11 15:56	R12	2	A	NONE
AC63081-016	12/07/11 16:39	RICAR	0	M	Received
AC63081-016	12/07/11 19:06	RICAR	0	M	Login
AC63081-016	12/07/11 19:34	R12	1	A	NONE
AC63081-016	12/08/11 00:44	PA	1	A	mixing
AC63081-016	12/08/11 00:45	R12	1	A	NONE
AC63081-016	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-016	12/08/11 13:32	R12	1	A	NONE
AC63081-016	12/07/11 19:34	R12	2	A	NONE
AC63081-016	12/08/11 00:44	PA	2	A	mixing
AC63081-016	12/08/11 00:45	R12	2	A	NONE
AC63081-016	12/08/11 19:04	CJA	2	A	tdclp extraction
AC63081-016	12/08/11 19:06	R12	2	A	NONE
AC63081-016	12/10/11 10:32	SDL	2	A	% SOLIDS
AC63081-016	12/10/11 15:56	R12	2	A	NONE
AC63081-017	12/07/11 16:39	RICAR	0	M	Received
AC63081-017	12/07/11 19:06	RICAR	0	M	Login
AC63081-017	12/07/11 19:34	R12	1	A	NONE
AC63081-017	12/08/11 00:44	PA	1	A	mixing
AC63081-017	12/08/11 00:45	R12	1	A	NONE
AC63081-017	12/07/11 19:34	R12	2	A	NONE
AC63081-017	12/08/11 00:44	PA	2	A	mixing
AC63081-017	12/08/11 00:45	R12	2	A	NONE

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis	Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63081-018	12/07/11 16:39	RICAR	0	M	Received	AC63081-027	12/07/11 16:39	RICAR	0	M	Received
AC63081-018	12/07/11 19:06	RICAR	0	M	Login	AC63081-027	12/07/11 19:06	RICAR	0	M	Login
AC63081-018	12/07/11 19:34	R12	1	A	NONE	AC63081-027	12/07/11 19:34	R12	1	A	NONE
AC63081-018	12/08/11 00:38	PA	1	A	mixing	AC63081-027	12/08/11 00:38	PA	1	A	mixing
AC63081-018	12/08/11 00:40	R12	1	A	NONE	AC63081-027	12/08/11 00:40	R12	1	A	NONE
AC63081-018	12/08/11 11:26	JU	1	A	tdsi-hg	AC63081-028	12/07/11 16:39	RICAR	0	M	Received
AC63081-018	12/08/11 13:32	R12	1	A	NONE	AC63081-028	12/07/11 19:06	RICAR	0	M	Login
AC63081-018	12/10/11 10:32	SDL	1	A	% SOLIDS	AC63081-028	01/12/12 12:14	CJA	1	A	TCLP-EXT
AC63081-018	12/10/11 15:56	R12	1	A	NONE	AC63081-028	01/12/12 17:27	R12	1	A	NONE
AC63081-019	12/07/11 16:39	RICAR	0	M	Received	AC63081-028	12/07/11 19:34	R12	1	A	NONE
AC63081-019	12/07/11 19:06	RICAR	0	M	Login	AC63081-028	12/08/11 00:38	PA	1	A	mixing
AC63081-019	12/07/11 19:34	R12	1	A	NONE	AC63081-028	12/08/11 00:40	R12	1	A	NONE
AC63081-019	12/08/11 00:38	PA	1	A	mixing	AC63081-028	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-019	12/08/11 00:40	R12	1	A	NONE	AC63081-028	12/08/11 13:32	R12	1	A	NONE
AC63081-020	12/07/11 16:39	RICAR	0	M	Received	AC63081-028	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-020	12/07/11 19:06	RICAR	0	M	Login	AC63081-028	12/10/11 17:24	R12	1	A	NONE
AC63081-020	12/07/11 19:34	R12	1	A	NONE	AC63081-029	12/07/11 16:39	RICAR	0	M	Received
AC63081-020	12/08/11 00:38	PA	1	A	mixing	AC63081-029	12/07/11 19:06	RICAR	0	M	Login
AC63081-020	12/08/11 00:40	R12	1	A	NONE	AC63081-029	12/07/11 19:34	R12	1	A	NONE
AC63081-020	12/08/11 11:26	JU	1	A	tdsi-hg	AC63081-029	12/08/11 00:38	PA	1	A	mixing
AC63081-020	12/08/11 13:32	R12	1	A	NONE	AC63081-029	12/08/11 00:40	R12	1	A	NONE
AC63081-020	12/10/11 10:32	SDL	1	A	% SOLIDS	AC63081-030	12/07/11 16:39	RICAR	0	M	Received
AC63081-020	12/10/11 15:56	R12	1	A	NONE	AC63081-030	12/07/11 19:06	RICAR	0	M	Login
AC63081-021	12/07/11 16:39	RICAR	0	M	Received	AC63081-030	12/07/11 19:34	R12	1	A	NONE
AC63081-021	12/07/11 19:06	RICAR	0	M	Login	AC63081-030	12/08/11 00:44	PA	1	A	mixing
AC63081-021	12/07/11 19:34	R12	1	A	NONE	AC63081-030	12/08/11 00:45	R12	1	A	NONE
AC63081-021	12/08/11 00:38	PA	1	A	mixing	AC63081-030	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-021	12/08/11 00:40	R12	1	A	NONE	AC63081-030	12/08/11 13:32	R12	1	A	NONE
AC63081-021	12/08/11 11:26	JU	1	A	tdsi-hg	AC63081-030	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-021	12/08/11 13:32	R12	1	A	NONE	AC63081-030	12/10/11 17:24	R12	1	A	NONE
AC63081-021	12/10/11 10:32	SDL	1	A	% SOLIDS	AC63081-031	12/07/11 16:39	RICAR	0	M	Received
AC63081-021	12/10/11 15:56	R12	1	A	NONE	AC63081-031	12/07/11 19:06	RICAR	0	M	Login
AC63081-022	12/07/11 16:39	RICAR	0	M	Received	AC63081-031	12/07/11 19:34	R12	1	A	NONE
AC63081-022	12/07/11 19:06	RICAR	0	M	Login	AC63081-031	12/08/11 00:38	PA	1	A	mixing
AC63081-022	12/07/11 19:34	R12	1	A	NONE	AC63081-031	12/08/11 00:40	R12	1	A	NONE
AC63081-022	12/08/11 00:38	PA	1	A	mixing	AC63081-031	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-022	12/08/11 00:40	R12	1	A	NONE	AC63081-031	12/08/11 13:32	R12	1	A	NONE
AC63081-023	12/07/11 16:39	RICAR	0	M	Received	AC63081-031	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-023	12/07/11 19:06	RICAR	0	M	Login	AC63081-031	12/10/11 17:24	R12	1	A	NONE
AC63081-023	12/07/11 19:34	R12	1	A	NONE	AC63081-032	12/07/11 16:39	RICAR	0	M	Received
AC63081-023	12/08/11 00:38	PA	1	A	mixing	AC63081-032	12/07/11 19:06	RICAR	0	M	Login
AC63081-023	12/08/11 00:40	R12	1	A	NONE	AC63081-032	12/07/11 19:34	R12	1	A	NONE
AC63081-023	12/07/11 16:39	RICAR	0	M	Received	AC63081-032	12/08/11 00:38	PA	1	A	mixing
AC63081-023	12/07/11 19:06	RICAR	0	M	Login	AC63081-032	12/08/11 00:40	R12	1	A	NONE
AC63081-023	12/07/11 19:34	R12	1	A	NONE	AC63081-032	12/15/11 19:05	JU	1	A	TDSI-HG
AC63081-023	12/08/11 00:38	PA	1	A	mixing	AC63081-032	12/16/11 09:30	DW	1	M	% SOLIDS
AC63081-023	12/08/11 00:40	R12	1	A	NONE	AC63081-032	12/16/11 12:54	R12	1	A	NONE
AC63081-023	12/08/11 11:26	JU	1	A	tdsi-hg	AC63081-032	12/16/11 15:47	OA	1	A	tdshg
AC63081-023	12/08/11 13:32	R12	1	A	NONE	AC63081-032	12/16/11 21:09	R12	1	A	NONE
AC63081-023	12/10/11 10:32	SDL	1	A	% SOLIDS	AC63081-033	12/07/11 16:39	RICAR	0	M	Received
AC63081-023	12/10/11 17:24	R12	1	A	NONE	AC63081-033	12/07/11 19:06	RICAR	0	M	Login
AC63081-024	12/07/11 16:39	RICAR	0	M	Received	AC63081-033	12/07/11 19:34	R12	1	A	NONE
AC63081-024	12/07/11 19:06	RICAR	0	M	Login	AC63081-033	12/08/11 00:38	PA	1	A	mixing
AC63081-024	12/07/11 19:34	R12	1	A	NONE	AC63081-033	12/08/11 00:40	R12	1	A	NONE
AC63081-024	12/08/11 00:38	PA	1	A	mixing	AC63081-033	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-024	12/08/11 00:40	R12	1	A	NONE	AC63081-033	12/08/11 13:32	R12	1	A	NONE
AC63081-024	12/19/11 12:20	CJA	1	A	tclp-ext	AC63081-033	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-024	12/19/11 20:40	R12	1	A	NONE	AC63081-033	12/10/11 17:24	R12	1	A	NONE
AC63081-025	12/07/11 16:39	RICAR	0	M	Received	AC63081-034	12/07/11 16:39	RICAR	0	M	Received
AC63081-025	12/07/11 19:06	RICAR	0	M	Login	AC63081-034	12/07/11 19:06	RICAR	0	M	Login
AC63081-025	12/07/11 19:34	R12	1	A	NONE	AC63081-034	12/07/11 19:34	R12	1	A	NONE
AC63081-025	12/08/11 00:38	PA	1	A	mixing	AC63081-034	12/08/11 00:38	PA	1	A	mixing
AC63081-025	12/08/11 00:40	R12	1	A	NONE	AC63081-034	12/08/11 00:40	R12	1	A	NONE
AC63081-025	12/08/11 11:26	JU	1	A	tdsi-hg	AC63081-035	12/07/11 16:39	RICAR	0	M	Received
AC63081-025	12/08/11 13:32	R12	1	A	NONE	AC63081-035	12/07/11 19:06	RICAR	0	M	Login
AC63081-025	12/10/11 10:32	SDL	1	A	% SOLIDS	AC63081-035	12/07/11 19:34	R12	1	A	NONE
AC63081-025	12/10/11 17:24	R12	1	A	NONE	AC63081-035	12/08/11 00:38	PA	1	A	mixing
AC63081-025	12/19/11 12:20	CJA	1	A	tclp-ext	AC63081-035	12/08/11 00:40	R12	1	A	NONE
AC63081-025	12/19/11 20:40	R12	1	A	NONE	AC63081-035	12/08/11 11:26	JU	1	A	tdsi-hg
AC63081-026	12/07/11 16:39	RICAR	0	M	Received	AC63081-035	12/08/11 13:32	R12	1	A	NONE
AC63081-026	12/07/11 19:06	RICAR	0	M	Login	AC63081-035	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-026	12/07/11 19:34	R12	1	A	NONE	AC63081-035	12/10/11 17:24	R12	1	A	NONE
AC63081-026	12/08/11 00:38	PA	1	A	mixing	AC63081-036	12/07/11 16:39	RICAR	0	M	Received
AC63081-026	12/08/11 00:40	R12	1	A	NONE	AC63081-036	12/07/11 19:06	RICAR	0	M	Login
AC63081-026	12/08/11 11:26	JU	1	A	tdsi-hg	AC63081-036	12/07/11 19:34	R12	1	A	NONE
AC63081-026	12/08/11 13:32	R12	1	A	NONE						
AC63081-026	12/10/11 10:32	SDL	1	A	% SOLIDS						
AC63081-026	12/10/11 17:24	R12	1	A	NONE						
AC63081-026	12/19/11 12:20	CJA	1	A	tclp-ext						
AC63081-026	12/19/11 20:40	R12	1	A	NONE						

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63081-036	12/08/11 00:38	PA	1	A	mixing
AC63081-036	12/08/11 00:40	R12	1	A	NONE
AC63081-036	12/08/11 16:08	JU	1	A	tdsi-hg
AC63081-036	12/08/11 19:06	R12	1	A	NONE
AC63081-036	12/09/11 16:12	OA	1	A	TDSHG
AC63081-036	12/09/11 20:54	R12	1	A	NONE
AC63081-036	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-036	12/10/11 17:24	R12	1	A	NONE
AC63081-036	12/12/11 10:00	PH	1	M	tdsi
AC63081-036	12/12/11 10:46	R12	1	A	NONE
AC63081-037	12/07/11 16:39	RICAR	0	M	Received
AC63081-037	12/07/11 19:06	RICAR	0	M	Login
AC63081-037	12/07/11 19:34	R12	1	A	NONE
AC63081-037	12/08/11 00:38	PA	1	A	mixing
AC63081-037	12/08/11 00:40	R12	1	A	NONE
AC63081-037	12/15/11 19:05	JU	1	A	TDSI-HG
AC63081-037	12/16/11 09:30	DW	1	M	% SOLIDS
AC63081-037	12/16/11 12:54	R12	1	A	NONE
AC63081-037	12/16/11 15:47	OA	1	A	tdshg
AC63081-037	12/16/11 21:09	R12	1	A	NONE
AC63081-038	12/07/11 16:39	RICAR	0	M	Received
AC63081-038	12/07/11 19:06	RICAR	0	M	Login
AC63081-038	12/07/11 19:34	R12	1	A	NONE
AC63081-038	12/08/11 00:38	PA	1	A	mixing
AC63081-038	12/08/11 00:40	R12	1	A	NONE
AC63081-038	12/08/11 16:08	JU	1	A	tdsi-hg
AC63081-038	12/08/11 19:06	R12	1	A	NONE
AC63081-038	12/09/11 16:12	OA	1	A	TDSHG
AC63081-038	12/09/11 20:54	R12	1	A	NONE
AC63081-038	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-038	12/10/11 17:24	R12	1	A	NONE
AC63081-038	12/12/11 10:00	PH	1	M	tdsi
AC63081-038	12/12/11 10:46	R12	1	A	NONE
AC63081-039	12/07/11 16:39	RICAR	0	M	Received
AC63081-039	12/07/11 19:06	RICAR	0	M	Login
AC63081-039	12/07/11 19:34	R12	1	A	NONE
AC63081-039	12/08/11 00:44	PA	1	A	mixing
AC63081-039	12/08/11 00:45	R12	1	A	NONE
AC63081-039	12/07/11 19:34	R12	2	A	NONE
AC63081-039	12/08/11 00:44	PA	2	A	mixing
AC63081-039	12/08/11 00:45	R12	2	A	NONE
AC63081-039	12/08/11 19:04	CJA	2	A	tcip extraction
AC63081-039	12/08/11 19:06	R12	2	A	NONE
AC63081-040	12/07/11 16:39	RICAR	0	M	Received
AC63081-040	12/07/11 19:06	RICAR	0	M	Login
AC63081-040	12/07/11 19:34	R12	1	A	NONE
AC63081-040	12/08/11 00:44	PA	1	A	mixing
AC63081-040	12/08/11 00:45	R12	1	A	NONE
AC63081-040	12/08/11 16:08	JU	1	A	tdsi-hg
AC63081-040	12/08/11 19:06	R12	1	A	NONE
AC63081-040	12/09/11 16:12	OA	1	A	TDSHG
AC63081-040	12/09/11 20:54	R12	1	A	NONE
AC63081-040	12/07/11 19:34	R12	2	A	NONE
AC63081-040	12/08/11 00:44	PA	2	A	mixing
AC63081-040	12/08/11 00:45	R12	2	A	NONE
AC63081-040	12/08/11 19:04	CJA	2	A	tcip extraction
AC63081-040	12/08/11 19:06	R12	2	A	NONE
AC63081-040	12/10/11 10:32	SDL	2	A	% SOLIDS
AC63081-040	12/10/11 17:24	R12	2	A	NONE
AC63081-040	12/12/11 10:00	PH	2	M	tdsi
AC63081-040	12/12/11 10:46	R12	2	A	NONE
AC63081-041	12/07/11 16:39	RICAR	0	M	Received
AC63081-041	12/07/11 19:06	RICAR	0	M	Login
AC63081-041	12/07/11 19:34	R12	1	A	NONE
AC63081-041	12/08/11 00:44	PA	1	A	mixing
AC63081-041	12/08/11 00:45	R12	1	A	NONE
AC63081-041	12/08/11 16:08	JU	1	A	tdsi-hg
AC63081-041	12/08/11 19:06	R12	1	A	NONE
AC63081-041	12/09/11 16:12	OA	1	A	TDSHG
AC63081-041	12/09/11 20:54	R12	1	A	NONE
AC63081-041	12/07/11 19:34	R12	2	A	NONE
AC63081-041	12/08/11 00:44	PA	2	A	mixing
AC63081-041	12/08/11 00:45	R12	2	A	NONE
AC63081-041	12/08/11 19:04	CJA	2	A	tcip extraction
AC63081-041	12/08/11 19:06	R12	2	A	NONE

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63081-041	12/10/11 10:32	SDL	2	A	% SOLIDS
AC63081-041	12/10/11 17:24	R12	2	A	NONE
AC63081-041	12/12/11 10:00	PH	2	M	tdsi
AC63081-041	12/12/11 10:46	R12	2	A	NONE
AC63081-042	12/07/11 16:39	RICAR	0	M	Received
AC63081-042	12/07/11 19:06	RICAR	0	M	Login
AC63081-042	12/07/11 19:34	R12	1	A	NONE
AC63081-042	12/08/11 00:44	PA	1	A	mixing
AC63081-042	12/08/11 00:45	R12	1	A	NONE
AC63081-042	12/07/11 19:34	R12	2	A	NONE
AC63081-042	12/08/11 00:44	PA	2	A	mixing
AC63081-042	12/08/11 00:45	R12	2	A	NONE
AC63081-043	12/07/11 16:39	RICAR	0	M	Received
AC63081-043	12/07/11 19:06	RICAR	0	M	Login
AC63081-043	12/07/11 19:34	R12	1	A	NONE
AC63081-043	12/08/11 00:38	PA	1	A	mixing
AC63081-043	12/08/11 00:40	R12	1	A	NONE
AC63081-043	12/08/11 16:08	JU	1	A	tdsi-hg
AC63081-043	12/08/11 19:06	R12	1	A	NONE
AC63081-043	12/09/11 16:12	OA	1	A	TDSHG
AC63081-043	12/09/11 20:54	R12	1	A	NONE
AC63081-043	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-043	12/10/11 17:24	R12	1	A	NONE
AC63081-043	12/12/11 10:00	PH	1	M	tdsi
AC63081-043	12/12/11 10:46	R12	1	A	NONE
AC63081-044	12/07/11 16:39	RICAR	0	M	Received
AC63081-044	12/07/11 19:06	RICAR	0	M	Login
AC63081-044	12/07/11 19:34	R12	1	A	NONE
AC63081-044	12/08/11 00:38	PA	1	A	mixing
AC63081-044	12/08/11 00:40	R12	1	A	NONE
AC63081-045	12/07/11 16:39	RICAR	0	M	Received
AC63081-045	12/07/11 19:06	RICAR	0	M	Login
AC63081-045	12/07/11 19:34	R12	1	A	NONE
AC63081-045	12/08/11 00:44	PA	1	A	mixing
AC63081-045	12/08/11 00:45	R12	1	A	NONE
AC63081-045	12/08/11 16:08	JU	1	A	tdsi-hg
AC63081-045	12/08/11 19:06	R12	1	A	NONE
AC63081-045	12/09/11 16:12	OA	1	A	TDSHG
AC63081-045	12/09/11 20:54	R12	1	A	NONE
AC63081-045	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-045	12/10/11 17:24	R12	1	A	NONE
AC63081-045	12/12/11 10:00	PH	1	M	tdsi
AC63081-045	12/12/11 10:46	R12	1	A	NONE
AC63081-046	12/07/11 16:39	RICAR	0	M	Received
AC63081-046	12/07/11 19:06	RICAR	0	M	Login
AC63081-046	12/07/11 19:34	R12	1	A	NONE
AC63081-046	12/08/11 00:38	PA	1	A	mixing
AC63081-046	12/08/11 00:40	R12	1	A	NONE
AC63081-046	12/08/11 16:08	JU	1	A	tdsi-hg
AC63081-046	12/08/11 19:06	R12	1	A	NONE
AC63081-046	12/09/11 16:12	OA	1	A	TDSHG
AC63081-046	12/09/11 20:54	R12	1	A	NONE
AC63081-046	12/10/11 10:32	SDL	1	A	% SOLIDS
AC63081-046	12/10/11 17:24	R12	1	A	NONE
AC63081-046	12/12/11 10:00	PH	1	M	tdsi
AC63081-046	12/12/11 10:46	R12	1	A	NONE
AC63081-047	12/07/11 16:39	RICAR	0	M	Received
AC63081-047	12/07/11 19:06	RICAR	0	M	Login
AC63081-047	01/12/12 12:14	CJA	1	A	TCLP-EXT
AC63081-047	01/12/12 17:27	R12	1	A	NONE
AC63081-047	12/07/11 19:34	R12	1	A	NONE
AC63081-047	12/08/11 00:38	PA	1	A	mixing
AC63081-047	12/08/11 00:40	R12	1	A	NONE
AC63081-047	12/15/11 19:05	JU	1	A	TDSI-HG
AC63081-047	12/16/11 09:30	DW	1	M	% SOLIDS
AC63081-047	12/16/11 12:54	R12	1	A	NONE
AC63081-047	12/16/11 15:47	OA	1	A	tdshg
AC63081-047	12/16/11 21:09	R12	1	A	NONE

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

## **Metal Data**

**Metal Data**  
**Sample Data**

## Form1

### Inorganic Analysis Data Sheet

Sample ID: AC63081-001  
 Client Id: B-3 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 84  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	13	1	0.5	50	12/09/11	11678	S13373A	22	P	PEICP1A
7439-92-1	Lead	6.0	630	1	0.5	50	12/09/11	11678	S13373A	22	P	PEICP1A
7439-97-6	Mercury	0.099	ND	1	0.15	25	12/08/11	11678	H13373S	18	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-003  
 Client Id: B-3 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	6.5	1	0.5	50	12/09/11	11678	S13373A	23	P	PEICP1A
7439-92-1	Lead	6.5	170	1	0.5	50	12/09/11	11678	S13373A	23	P	PEICP1A
7439-97-6	Mercury	0.11	0.37	1	0.15	25	12/08/11	11678	H13373S	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-004  
 Client Id: B-3 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	10	1	0.5	50	12/09/11	11678	S13373A	24	P	PEICP1A
7439-92-1	Lead	6.6	600	1	0.5	50	12/09/11	11678	S13373A	24	P	PEICP1A
7439-97-6	Mercury	0.11	5.3	1	0.15	25	12/08/11	11678	H13373S	20	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-005  
 Client Id: B-3 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 70  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	5.5	1	0.5	50	12/19/11	11715	S13406A	41	P	PEICP1A
7439-92-1	Lead	7.1	71	1	0.5	50	12/19/11	11715	S13406A	41	P	PEICP1A
7439-97-6	Mercury	0.12	0.42	1	0.15	25	12/16/11	11715	H13406S	18	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-006  
 Client Id: B-4 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	5.2	1	0.5	50	12/09/11	11678	S13373A	25	P	PEICP1A
7439-92-1	Lead	6.5	54	1	0.5	50	12/09/11	11678	S13373A	25	P	PEICP1A
7439-97-6	Mercury	0.11	0.37	1	0.15	25	12/08/11	11678	H13373S	23	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-008  
 Client Id: B-4 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	8.7	1	0.5	50	12/09/11	11678	S13373A	26	P	PEICP1A
7439-92-1	Lead	6.5	490	1	0.5	50	12/09/11	11678	S13373A	26	P	PEICP1A
7439-97-6	Mercury	0.11	4.3	1	0.15	25	12/08/11	11678	H13373S	24	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-009  
Client Id: B-4 10-12  
Matrix: SOIL  
Level: LOW

% Solid: 79  
Units: MG/KG  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.8	1	0.5	50	12/09/11	11678	S13373A	27	P	PEICP1A
7439-92-1	Lead	6.3	360	1	0.5	50	12/09/11	11678	S13373A	27	P	PEICP1A
7439-97-6	Mercury	0.11	0.49	1	0.15	25	12/08/11	11678	H13373S	25	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-011  
 Client Id: B-4  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	200000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-36-0	Antimony	12	37	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-38-2	Arsenic	7.5	360	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-39-3	Barium	50	6000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-41-7	Beryllium	4.0	14	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-43-9	Cadmium	3.5	16	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-70-2	Calcium	2000	350000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-47-3	Chromium	50	500	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-48-4	Cobalt	20	200	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-50-8	Copper	50	3200	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-89-6	Iron	280	490000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-92-1	Lead	4.0	17000	1	50	50	12/13/11	11681	W13377D2	30	P	PEICP2A
7439-95-4	Magnesium	2000	56000	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-96-5	Manganese	40	6600	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7439-97-6	Mercury	3.5	68	5	25	25	12/09/11	11681	13377SWc	20	CV	HGCV1A
7440-02-0	Nickel	50	430	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-09-7	Potassium	5000	54000	1	50	50	12/10/11	11681	SW13377A	13	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-23-5	Sodium	5000	49000	1	50	50	12/10/11	11681	SW13377A	13	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-62-2	Vanadium	50	740	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A
7440-66-6	Zinc	50	5800	1	50	50	12/12/11	11681	W13377B2	14	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-012  
 Client Id: B-14  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	99000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-36-0	Antimony	12	28	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-38-2	Arsenic	7.5	340	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-39-3	Barium	50	7200	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-41-7	Beryllium	4.0	7.2	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-43-9	Cadmium	3.5	29	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-70-2	Calcium	2000	420000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-47-3	Chromium	50	510	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-48-4	Cobalt	20	100	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-50-8	Copper	50	1400	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-89-6	Iron	280	210000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-92-1	Lead	4.0	29000	1	50	50	12/13/11	11681	W13377D2	36	P	PEICP2A
7439-95-4	Magnesium	2000	41000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-96-5	Manganese	40	3200	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7439-97-6	Mercury	7.0	140	10	25	25	12/09/11	11681	13377SWc	23	CV	HGCV1A
7440-02-0	Nickel	50	260	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-09-7	Potassium	5000	35000	1	50	50	12/10/11	11681	SW13377A	21	P	PEICPRAD1A
7782-49-2	Selenium	40	54	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-23-5	Sodium	5000	26000	1	50	50	12/10/11	11681	SW13377A	21	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-62-2	Vanadium	50	380	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A
7440-66-6	Zinc	50	17000	1	50	50	12/12/11	11681	W13377B2	22	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-013  
 Client Id: B-5 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	19	1	0.5	50	12/09/11	11678	S13373A	32	P	PEICP1A
7439-92-1	Lead	6.6	940	1	0.5	50	12/09/11	11678	S13373A	32	P	PEICP1A
7439-97-6	Mercury	0.11	3.9	1	0.15	25	12/08/11	11678	H13373S	26	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-015	% Solid: 83	Lab Name: Veritech	Nras No:
Client Id: B-5 8-10	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	5.2	1	0.5	50	12/09/11	11678	S13373A	33	P	PEICP1A
7439-92-1	Lead	6.0	28	1	0.5	50	12/09/11	11678	S13373A	33	P	PEICP1A
7439-97-6	Mercury	0.10	0.19	1	0.15	25	12/08/11	11678	H13373S	27	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63081-016  
Client Id: B-5 10-12  
Matrix: SOIL  
Level: LOW

% Solid: 74  
Units: MG/KG  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	11	1	0.5	50	12/09/11	11678	S13373A	34	P	PEICP1A
7439-92-1	Lead	6.8	630	1	0.5	50	12/09/11	11678	S13373A	34	P	PEICP1A
7439-97-6	Mercury	0.11	1.7	1	0.15	25	12/08/11	11678	H13373S	28	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-018	% Solid: 66	Lab Name: Veritech	Nras No:
Client Id: B-6 4-6	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	15	1	0.5	50	12/09/11	11678	S13373A	35	P	PEICP1A
7439-92-1	Lead	7.6	960	1	0.5	50	12/09/11	11678	S13373A	35	P	PEICP1A
7439-97-6	Mercury	0.13	4.5	1	0.15	25	12/08/11	11678	H13373S	29	CV	HGCV2A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-020  
 Client Id: B-6 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 74  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	11	1	0.5	50	12/09/11	11678	S13373A	36	P	PEICP1A
7439-92-1	Lead	6.8	490	1	0.5	50	12/09/11	11678	S13373A	36	P	PEICP1A
7439-97-6	Mercury	0.23	8.7	2	0.15	25	12/08/11	11678	H13373S	41	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-021  
Client Id: B-6 10-12  
Matrix: SOIL  
Level: LOW

% Solid: 84  
Units: MG/KG  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	11	1	0.5	50	12/09/11	11678	S13373A	37	P	PEICP1A
7439-92-1	Lead	6.0	46	1	0.5	50	12/09/11	11678	S13373A	37	P	PEICP1A
7439-97-6	Mercury	0.099	0.39	1	0.15	25	12/08/11	11678	H13373S	31	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-023  
 Client Id: B-7 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 83  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	4.2	1	0.5	50	12/09/11	11678	S13373A	38	P	PEICP1A
7439-92-1	Lead	6.0	47	1	0.5	50	12/09/11	11678	S13373A	38	P	PEICP1A
7439-97-6	Mercury	0.10	0.38	1	0.15	25	12/08/11	11678	H13373S	32	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-025  
 Client Id: B-7 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	8.9	1	0.5	50	12/09/11	11678	S13373A	41	P	PEICP1A
7439-92-1	Lead	6.6	810	1	0.5	50	12/09/11	11678	S13373A	41	P	PEICP1A
7439-97-6	Mercury	0.11	3.1	1	0.15	25	12/08/11	11678	H13373S	35	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-026  
 Client Id: B-7 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 81  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	4.9	1	0.5	50	12/09/11	11678	S13373A	42	P	PEICP1A
7439-92-1	Lead	6.2	97	1	0.5	50	12/09/11	11678	S13373A	42	P	PEICP1A
7439-97-6	Mercury	0.10	0.48	1	0.15	25	12/08/11	11678	H13373S	36	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-028  
 Client Id: B-14 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	27	1	0.5	50	12/09/11	11678	S13373A	43	P	PEICP1A
7439-92-1	Lead	26	16000	4	0.5	50	12/12/11	11678	S13373B	11	P	PEICP1A
7439-97-6	Mercury	0.11	5.0	1	0.15	25	12/08/11	11678	H13373S	37	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-030  
 Client Id: B-14 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 63  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.2	21	1	0.5	50	12/09/11	11678	S13373A	44	P	PEICP1A
7439-92-1	Lead	7.9	1300	1	0.5	50	12/09/11	11678	S13373A	44	P	PEICP1A
7439-97-6	Mercury	0.26	11	2	0.15	25	12/08/11	11678	H13373S	42	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1

### Inorganic Analysis Data Sheet

Sample ID: AC63081-031  
 Client Id: B-14 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 62  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.2	26	1	0.5	50	12/09/11	11678	S13373A	45	P	PEICP1A
7439-92-1	Lead	8.1	980	1	0.5	50	12/09/11	11678	S13373A	45	P	PEICP1A
7439-97-6	Mercury	0.13	4.0	1	0.15	25	12/08/11	11678	H13373S	39	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-032	% Solid: 67	Lab Name: Veritech	Nras No:
Client Id: B-14 12-14	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/14/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	19	1	0.5	50	12/19/11	11715	S13406A	14	P	PEICP1A
7439-92-1	Lead	7.5	1500	1	0.5	50	12/19/11	11715	S13406A	14	P	PEICP1A
7439-97-6	Mercury	0.50	18	4	0.15	25	12/20/11	11715	H13406Sc	14	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-033  
 Client Id: B-19 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 82  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	28	1	0.5	50	12/09/11	11678	S13373A	46	P	PEICP1A
7439-92-1	Lead	6.1	850	1	0.5	50	12/09/11	11678	S13373A	46	P	PEICP1A
7439-97-6	Mercury	0.10	4.3	1	0.15	25	12/08/11	11678	H13373S	40	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-035  
 Client Id: B-19 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 79  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	17	1	0.5	50	12/09/11	11678	S13373A	14	P	PEICP1A
7439-92-1	Lead	6.3	230	1	0.5	50	12/09/11	11678	S13373A	14	P	PEICP1A
7439-97-6	Mercury	0.11	0.96	1	0.15	25	12/08/11	11678	H13373S	14	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-036  
 Client Id: B-19 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	23	1	0.5	50	12/12/11	11679	S13374A3	22	P	PEICP3A
7439-92-1	Lead	6.5	250	1	0.5	50	12/12/11	11679	S13374A3	22	P	PEICP3A
7439-97-6	Mercury	0.11	0.95	1	0.15	25	12/09/11	11679	H13374Sc	18	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-037  
 Client Id: B-19 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 73  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	8.3	1	0.5	50	12/19/11	11715	S13406A	42	P	PEICP1A
7439-92-1	Lead	6.8	810	1	0.5	50	12/19/11	11715	S13406A	42	P	PEICP1A
7439-97-6	Mercury	0.11	3.9	1	0.15	25	12/16/11	11715	H13406S	19	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63081-038  
 Client Id: B-20 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 80  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.7	1	0.5	50	12/12/11	11679	S13374A3	14	P	PEICP3A
7439-92-1	Lead	6.2	380	1	0.5	50	12/12/11	11679	S13374A3	14	P	PEICP3A
7439-97-6	Mercury	0.21	2.6	2	0.15	25	12/09/11	11679	H13374Sc	23	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-040  
Client Id: B-20 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 63  
Units: MG/KG  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.2	31	1	0.5	50	12/12/11	11679	S13374A3	23	P	PEICP3A
7439-92-1	Lead	7.9	550	1	0.5	50	12/12/11	11679	S13374A3	23	P	PEICP3A
7439-97-6	Mercury	0.53	15	4	0.15	25	12/09/11	11679	H13374Sc	27	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-041  
 Client Id: B-20 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	7.2	1	0.5	50	12/12/11	11679	S13374A3	24	P	PEICP3A
7439-92-1	Lead	6.5	170	1	0.5	50	12/12/11	11679	S13374A3	24	P	PEICP3A
7439-97-6	Mercury	0.11	2.7	1	0.15	25	12/09/11	11679	H13374Sc	20	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-043  
 Client Id: B-16 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 68  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	8.9	1	0.5	50	12/12/11	11679	S13374A3	25	P	PEICP3A
7439-92-1	Lead	7.4	330	1	0.5	50	12/12/11	11679	S13374A3	25	P	PEICP3A
7439-97-6	Mercury	0.12	1.0	1	0.15	25	12/09/11	11679	H13374Sc	28	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-045  
 Client Id: B-16 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 81  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	3.7	1	0.5	50	12/12/11	11679	S13374A3	26	P	PEICP3A
7439-92-1	Lead	6.2	110	1	0.5	50	12/12/11	11679	S13374A3	26	P	PEICP3A
7439-97-6	Mercury	0.10	0.68	1	0.15	25	12/09/11	11679	H13374Sc	29	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-046  
 Client Id: B-16 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 80  
 Units: MG/KG  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	65	1	0.5	50	12/12/11	11679	S13374A3	27	P	PEICP3A
7439-92-1	Lead	6.2	330	1	0.5	50	12/12/11	11679	S13374A3	27	P	PEICP3A
7439-97-6	Mercury	0.10	3.6	1	0.15	25	12/09/11	11679	H13374Sc	30	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-047	% Solid: 74	Lab Name: Veritech	Nras No:
Client Id: B-16 12-14	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/14/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.7	1800	1	0.5	50	12/19/11	11715	S13406A	43	P	PEICP1A
7439-92-1	Lead	6.8	4700	1	0.5	50	12/19/11	11715	S13406A	43	P	PEICP1A
7439-97-6	Mercury	11	390	100	0.15	25	12/20/11	11715	H13406Sc	21	CV	HGCV1A

Comments: \_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

**Metal Data**  
**QC Data**

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/10/11  
 Data File: SW13377A  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICPRAD1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV V-128235 (2)-6		CCV V-128659-18		CCV V-128659-24		CCV V-128659-33		Rec	Rec	Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec								
Potassium	100/50	104.18900	104	52.58330	105	50.16470	100	50.63330	101						
Sodium	100/50	101.24200	101	51.82030	104	50.55010	101	51.02490	102						

- Notes:**
- a-indicates analyte failed the ICV limits for 6010B, 6020
  - b-indicates analyte failed the ICV limits for 200.7 or 200.8
  - c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020
  - d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/09/11  
 Data File: S13373A  
 Prep Batch: 11678  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 128235 (2)-7		CCV V- 128659- 19		CCV V- 128659- 30		CCV V- 128659- 39		CCV V- 128659- 49							
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	
<b>Arsenic</b>	1/.5	0.98358	98	0.47472	95	0.46652	93	0.46983	94	0.45840	92						
<b>Lead</b>	1/.5	0.98904	99	0.49734	99	0.48637	97	0.48683	97	0.48268	97						

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/19/11  
 Data File: S13406A  
 Prep Batch: 11715  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV V-128235 (2)-7 Rec	CCV V-128659-19 Rec	CCV V-128659-26 Rec	CCV V-128659-36 Rec	CCV V-128659-46 Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	
<b>Arsenic</b>	1/5	0.99654	100	0.48979	98	0.48860	98	0.49289	99	0.48929	98				
<b>Lead</b>	1/5	1.00170	100	0.52936	106	0.51183	102	0.51049	102	0.51506	103				

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: S13374A3  
 Prep Batch: 11679  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV (2) V- 128235- 7	Rec	CCV V- 129808- 19	Rec	CCV V- 129808- 30	Rec							
Arsenic	1/.5	1.01762	102	0.49114	98	0.50162	100							
Lead	1/.5	1.00764	101	0.49409	99	0.50448	101							

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:**  
 ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: S13373B  
 Prep Batch: 11678  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV V-128235 (2)-7	Rec	CCV V-128659-14	Rec							
Lead	1/5	1.00891	101	0.52593	105							

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: SW13377B2  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV V-128234 (2)-7 Rec	CCV V-128233-19 Rec	CCV V-128233-27 Rec	Rec	Rec	Rec	Rec	Rec	Rec
Aluminum	10/5	9.51451 95	5.04126 101	5.06128 101						
Antimony	1/5	0.96003 96	0.50706 101	0.51297 103						
Arsenic	1/5	0.96138 96	0.50915 102	0.51689 103						
Barium	1/5	0.96131 96	0.51424 103	0.51501 103						
Beryllium	1/5	0.97363 97	0.50755 102	0.50836 102						
Cadmium	1/5	0.95267 95	0.50699 101	0.50792 102						
Calcium	100/50	97.64900 98	51.56700 103	51.70740 103						
Chromium	1/5	0.95516 96	0.51031 102	0.51258 103						
Cobalt	1/5	0.96045 96	0.52093 104	0.52097 104						
Copper	1/5	0.95321 95	0.50376 101	0.50404 101						
Iron	10/5	9.44588 94	5.07249 101	5.06691 101						
Magnesium	100/50	94.23550 94	51.36120 103	51.55960 103						
Manganese	1/5	0.94237 94	0.50974 102	0.50997 102						
Nickel	1/5	0.95033 95	0.51788 104	0.51888 104						
Selenium	1/5	0.96801 97	0.52042 104	0.52512 105						
Silver	0.2/0.1	0.18783 94	0.09922 99	0.09939 99						
Thallium	1/5	1.00693 101	0.54236 108	0.54430 109						
Vanadium	1/5	0.94841 95	0.50931 102	0.50919 102						
Zinc	1/5	0.94614 95	0.52503 105	0.52180 104						

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/13/11  
 Data File: SW13377D2  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 128234 (2)-7		CCV V- 128233- 11		CCV V- 128233- 23		CCV V- 128233- 28		CCV V- 128233- 40		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	10/5	9.90756	99	4.87485	97	4.93795	99	4.93274	99	4.89647	98				
Antimony	1/5	0.97717	98	0.47951	96	0.48538	97	0.48874	98	0.48325	97				
Arsenic	1/5	0.98499	98	0.47883	96	0.48634	97	0.48699	97	0.48429	97				
Barium	1/5	1.00674	101	0.49708	99	0.50777	102	0.50685	101	0.50425	101				
Beryllium	1/5	0.99097	99	0.48788	98	0.49621	99	0.49324	99	0.49707	99				
Cadmium	1/5	1.00152	100	0.48884	98	0.49725	99	0.49758	100	0.49427	99				
Calcium	100/50	99.50980	100	49.40950	99	50.37090	101	50.12840	100	50.59590	101				
Chromium	1/5	1.00013	100	0.49308	99	0.50283	101	0.50195	100	0.49972	100				
Cobalt	1/5	1.00264	100	0.49629	99	0.50696	101	0.50764	102	0.50562	101				
Copper	1/5	0.99350	99	0.48917	98	0.49542	99	0.49487	99	0.49171	98				
Iron	10/5	9.89326	99	4.88165	98	4.94360	99	4.94044	99	4.92368	98				
Lead	1/5	0.99138	99	0.49191	98	0.50091	100	0.50241	100	0.50458	101				
Magnesium	100/50	99.52410	100	49.46070	99	50.54720	101	50.42010	101	51.02380	102				
Manganese	1/5	0.98937	99	0.48935	98	0.49813	100	0.49758	100	0.49477	99				
Nickel	1/5	1.00112	100	0.49551	99	0.50808	102	0.50639	101	0.50484	101				
Selenium	1/5	0.99746	100	0.48534	97	0.49524	99	0.50133	100	0.50323	101				
Silver	0.2/0.1	0.19571	98	0.09538	95	0.09764	98	0.09681	97	0.09625	96				
Thallium	1/5	1.02577	103	0.51859	104	0.52609	105	0.52723	105	0.52331	105				
Vanadium	1/5	0.99080	99	0.49070	98	0.49951	100	0.49875	100	0.49497	99				
Zinc	1/5	0.99727	100	0.49171	98	0.50460	101	0.50450	101	0.50356	101				

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV - 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/08/11  
 Data File: H13373S  
 Prep Batch: 11678  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-21		CCV-33		CCV-43		Rec							
	ICV/CC V Amt	Rec	Rec	Rec	Rec	Rec	Rec	Rec								
Mercury	20/10	20.50000	102	10.40000	104	10.43000	104	10.38000	104							

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/16/11  
 Data File: H13406S  
 Prep Batch: 11715  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-21											
	ICV/CC V Amt	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Mercury	20/10	20.06221	100	10.63981	106									

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:**  
 ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/20/11  
 Data File: H13406Sc  
 Prep Batch: 11715  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-19		CCV-22							
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Mercury	20/10	19.85834	99	10.70083	107	10.71424	107						

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/09/11  
 Data File: H13374Sc  
 Prep Batch: 11679  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-21		CCV-32		Rec								
	ICV/CC	V Amt	Rec	Rec	Rec	Rec									
Mercury	20/10	19.96731	100	10.09940	101	10.08152	101								

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/09/11  
 Data File: H13377SWc  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-21		CCV-24		Rec						
		Rec	Rec	Rec	Rec	Rec	Rec							
Mercury	20/10	20.69810	103	10.60035	106	10.37060	104							

- Notes:**
- a-indicates analyte failed the ICV limits for 6010B, 6020
  - b-indicates analyte failed the ICV limits for 200.7 or 200.8
  - c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020
  - d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/10/11

Data File: SW13377A

Prep Batch: 11681

Reporting Limits Used: SOiL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICPRAD1A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120730

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-129815-7	CCB-19	CCB-25	CCB-34	MB 11681 (1)-10			
Potassium	5 U	5 U	5 U	5 U	5 U			
Sodium	5 U	5 U	5 U	5 U	5 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/09/11

Data File: S13373A

Prep Batch: 11678

Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICP1A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120730

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-129815-8	CCB-20	CCB-31	CCB-40	CCB-50	MB 11678 (100)-11		
Arsenic	.02 U	.02 U	.02 U	.02 U	.02 U	2 U		
Lead	.05 U	.05 U	.05 U	.05 U	.05 U	5 U		

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/19/11

Data File: S13406A

Prep Batch: 11715

Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICP1A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120730

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-129815-8	CCB-20	CCB-27	CCB-37	CCB-47	MB 11715 (100)-11		
Arsenic	.02 U	.02 U	.02 U	.02 U	.02 U	2 U		
Lead	.05 U	.05 U	.05 U	.05 U	.05 U	5 U		

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11

Data File: S13374A3

Prep Batch: 11679

Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICP3A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120730

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-129815- 8	CCB V-129815- 20	CCB V-129815- 31	MB 11679 (100)-11				
Arsenic	.02 U	.02 U	.02 U	2 U				
Lead	.05 U	.05 U	.05 U	5 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11  
 Data File: S13373B  
 Prep Batch: 11678  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-129815- 8	CCB-15					
Lead	.05 U	.05 U					

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11

Data File: SW13377B2

Prep Batch: 11681

Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICP2A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120730

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-128658- 8	CCB-20	CCB-28	MB 11681 (1)- 11				
Aluminum	.18 U	.18 U	.18 U	.18 U				
Antimony	.012 U	.012 U	.012 U	.012 U				
Arsenic	.0075 U	.0075 U	.0075 U	.0075 U				
Barium	.05 U	.05 U	.05 U	.05 U				
Beryllium	.004 U	.004 U	.004 U	.004 U				
Cadmium	.0035 U	.0035 U	.0035 U	.0035 U				
Calcium	2 U	2 U	2 U	2 U				
Chromium	.05 U	.05 U	.05 U	.05 U				
Cobalt	.02 U	.02 U	.02 U	.02 U				
Copper	.05 U	.05 U	.05 U	.05 U				
Iron	.275 U	.275 U	.275 U	.28 U				
Magnesium	2 U	2 U	2 U	2 U				
Manganese	.04 U	.04 U	.04 U	.04 U				
Nickel	.05 U	.05 U	.05 U	.05 U				
Selenium	.04 U	.04 U	.04 U	.04 U				
Silver	.02 U	.02 U	.02 U	.02 U				
Thallium	.01 U	.01 U	.01 U	.01 U				
Vanadium	.05 U	.05 U	.05 U	.05 U				
Zinc	.05 U	.05 U	.05 U	.05 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/13/11

Data File: SW13377D2

Prep Batch: 11681

Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICP2A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120730

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-128658-8	CCB-12	CCB-24	CCB-29	CCB-41	MB 11681 (1)-25
Aluminum	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U
Antimony	.012 U	.012 U	.012 U	.012 U	.012 U	.012 U
Arsenic	.0075 U	.0075 U	.0075 U	.0075 U	.0075 U	.0075 U
Barium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Beryllium	.004 U	.004 U	.004 U	.004 U	.004 U	.004 U
Cadmium	.0035 U	.0035 U	.0035 U	.0035 U	.0035 U	.0035 U
Calcium	2 U	2 U	2 U	2 U	2 U	2 U
Chromium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Cobalt	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U
Copper	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Iron	.275 U	.275 U	.275 U	.275 U	.275 U	.28 U
Lead	.004 U	.004 U	.004 U	.004 U	.004 U	.004 U
Magnesium	2 U	2 U	2 U	2 U	2 U	2 U
Manganese	.04 U	.04 U	.04 U	.04 U	.04 U	.04 U
Nickel	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Selenium	.04 U	.04 U	.04 U	.04 U	.04 U	.04 U
Silver	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U
Thallium	.01 U	.01 U	.01 U	.01 U	.01 U	.01 U
Vanadium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Zinc	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/08/11  
 Data File: H13373S  
 Prep Batch: 11678  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	CCB-34	CCB-44	MB 11678 (167)-11			
Mercury	.5 U	.5 U	.5 U	.5 U	83 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/16/11  
 Data File: H13406S  
 Prep Batch: 11715  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	MB 11715 (167)-11			
Mercury	.5 U	.5 U	83 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/09/11

Data File: H13374Sc

Prep Batch: 11679

Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: HGCV1A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120730

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB-10	CCB-22	CCB-33	MB 11679 (167)-11				
Mercury	.5 U	.5 U	.5 U	83 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/20/11  
 Data File: H13406Sc  
 Prep Batch: 11715  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-20	CCB-23	MB 11715 (167)-11				
Mercury	.5 U	.5 U	.5 U	83 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/09/11  
 Data File: H13377SWc  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	CCB-25	MB 11681 (1)- 11
Mercury	.7 U	.7 U	.7 U	.7 U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/10/11  
 Data File: SW13377A  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICPRAD1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V- 128666-8		ICSAB V- 128667-9		ICSA V- 128666-22		ICSAB V- 128667-23		ICSA V- 128666-31		ICSAB V- 128667-32		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	493.439	99	500.48500	100	509.817	102	506.69300	101	511.202	102	510.74300	102		
Calcium	500	495.375	99	502.67400	101	510.589	102	508.27400	102	514.275	103	512.59200	103		
Iron	200	188.301	94	188.71000	94	194.184	97	191.33700	96	195.732	98	192.69600	96		
Magnesium	500	499.806	100	505.96900	101	514.785	103	512.41500	102	517.845	104	517.41300	103		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/09/11  
 Data File: S13373A  
 Prep Batch: 11678  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-128666-9		ICSAB V-128667-10		ICSA V-128666-28		ICSAB V-128667-29		ICSA V-128666-47		ICSAB V-128667-48		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Aluminum	500	451.803	90	456.09400	91	446.858	89	450.54900	90	441.951	88	445.28500	89		
Arsenic	1	U		0.95123	95	U		0.92868	93	U		0.92518	93		
Calcium	500	444.447	89	453.23500	91	436.363	87	441.37400	88	433.085	87	442.89900	89		
Iron	200	169.302	85	170.86100	85	167.502	84	168.60200	84	166.181	83	166.89100	83		
Lead	1	U		0.91224	91	U		0.91867	92	U		0.91241	91		
Magnesium	500	476.046	95	486.09900	97	470.023	94	474.77900	95	469.081	94	475.13000	95		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

Rec

Rec

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/19/11  
 Data File: S13406A  
 Prep Batch: 11715  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-128666-9		ICSAB V-128667-10		ICSA V-128666-24		ICSAB V-128667-25		ICSA V-128666-34		ICSAB V-128667-35		ICSA V-128666-44		ICSAB V-128667-45	
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	
Aluminum	500	439.509	88	441.97400	88	441.868	88	443.95700	89	441.05	88	443.26700	89	437.993	88	439.49800	88
Arsenic	1	U		0.95199	95	-.0220814b		0.93752	94	U		0.94912	95	U		0.94604	95
Calcium	500	449.766	90	448.22200	90	437.675	88	448.80200	90	450.333	90	449.88700	90	446.648	89	443.87700	89
Iron	200	168.075	84	169.22200	85	169.015	85	169.90900	85	168.914	84	169.92000	85	167.76	84	168.30100	84
Lead	1	U		0.90735	91	U		0.89292	89	U		0.88454	88	U		0.90806	91
Magnesium	500	471.809	94	469.89200	94	460.342	92	472.27000	94	471.225	94	472.81100	95	469.177	94	467.14100	93

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/12/11  
 Data File: S13374A3  
 Prep Batch: 11679  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-129812-9		ICSAB V-128667-10		ICSA V-129812-28		ICSAB V-128667-29		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	499.041	100	490.78100	98	507.024	101	505.89500	101				
Arsenic	1	U		1.03130	103	U		1.04149	104				
Calcium	500	491.387	98	486.27400	97	499.363	100	491.02000	98				
Iron	200	191.431	96	188.93900	94	194.269	97	193.77100	97				
Lead	1	U		0.96830	97	U		0.96134	96				
Magnesium	500	517.585	104	511.13000	102	524.85	105	522.99300	105				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/12/11  
 Data File: S13373B  
 Prep Batch: 11678  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-128666-9		ICSAB V-128667-10		ICSA V-128666-12		ICSAB V-128667-13		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	455.22	91	456.51500	91	457.017	91	451.76500	90				
Calcium	500	444.897	89	447.31700	89	445.579	89	443.47900	89				
Iron	200	170.796	85	171.41900	86	171.056	86	169.14500	85				
Lead	1	U		0.95038	95	U		0.94090	94				
Magnesium	500	485.2	97	489.18300	98	486.461	97	483.43400	97				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

Rec

Rec

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/12/11  
 Data File: SW13377B2  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-127386-9		ICSAB V-127387-10		ICSA V-127386-25		ICSAB V-127387-26		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	496.394	99	495.06400	99	504.924	101	502.52000	101				
Antimony	1	U		0.97111	97	-.01451b		0.99798	100				
Arsenic	1	U		1.01214	101	U		1.03193	103				
Barium	.5	U		0.51272	103	U		0.51480	103				
Beryllium	.5	U		0.50613	101	U		0.50978	102				
Cadmium	1	U		1.02877	103	U		1.03704	104				
Calcium	500	484.896	97	482.84000	97	496.237	99	493.01200	99				
Chromium	.5	U		0.50893	102	U		0.51259	103				
Cobalt	.5	U		0.47291	95	U		0.47971	96				
Copper	.5	U		0.51573	103	U		0.51815	104				
Iron	200	187.134	94	187.51900	94	191.867	96	189.82300	95				
Magnesium	500	495.993	99	502.61700	101	509.762	102	505.47700	101				
Manganese	.5	U		0.48738	97	U		0.49078	98				
Nickel	1	U		0.93257	93	U		0.94102	94				
Selenium	1	U		1.00548	101	U		1.02749	103				
Silver	1	U		1.05510	106	U		1.06987	107				
Thallium	1	U		0.97890	98	U		0.98100	98				
Vanadium	.5	U		0.48499	97	U		0.48759	98				
Zinc	1	U		0.97251	97	U		0.99063	99				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/13/11  
 Data File: SW13377D2  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-127386-9		ICSAB V-127387-10		ICSA V-127386-21		ICSAB V-127387-22		ICSA V-127386-38		ICSAB V-127387-39		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Aluminum	500	476.332	95	473.46600	95	478.59	96	480.51100	96	482.892	97	477.57900	96		
Antimony	1	U		0.95746	96	U		0.96680	97	U		0.96351	96		
Arsenic	1	U		0.95979	96	U		0.98023	98	U		0.98506	99		
Barium	.5	U		0.48460	97	U		0.49912	100	U		0.50047	100		
Beryllium	.5	U		0.48618	97	U		0.49035	98	U		0.48884	98		
Cadmium	1	U		0.97046	97	U		0.99908	100	U		0.99886	100		
Calcium	500	465.679	93	463.29800	93	468.244	94	472.50900	95	475.39	95	469.02800	94		
Chromium	.5	U		0.47881	96	U		0.49251	99	U		0.49331	99		
Cobalt	.5	U		0.46404	93	U		0.47604	95	U		0.47531	95		
Copper	.5	U		0.48612	97	U		0.49689	99	U		0.49828	100		
Iron	200	183.681	92	184.70100	92	184.207	92	186.39100	93	189.649	95	185.97800	93		
Lead	1	U		0.91667	92	.0040696b		0.93791	94	.004913b		0.93889	94		
Magnesium	500	488.66	98	492.35800	98	491.742	98	498.76100	100	508.396	102	497.28100	99		
Manganese	.5	U		0.46752	94	U		0.48045	96	U		0.48152	96		
Nickel	1	U		0.90691	91	U		0.93569	94	U		0.93448	93		
Selenium	1	U		0.95768	96	U		0.99167	99	U		0.97676	98		
Silver	1	U		0.98017	98	U		0.99922	100	U		1.00213	100		
Thallium	1	U		0.92031	92	U		0.93809	94	U		0.93645	94		
Vanadium	.5	U		0.46793	94	U		0.48011	96	U		0.48076	96		
Zinc	1	U		0.92546	93	U		0.96124	96	U		0.95877	96		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11681

1120730 0170

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCS		Matrix: AQUEOUS		SampleID: LCSW 11681							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Aluminum	11681	1	SW13377	12	4.6585	5.00	93	75	75	125	
Antimony	11681	1	SW13377	12	0.4572	0.500	91	75	75	125	
Arsenic	11681	1	SW13377	12	0.4637	0.500	93	75	75	125	
Barium	11681	1	SW13377	12	0.4752	0.500	95	75	75	125	
Beryllium	11681	1	SW13377	12	0.4692	0.500	94	75	75	125	
Cadmium	11681	1	SW13377	12	0.4626	0.500	93	75	75	125	
Calcium	11681	1	SW13377	12	48.8649	50.00	98	75	75	125	
Chromium	11681	1	SW13377	12	0.4707	0.500	94	75	75	125	
Cobalt	11681	1	SW13377	12	0.4812	0.500	96	75	75	125	
Copper	11681	1	SW13377	12	0.4707	0.500	94	75	75	125	
Iron	11681	1	SW13377	12	4.6963	5.00	94	75	75	125	
Lead	11681	1	SW13377	26	0.4693	0.500	94	75	75	125	
Magnesium	11681	1	SW13377	12	47.3124	50.00	95	75	75	125	
Manganese	11681	1	SW13377	12	0.4677	0.500	94	75	75	125	
Mercury	11681	1	H13377S	12	10.4721	10	105	75	75	125	
Nickel	11681	1	SW13377	12	0.4768	0.500	95	75	75	125	
Potassium	11681	1	SW13377	11	49.2059	50.00	98	75	75	125	
Selenium	11681	1	SW13377	12	0.4663	0.500	93	75	75	125	
Silver	11681	1	SW13377	12	0.0896	0.100	90	75	75	125	
Sodium	11681	1	SW13377	11	49.8270	50.00	100	75	75	125	
Thallium	11681	1	SW13377	12	0.4990	0.500	100	75	75	125	
Vanadium	11681	1	SW13377	12	0.4679	0.500	94	75	75	125	
Zinc	11681	1	SW13377	12	0.4741	0.500	95	75	75	125	

TxtQcType: LCSMR		Matrix: AQUEOUS		SampleID: LCSW MR 11681							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Aluminum	11681	1	SW13377	13	4.7174	5.00	94	75	75	125	
Antimony	11681	1	SW13377	13	0.4756	0.500	95	75	75	125	
Arsenic	11681	1	SW13377	13	0.4784	0.500	96	75	75	125	
Barium	11681	1	SW13377	13	0.4824	0.500	96	75	75	125	
Beryllium	11681	1	SW13377	13	0.4806	0.500	96	75	75	125	
Cadmium	11681	1	SW13377	13	0.4709	0.500	94	75	75	125	
Calcium	11681	1	SW13377	13	50.0612	50.00	100	75	75	125	
Chromium	11681	1	SW13377	13	0.4780	0.500	96	75	75	125	
Cobalt	11681	1	SW13377	13	0.4887	0.500	98	75	75	125	
Copper	11681	1	SW13377	13	0.4776	0.500	96	75	75	125	
Iron	11681	1	SW13377	13	4.7625	5.00	95	75	75	125	
Lead	11681	1	SW13377	27	0.4812	0.500	96	75	75	125	
Magnesium	11681	1	SW13377	13	48.5396	50.00	97	75	75	125	
Manganese	11681	1	SW13377	13	0.4750	0.500	95	75	75	125	
Mercury	11681	1	H13377S	13	10.5586	10	106	75	75	125	
Nickel	11681	1	SW13377	13	0.4841	0.500	97	75	75	125	
Potassium	11681	1	SW13377	12	50.7708	50.00	102	75	75	125	
Selenium	11681	1	SW13377	13	0.4816	0.500	96	75	75	125	
Silver	11681	1	SW13377	13	0.0912	0.100	91	75	75	125	
Sodium	11681	1	SW13377	12	50.9648	50.00	102	75	75	125	
Thallium	11681	1	SW13377	13	0.5189	0.500	104	75	75	125	
Vanadium	11681	1	SW13377	13	0.4762	0.500	95	75	75	125	
Zinc	11681	1	SW13377	13	0.4816	0.500	96	75	75	125	

TxtQcType: MS		Matrix: AQUEOUS		SampleID: AC63077-001									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11681	1	H13377S	16	H13377S	14	10.2614	.70U	10	103	75	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11681

1120730 0171

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: MS		Matrix: AQUEOUS				SampleID: AC63081-011							
Analyte	Batchld	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	11681	1	SW13377	16	SW13377	14	197.9810	195.0130	5.0	59	b	75	125
Antimony	11681	1	SW13377	16	SW13377	14	0.3273	0.0367	.5	58	a	75	125
Arsenic	11681	1	SW13377	16	SW13377	14	0.7647	0.3602	.5	81		75	125
Barium	11681	1	SW13377	16	SW13377	14	5.8337	6.0157	.5	-36	b	75	125
Beryllium	11681	1	SW13377	16	SW13377	14	0.4530	0.0145	.5	88		75	125
Cadmium	11681	1	SW13377	16	SW13377	14	0.4586	0.0163	.5	88		75	125
Calcium	11681	1	SW13377	16	SW13377	14	389.9530	352.9150	50.0	74	b	75	125
Chromium	11681	1	SW13377	16	SW13377	14	0.8938	0.4951	.5	80		75	125
Cobalt	11681	1	SW13377	16	SW13377	14	0.6181	0.2008	.5	83		75	125
Copper	11681	1	SW13377	16	SW13377	14	3.1000	3.2454	.5	-29	b	75	125
Iron	11681	1	SW13377	16	SW13377	14	441.6240	492.4340	5.0	-1000	b	75	125
Lead	11681	1	SW13377	32	SW13377	30	15.7475	17.2145	.5	-290	b	75	125
Magnesium	11681	1	SW13377	16	SW13377	14	95.7445	55.7988	50	80		75	125
Manganese	11681	1	SW13377	16	SW13377	14	6.4842	6.6038	.5	-24	b	75	125
Nickel	11681	1	SW13377	16	SW13377	14	0.8180	0.4298	.5	78		75	125
Potassium	11681	1	SW13377	15	SW13377	13	107.4860	53.7086	50.00	108		75	125
Selenium	11681	1	SW13377	16	SW13377	14	0.4077	0.040U	.5	82		75	125
Silver	11681	1	SW13377	16	SW13377	14	0.0922	0.02U	.1	92		75	125
Sodium	11681	1	SW13377	15	SW13377	13	99.1586	48.5541	50.00	101		75	125
Thallium	11681	1	SW13377	16	SW13377	14	0.4186	0.010U	.5	84		75	125
Vanadium	11681	1	SW13377	16	SW13377	14	1.1126	0.7373	.5	75		75	125
Zinc	11681	1	SW13377	16	SW13377	14	5.6356	5.8342	.5	-40	b	75	125

TxtQcType: MSD		Matrix: AQUEOUS				SampleID: AC63077-001							
Analyte	Batchld	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11681	1	H13377S	17	H13377S	14	9.9198	.70U	10	99		75	125

TxtQcType: MSD		Matrix: AQUEOUS				SampleID: AC63081-011							
Analyte	Batchld	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	11681	1	SW13377	17	SW13377	14	197.2790	195.0130	5.0	45	b	75	125
Antimony	11681	1	SW13377	17	SW13377	14	0.3351	0.0367	.5	60	a	75	125
Arsenic	11681	1	SW13377	17	SW13377	14	0.7546	0.3602	.5	79		75	125
Barium	11681	1	SW13377	17	SW13377	14	5.7198	6.0157	.5	-59	b	75	125
Beryllium	11681	1	SW13377	17	SW13377	14	0.4484	0.0145	.5	87		75	125
Cadmium	11681	1	SW13377	17	SW13377	14	0.4493	0.0163	.5	87		75	125
Calcium	11681	1	SW13377	17	SW13377	14	388.6930	352.9150	50.0	72	b	75	125
Chromium	11681	1	SW13377	17	SW13377	14	0.8909	0.4951	.5	79		75	125
Cobalt	11681	1	SW13377	17	SW13377	14	0.6090	0.2008	.5	82		75	125
Copper	11681	1	SW13377	17	SW13377	14	2.9907	3.2454	.5	-51	b	75	125
Iron	11681	1	SW13377	17	SW13377	14	440.3990	492.4340	5.0	-1000	b	75	125
Lead	11681	1	SW13377	33	SW13377	30	15.0252	17.2145	.5	-440	b	75	125
Magnesium	11681	1	SW13377	17	SW13377	14	95.4530	55.7988	50	79		75	125
Manganese	11681	1	SW13377	17	SW13377	14	6.4606	6.6038	.5	-29	b	75	125
Nickel	11681	1	SW13377	17	SW13377	14	0.8217	0.4298	.5	78		75	125
Potassium	11681	1	SW13377	16	SW13377	13	106.2070	53.7086	50.0	105		75	125
Selenium	11681	1	SW13377	17	SW13377	14	0.4069	0.040U	.5	81		75	125
Silver	11681	1	SW13377	17	SW13377	14	0.0905	0.02U	.1	90		75	125
Sodium	11681	1	SW13377	16	SW13377	13	99.6160	48.5541	50	102		75	125
Thallium	11681	1	SW13377	17	SW13377	14	0.4100	0.010U	.5	82		75	125
Vanadium	11681	1	SW13377	17	SW13377	14	1.1062	0.7373	.5	74	a	75	125
Zinc	11681	1	SW13377	17	SW13377	14	5.5747	5.8342	.5	-52	b	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11678

1120730 0172

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR      Matrix: SOIL      SampleID: LCS MR 11678

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11678	1	S13373A	13	1.6652	1.61	103		81	119
Lead	11678	1	S13373A	13	1.0976	1.03	107		82	117
Mercury	11678	1	H13373S	13	23.1500	22.34	104		69	131

TxtQcType: LCS      Matrix: SOIL      SampleID: LCS 11678

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11678	1	S13373A	12	1.6036	1.61	100		81	119
Lead	11678	1	S13373A	12	1.0510	1.03	102		82	117
Mercury	11678	1	H13373S	12	23.0600	22.34	103		69	131

TxtQcType: MSD      Matrix: SOIL      SampleID: AC63081-035

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11678	1	S13373A	17	S13373A	14	0.6118	0.1323	0.5	96		75	125
Lead	11678	1	S13373A	17	S13373A	14	2.2934	1.8378	0.5	91		75	125
Mercury	11678	1	H13373S	17	H13373S	14	14.7600	4.5630	10	102		75	125

TxtQcType: MS      Matrix: SOIL      SampleID: AC63081-035

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11678	1	S13373A	16	S13373A	14	0.5809	0.1323	0.5	90		75	125
Lead	11678	1	S13373A	16	S13373A	14	1.9010	1.8378	0.5	13	a	75	125
Mercury	11678	1	H13373S	16	H13373S	14	14.7700	4.5630	10	102		75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11715

1120730 0173

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS MR 11715						
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11715	1	S13406A	13	1.7002	1.61	106	81	119	
Lead	11715	1	S13406A	13	1.0937	1.03	106	82	117	
Mercury	11715	1	H13406Sc	13	20.7833	22.34	93	69	131	

TxtQcType: LCS		Matrix: SOIL		SampleID: LCS 11715						
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11715	1	S13406A	12	1.6427	1.61	102	81	119	
Lead	11715	1	S13406A	12	1.0686	1.03	104	82	117	
Mercury	11715	1	H13406Sc	12	18.7563	22.34	84	69	131	

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63081-032									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11715	1	S13406A	17	S13406A	14	0.6241	0.1301	0.5	99		75	125
Lead	11715	1	S13406A	17	S13406A	14	6.9024	10.2562	0.5	-670	b	75	125
Mercury	11715	4	H13406Sc	17	H13406Sc	14	10.6853	18.0469	10	-290	b	75	125

TxtQcType: MS		Matrix: SOIL		SampleID: AC63081-032									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11715	1	S13406A	16	S13406A	14	0.6084	0.1301	0.5	96		75	125
Lead	11715	1	S13406A	16	S13406A	14	9.4589	10.2562	0.5	-160	b	75	125
Mercury	11715	4	H13406Sc	16	H13406Sc	14	7.3106	18.0469	10	-430	b	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11679

1120730 0174

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS 11679 MR								
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:		Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11679	1	S13374A3	13	1.5934		1.61	99		81	119	
Lead	11679	1	S13374A3	13	1.0169		1.03	99		82	117	
Mercury	11679	1	H13374Sc	13	20.6383		22.34	92		69	131	

TxtQcType: LCS		Matrix: SOIL		SampleID: LCS 11679								
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:		Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11679	1	S13374A3	12	1.5945		1.61	99		81	119	
Lead	11679	1	S13374A3	12	1.0200		1.03	99		82	117	
Mercury	11679	1	H13374Sc	12	22.6441		22.34	101		69	131	

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63081-038									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11679	1	S13374A3	17	S13374A3	14	0.5060	0.0616	0.5	89		75	125
Lead	11679	1	S13374A3	17	S13374A3	14	3.3794	3.0541	0.5	65	b	75	125
Mercury	11679	2	H13374Sc	26	H13374Sc	23	10.1735	6.2046	10	79		75	125

TxtQcType: MS		Matrix: SOIL		SampleID: AC63081-038									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11679	1	S13374A3	16	S13374A3	14	0.5162	0.0616	0.5	91		75	125
Lead	11679	1	S13374A3	16	S13374A3	14	3.3707	3.0541	0.5	63	b	75	125
Mercury	11679	2	H13374Sc	25	H13374Sc	23	16.9686	6.2046	10	215	a	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11681

1120730 0175

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: AQUEOUS		SampleID: LCSW MR 11681					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	11681	SW13377	13	SW13377	12	4.7174	4.6585	1.3	20
Antimony	11681	SW13377	13	SW13377	12	0.4756	0.4572	3.9	20
Arsenic	11681	SW13377	13	SW13377	12	0.4784	0.4637	3.1	20
Barium	11681	SW13377	13	SW13377	12	0.4824	0.4752	1.5	20
Beryllium	11681	SW13377	13	SW13377	12	0.4806	0.4692	2.4	20
Cadmium	11681	SW13377	13	SW13377	12	0.4709	0.4626	1.8	20
Calcium	11681	SW13377	13	SW13377	12	50.0612	48.8649	2.4	20
Chromium	11681	SW13377	13	SW13377	12	0.4780	0.4707	1.5	20
Cobalt	11681	SW13377	13	SW13377	12	0.4887	0.4812	1.6	20
Copper	11681	SW13377	13	SW13377	12	0.4776	0.4707	1.4	20
Iron	11681	SW13377	13	SW13377	12	4.7625	4.6963	1.4	20
Lead	11681	SW13377	27	SW13377	26	0.4812	0.4693	2.5	20
Magnesium	11681	SW13377	13	SW13377	12	48.5396	47.3124	2.6	20
Manganese	11681	SW13377	13	SW13377	12	0.4750	0.4677	1.5	20
Mercury	11681	H13377S	13	H13377S	12	10.5586	10.4721	.82	20
Nickel	11681	SW13377	13	SW13377	12	0.4841	0.4768	1.5	20
Potassium	11681	SW13377	12	SW13377	11	50.7708	49.2059	3.1	20
Selenium	11681	SW13377	13	SW13377	12	0.4816	0.4663	3.2	20
Silver	11681	SW13377	13	SW13377	12	0.0912	0.0896	1.8	20
Sodium	11681	SW13377	12	SW13377	11	50.9648	49.8270	2.3	20
Thallium	11681	SW13377	13	SW13377	12	0.5189	0.4990	3.9	20
Vanadium	11681	SW13377	13	SW13377	12	0.4762	0.4679	1.8	20
Zinc	11681	SW13377	13	SW13377	12	0.4816	0.4741	1.6	20

TxtQcType: MR		Matrix: AQUEOUS		SampleID: AC63077-001					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11681	H13377S	15	H13377S	14	.70U	.70U	---	20

TxtQcType: MR		Matrix: AQUEOUS		SampleID: AC63081-011					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	11681	SW13377	15	SW13377	14	175.7260	195.0130	10	20
Antimony	11681	SW13377	15	SW13377	14	0.0377	0.0367	2.9	20
Arsenic	11681	SW13377	15	SW13377	14	0.3360	0.3602	7	20
Barium	11681	SW13377	15	SW13377	14	5.5452	6.0157	8.1	20
Beryllium	11681	SW13377	15	SW13377	14	0.0135	0.0145	7.3	20
Cadmium	11681	SW13377	15	SW13377	14	0.0151	0.0163	7.6	20
Calcium	11681	SW13377	15	SW13377	14	351.4650	352.9150	0.41	20
Chromium	11681	SW13377	15	SW13377	14	0.4522	0.4951	9.1	20
Cobalt	11681	SW13377	15	SW13377	14	0.1813	0.2008	10	20
Copper	11681	SW13377	15	SW13377	14	2.8181	3.2454	14	20
Iron	11681	SW13377	15	SW13377	14	447.9400	492.4340	9.5	20
Lead	11681	SW13377	31	SW13377	30	15.4359	17.2145	11	20
Magnesium	11681	SW13377	15	SW13377	14	52.8077	55.7988	5.5	20
Manganese	11681	SW13377	15	SW13377	14	6.1287	6.6038	7.5	20
Nickel	11681	SW13377	15	SW13377	14	0.3798	0.4298	12	20
Potassium	11681	SW13377	14	SW13377	13	51.6311	53.7086	3.9	20
Selenium	11681	SW13377	15	SW13377	14	0.040U	0.040U	---	20
Silver	11681	SW13377	15	SW13377	14	0.02U	0.02U	---	20
Sodium	11681	SW13377	14	SW13377	13	47.7809	48.5541	1.6	20
Thallium	11681	SW13377	15	SW13377	14	0.010U	0.010U	---	20
Vanadium	11681	SW13377	15	SW13377	14	0.6843	0.7373	7.5	20
Zinc	11681	SW13377	15	SW13377	14	5.4220	5.8342	7.3	20

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11681

1120730 0176

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: MSD		Matrix: AQUEOUS		SampleID: AC63077-001					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11681	H13377S	17	H13377S	16	9.9198	10.2614	3.4	20

TxtQcType: MSD		Matrix: AQUEOUS		SampleID: AC63081-011					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	11681	SW13377	17	SW13377	16	197.2790	197.9810	.36	20
Antimony	11681	SW13377	17	SW13377	16	0.3351	0.3273	2.4	20
Arsenic	11681	SW13377	17	SW13377	16	0.7546	0.7647	1.3	20
Barium	11681	SW13377	17	SW13377	16	5.7198	5.8337	2	20
Beryllium	11681	SW13377	17	SW13377	16	0.4484	0.4530	1	20
Cadmium	11681	SW13377	17	SW13377	16	0.4493	0.4586	2	20
Calcium	11681	SW13377	17	SW13377	16	388.6930	389.9530	.32	20
Chromium	11681	SW13377	17	SW13377	16	0.8909	0.8938	.32	20
Cobalt	11681	SW13377	17	SW13377	16	0.6090	0.6181	1.5	20
Copper	11681	SW13377	17	SW13377	16	2.9907	3.1000	3.6	20
Iron	11681	SW13377	17	SW13377	16	440.3990	441.6240	.28	20
Lead	11681	SW13377	33	SW13377	32	15.0252	15.7475	4.7	20
Magnesium	11681	SW13377	17	SW13377	16	95.4530	95.7445	.3	20
Manganese	11681	SW13377	17	SW13377	16	6.4606	6.4842	.37	20
Nickel	11681	SW13377	17	SW13377	16	0.8217	0.8180	.44	20
Potassium	11681	SW13377	16	SW13377	15	106.2070	107.4860	1.2	20
Selenium	11681	SW13377	17	SW13377	16	0.4069	0.4077	.2	20
Silver	11681	SW13377	17	SW13377	16	0.0905	0.0922	1.9	20
Sodium	11681	SW13377	16	SW13377	15	99.6160	99.1586	.46	20
Thallium	11681	SW13377	17	SW13377	16	0.4100	0.4186	2.1	20
Vanadium	11681	SW13377	17	SW13377	16	1.1062	1.1126	.57	20
Zinc	11681	SW13377	17	SW13377	16	5.5747	5.6356	1.1	20

TxtQcType: SD		Matrix: AQUEOUS		SampleID: AC63081-011						
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Aluminum	11681	SW13377	21	SW13377	14	5	43.0252	195.0130	10	10
Antimony	11681	SW13377	21	SW13377	14	5	0.0104	0.0367	41 c	10
Arsenic	11681	SW13377	21	SW13377	14	5	0.0842	0.3602	17 a	10
Barium	11681	SW13377	21	SW13377	14	5	1.3582	6.0157	13 a	10
Beryllium	11681	SW13377	21	SW13377	14	5	0.0034	0.0145	17 a	10
Cadmium	11681	SW13377	21	SW13377	14	5	0.0050	0.0163	54 a	10
Calcium	11681	SW13377	21	SW13377	14	5	82.4583	352.9150	17 a	10
Chromium	11681	SW13377	21	SW13377	14	5	0.1129	0.4951	14 a	10
Cobalt	11681	SW13377	21	SW13377	14	5	0.0468	0.2008	17 a	10
Copper	11681	SW13377	21	SW13377	14	5	0.7031	3.2454	8.3	10
Iron	11681	SW13377	21	SW13377	14	5	118.6450	492.4340	20 a	10
Lead	11681	SW13377	35	SW13377	30	5	4.0163	17.2145	17 a	10
Magnesium	11681	SW13377	21	SW13377	14	5	12.8436	55.7988	15 a	10
Manganese	11681	SW13377	21	SW13377	14	5	1.5067	6.6038	14 a	10
Nickel	11681	SW13377	21	SW13377	14	5	0.0995	0.4298	16 a	10
Potassium	11681	SW13377	20	SW13377	13	5	11.0101	53.7086	2.5	10
Selenium	11681	SW13377	21	SW13377	14	5	0.0105	0.0231	128 c	10
Silver	11681	SW13377	21	SW13377	14	5	0.0033	0.0065	149 c	10
Sodium	11681	SW13377	20	SW13377	13	5	9.7553	48.5541	0.46	10
Thallium	11681	SW13377	21	SW13377	14	5	-0.0026	-0.0134	---	10
Vanadium	11681	SW13377	21	SW13377	14	5	0.1665	0.7373	13 a	10
Zinc	11681	SW13377	21	SW13377	14	5	1.3355	5.8342	14 a	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11678

1120730 0177

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR      Matrix: SOIL      SampleID: LCS MR 11678

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11678	S13373A	13	S13373A	12	1.6652	1.6036	3.8	20
Lead	11678	S13373A	13	S13373A	12	1.0976	1.0510	4.3	20
Mercury	11678	H13373S	13	H13373S	12	23.1500	23.0600	.39	20

TxtQcType: MR      Matrix: SOIL      SampleID: AC63081-035

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11678	S13373A	15	S13373A	14	0.1278	0.1323	3.5	20
Lead	11678	S13373A	15	S13373A	14	1.7099	1.8378	7.2	20
Mercury	11678	H13373S	15	H13373S	14	4.7720	4.5630	4.5	20

TxtQcType: MSD      Matrix: SOIL      SampleID: AC63081-035

Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11678	S13373A	17	S13373A	16	0.6118	0.5809	5.2	20
Lead	11678	S13373A	17	S13373A	16	2.2934	1.9010	19	20
Mercury	11678	H13373S	17	H13373S	16	14.7600	14.7700	.068	20

TxtQcType: SD      Matrix: SOIL      SampleID: AC63081-035

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	11678	S13373A	21	S13373A	14	5	0.0282	0.1323	6.4	10
Lead	11678	S13373A	21	S13373A	14	5	0.3872	1.8378	5.3	10

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11715

1120730 0178

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSSMR		Matrix: SOIL		SampleID: LCS MR 11715					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11715	S13406A	13	S13406A	12	1.7002	1.6427	3.4	20
Lead	11715	S13406A	13	S13406A	12	1.0937	1.0686	2.3	20
Mercury	11715	H13406Sc	13	H13406Sc	12	20.7833	18.7563	10	20

TxtQcType: MR		Matrix: SOIL		SampleID: AC63081-032					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11715	S13406A	15	S13406A	14	0.1865	0.1301	36 a	20
Lead	11715	S13406A	15	S13406A	14	9.1829	10.2562	11	20
Mercury	11715	H13406Sc	15	H13406Sc	14	4.1917	18.0469	120 a	20

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63081-032					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11715	S13406A	17	S13406A	16	0.6241	0.6084	2.6	20
Lead	11715	S13406A	17	S13406A	16	6.9024	9.4589	31 a	20
Mercury	11715	H13406Sc	17	H13406Sc	16	10.6853	7.3106	38 a	20

TxtQcType: SD		Matrix: SOIL		SampleID: AC63081-032					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq# DF	Result 1	Result 2	%Diff	Limit
Arsenic	11715	S13406A	21	S13406A	14 5	0.0171	0.1301	34 c	10
Lead	11715	S13406A	21	S13406A	14 5	2.2128	10.2562	7.9	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11679

1120730 0179  
 POC

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR	Matrix: SOIL	SampleID: LCS 11679 MR
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Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11679	S13374A3	13	S13374A3	12	1.5934	1.5945	.071	20
Lead	11679	S13374A3	13	S13374A3	12	1.0169	1.0200	.3	20
Mercury	11679	H13374Sc	13	H13374Sc	12	20.6383	22.6441	9.3	20

TxtQcType: MR	Matrix: SOIL	SampleID: AC63081-038
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Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11679	S13374A3	15	S13374A3	14	0.0529	0.0616	15	20
Lead	11679	S13374A3	15	S13374A3	14	2.7389	3.0541	11	20
Mercury	11679	H13374Sc	24	H13374Sc	23	5.0144	6.2046	21 a	20

TxtQcType: MSD	Matrix: SOIL	SampleID: AC63081-038
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Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11679	S13374A3	17	S13374A3	16	0.5060	0.5162	2	20
Lead	11679	S13374A3	17	S13374A3	16	3.3794	3.3707	.26	20
Mercury	11679	H13374Sc	26	H13374Sc	25	10.1735	16.9686	50 a	20

TxtQcType: SD	Matrix: SOIL	SampleID: AC63081-038
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Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	11679	S13374A3	21	S13374A3	14	5	0.0127	0.0616	2.9	10
Lead	11679	S13374A3	21	S13374A3	14	5	0.6343	3.0541	3.8	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**Metal Data**  
**Verification of Instrument Parameters**

**INTERELEMENT CORRECTION SUMMARY  
PEICP1**

**Interfering Elements**

Interfered Elements	Al	Ca	Fe	Mg	Mn	Zn	Ti	Mo
Al	N/A	0	0	0	0	0	0	12.7
Sb	-0.0512	0	-0.0801	-0.0105	0	0	0	-11.8
As	-0.00832	-0.0426	-0.136	0.0104	0	-0.146	2.25	0
Ba	0	0	0.015	0	0	0	0	-0.788
Be	0	0	-1.25	0	0	0	0	0
Cd	0	0	-0.00682	0	0	0	0	0
Ca	0	N/A	0	0	0	0	0	0
Cr	0	0	0	0	0	-25.1	0	0
Co	0	0	0.0261	0	0	0	1.83	-0.34
Cu	0	0.0253	0	0	0	0	-0.416	0.476
Fe	0	0	N/A	0	0	0	0	0
Pb	-0.158	-0.0172	0.012	0	0	-0.203	-0.842	-1.09
Mg	0	0	0	N/A	0	0	0	0
Mn	0	0	-0.0508	0.0156	N/A	0	0	0
Mo	-0.0366	0	-0.0358	0	0	0	0	N/A
Ni	0	0	0.241	0	0	0	0	-0.431
Se	-0.0117	0.132	-3.13	0	0.395	-0.205	0.462	0
Ag	0	-0.0187	-0.102	0	0.275	0	0	0.162
Tl	-0.0268	0.00603	-0.0221	0	-0.315	0	-10	0
Sn	0	-0.0936	0	0	0	0	-0.525	0
Ti	0	0	0	0	0	0	N/A	0
V	0	0	0	0.379	0	0	0.458	-8.2
Zn	0	0	0	0.0259	0	NA	0	0

**INTERELEMENT CORRECTION SUMMARY  
PEICP2**

1120730 0182

**Interfering Elements**

	<b>Al</b>	<b>Ca</b>	<b>Fe</b>	<b>Mg</b>	<b>Mn</b>	<b>Mo</b>	<b>Ti</b>	<b>Zn</b>
<b>Interfered Elements</b>								
<b>Al</b>	N/A	0	0	0	0	22.7	-3.1	0
<b>Sb</b>	-0.151	-0.00598	-0.16	0	0	-0.379	0.152	0.179
<b>As</b>	0	0.00919	-0.151	0	0	0.809	0	0
<b>Ba</b>	0	0	0	0	0	0	0	0
<b>Be</b>	0	0	0	0	0	0	0.715	0
<b>Cd</b>	0	0	0.0164	0	0	0	0	0
<b>Ca</b>	0	N/A	0	0	0	0	0	0
<b>Cr</b>	0	0	-0.0341	0	-0.624	-6.23	0	0
<b>Co</b>	-0.0142	0	0	0	0	-3.05	1.93	0
<b>Cu</b>	0.0128	0.0115	0	0.013	0	0	0.39	0
<b>Fe</b>	0	0	N/A	-0.4	0	0	0	0
<b>Pb</b>	-0.204	0.00705	0.0554	0.0138	0	-1.28	0	0
<b>Mg</b>	0	0	0	N/A	0	0	0	0
<b>Mn</b>	0	0	-0.0453	0	N/A	-0.256	0	0
<b>Mo</b>	-0.0122	0.0219	0	0	0	N/A	0	0
<b>Ni</b>	0	0	0	0	0	-0.89	0	0
<b>Se</b>	0.0826	0	-0.156	-0.00818	0.8	0	0.753	0
<b>Ag</b>	0	-0.00654	-0.0486	0	0.271	0.641	0	0
<b>Sr</b>	0	0.0108	0	0.00248	0	0	0	0
<b>Tl</b>	-0.014	-0.01	-0.00768	0	0.671	1.46	-4.68	0
<b>Sn</b>	0.0201	-0.00991	0.0434	0	0	0	0.753	0
<b>Ti</b>	0	0	0	0	0	0	N/A	0
<b>V</b>	0	0	0.0272	0.062	0	-1.46	-0.699	0
<b>Zn</b>	0	0	0	0.0313	0	0	0	N/A

**INTERELEMENT CORRECTION SUMMARY  
PEICP3**

1120730 0183

**Interfering Elements**

	<b>Al</b>	<b>Ca</b>	<b>Fe</b>	<b>Mg</b>	<b>Mn</b>	<b>Mo</b>	<b>Ti</b>	<b>Zn</b>	<b>Ni</b>	<b>Cr</b>
<b>Interfered Elements</b>										
<b>Al</b>	N/A	0	0	0	0	25.72	0	0	0	0
<b>Sb</b>	0.0227	0.00574	-0.00979	0.00601	0	-15.53	-1.96	0	0	-3.39
<b>As</b>	0.0526	-0.00883	-0.102	-0.00873	0.0177	0	0.308	0.207	0	-3.55
<b>Ba</b>	0	0	0	0	0	0	0	0	0	0
<b>Be</b>	0	0	0	0	0	0	0	0	0	0
<b>Cd</b>	0	0	0	0	0	0	0	0	-1.49	0
<b>Ca</b>	0	N/A	0	0	0	0	0	0	0	0
<b>Cr</b>	0	0	0	0	0	-1.06	0	0	0	N/A
<b>Co</b>	0	0	0	0	0	-1.58	2.30	0	0	0.355
<b>Cu</b>	0	-0.0392	-0.0494	0	0	0	-2.35	0	0	0
<b>Fe</b>	0	0	N/A	0	0	0	0	0	0	0
<b>Pb</b>	0.651	0.0124	0.0341	0	0	-2.26	0.364	-0.557	0	-0.209
<b>Mg</b>	0	0	0	N/A	0	-20.86	0	0	0	0
<b>Mn</b>	0	0	0	0.0174	N/A	-0.381	0	0	0	0
<b>Mo</b>	0	0	0	0	0	N/A	0	-0.205	0	0
<b>Ni</b>	0	0	0	0	0	-2.78	0	0	N/A	0
<b>Se</b>	-0.0201	-0.0435	-0.235	0	1.43	0	0	0	0	0
<b>Ag</b>	0	-0.0231	-0.204	0	0	0	0	0	0	0
<b>Tl</b>	0.00646	0	0	0	0.391	0.458	-4.71	0	0	0.228
<b>Sn</b>	0	0	-0.101	0	0	0	-0.623	0	0	0
<b>Ti</b>	0	0	0	0	0	0	N/A	0	0	0.245
<b>V</b>	0	0	0.0525	0.167	0	-0.611	0	0	0	0
<b>Zn</b>	0	0	0	0.0331	0	0	0	N/A	0	-1.47

IEC'S ANALYZED ON 09/12/11.  
 MODIFIED Sb,Se,As,Zn,Cd,Co,Tl,Ti,Pb,V 09/13/11.  
 MODIFIED Sb,Se,Tl,Pb 09/19/11.  
 MODIFIED Se 09/21/11.  
 MODIFIED Tl 10/27/11.  
 MODIFIED Se 11/29/11.  
 MODIFIED Pb 12/05/2011.  
 MODIFIED Ag 12/08/211.

**LINEAR RANGES  
PE ICP 1  
AXIAL**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	450
Sb	45
As	45
Ba	27
Be	9
Cd	27
Ca	630
Cr	45
Co	45
Cu	45
Fe	270
Pb	45
Mg	900
Mn	18
Mo	45
Ni	45
Se	27
Ag	5.4
Tl	45
Sn	45
Ti	45
V	45
Zn	45

LINEAR RANGES  
PE ICP 2  
Axial

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Sb	18
As	45
Ba	45
Be	4.5
Cd	45
Ca	810
Cr	45
Co	45
Cu	45
Fe	540
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	1.8
Tl	45
Sn	45
Ti	36
V	45
Zn	45

**LINEAR RANGES**  
**PE ICP 3**  
**Axial**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Sb	9
As	45
Ba	45
Be	9
Cd	45
Ca	630
Cr	45
Co	45
Cu	45
Fe	450
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	3.6
Tl	45
Sn	45
Ti	45
V	45
Zn	45

**LINEAR RANGES  
PE ICP 1  
RADIAL**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Ca	900
Fe	900
Mg	900
Mn	45
K	900
Na	900
Ti	45

**Metal Data**  
**Raw Data**

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 11681 (1)  
 Client Id: MB 11681 (1)  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-36-0	Antimony	12	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-38-2	Arsenic	7.5	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-41-7	Beryllium	4.0	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-43-9	Cadmium	3.5	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-70-2	Calcium	2000	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-48-4	Cobalt	20	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-89-6	Iron	280	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	12/13/11	11681	SW13377D2	25	P	PEICP2A
7439-95-4	Magnesium	2000	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	12/09/11	11681	H13377SWc	11	CV	HGCV1A
7439-98-7	Molybdenum	20	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-02-0	Nickel	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	12/10/11	11681	SW13377A	10	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-23-5	Sodium	5000	ND	1	50	50	12/10/11	11681	SW13377A	10	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-31-5	Tin	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-32-6	Titanium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-62-2	Vanadium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - Cold Vapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 11678 (100)  
 Client Id: MB 11678 (100)  
 Matrix: SOIL  
 Level: LOW

% Solid: 0  
 Units: MG/KG

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	200	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-36-0	Antimony	2.0	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-38-2	Arsenic	2.0	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-39-3	Barium	10	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-43-9	Cadmium	0.60	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-70-2	Calcium	1000	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-47-3	Chromium	5.0	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-48-4	Cobalt	2.5	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-50-8	Copper	5.0	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7439-89-6	Iron	200	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7439-92-1	Lead	5.0	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7439-95-4	Magnesium	500	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7439-96-5	Manganese	10	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7439-98-7	Molybdenum	2.5	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-02-0	Nickel	5.0	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7782-49-2	Selenium	1.8	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-22-4	Silver	1.5	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-28-0	Thallium	1.2	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-31-5	Tin	5.7	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-32-6	Titanium	35	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-62-2	Vanadium	10	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A
7440-66-6	Zinc	10	ND	1	0.5	50	12/09/11	11678	S13373A	11	P	PEICP1A

Comments: \_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV - Cold Vapor
- MS - ICP-MS

11A  
12A  
13A  
14A  
15A  
16A  
17A  
18A  
19A  
20A  
21A  
22A  
23A  
24A  
25A  
26A  
27A  
28A  
29A  
30A

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 11678 (167)      % Solid: 0      Lab Name: Veritech  
 Client Id: MB 11678 (167)      Units: MG/KG      Lab Code:  
 Matrix: SOIL  
 Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.083	ND	1	0.15	25	12/08/11	11678	H13373S	11	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS







# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 11679 (167)      % Solid: 0      Lab Name: Veritech  
 Client Id: MB 11679 (167)      Units: MG/KG      Lab Code:  
 Matrix: SOIL  
 Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.083	ND	1	0.15	25	12/09/11	11679	H13374Sc	11	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Run Log

1120730' 0196

Data File: W:\METALS.FRM\ICPDATA\New\PEICPRAD1A\SW13377A.txt

Analysis Date: 12/10/11

Instrument: PEICPRAD1A

Sample Id	Qc DF	Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	11:17	1							V-129815(ICB/CCB)
Calib Std 1 V-128664	1	CAL	11:20	2							V-128664(ICS2- Low Std)
Calib Std 2 V-128660	1	CAL	11:23	3							V-128660(ICS3 - Middle Std)
Calib Std 3 V-129806	1	CAL	11:26	4							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	11:29	5							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	11:32	6							V-128235(ICV)
ICB V-129815	1	ICB	11:35	7							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	11:38	8							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	11:41	9							V-128667(ICSAB)
MB 11681 (1)	1	MB	11:44	10		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	11:47	11		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	11:50	12		AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	SMP	11:53	13	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MR	11:56	14	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MS	11:59	15	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MSD	12:01	16	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	PS	12:04	17	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
CCV V-128659	1	CCV	12:07	18							V-128659(CCV)
CCB	1	CCB	12:10	19							0
AC63081-011	5	SD	12:13	20	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-012	1	SMP	12:16	21	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
ICSA V-128666	1	ICSA	12:18	22							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	12:22	23							V-128667(ICSAB)
CCV V-128659	1	CCV	12:25	24							V-128659(CCV)
CCB	1	CCB	12:28	25							0
MB 11691 (1)	1	MB	12:31	26		AQUEO	AQUEO	SW846	11691		0
LCSW 11691	1	LCS	12:34	27		AQUEO	AQUEO	SW846	11691		0
LCSW MR 11691	1	LCS	12:37	28		AQUEO	AQUEO	SW846	11691		0
AC63111-047	1	SMP	12:40	29	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63111-048	1	SMP	12:43	30	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
ICSA V-128666	1	ICSA	12:46	31							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	12:49	32							V-128667(ICSAB)
CCV V-128659	1	CCV	12:52	33							V-128659(CCV)
CCB	1	CCB	12:55	34							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 [2/12/2011] 10:20:27 AM

OK

*shu* 021144

# Run Log

1120730 0197

Data File: W:\METALS.FRM\ICPDATA\New\PEICP1A\SI13373A.txt

Analysis Date: 12/09/11

Instrument: PEICP1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	18:23	1							V-129815(ICB/CCB)
Calib Std 1 V-128668	1	CAL	18:26	2							V-128668(ICS1 - Lowest std)
Calib Std 2 V-128664	1	CAL	18:30	3							V-128664(ICS2- Low Std)
Calib Std 3 V-128660	1	CAL	18:33	4							V-128660(ICS3 - Middle Std)
Calib Std 4 V-129806	1	CAL	18:36	5							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	18:39	6							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	18:43	7							V-128235(ICV)
ICB V-129815	1	ICB	18:46	8							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	18:49	9							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	18:53	10							V-128667(ICSAB)
MB 11678 (100)	1	MB	18:57	11		SOIL	SOIL	SW846	11678		()
LCS 11678	1	LCS	19:00	12		SOIL	SOIL	SW846	11678		()
LCS MR 11678	1	LCS	19:03	13		SOIL	SOIL	SW846	11678		()
AC63081-035	1	SMP	19:05	14	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-035	1	MR	19:09	15	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-035	1	MS	19:12	16	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-035	1	MSD	19:16	17	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-035	1	PS	19:19	18	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
CCV V-128659	1	CCV	19:23	19							V-128659(CCV)
CCB	1	CCB	19:26	20							()
AC63081-035	5	SD	19:29	21	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-001	1	SMP	19:32	22	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-003	1	SMP	19:36	23	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-004	1	SMP	19:39	24	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-006	1	SMP	19:43	25	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-008	1	SMP	19:46	26	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-009	1	SMP	19:49	27	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
ICSA V-128666	1	ICSA	19:53	28							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	19:57	29							V-128667(ICSAB)
CCV V-128659	1	CCV	20:00	30							V-128659(CCV)
CCB	1	CCB	20:04	31							()
AC63081-013	1	SMP	20:07	32	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-015	1	SMP	20:10	33	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-016	1	SMP	20:14	34	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-018	1	SMP	20:17	35	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-020	1	SMP	20:20	36	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-021	1	SMP	20:23	37	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-023	1	SMP	20:27	38	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
CCV V-128659	1	CCV	20:30	39							V-128659(CCV)
CCB	1	CCB	20:33	40							()
AC63081-025	1	SMP	20:37	41	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-026	1	SMP	20:40	42	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-028	1	SMP	20:43	43	MET-2-SOIL	SOIL	SOIL	SW846	11678	Pb over LR	()
AC63081-030	1	SMP	20:47	44	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-031	1	SMP	20:50	45	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
AC63081-033	1	SMP	20:54	46	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
ICSA V-128666	1	ICSA	20:58	47							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	21:02	48							V-128667(ICSAB)
CCV V-128659	1	CCV	21:05	49							V-128659(CCV)
CCB	1	CCB	21:08	50							()

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/10/2011 12:30:05 PM

OK

*sk* 12/11/11

# Run Log

1120730 0198

Data File: W:\METALS.FRM\ICPDATA\New\PEICPIA\SI3406A.txt

Analysis Date: 12/19/11

Instrument: PEICPIA

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	15:41	1							V-129815(ICB/CCB)
Calib Std 1 V-128668	1	CAL	15:44	2							V-128668(ICS1 - Lowest std)
Calib Std 2 V-128664	1	CAL	15:47	3							V-128664(ICS2- Low Std)
Calib Std 3 V-128660	1	CAL	15:50	4							V-128660(ICS3 - Middle Std)
Calib Std 4 V-129806	1	CAL	15:53	5							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	15:57	6							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	16:00	7							V-128235(ICV)
ICB V-129815	1	ICB	16:03	8							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	16:07	9							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	16:11	10							V-128667(ICSAB)
MB 11715 (100)	1	MB	16:15	11		SOIL	SOIL	SW846	11715		0
LCS 11715	1	LCS	16:18	12		SOIL	SOIL	SW846	11715		0
LCS MR 11715	1	LCS	16:21	13		SOIL	SOIL	SW846	11715		0
AC63081-032	1	SMP	16:25	14	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	1	MR	16:29	15	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	1	MS	16:32	16	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	1	MSD	16:36	17	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	1	PS	16:39	18	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
CCV V-128659	1	CCV	16:43	19							V-128659(CCV)
CCB	1	CCB	16:47	20							0
AC63081-032	5	SD	16:50	21	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63245-001	1	SMP	16:53	22	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63245-002	1	SMP	16:56	23	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
ICSA V-128666	1	ICSA	17:01	24							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	17:05	25							V-128667(ICSAB)
CCV V-128659	1	CCV	17:09	26							V-128659(CCV)
CCB	1	CCB	17:12	27							0
AC63207-003	1	SMP	17:15	28	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63207-004	1	SMP	17:20	29	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63207-005	1	SMP	17:24	30	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63207-009	1	SMP	17:28	31	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63223-001	1	SMP	17:32	32	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63223-002	1	SMP	17:36	33	PB-SOIL	SOIL	SOIL	SW846	11715		0
ICSA V-128666	1	ICSA	17:39	34							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	17:44	35							V-128667(ICSAB)
CCV V-128659	1	CCV	17:48	36							V-128659(CCV)
CCB	1	CCB	17:51	37							0
AC63223-003	1	SMP	17:54	38	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63223-004	1	SMP	17:58	39	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63223-005	1	SMP	18:02	40	PB-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-005	1	SMP	18:07	41	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-037	1	SMP	18:10	42	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-047	1	SMP	18:13	43	MET-2-SOIL	SOIL	SOIL	SW846	11715		0
ICSA V-128666	1	ICSA	18:17	44							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	18:21	45							V-128667(ICSAB)
CCV V-128659	1	CCV	18:25	46							V-128659(CCV)
CCB	1	CCB	18:28	47							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/20/2011 11:03:20 AM

OK

*Sh* 12/21/11

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP3A\13374A3.txt

Analysis Date: 12/12/11

Instrument: PEICP3A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	13:15	1							V-129815(ICB/CCB)
Calib 1 V-128669	1	CAL	13:18	2							V-128669(ICS1 - Lowest std)
Calib 2 V-128664	1	CAL	13:21	3							V-128664(ICS2 - Low Std)
Calib 3 V-128661	1	CAL	13:25	4							V-128661(ICS3 - Middle Std)
Calib 4 V-129806	1	CAL	13:28	5							V-129806(ICS4 - High std)
ICS3 V-128661	1	ICS	13:33	6							V-128661(ICS3 - Middle Std)
ICV (2) V-128235	1	ICV	13:36	7							V-128235(ICV)
ICB V-129815	1	ICB	13:41	8							V-129815(ICB/CCB)
ICSA V-129812	1	ICSA	13:44	9							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	13:50	10							V-128667(ICSAB)
MB 11679 (100)	1	MB	13:55	11		SOIL	SOIL	SW846	11679		0
LCS 11679	1	LCS	13:58	12		SOIL	SOIL	SW846	11679		0
LCS 11679 MR	1	LCS	14:03	13		SOIL	SOIL	SW846	11679		0
AC63081-038	1	SMP	14:08	14	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-038	1	MR	14:11	15	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-038	1	MS	14:14	16	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-038	1	MSD	14:18	17	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-038	1	PS	14:21	18	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
CCV V-129808	1	CCV	14:25	19							V-129808(CCV)
CCB V-129815	1	CCB	14:28	20							V-129815(ICB/CCB)
AC63081-038	5	SD	14:32	21	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-036	1	SMP	14:35	22	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-040	1	SMP	14:39	23	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-041	1	SMP	14:42	24	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-043	1	SMP	14:46	25	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-045	1	SMP	14:49	26	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-046	1	SMP	14:53	27	MET-2-SOIL	SOIL	SOIL	SW846	11679		0
ICSA V-129812	1	ICSA	14:56	28							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	15:01	29							V-128667(ICSAB)
CCV V-129808	1	CCV	15:06	30							V-129808(CCV)
CCB V-129815	1	CCB	15:10	31							V-129815(ICB/CCB)

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

gabriele  
192.168.1.85 12/12/2011 3:31:29 PM

RUN OK.  
RESET

*Shu* 12/12/11

# Run Log

1120730' 0200

Data File: W\METALS.FRM\ICPDATA\New\PEICP1A\13373B.txt

Analysis Date: 12/12/11

Instrument: PEICP1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	10:03	1							V-129815(ICB/CCB)
Calib Std 1 V-128668	1	CAL	10:07	2							V-128668(ICS1 - Lowest std)
Calib Std 2 V-128664	1	CAL	10:10	3							V-128664(ICS2- Low Std)
Calib Std 3 V-128660	1	CAL	10:13	4							V-128660(ICS3 - Middle Std)
Calib Std 4 V-129806	1	CAL	10:16	5							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	10:19	6							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	10:23	7							V-128235(ICV)
ICB V-129815	1	ICB	10:26	8							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	10:29	9							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	10:33	10							V-128667(ICSAB)
AC63081-028	4	SMP	10:37	11	MET-2-SOIL	SOIL	SOIL	SW846	11678		()
ICSA V-128666	1	ICSA	10:40	12							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	10:44	13							V-128667(ICSAB)
CCV V-128659	1	CCV	10:48	14							V-128659(CCV)
CCB	1	CCB	10:51	15							()

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/12/2011 11:04:03 AM

Pb OK

*Shu* 12/14/11

# Run Log

1120730 0201

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\SW13377B2.txt

Analysis Date: 12/12/11

Instrument: PEICP2A

Sample Id	Qc DF	Qc Type	Run Time	Test #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-128658	1	CAL	14:52	1							V-128658(ICB/CCB)
Calib 1 V-128668	1	CAL	14:56	2							V-128668(ICS1 - Lowest std)
Calib 2 V-127383	1	CAL	15:00	3							V-127383(ICS2- Low Std)
Calib 3 V-127384	1	CAL	15:03	4							V-127384(ICS3 - Middle Std)
Calib 4 V-128237	1	CAL	15:07	5							V-128237(ICS4 - High std)
ICS3 V-127384	1	ICS	15:12	6							V-127384(ICS3 - Middle Std)
ICV V-128234 (2)	1	ICV	15:16	7							V-128234(ICV)
ICB V-128658	1	ICB	15:21	8							V-128658(ICB/CCB)
ICSA V-127386	1	ICSA	15:24	9							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	15:30	10							V-127387(ICSAB)
MB 11681 (1)	1	MB	15:35	11		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	15:39	12		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	15:42	13		AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	SMP	15:46	14	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MR	15:51	15	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MS	15:55	16	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MSD	15:59	17	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	PS	16:04	18	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
CCV V-128233	1	CCV	16:08	19							V-128233(CCV)
CCB	1	CCB	16:12	20						Pb failed (poss carryover)	0
AC63081-011	5	SD	16:15	21	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-012	1	SMP	16:19	22	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	SMP	16:23	23	MET-I-SOIL	AQUEO	AQUEO	SW846	11681		0
AC63077-002	1	SMP	16:27	24	MET-I-SOIL	AQUEO	AQUEO	SW846	11681		0
ICSA V-127386	1	ICSA	16:31	25						Pb failed (poss carryover)	V-127386(ICSA)
ICSAB V-127387	1	ICSAB	16:36	26							V-127387(ICSAB)
CCV V-128233	1	CCV	16:42	27							V-128233(CCV)
CCB	1	CCB	16:45	28							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/12/2011 4:51:00 PM

OK except Pb

*sh* 12/14/11

# Run Log

1120730 0202

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\SW13377D2.txt

Analysis Date: 12/13/11

Instrument: PEICP2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-128658	1	CAL	11:19	1							V-128658(ICB/CCB)
Calib 1 V-128668	1	CAL	11:24	2							V-128668(ICS1 - Lowest std)
Calib 2 V-127383	1	CAL	11:27	3							V-127383(ICS2- Low Std)
Calib 3 V-127384	1	CAL	11:31	4							V-127384(ICS3 - Middle Std)
Calib 4 V-128237	1	CAL	11:35	5							V-128237(ICS4 - High std)
ICS3 V-127384	1	ICS	11:40	6							V-127384(ICS3 - Middle Std)
ICV V-128234 (2)	1	ICV	11:43	7							V-128234(ICV)
ICB V-128658	1	ICB	11:48	8							V-128658(ICB/CCB)
ICSA V-127386	1	ICSA	11:52	9							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	11:57	10							V-127387(ICSAB)
CCV V-128233	1	CCV	12:03	11							V-128233(CCV)
CCB	1	CCB	12:06	12							0
MB 11691 (1)	1	MB	12:10	13		AQUEO	AQUEO	SW846	11691		0
LCSW 11691	1	LCS	12:14	14		AQUEO	AQUEO	SW846	11691		0
LCSW MR 11691	1	LCS	12:18	15		AQUEO	AQUEO	SW846	11691		0
AC63111-047	1	SMP	12:21	16	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63111-048	1	SMP	12:25	17	METALS-TAL-S	AQUEO	AQUEO	SW846	11681	Ca sat'n (Ag, As, Cu, Pb, Sb, Tl)	0
AC63111-048	2	SMP	12:29	18	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63111-048	4	NA	12:33	19	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC28525-001	1	SMP	12:37	20		AQUEO	AQUEO	SW846	11681		0
ICSA V-127386	1	ICSA	12:41	21							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	12:46	22							V-127387(ICSAB)
CCV V-128233	1	CCV	12:52	23							V-128233(CCV)
CCB	1	CCB	12:55	24							0
MB 11681 (1)	1	MB	12:59	25		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	13:02	26		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	13:06	27		AQUEO	AQUEO	SW846	11681		0
CCV V-128233	1	CCV	13:10	28							V-128233(CCV)
CCB	1	CCB	13:14	29							0
AC63081-011	1	SMP	13:17	30	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MR	13:21	31	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MS	13:26	32	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MSD	13:30	33	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	PS	13:34	34	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	5	SD	13:39	35	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-012	1	SMP	13:42	36	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC28525-001	1	SMP	13:46	37		AQUEO	AQUEO	SW846	11681		0
ICSA V-127386	1	ICSA	13:50	38							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	13:55	39							V-127387(ICSAB)
CCV V-128233	1	CCV	14:01	40							V-128233(CCV)
CCB	1	CCB	14:05	41							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/13/2011 2:17:52 PM

OK

*sh* 12/14/11

# Run Log

1120730 0203

Data File: W:\METALS.FRM\ICPDATA\NewHGCV2A\H13373S.txt

Analysis Date: 12/08/11

Instrument: HGCV2A

Sample Id	Qc DF	Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	19:23	1							0
.2 PPB	1	CAL	19:24	2							0
.5 PPB	1	CAL	19:26	3							0
1 PPB	1	CAL	19:27	4							0
2 PPB	1	CAL	19:28	5							0
5 PPB	1	CAL	19:30	6							0
10 PPB	1	CAL	19:31	7							0
25 PPB	1	CAL	19:32	8							0
ICV (2)	1	ICV	19:34	9							0
ICB	1	ICB	19:35	10							0
MB 11678 (167)	1	MB	19:36	11	HG-SOIL	SOIL	SOIL	SW846	11678		0
LCS 11678	1	LCS	19:38	12	HG-SOIL	SOIL	SOIL	SW846	11678		0
LCS MR 11678	1	LCS	19:39	13	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-035	1	SMP	19:40	14	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-035	1	MR	19:42	15	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-035	1	MS	19:43	16	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-035	1	MSD	19:44	17	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-001	1	SMP	19:45	18	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-003	1	SMP	19:47	19	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-004	1	SMP	19:48	20	HG-SOIL	SOIL	SOIL	SW846	11678		0
CCV	1	CCV	19:49	21							0
CCB	1	CCB	19:51	22							0
AC63081-006	1	SMP	19:52	23	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-008	1	SMP	19:53	24	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-009	1	SMP	19:55	25	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-013	1	SMP	19:56	26	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-015	1	SMP	19:57	27	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-016	1	SMP	19:59	28	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-018	1	SMP	20:00	29	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-020	1	NA	20:01	30	HG-SOIL	SOIL	SOIL	SW846	11678	sample concentration greater than that of highest standard	0
AC63081-021	1	SMP	20:03	31	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-023	1	SMP	20:04	32	HG-SOIL	SOIL	SOIL	SW846	11678		0
CCV	1	CCV	20:05	33							0
CCB	1	CCB	20:07	34							0
AC63081-025	1	SMP	20:08	35	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-026	1	SMP	20:09	36	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-028	1	SMP	20:11	37	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-030	1	NA	20:12	38	HG-SOIL	SOIL	SOIL	SW846	11678	sample concentration greater than that of highest standard	0
AC63081-031	1	SMP	20:13	39	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-033	1	SMP	20:15	40	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-020	2	SMP	20:16	41	HG-SOIL	SOIL	SOIL	SW846	11678		0
AC63081-030	2	SMP	20:17	42	HG-SOIL	SOIL	SOIL	SW846	11678		0
CCV	1	CCV	20:19	43							0
CCB	1	CCB	20:20	44							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/9/2011 5:55:31 PM

V-130235

RUN IS OK

*Shu* 12/13/11

# Run Log

1120730 0204

Data File: W:\METALS.FRM\ICPDATA\New\HGCV1A\H13406S.txt

Analysis Date: 12/16/11

Instrument: HGCV1A

Sample Id	Qc	Run	Test	Rept	Qc	Anal	Prep	Comments:	Stds:
DF	Type	Time	#	Limit	Matrix	Matrix	Method	Batch	
			Group	Matrix					
Calibration Blank	1	CAL	15:17	1					0
.2 PPB	1	CAL	15:19	2					0
.5 PPB	1	CAL	15:20	3					0
1 PPB	1	CAL	15:22	4					0
2 PPB	1	CAL	15:23	5					0
5 PPB	1	CAL	15:25	6					0
10 PPB	1	CAL	15:26	7					0
25 PPB	1	CAL	15:28	8					0
ICV (2)	1	ICV	15:30	9					0
ICB	1	ICB	15:31	10					0
MB 11715 (167)	1	MB	15:33	11	HG-SOIL	SOIL	SW846	11715	0
LCS 11715	1	LCS	15:34	12		SOIL	SW846	11715	0
LCS MR 11715	1	LCS	15:36	13		SOIL	SW846	11715	0
AC63081-032	1	NA	15:37	14	HG-SOIL	SOIL	SW846	11715	sample concentration greater than that of highest standard - QC sample not homogenous
AC63081-032	1	NA	15:39	15	HG-SOIL	SOIL	SW846	11715	QC sample not homogenous
AC63081-032	1	NA	15:41	16	HG-SOIL	SOIL	SW846	11715	sample concentration greater than that of highest standard - QC sample not homogenous
AC63081-032	1	NA	15:42	17	HG-SOIL	SOIL	SW846	11715	sample concentration greater than that of highest standard - QC sample not homogenous
AC63081-005	1	SMP	15:44	18	HG-SOIL	SOIL	SW846	11715	0
AC63081-037	1	SMP	15:45	19	HG-SOIL	SOIL	SW846	11715	0
AC63081-047	1	NA	15:47	20	HG-SOIL	SOIL	SW846	11715	sample concentration greater than that of highest standard
CCV	1	CCV	15:49	21					0
CCB	1	CCB	15:50	22					0

Comments/Reviewedby:

Standard/Batch/SnCi2 Lot #:

olufemi  
192.168.1.89 12/21/2011 12:26:22 AM

V-131048

RUN IS OK

*Sh* 12/22/11

# Run Log

1120730 0205

Data File: W:\METALS.FRM\ICPDATA\New\HGC\1A\HI13374Sc.txt

Analysis Date: 12/09/11

Instrument: HGC\1A

Sample Id	Qc DF	Qc Type	Run Time	Test #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	19:18	1							0
.2 PPB	1	CAL	19:20	2							0
.5 PPB	1	CAL	19:21	3							0
1 PPB	1	CAL	19:23	4							0
2 PPB	1	CAL	19:24	5							0
5 PPB	1	CAL	19:26	6							0
10 PPB	1	CAL	19:27	7							0
25 PPB	1	CAL	19:29	8							0
ICV (2)	1	ICV	19:30	9							0
ICB	1	ICB	19:32	10							0
MB 11679 (167)	1	MB	19:33	11		SOIL	SOIL	SW846	11679		0
LCS 11679	1	LCS	19:35	12		SOIL	SOIL	SW846	11679		0
LCS MR 11679	1	LCS	19:36	13		SOIL	SOIL	SW846	11679	Hg concentration in MS1 greater than that of highest standard	0
AC63081-038	1	NA	19:38	14	HG-SOIL	SOIL	SOIL	SW846	11679	Hg concentration in MS1 greater than that of highest standard	0
AC63081-038	1	NA	19:39	15	HG-SOIL	SOIL	SOIL	SW846	11679	Hg concentration in MS1 greater than that of highest standard	0
AC63081-038	1	NA	19:41	16	HG-SOIL	SOIL	SOIL	SW846	11679	Hg concentration in MS1 greater than that of highest standard	0
AC63081-038	1	NA	19:42	17	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-036	1	SMP	19:44	18	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-040	1	NA	19:45	19	HG-SOIL	SOIL	SOIL	SW846	11679	sample concentration greater than that of highest standard	0
AC63081-041	1	SMP	19:47	20	HG-SOIL	SOIL	SOIL	SW846	11679		0
CCV	1	CCV	19:49	21							0
CCB	1	CCB	19:51	22							0
AC63081-038	2	SMP	19:52	23	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-038	2	MR	19:54	24	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-038	2	MS	19:55	25	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-038	2	MSD	19:57	26	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-040	4	SMP	19:58	27	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-043	1	SMP	20:00	28	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-045	1	SMP	20:01	29	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-046	1	SMP	20:03	30	HG-SOIL	SOIL	SOIL	SW846	11679		0
AC63081-046	4	NA	20:04	31	HG-SOIL	SOIL	SOIL	SW846	11679	dilution not necessary	0
CCV	1	CCV	20:06	32							0
CCB	1	CCB	20:07	33							0

Comments/Reviewedby:

Standard/Batch/SnCi2 Lot #:

ohufemi  
192.168.1.89 12/12/2011 12:49:56 PM

V-130396

RUN IS OK

*ohufemi* 12/12/11

# Run Log

1120730 <sup>Page 1 of 1</sup> 0206

Data File: W:\METALS.FRM\ICPDATA\New\HGCV1A\H13406Sc.txt

Analysis Date: 12/20/11

Instrument: HGCV1A

Sample Id	Qc DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	19:20	1							0
2 PPB	1	CAL	19:22	2							0
5 PPB	1	CAL	19:23	3							0
1 PPB	1	CAL	19:25	4							0
2 PPB	1	CAL	19:26	5							0
5 PPB	1	CAL	19:28	6							0
10 PPB	1	CAL	19:29	7							0
25 PPB	1	CAL	19:31	8							0
ICV (2)	1	ICV	19:32	9							0
ICB	1	ICB	19:34	10							0
MB 11715 (167)	1	MB	19:35	11	HG-SOIL	SOIL	SOIL	SW846	11715		0
LCS 11715	1	LCS	19:37	12	HG-SOIL	SOIL	SOIL	SW846	11715		0
LCS MR 11715	1	LCS	19:39	13	HG-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	4	SMP	19:40	14	HG-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	4	MR	19:42	15	HG-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	4	MS	19:43	16	HG-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-032	4	MSD	19:45	17	HG-SOIL	SOIL	SOIL	SW846	11715		0
AC63081-047	50	NA	19:46	18	HG-SOIL	SOIL	SOIL	SW846	11715	sample concentration greater than that of highest standard	0
CCV	1	CCV	19:48	19							0
CCB	1	CCB	19:49	20							0
AC63081-047	100	SMP	19:51	21	HG-SOIL	SOIL	SOIL	SW846	11715		0
CCV	1	CCV	19:52	22							0
CCB	1	CCB	19:54	23							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/21/2011 12:41:42 AM

V-131302

RUN IS OK

*Sh* 12/22/11

## Run Log

Data File: W:\METALS\FRMICPDATA\New\HGCV1A\H13377SWc.txt

Analysis Date: 12/09/11

Instrument: HGCV1A

Sample Id	Qc DF	Qc Type	Run Time	Test #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	18:20	1							0
.2 PPB	1	CAL	18:22	2							0
.5 PPB	1	CAL	18:23	3							0
1 PPB	1	CAL	18:24	4							0
2 PPB	1	CAL	18:26	5							0
5 PPB	1	CAL	18:27	6							0
10 PPB	1	CAL	18:29	7							0
25 PPB	1	CAL	18:30	8							0
ICV (2)	1	ICV	18:31	9							0
ICB	1	ICB	18:33	10							0
MB 11681 (1)	1	MB	18:34	11		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	18:35	12		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	18:37	13		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	SMP	18:38	14		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	MR	18:39	15		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	MS	18:41	16		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	MSD	18:42	17		AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	NA	18:44	18	HG-W-7470	AQUEO	AQUEO	SW846	11681	sample concentration greater than that of highest standard	0
AC63081-012	1	NA	18:45	19	HG-W-7470	AQUEO	AQUEO	SW846	11681	sample concentration greater than that of highest standard	0
AC63081-011	5	SMP	18:46	20	HG-W-7470	AQUEO	AQUEO	SW846	11681		0
CCV	1	CCV	18:48	21							0
CCB	1	CCB	18:49	22							0
AC63081-012	10	SMP	18:50	23	HG-W-7470	AQUEO	AQUEO	SW846	11681		0
CCV	1	CCV	18:52	24							0
CCB	1	CCB	18:53	25							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/12/2011 1:25:06 PM

V-130396

RUN IS OK

sh 12/29/11

RESET

Analyst S BL 12/12/11

=====  
Analysis Begun

Start Time: 12/10/2011 11:16:18 AM Plasma On Time: 12/10/2011 10:42:53 AM  
Logged In Analyst: shiamala Technique: ICP Continuous  
Spectrometer Model: Optima 3300 DV, S/N 069N5072002 Autosampler Model: AS-91

Sample Information File: C:\pe\Administrator\Sample Information\12.09.11.sif  
Batch ID: 8336  
Results Data Set: PROFILE1  
Results Library: C:\pe\Administrator\Results\Results.mdb

sh 12/14/11

=====  
Method Loaded

Method Name: PE 1 3000DV RADIAL Method Last Saved: 12/5/2011 11:34:35 AM  
IEC File: IEC080111r.iec MSF File:  
Method Description: 200.7/6010B

=====  
Sequence No.: 1 Autosampler Location: 1  
Sample ID: Calib Blk 1 V-129815 Date Collected: 12/10/2011 11:17:19 AM  
Analyst: Data Type: Original  
Initial Sample Wt: Initial Sample Vol:  
Dilution: Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Al	59.1	1.01	1.72%	[0.00] mg/L	
Ca	-280.0	0.19	0.07%	[0.00] mg/L	
Fe	9.8	0.12	1.19%	[0.00] mg/L	
Mg	-16.4	6.42	39.07%	[0.00] mg/L	
Mn	-28.3	3.40	12.01%	[0.00] mg/L	
K	-1202.5	24.10	2.00%	[0.00] mg/L	
Na	513.1	59.58	11.61%	[0.00] mg/L	
Ti	2.6	2.98	114.06%	[0.00] mg/L	

13377  
11681

Na, K reported

RESET  
13377  
11691

Na, K reported

-----  
 Sequence No.: 2  
 Sample ID: Calib Std 1 V-128664  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 160  
 Date Collected: 12/10/2011 11:20:16 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: Calib Std 1 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Al 308.215	14.9	1.64	10.99%	[0.1] mg/L
Ca 315.887	692.6	1.24	0.18%	[1] mg/L
Fe 273.955	15.4	4.39	28.44%	[0.1] mg/L
Mg 279.077	173.5	6.54	3.77%	[1] mg/L
Mn 257.610	30.8	0.74	2.40%	[0.01] mg/L
K 766.490	1198.7	52.70	4.40%	[1] mg/L
Na 589.592	2979.1	12.52	0.42%	[1] mg/L
Ti 334.940	31.0	0.23	0.75%	[0.01] mg/L

Sequence No.: 3  
Sample ID: Calib Std 2 V-128660  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 3  
Date Collected: 12/10/2011 11:23:16 AM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

## Mean Data: Calib Std 2 V-128660

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	676.4	0.68	0.10%	[5]	mg/L
Ca 315.887	34228.6	391.75	1.14%	[50]	mg/L
Fe 273.955	815.1	1.33	0.16%	[5]	mg/L
Mg 279.077	8625.2	10.72	0.12%	[50]	mg/L
Mn 257.610	1723.5	0.83	0.05%	[0.5]	mg/L
K 766.490	59812.5	845.82	1.41%	[50]	mg/L
Na 589.592	143067.9	1709.51	1.19%	[50]	mg/L
Ti 334.940	1628.4	5.71	0.35%	[0.5]	mg/L

Sequence No.: 4  
 Sample ID: Calib Std 3 V-129806  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/10/2011 11:26:16 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: Calib Std 3 V-129806

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Al 308.215	1334.2	1.34	0.10%	[10] mg/L
Ca 315.887	66590.0	1298.10	1.95%	[100] mg/L
Fe 273.955	1618.1	1.90	0.12%	[10] mg/L
Mg 279.077	17064.8	64.29	0.38%	[100] mg/L
Mn 257.610	3429.0	14.04	0.41%	[1.0] mg/L
K 766.490	123363.0	3640.63	2.95%	[100] mg/L
Na 589.592	286495.9	6868.41	2.40%	[100] mg/L
Ti 334.940	3243.6	14.09	0.43%	[1.0] mg/L

-----  
 Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	2.4	133.5	0.00000	0.999976	
Ca 315.887	3	Lin, Calc Int	182.0	667.4	0.00000	0.999897	
Fe 273.955	3	Lin, Calc Int	0.8	162.0	0.00000	0.999992	
Mg 279.077	3	Lin, Calc Int	18.2	170.8	0.00000	0.999984	
Mn 257.610	3	Lin, Calc Int	0.1	3433	0.00000	0.999995	
K 766.490	3	Lin, Calc Int	-356.0	1230	0.00000	0.999878	
Na 589.592	3	Lin, Calc Int	19.1	2864	0.00000	1.000000	
Ti 334.940	3	Lin, Calc Int	0.6	3246	0.00000	0.999997	

Sequence No.: 5

Sample ID: ICS3 V-128660

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/10/2011 11:29:15 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICS3 V-128660

Analyte	Mean Corrected Intensity	Conc.	Units	Calib.	Std.Dev.	Conc.	Units	Sample	Std.Dev.	RSD
Al 308.215	693.5	5.17674	mg/L		0.025324	5.17674	mg/L		0.025324	0.49%
	QC value within limits for Al 308.215 Recovery = 103.53%									
Ca 315.887	35014.8	52.1889	mg/L		0.27675	52.1889	mg/L		0.27675	0.53%
	QC value within limits for Ca 315.887 Recovery = 104.38%									
Fe 273.955	830.4	5.12221	mg/L		0.037278	5.12221	mg/L		0.037278	0.73%
	QC value within limits for Fe 273.955 Recovery = 102.44%									
Mg 279.077	8776.2	51.2768	mg/L		0.16335	51.2768	mg/L		0.16335	0.32%
	QC value within limits for Mg 279.077 Recovery = 102.55%									
Mn 257.610	1749.0	0.509916	mg/L		0.0033192	0.509916	mg/L		0.0033192	0.65%
	QC value within limits for Mn 257.610 Recovery = 101.98%									
K 766.490	63044.3	51.5261	mg/L		0.03595	51.5261	mg/L		0.03595	0.07%
	QC value within limits for K 766.490 Recovery = 103.05%									
Na 589.592	147324.2	51.4330	mg/L		0.19303	51.4330	mg/L		0.19303	0.38%
	QC value within limits for Na 589.592 Recovery = 102.87%									
Ti 334.940	1659.2	0.511044	mg/L		0.0014869	0.511044	mg/L		0.0014869	0.29%
	QC value within limits for Ti 334.940 Recovery = 102.21%									

All analyte(s) passed QC.

Sequence No.: 6  
 Sample ID: ICV V-128235 (2)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 159  
 Date Collected: 12/10/2011 11:32:14 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	1344.5	10.0532 mg/L		0.07328	10.0532 mg/L	0.07328	0.73%
QC value within limits for Al 308.215 Recovery = 100.53%							
Ca 315.887	67731.5	101.207 mg/L		0.2781	101.207 mg/L	0.2781	0.27%
QC value within limits for Ca 315.887 Recovery = 101.21%							
Fe 273.955	1607.6	9.92124 mg/L		0.036195	9.92124 mg/L	0.036195	0.36%
QC value within limits for Fe 273.955 Recovery = 99.21%							
Mg 279.077	17090.6	99.9559 mg/L		0.09394	99.9559 mg/L	0.09394	0.09%
QC value within limits for Mg 279.077 Recovery = 99.96%							
Mn 257.610	3405.7	0.992946 mg/L		0.0032241	0.992946 mg/L	0.0032241	0.32%
QC value within limits for Mn 257.610 Recovery = 99.29%							
K 766.490	127843.0	104.189 mg/L		1.3010	104.189 mg/L	1.3010	1.25%
QC value within limits for K 766.490 Recovery = 104.19%							
Na 589.592	289977.8	101.242 mg/L		0.7314	101.242 mg/L	0.7314	0.72%
QC value within limits for Na 589.592 Recovery = 101.24%							
Ti 334.940	3266.1	1.00615 mg/L		0.000124	1.00615 mg/L	0.000124	0.01%
QC value within limits for Ti 334.940 Recovery = 100.61%							

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB V-129815

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/10/2011 11:35:14 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

-----  
Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	2.8	0.0032478 mg/L	0.02755358	0.0032478 mg/L	0.02755358	848.38%
QC value within limits for Al 308.215 Recovery = Not calculated						
Ca 315.887	18.7	-0.244754 mg/L	0.0274720	-0.244754 mg/L	0.0274720	11.22%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Fe 273.955	1.8	0.0065660 mg/L	0.00904996	0.0065660 mg/L	0.00904996	137.83%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Mg 279.077	3.4	-0.0865152 mg/L	0.01624118	-0.0865152 mg/L	0.01624118	18.77%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610	-3.5	-0.0010437 mg/L	0.00036042	-0.0010437 mg/L	0.00036042	34.53%
QC value within limits for Mn 257.610 Recovery = Not calculated						
K 766.490	1739.8	1.70332 mg/L	0.040870	1.70332 mg/L	0.040870	2.40%
QC value within limits for K 766.490 Recovery = Not calculated						
Na 589.592	983.1	0.336587 mg/L	0.0293391	0.336587 mg/L	0.0293391	8.72%
QC value within limits for Na 589.592 Recovery = Not calculated						
Ti 334.940	2.6	0.0006212 mg/L	0.00030363	0.0006212 mg/L	0.00030363	48.88%
QC value within limits for Ti 334.940 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICSA V-128666

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 12/10/2011 11:38:11 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Al 308.215	65875.8		493.439 mg/L	4.8941	493.439 mg/L	4.8941	0.99%
QC value within limits for Al 308.215 Recovery = 98.69%							
Ca 315.887	330813.9		495.375 mg/L	6.5314	495.375 mg/L	6.5314	1.32%
QC value within limits for Ca 315.887 Recovery = 99.08%							
Fe 273.955	30497.8		188.301 mg/L	2.1640	188.301 mg/L	2.1640	1.15%
QC value within limits for Fe 273.955 Recovery = 94.15%							
Mg 279.077	85384.8		499.806 mg/L	7.9669	499.806 mg/L	7.9669	1.59%
QC value within limits for Mg 279.077 Recovery = 99.96%							
Mn 257.610	-9.9	0.0118064	mg/L	0.00025319	0.0118064 mg/L	0.00025319	2.14%
K 766.490	2855.7	2.61022	mg/L	0.110228	2.61022 mg/L	0.110228	4.22%
Na 589.592	1290.1	0.443781	mg/L	0.0077338	0.443781 mg/L	0.0077338	1.74%
Ti 334.940	-11.9	-0.0038581	mg/L	0.00104192	-0.0038581 mg/L	0.00104192	27.01%

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSAB V-128667

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/10/2011 11:41:32 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	66816.3		500.485 mg/L	3.5551	500.485 mg/L		3.5551	0.71%
QC value within limits for Al 308.215 Recovery = 100.10%								
Ca 315.887	335685.1		502.674 mg/L	4.0052	502.674 mg/L		4.0052	0.80%
QC value within limits for Ca 315.887 Recovery = 100.53%								
Fe 273.955	30563.9		188.710 mg/L	0.2158	188.710 mg/L		0.2158	0.11%
QC value within limits for Fe 273.955 Recovery = 94.35%								
Mg 279.077	86437.4		505.969 mg/L	4.0630	505.969 mg/L		4.0630	0.80%
QC value within limits for Mg 279.077 Recovery = 101.19%								
Mn 257.610	1683.5		0.505182 mg/L	0.0021218	0.505182 mg/L		0.0021218	0.42%
QC value within limits for Mn 257.610 Recovery = 101.04%								
K 766.490	1521.2		1.52565 mg/L	0.001677	1.52565 mg/L		0.001677	0.11%
Na 589.592	1050.4		0.360111 mg/L	0.0160000	0.360111 mg/L		0.0160000	4.44%
Ti 334.940	-11.4	-0.0036999	mg/L	0.00147426	-0.0036999 mg/L		0.00147426	39.85%

All analyte(s) passed QC.

=====  
 Sequence No.: 10  
 Sample ID: MB 11681 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 113  
 Date Collected: 12/10/2011 11:44:55 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: MB 11681 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	25.5	0.172757	mg/L	0.0063894	0.172757	mg/L	0.0063894	3.70%
Ca 315.887	772.7	0.885009	mg/L	0.0001588	0.885009	mg/L	0.0001588	0.02%
Fe 273.955	18.1	0.106928	mg/L	0.0014188	0.106928	mg/L	0.0014188	1.33%
Mg 279.077	35.3	0.100381	mg/L	0.0006594	0.100381	mg/L	0.0006594	0.66%
Mn 257.610	-3.4	-0.0010098	mg/L	0.00188002	-0.0010098	mg/L	0.00188002	186.18%
K 766.490	331.5	0.558772	mg/L	0.0922063	0.558772	mg/L	0.0922063	16.50%
Na 589.592	523.5	0.176133	mg/L	0.0291975	0.176133	mg/L	0.0291975	16.58%
Ti 334.940	-2.0	-0.0007979	mg/L	0.00122416	-0.0007979	mg/L	0.00122416	153.42%

Sequence No.: 11  
 Sample ID: LCSW 11681  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 114  
 Date Collected: 12/10/2011 11:47:54 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCSW 11681

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	699.7	5.22348	mg/L	0.049222	5.22348	mg/L	0.049222	0.94%
Ca 315.887	35771.4	53.3224	mg/L	0.15486	53.3224	mg/L	0.15486	0.29%
Fe 273.955	829.5	5.11708	mg/L	0.037500	5.11708	mg/L	0.037500	0.73%
Mg 279.077	8720.9	50.9528	mg/L	0.07671	50.9528	mg/L	0.07671	0.15%
Mn 257.610	1728.9	0.504077	mg/L	0.0005728	0.504077	mg/L	0.0005728	0.11%
K 766.490	60189.4	49.2059	mg/L	0.35437	49.2059	mg/L	0.35437	0.72%
Na 589.592	142724.5	49.8270	mg/L	0.22247	49.8270	mg/L	0.22247	0.45%
Ti 334.940	1654.9	0.509714	mg/L	0.0030490	0.509714	mg/L	0.0030490	0.60%

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 Sequence No.: 12  
 Sample ID: LCSW MR 11681  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 115  
 Date Collected: 12/10/2011 11:50:54 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW MR 11681

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	700.4	5.22883	mg/L	0.012117	5.22883	mg/L	0.012117	0.23%
Ca 315.887	36352.3	54.1928	mg/L	0.07975	54.1928	mg/L	0.07975	0.15%
Fe 273.955	837.3	5.16509	mg/L	0.054208	5.16509	mg/L	0.054208	1.05%
Mg 279.077	8855.8	51.7423	mg/L	0.08341	51.7423	mg/L	0.08341	0.16%
Mn 257.610	1754.5	0.511537	mg/L	0.0015255	0.511537	mg/L	0.0015255	0.30%
K 766.490	62115.0	50.7708	mg/L	0.01649	50.7708	mg/L	0.01649	0.03%
Na 589.592	145983.1	50.9648	mg/L	0.10877	50.9648	mg/L	0.10877	0.21%
Ti 334.940	1680.8	0.517686	mg/L	0.0011599	0.517686	mg/L	0.0011599	0.22%

Sequence No.: 13  
 Sample ID: 63081-011  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 116  
 Date Collected: 12/10/2011 11:53:55 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	29778.2	223.042	mg/L	0.3256	223.042	mg/L	0.15%
Ca 315.887	284961.8	426.677	mg/L	7.4029	426.677	mg/L	1.74%
Fe 273.955	96835.2	597.896	mg/L	1.2700	597.896	mg/L	0.21%
Mg 279.077	11316.9	66.1520	mg/L	0.03748	66.1520	mg/L	0.06%
Mn 257.610	26936.8	7.89423	mg/L	0.032436	7.89423	mg/L	0.41%
K 766.490	65729.8	53.7086	mg/L	0.05668	53.7086	mg/L	0.11%
Na 589.592	139078.9	48.5541	mg/L	0.93183	48.5541	mg/L	1.92%
Ti 334.940	15770.2	4.85878	mg/L	0.043394	4.85878	mg/L	0.89%

Sequence No.: 14  
 Sample ID: 63081-011 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 117  
 Date Collected: 12/10/2011 11:56:40 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 MR

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Al 308.215	27160.7	203.435	mg/L	1.7842	203.435	mg/L	1.7842	0.88%
Ca 315.887	283276.0	424.151	mg/L	3.3731	424.151	mg/L	3.3731	0.80%
Fe 273.955	88724.9	547.820	mg/L	3.3881	547.820	mg/L	3.3881	0.62%
Mg 279.077	10847.7	63.4050	mg/L	0.24629	63.4050	mg/L	0.24629	0.39%
Mn 257.610	25306.7	7.41543	mg/L	0.043037	7.41543	mg/L	0.043037	0.58%
K 766.490	63173.5	51.6311	mg/L	0.48059	51.6311	mg/L	0.48059	0.93%
Na 589.592	136864.4	47.7809	mg/L	0.35109	47.7809	mg/L	0.35109	0.73%
Ti 334.940	14205.0	4.37654	mg/L	0.030893	4.37654	mg/L	0.030893	0.71%

Sequence No.: 15  
 Sample ID: 63081-011 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 118  
 Date Collected: 12/10/2011 11:59:17 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 MS 1

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	30553.4	228.849	mg/L	2.1968	228.849	mg/L	2.1968	0.96%
Ca 315.887	315226.2	472.021	mg/L	2.9314	472.021	mg/L	2.9314	0.62%
Fe 273.955	87591.5	540.822	mg/L	4.2828	540.822	mg/L	4.2828	0.79%
Mg 279.077	19625.1	114.795	mg/L	0.9004	114.795	mg/L	0.9004	0.78%
Mn 257.610	26734.2	7.83074	mg/L	0.069164	7.83074	mg/L	0.069164	0.88%
K 766.490	131900.8	107.486	mg/L	1.1542	107.486	mg/L	1.1542	1.07%
Na 589.592	284011.0	99.1586	mg/L	0.32966	99.1586	mg/L	0.32966	0.33%
Ti 334.940	16234.2	5.00175	mg/L	0.086698	5.00175	mg/L	0.086698	1.73%

=====  
 Sequence No.: 16  
 Sample ID: 63081-011 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

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 Autosampler Location: 119  
 Date Collected: 12/10/2011 12:01:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 MS 2

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	30196.9	226.178	mg/L	1.3449	226.178	mg/L	1.3449	0.59%
Ca 315.887	311528.7	466.481	mg/L	3.4517	466.481	mg/L	3.4517	0.74%
Fe 273.955	86172.4	532.059	mg/L	4.3297	532.059	mg/L	4.3297	0.81%
Mg 279.077	19288.9	112.827	mg/L	0.4463	112.827	mg/L	0.4463	0.40%
Mn 257.610	26338.1	7.71467	mg/L	0.055375	7.71467	mg/L	0.055375	0.72%
K 766.490	130326.0	106.207	mg/L	0.8876	106.207	mg/L	0.8876	0.84%
Na 589.592	285321.1	99.6160	mg/L	0.34356	99.6160	mg/L	0.34356	0.34%
Ti 334.940	15927.9	4.90737	mg/L	0.046355	4.90737	mg/L	0.046355	0.94%

=====  
 Sequence No.: 17  
 Sample ID: 63081-011 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

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 Autosampler Location: 120  
 Date Collected: 12/10/2011 12:04:35 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:  
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 Mean Data: 63081-011 PS

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Al 308.215	29332.3	219.702	mg/L	4.0318	219.702	mg/L	4.0318 1.84%
Ca 315.887	304446.9	455.871	mg/L	8.3073	455.871	mg/L	8.3073 1.82%
Fe 273.955	94656.6	584.444	mg/L	10.3647	584.444	mg/L	10.3647 1.77%
Mg 279.077	19298.8	112.885	mg/L	2.1847	112.885	mg/L	2.1847 1.94%
Mn 257.610	27702.9	8.11638	mg/L	0.159479	8.11638	mg/L	0.159479 1.96%
K 766.490	129376.6	105.435	mg/L	2.0405	105.435	mg/L	2.0405 1.94%
Na 589.592	276937.3	96.6888	mg/L	0.98912	96.6888	mg/L	0.98912 1.02%
Ti 334.940	16710.0	5.14834	mg/L	0.092672	5.14834	mg/L	0.092672 1.80%

=====  
 Sequence No.: 18  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/10/2011 12:07:14 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Al 308.215	717.7	5.35828 mg/L	0.092385	5.35828 mg/L	0.092385	1.72%	
QC value within limits for Al 308.215 Recovery = 107.17%							
Ca 315.887	36033.1	53.7145 mg/L	1.17325	53.7145 mg/L	1.17325	2.18%	
QC value within limits for Ca 315.887 Recovery = 107.43%							
Fe 273.955	878.5	5.41971 mg/L	0.006231	5.41971 mg/L	0.006231	0.11%	
QC value within limits for Fe 273.955 Recovery = 108.39%							
Mg 279.077	8973.2	52.4302 mg/L	0.26084	52.4302 mg/L	0.26084	0.50%	
QC value within limits for Mg 279.077 Recovery = 104.86%							
Mn 257.610	1803.8	0.525925 mg/L	0.0018292	0.525925 mg/L	0.0018292	0.35%	
QC value within limits for Mn 257.610 Recovery = 105.18%							
K 766.490	64345.2	52.5833 mg/L	1.45123	52.5833 mg/L	1.45123	2.76%	
QC value within limits for K 766.490 Recovery = 105.17%							
Na 589.592	148433.4	51.8203 mg/L	1.39263	51.8203 mg/L	1.39263	2.69%	
QC value within limits for Na 589.592 Recovery = 103.64%							
Ti 334.940	1722.9	0.530678 mg/L	0.0014335	0.530678 mg/L	0.0014335	0.27%	
QC value within limits for Ti 334.940 Recovery = 106.14%							

All analyte(s) passed QC.

Sequence No.: 19  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/10/2011 12:10:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected		Calib.		Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units	Conc. Units	Units		Conc. Units	Units		
Al 308.215	13.0	0.0793934 mg/L	0.0793934 mg/L		0.01912654	0.0793934 mg/L		0.01912654	24.09%
QC value within limits for Al 308.215 Recovery = Not calculated									
Ca 315.887	95.3	-0.129968 mg/L	-0.129968 mg/L		0.0152453	-0.129968 mg/L		0.0152453	11.73%
QC value within limits for Ca 315.887 Recovery = Not calculated									
Fe 273.955	27.7	0.166322 mg/L	0.166322 mg/L		0.0044905	0.166322 mg/L		0.0044905	2.70%
QC value within limits for Fe 273.955 Recovery = Not calculated									
Mg 279.077	6.6	-0.0678585 mg/L	-0.0678585 mg/L		0.02060255	-0.0678585 mg/L		0.02060255	30.36%
QC value within limits for Mg 279.077 Recovery = Not calculated									
Mn 257.610	0.8	0.0002343 mg/L	0.0002343 mg/L		0.00035294	0.0002343 mg/L		0.00035294	150.64%
QC value within limits for Mn 257.610 Recovery = Not calculated									
K 766.490	1451.0	1.46854 mg/L	1.46854 mg/L		0.083517	1.46854 mg/L		0.083517	5.69%
QC value within limits for K 766.490 Recovery = Not calculated									
Na 589.592	1033.0	0.354015 mg/L	0.354015 mg/L		0.0099387	0.354015 mg/L		0.0099387	2.81%
QC value within limits for Na 589.592 Recovery = Not calculated									
Ti 334.940	7.6	0.0021513 mg/L	0.0021513 mg/L		0.00112834	0.0021513 mg/L		0.00112834	52.45%
QC value within limits for Ti 334.940 Recovery = Not calculated									

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: 63081-011 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 121  
 Date Collected: 12/10/2011 12:13:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	6241.4	46.7343	mg/L	0.01147	46.7343	mg/L	0.01147	0.02%
Ca 315.887	60141.1	89.8348	mg/L	0.94507	89.8348	mg/L	0.94507	1.05%
Fe 273.955	20645.9	127.472	mg/L	0.1179	127.472	mg/L	0.1179	0.09%
Mg 279.077	2423.0	14.0800	mg/L	0.03214	14.0800	mg/L	0.03214	0.23%
Mn 257.610	5705.7	1.67219	mg/L	0.005642	1.67219	mg/L	0.005642	0.34%
K 766.490	13191.4	11.0101	mg/L	0.13788	11.0101	mg/L	0.13788	1.25%
Na 589.592	27958.5	9.75533	mg/L	0.088329	9.75533	mg/L	0.088329	0.91%
Ti 334.940	3309.4	1.01949	mg/L	0.004457	1.01949	mg/L	0.004457	0.44%

Sequence No.: 21  
 Sample ID: 63081-012  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 122  
 Date Collected: 12/10/2011 12:16:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-012

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	14410.1	107.924	mg/L	0.8407	107.924	mg/L	0.8407	0.78%
Ca 315.887	319098.1	477.822	mg/L	4.0081	477.822	mg/L	4.0081	0.84%
Fe 273.955	38652.4	238.651	mg/L	2.2067	238.651	mg/L	2.2067	0.92%
Mg 279.077	8031.9	46.9188	mg/L	0.28587	46.9188	mg/L	0.28587	0.61%
Mn 257.610	12399.3	3.63093	mg/L	0.023097	3.63093	mg/L	0.023097	0.64%
K 766.490	42368.5	34.7226	mg/L	0.27086	34.7226	mg/L	0.27086	0.78%
Na 589.592	75241.1	26.2645	mg/L	0.24902	26.2645	mg/L	0.24902	0.95%
Ti 334.940	8614.5	2.65405	mg/L	0.021800	2.65405	mg/L	0.021800	0.82%

Sequence No.: 22  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/10/2011 12:18:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	68062.2	509.817	mg/L	5.9642	509.817	mg/L	5.9642	1.17%
QC value within limits for Al		308.215	Recovery =	101.96%				
Ca 315.887	340967.8	510.589	mg/L	6.7345	510.589	mg/L	6.7345	1.32%
QC value within limits for Ca		315.887	Recovery =	102.12%				
Fe 273.955	31450.5	194.184	mg/L	2.6387	194.184	mg/L	2.6387	1.36%
QC value within limits for Fe		273.955	Recovery =	97.09%				
Mg 279.077	87943.2	514.785	mg/L	7.3034	514.785	mg/L	7.3034	1.42%
QC value within limits for Mg		279.077	Recovery =	102.96%				
Mn 257.610	1.4	0.0155408	mg/L	0.00141315	0.0155408	mg/L	0.00141315	9.09%
K 766.490	2494.9	2.31699	mg/L	0.325643	2.31699	mg/L	0.325643	14.05%
Na 589.592	1405.1	0.483937	mg/L	0.0239361	0.483937	mg/L	0.0239361	4.95%
Ti 334.940	-11.6	-0.0037417	mg/L	0.00032485	-0.0037417	mg/L	0.00032485	8.68%

All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/10/2011 12:22:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	67645.1	506.693 mg/L		0.4988	506.693 mg/L	0.4988	0.10%
QC value within limits for Al 308.215 Recovery = 101.34%							
Ca 315.887	339423.2	508.274 mg/L		0.8426	508.274 mg/L	0.8426	0.17%
QC value within limits for Ca 315.887 Recovery = 101.65%							
Fe 273.955	30989.5	191.337 mg/L		0.2419	191.337 mg/L	0.2419	0.13%
QC value within limits for Fe 273.955 Recovery = 95.67%							
Mg 279.077	87538.5	512.415 mg/L		1.3280	512.415 mg/L	1.3280	0.26%
QC value within limits for Mg 279.077 Recovery = 102.48%							
Mn 257.610	1710.6	0.513271 mg/L		0.0010153	0.513271 mg/L	0.0010153	0.20%
QC value within limits for Mn 257.610 Recovery = 102.65%							
K 766.490	2026.1	1.93597 mg/L		0.005078	1.93597 mg/L	0.005078	0.26%
Na 589.592	978.2	0.334878 mg/L		0.0127793	0.334878 mg/L	0.0127793	3.82%
Ti 334.940	-7.3	-0.0024377 mg/L		0.00138542	-0.0024377 mg/L	0.00138542	56.83%

All analyte(s) passed QC.

Sequence No.: 24  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/10/2011 12:25:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	713.6	5.32747 mg/L		0.023447	5.32747 mg/L	0.023447	0.44%
QC value within limits for Al 308.215 Recovery = 106.55%							
Ca 315.887	35551.6	52.9931 mg/L		0.61005	52.9931 mg/L	0.61005	1.15%
QC value within limits for Ca 315.887 Recovery = 105.99%							
Fe 273.955	846.9	5.22421 mg/L		0.012929	5.22421 mg/L	0.012929	0.25%
QC value within limits for Fe 273.955 Recovery = 104.48%							
Mg 279.077	8850.4	51.7108 mg/L		0.10444	51.7108 mg/L	0.10444	0.20%
QC value within limits for Mg 279.077 Recovery = 103.42%							
Mn 257.610	1756.4	0.512087 mg/L		0.0002080	0.512087 mg/L	0.0002080	0.04%
QC value within limits for Mn 257.610 Recovery = 102.42%							
K 766.490	61369.2	50.1647 mg/L		1.06960	50.1647 mg/L	1.06960	2.13%
QC value within limits for K 766.490 Recovery = 100.33%							
Na 589.592	144795.4	50.5501 mg/L		0.77970	50.5501 mg/L	0.77970	1.54%
QC value within limits for Na 589.592 Recovery = 101.10%							
Ti 334.940	1685.8	0.519241 mg/L		0.0007060	0.519241 mg/L	0.0007060	0.14%
QC value within limits for Ti 334.940 Recovery = 103.85%							

All analyte(s) passed QC.

Sequence No.: 25  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/10/2011 12:28:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Units	Calib.	Std.Dev.	Conc.	Units	Sample	Std.Dev.	RSD
Al 308.215	22.9	0.153395	mg/L		0.0223928	0.153395	mg/L		0.0223928	14.60%
	QC value within limits for Al 308.215 Recovery = Not calculated									
Ca 315.887	111.1	-0.106243	mg/L		0.0075897	-0.106243	mg/L		0.0075897	7.14%
	QC value within limits for Ca 315.887 Recovery = Not calculated									
Fe 273.955	16.2	0.0952002	mg/L		0.02107043	0.0952002	mg/L		0.02107043	22.13%
	QC value within limits for Fe 273.955 Recovery = Not calculated									
Mg 279.077	19.5	0.0079146	mg/L		0.03611646	0.0079146	mg/L		0.03611646	456.32%
	QC value within limits for Mg 279.077 Recovery = Not calculated									
Mn 257.610	-5.1	-0.0014886	mg/L		0.00075886	-0.0014886	mg/L		0.00075886	50.98%
	QC value within limits for Mn 257.610 Recovery = Not calculated									
K 766.490	853.4	0.982884	mg/L		0.0121250	0.982884	mg/L		0.0121250	1.23%
	QC value within limits for K 766.490 Recovery = Not calculated									
Na 589.592	620.5	0.210009	mg/L		0.0051758	0.210009	mg/L		0.0051758	2.46%
	QC value within limits for Na 589.592 Recovery = Not calculated									
Ti 334.940	-1.2	-0.0005617	mg/L		0.00254088	-0.0005617	mg/L		0.00254088	452.36%
	QC value within limits for Ti 334.940 Recovery = Not calculated									

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: MB 11691 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 123  
 Date Collected: 12/10/2011 12:31:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11691 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	14.3	0.0888489	mg/L	0.01727571	0.0888489	mg/L	0.01727571	19.44%
Ca 315.887	308.5	0.189503	mg/L	0.0023839	0.189503	mg/L	0.0023839	1.26%
Fe 273.955	33.7	0.203185	mg/L	0.0024712	0.203185	mg/L	0.0024712	1.22%
Mg 279.077	13.1	-0.0298598	mg/L	0.03451225	-0.0298598	mg/L	0.03451225	115.58%
Mn 257.610	-1.4	-0.0003983	mg/L	0.00063685	-0.0003983	mg/L	0.00063685	159.91%
K 766.490	452.8	0.657330	mg/L	0.0851380	0.657330	mg/L	0.0851380	12.95%
Na 589.592	1116.9	0.383316	mg/L	0.0019722	0.383316	mg/L	0.0019722	0.51%
Ti 334.940	6.4	0.0017993	mg/L	0.00158659	0.0017993	mg/L	0.00158659	88.18%

Sequence No.: 27  
 Sample ID: LCSW 11691  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 124  
 Date Collected: 12/10/2011 12:34:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW 11691

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	719.6	5.37250	mg/L	0.114829	5.37250	mg/L	0.114829	2.14%
Ca 315.887	36405.9	54.2731	mg/L	0.45747	54.2731	mg/L	0.45747	0.84%
Fe 273.955	868.6	5.35832	mg/L	0.032257	5.35832	mg/L	0.032257	0.60%
Mg 279.077	9117.1	53.2726	mg/L	0.12182	53.2726	mg/L	0.12182	0.23%
Mn 257.610	1815.8	0.529391	mg/L	0.0006034	0.529391	mg/L	0.0006034	0.11%
K 766.490	62609.3	51.1725	mg/L	0.16106	51.1725	mg/L	0.16106	0.31%
Na 589.592	148301.7	51.7744	mg/L	0.39374	51.7744	mg/L	0.39374	0.76%
Ti 334.940	1740.3	0.536024	mg/L	0.0014021	0.536024	mg/L	0.0014021	0.26%

Sequence No.: 28  
 Sample ID: LCSW MR 11691  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 125  
 Date Collected: 12/10/2011 12:37:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCSW MR 11691

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	712.9	5.32223	mg/L	0.012511	5.32223	mg/L	0.012511	0.24%
Ca 315.887	36019.8	53.6947	mg/L	0.37092	53.6947	mg/L	0.37092	0.69%
Fe 273.955	863.2	5.32494	mg/L	0.050235	5.32494	mg/L	0.050235	0.94%
Mg 279.077	9071.3	53.0042	mg/L	0.15965	53.0042	mg/L	0.15965	0.30%
Mn 257.610	1794.7	0.523256	mg/L	0.0046741	0.523256	mg/L	0.0046741	0.89%
K 766.490	62356.3	50.9669	mg/L	0.50442	50.9669	mg/L	0.50442	0.99%
Na 589.592	147213.1	51.3943	mg/L	0.28766	51.3943	mg/L	0.28766	0.56%
Ti 334.940	1727.0	0.531935	mg/L	0.0000514	0.531935	mg/L	0.0000514	0.01%

Sequence No.: 29  
 Sample ID: 63111-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 126  
 Date Collected: 12/10/2011 12:40:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-047

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	11575.1	86.6877	mg/L	0.05983	86.6877	mg/L	0.05983	0.07%
Ca 315.887	237503.7	355.572	mg/L	4.7242	355.572	mg/L	4.7242	1.33%
Fe 273.955	42282.9	261.067	mg/L	1.3439	261.067	mg/L	1.3439	0.51%
Mg 279.077	11778.0	68.8515	mg/L	0.28667	68.8515	mg/L	0.28667	0.42%
Mn 257.610	9489.9	2.78508	mg/L	0.001029	2.78508	mg/L	0.001029	0.04%
K 766.490	68809.1	56.2111	mg/L	0.06030	56.2111	mg/L	0.06030	0.11%
Na 589.592	306008.1	106.839	mg/L	1.5048	106.839	mg/L	1.5048	1.41%
Ti 334.940	9214.0	2.83875	mg/L	0.002422	2.83875	mg/L	0.002422	0.09%

Sequence No.: 30  
 Sample ID: 63111-048  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 127  
 Date Collected: 12/10/2011 12:43:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-048

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Units	Conc.		
Al 308.215	31900.7	238.941	mg/L	2.3687	238.941	mg/L	2.3687	0.99%
Ca 315.887	701972.9	1051.47	mg/L	1.554	1051.47	mg/L	1.554	0.15%
Fe 273.955	87461.7	540.020	mg/L	3.6345	540.020	mg/L	3.6345	0.67%
Mg 279.077	16253.4	95.0543	mg/L	0.86694	95.0543	mg/L	0.86694	0.91%
Mn 257.610	29211.4	8.55238	mg/L	0.079514	8.55238	mg/L	0.079514	0.93%
K 766.490	84755.2	69.1707	mg/L	0.83068	69.1707	mg/L	0.83068	1.20%
Na 589.592	212910.5	74.3331	mg/L	0.02726	74.3331	mg/L	0.02726	0.04%
Ti 334.940	23374.6	7.20179	mg/L	0.116063	7.20179	mg/L	0.116063	1.61%

Sequence No.: 31  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/10/2011 12:46:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	68247.1	511.202 mg/L	1.1918	511.202 mg/L	1.1918	0.23%
QC value within limits for Al 308.215 Recovery = 102.24%						
Ca 315.887	343428.4	514.275 mg/L	1.3059	514.275 mg/L	1.3059	0.25%
QC value within limits for Ca 315.887 Recovery = 102.86%						
Fe 273.955	31701.3	195.732 mg/L	0.9816	195.732 mg/L	0.9816	0.50%
QC value within limits for Fe 273.955 Recovery = 97.87%						
Mg 279.077	88465.9	517.845 mg/L	0.6769	517.845 mg/L	0.6769	0.13%
QC value within limits for Mg 279.077 Recovery = 103.57%						
Mn 257.610	-3.5	0.0142417 mg/L	0.00115031	0.0142417 mg/L	0.00115031	8.08%
K 766.490	2972.4	2.70503 mg/L	0.003050	2.70503 mg/L	0.003050	0.11%
Na 589.592	1850.3	0.639390 mg/L	0.0476875	0.639390 mg/L	0.0476875	7.46%
Ti 334.940	-7.7	-0.0025442 mg/L	0.00038473	-0.0025442 mg/L	0.00038473	15.12%

All analyte(s) passed QC.

Sequence No.: 32  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/10/2011 12:49:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	68185.8	510.743	mg/L	2.2398	510.743 mg/L	2.2398	0.44%
QC value within limits for Al 308.215 Recovery = 102.15%							
Ca 315.887	342304.7	512.592	mg/L	1.7334	512.592 mg/L	1.7334	0.34%
QC value within limits for Ca 315.887 Recovery = 102.52%							
Fe 273.955	31209.6	192.696	mg/L	0.9062	192.696 mg/L	0.9062	0.47%
QC value within limits for Fe 273.955 Recovery = 96.35%							
Mg 279.077	88392.0	517.413	mg/L	1.7222	517.413 mg/L	1.7222	0.33%
QC value within limits for Mg 279.077 Recovery = 103.48%							
Mn 257.610	1718.4	0.515656	mg/L	0.0044924	0.515656 mg/L	0.0044924	0.87%
QC value within limits for Mn 257.610 Recovery = 103.13%							
K 766.490	1537.0	1.53845	mg/L	0.037784	1.53845 mg/L	0.037784	2.46%
Na 589.592	1181.4	0.405848	mg/L	0.0179329	0.405848 mg/L	0.0179329	4.42%
Ti 334.940	-8.1	-0.0026742	mg/L	0.00146324	-0.0026742 mg/L	0.00146324	54.72%

All analyte(s) passed QC.

Sequence No.: 33  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/10/2011 12:52:54 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc.	Units	Calib.	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Al	308.215	735.7	5.49269	mg/L	0.076271	5.49269	mg/L	0.076271	1.39%
	QC value within limits for Al 308.215 Recovery = 109.85%								
Ca	315.887	36000.7	53.6660	mg/L	0.10093	53.6660	mg/L	0.10093	0.19%
	QC value within limits for Ca 315.887 Recovery = 107.33%								
Fe	273.955	869.6	5.36432	mg/L	0.010610	5.36432	mg/L	0.010610	0.20%
	QC value within limits for Fe 273.955 Recovery = 107.29%								
Mg	279.077	9060.6	52.9418	mg/L	0.16051	52.9418	mg/L	0.16051	0.30%
	QC value within limits for Mg 279.077 Recovery = 105.88%								
Mn	257.610	1805.0	0.526270	mg/L	0.0022240	0.526270	mg/L	0.0022240	0.42%
	QC value within limits for Mn 257.610 Recovery = 105.25%								
K	766.490	61945.8	50.6333	mg/L	0.18135	50.6333	mg/L	0.18135	0.36%
	QC value within limits for K 766.490 Recovery = 101.27%								
Na	589.592	146155.3	51.0249	mg/L	0.13380	51.0249	mg/L	0.13380	0.26%
	QC value within limits for Na 589.592 Recovery = 102.05%								
Ti	334.940	1723.9	0.530968	mg/L	0.0012511	0.530968	mg/L	0.0012511	0.24%
	QC value within limits for Ti 334.940 Recovery = 106.19%								

All analyte(s) passed QC.

Sequence No.: 34  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/10/2011 12:55:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	17.6	0.114167 mg/L	0.0174240	0.114167 mg/L	0.0174240	15.26%
QC value within limits for Al 308.215 Recovery = Not calculated						
Ca 315.887	134.2	-0.0716242 mg/L	0.00247355	-0.0716242 mg/L	0.00247355	3.45%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Fe 273.955	14.6	0.0851623 mg/L	0.00010462	0.0851623 mg/L	0.00010462	0.12%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Mg 279.077	19.2	0.0059667 mg/L	0.01925474	0.0059667 mg/L	0.01925474	322.71%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610	-7.4	-0.0021640 mg/L	0.00138888	-0.0021640 mg/L	0.00138888	64.18%
QC value within limits for Mn 257.610 Recovery = Not calculated						
K 766.490	805.6	0.944016 mg/L	0.1226004	0.944016 mg/L	0.1226004	12.99%
QC value within limits for K 766.490 Recovery = Not calculated						
Na 589.592	660.5	0.223963 mg/L	0.0260093	0.223963 mg/L	0.0260093	11.61%
QC value within limits for Na 589.592 Recovery = Not calculated						
Ti 334.940	4.7	0.0012729 mg/L	0.00037704	0.0012729 mg/L	0.00037704	29.62%
QC value within limits for Ti 334.940 Recovery = Not calculated						

All analyte(s) passed QC.

Analyst Sam BL 12/10/11

Method Loaded

Method Name: PE1 3000DV AXIAL

IEC File: IEC092311.iec

Method Description: 200.7/6010B

Method Last Saved: 12/8/2011 10:32:40 AM

MSF File:

sh 12/14/11

Sequence No.: 1

Sample ID: Calib Blk 1 V-129815

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/9/2011 6:23:49 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	828.0	32.08	3.87%	[0.00]	mg/L
Sb 206.836	-18.1	2.50	13.85%	[0.00]	mg/L
As 188.979	-9.4	4.90	52.37%	[0.00]	mg/L
Ba 233.527	-88.3	0.91	1.03%	[0.00]	mg/L
Be 234.861	-231.7	10.66	4.60%	[0.00]	mg/L
Cd 226.502	-32.9	3.06	9.30%	[0.00]	mg/L
Ca 315.887	3140.2	65.18	2.08%	[0.00]	mg/L
Cr 206.158	37.0	2.51	6.78%	[0.00]	mg/L
Co 228.616	-170.6	11.66	6.83%	[0.00]	mg/L
Cu 324.752	943.9	101.87	10.79%	[0.00]	mg/L
Fe 273.955	815.0	3.52	0.43%	[0.00]	mg/L
Pb 220.353	105.7	5.72	5.41%	[0.00]	mg/L
Mg 279.077	585.3	7.72	1.32%	[0.00]	mg/L
Mn 257.610	397.3	5.53	1.39%	[0.00]	mg/L
Mo 202.031	-178.6	3.00	1.68%	[0.00]	mg/L
Ni 231.604	-90.0	1.98	2.20%	[0.00]	mg/L
Se 196.026	19.9	0.51	2.58%	[0.00]	mg/L
Ag 328.068	182.8	8.66	4.74%	[0.00]	mg/L
Na 330.237	348.3	50.96	14.63%	[0.00]	mg/L
Tl 190.801	-33.5	5.45	16.28%	[0.00]	mg/L
Sn 189.927	3.2	4.41	138.09%	[0.00]	mg/L
Ti 334.940	186.8	55.88	29.92%	[0.00]	mg/L
V 292.402	-89.2	24.17	27.08%	[0.00]	mg/L
Zn 206.200	61.0	7.48	12.28%	[0.00]	mg/L

13373  
11678

As, Pb reported

63081.028 Pb not reported

Sequence No.: 2

Sample ID: Calib Std 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 158

Date Collected: 12/9/2011 6:26:57 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
As 188.979	9.2	3.23	35.16%	[0.005]	mg/L
Be 234.861	1653.6	4.87	0.29%	[0.003]	mg/L
Cd 226.502	203.3	11.16	5.49%	[0.003]	mg/L
Pb 220.353	27.1	6.10	22.53%	[0.004]	mg/L
Tl 190.801	6.5	4.00	61.17%	[0.005]	mg/L

Sequence No.: 3  
 Sample ID: Calib Std 2 V-128664  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 160  
 Date Collected: 12/9/2011 6:30:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib Std 2 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	495.8	13.75	2.77%	[0.1]	mg/L
Sb 206.836	14.8	1.68	11.32%	[0.01]	mg/L
As 188.979	15.2	1.39	9.15%	[0.01]	mg/L
Ba 233.527	604.9	19.77	3.27%	[0.01]	mg/L
Be 234.861	5241.9	12.02	0.23%	[0.01]	mg/L
Cd 226.502	706.8	2.26	0.32%	[0.01]	mg/L
Ca 315.887	59257.0	474.29	0.80%	[1]	mg/L
Cr 206.158	152.7	0.21	0.14%	[0.01]	mg/L
Co 228.616	269.0	6.59	2.45%	[0.01]	mg/L
Cu 324.752	1141.6	31.15	2.73%	[0.01]	mg/L
Fe 273.955	1292.3	10.86	0.84%	[0.1]	mg/L
Pb 220.353	75.9	3.38	4.46%	[0.01]	mg/L
Mg 279.077	15609.1	77.83	0.50%	[1]	mg/L
Mn 257.610	5134.1	32.22	0.63%	[0.01]	mg/L
Mo 202.031	135.3	4.03	2.98%	[0.01]	mg/L
Ni 231.604	415.0	4.69	1.13%	[0.01]	mg/L
Se 196.026	35.4	4.89	13.81%	[0.01]	mg/L
Ag 328.068	190.0	26.25	13.82%	[0.002]	mg/L
Na 330.237	332.4	94.85	28.53%	[1]	mg/L
Tl 190.801	18.6	0.77	4.14%	[0.01]	mg/L
Sn 189.927	53.9	3.02	5.60%	[0.01]	mg/L
Ti 334.940	3173.1	42.09	1.33%	[0.01]	mg/L
V 292.402	1051.0	55.03	5.24%	[0.01]	mg/L
Zn 206.200	329.5	0.92	0.28%	[0.01]	mg/L

Sequence No.: 4

Sample ID: Calib Std 3 V-128660

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/9/2011 6:33:12 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 3 V-128660

Analyte	Mean Corrected			RSD	Calib Conc. Units
	Intensity	Std.Dev.			
Al 308.215	34921.9	925.43	2.65%		[5] mg/L
Sb 206.836	726.2	2.78	0.38%		[0.5] mg/L
As 188.979	656.4	0.80	0.12%		[0.5] mg/L
Ba 233.527	29249.0	554.91	1.90%		[0.5] mg/L
Be 234.861	274011.0	4832.86	1.76%		[0.5] mg/L
Cd 226.502	36077.8	775.66	2.15%		[0.5] mg/L
Ca 315.887	2958883.1	16308.83	0.55%		[50] mg/L
Cr 206.158	7578.4	29.90	0.39%		[0.5] mg/L
Co 228.616	13042.2	14.66	0.11%		[0.5] mg/L
Cu 324.752	56158.7	1247.46	2.22%		[0.5] mg/L
Fe 273.955	75544.2	1814.54	2.40%		[5] mg/L
Pb 220.353	4046.9	5.50	0.14%		[0.5] mg/L
Mg 279.077	756895.8	498.86	0.07%		[50] mg/L
Mn 257.610	245779.3	5284.15	2.15%		[0.5] mg/L
Mo 202.031	6526.8	3.06	0.05%		[0.5] mg/L
Ni 231.604	21664.4	409.42	1.89%		[0.5] mg/L
Se 196.026	1060.8	7.41	0.70%		[0.5] mg/L
Ag 328.068	11730.2	293.65	2.50%		[0.1] mg/L
Na 330.237	21378.0	577.40	2.70%		[50] mg/L
Tl 190.801	889.5	2.73	0.31%		[0.5] mg/L
Sn 189.927	2586.3	10.82	0.42%		[0.5] mg/L
Ti 334.940	160515.8	3603.77	2.25%		[0.5] mg/L
V 292.402	47727.6	991.05	2.08%		[0.5] mg/L
Zn 206.200	16625.4	11.40	0.07%		[0.5] mg/L

Sequence No.: 5  
 Sample ID: Calib Std 4 V-129806  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/9/2011 6:36:28 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib Std 4 V-129806

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	68528.6	344.20	0.50%	[10]	mg/L
Sb 206.836	1427.3	2.18	0.15%	[1.0]	mg/L
As 188.979	1294.6	3.84	0.30%	[1.0]	mg/L
Ba 233.527	55775.3	28.68	0.05%	[1.0]	mg/L
Be 234.861	537356.4	677.16	0.13%	[1.0]	mg/L
Cd 226.502	69018.6	164.78	0.24%	[1.0]	mg/L
Ca 315.887	5653408.6	24423.94	0.43%	[100]	mg/L
Cr 206.158	14880.4	30.33	0.20%	[1.0]	mg/L
Co 228.616	25716.6	43.07	0.17%	[1.0]	mg/L
Cu 324.752	109732.7	177.47	0.16%	[1.0]	mg/L
Fe 273.955	145482.5	904.69	0.62%	[10]	mg/L
Pb 220.353	7798.3	45.79	0.59%	[1.0]	mg/L
Mg 279.077	1437953.2	2042.88	0.14%	[100]	mg/L
Mn 257.610	475013.5	1103.24	0.23%	[1.0]	mg/L
Mo 202.031	12584.9	46.68	0.37%	[1.0]	mg/L
Ni 231.604	41416.4	78.75	0.19%	[1.0]	mg/L
Se 196.026	2041.7	16.51	0.81%	[1.0]	mg/L
Ag 328.068	23114.9	35.38	0.15%	[0.2]	mg/L
Na 330.237	44710.5	202.21	0.45%	[100]	mg/L
Tl 190.801	1741.6	5.19	0.30%	[1.0]	mg/L
Sn 189.927	4967.9	18.66	0.38%	[1.0]	mg/L
Ti 334.940	309185.9	574.06	0.19%	[1.0]	mg/L
V 292.402	92080.3	104.76	0.11%	[1.0]	mg/L
Zn 206.200	32603.4	49.90	0.15%	[1.0]	mg/L

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 Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	33.6	6875	0.00000	0.999941	
Sb 206.836	3	Lin, Calc Int	2.5	1429	0.00000	0.999959	
As 188.979	4	Lin, Calc Int	2.7	1295	0.00000	0.999979	
Ba 233.527	3	Lin, Calc Int	269.2	56000	0.00000	0.999689	
Be 234.861	4	Lin, Calc Int	636.5	538700	0.00000	0.999953	
Cd 226.502	4	Lin, Calc Int	199.4	69400	0.00000	0.999759	
Ca 315.887	3	Lin, Calc Int	25293.0	56760	0.00000	0.999713	
Cr 206.158	3	Lin, Calc Int	26.9	14900	0.00000	0.999955	
Co 228.616	3	Lin, Calc Int	38.9	25740	0.00000	0.999973	
Cu 324.752	3	Lin, Calc Int	255.3	109900	0.00000	0.999927	
Fe 273.955	3	Lin, Calc Int	436.4	14610	0.00000	0.999797	
Pb 220.353	4	Lin, Calc Int	16.5	7837	0.00000	0.999829	
Mg 279.077	3	Lin, Calc Int	7459.6	14440	0.00000	0.999637	
Mn 257.610	3	Lin, Calc Int	1679.9	476300	0.00000	0.999842	
Mo 202.031	3	Lin, Calc Int	46.9	12620	0.00000	0.999819	
Ni 231.604	3	Lin, Calc Int	174.4	41590	0.00000	0.999717	
Se 196.026	3	Lin, Calc Int	14.1	2041	0.00000	0.999812	
Ag 328.068	3	Lin, Calc Int	12.7	115800	0.00000	0.999965	
Na 330.237	3	Lin, Calc Int	-229.9	446.0	0.00000	0.999756	
Tl 190.801	4	Lin, Calc Int	2.0	1747	0.00000	0.999944	
Sn 189.927	3	Lin, Calc Int	20.5	4984	0.00000	0.999779	
Ti 334.940	3	Lin, Calc Int	1114.9	310200	0.00000	0.999806	
V 292.402	3	Lin, Calc Int	366.2	92310	0.00000	0.999827	
Zn 206.200	3	Lin, Calc Int	60.5	32660	0.00000	0.999948	

Sequence No.: 6  
 Sample ID: ICS3 V-128660  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/9/2011 6:39:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICS3 V-128660

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Al 308.215	34498.6	5.00658	mg/L	0.052203	5.00658	mg/L	1.04%
QC value within limits for Al		308.215		Recovery = 100.13%			
Sb 206.836	732.2	0.519880	mg/L	0.0003289	0.519880	mg/L	0.06%
QC value within limits for Sb		206.836		Recovery = 103.98%			
As 188.979	660.6	0.507931	mg/L	0.0003447	0.507931	mg/L	0.07%
QC value within limits for As		188.979		Recovery = 101.59%			
Ba 233.527	29249.8	0.517887	mg/L	0.0072569	0.517887	mg/L	1.40%
QC value within limits for Ba		233.527		Recovery = 103.58%			
Be 234.861	273970.4	0.511640	mg/L	0.0061860	0.511640	mg/L	1.21%
QC value within limits for Be		234.861		Recovery = 102.33%			
Cd 226.502	35588.1	0.509362	mg/L	0.0092658	0.509362	mg/L	1.82%
QC value within limits for Cd		226.502		Recovery = 101.87%			
Ca 315.887	2941547.6	51.3810	mg/L	0.28990	51.3810	mg/L	0.56%
QC value within limits for Ca		315.887		Recovery = 102.76%			
Cr 206.158	7573.6	0.519170	mg/L	0.0045666	0.519170	mg/L	0.88%
QC value within limits for Cr		206.158		Recovery = 103.83%			
Co 228.616	13061.7	0.504981	mg/L	0.0030573	0.504981	mg/L	0.61%
QC value within limits for Co		228.616		Recovery = 101.00%			
Cu 324.752	56184.5	0.507384	mg/L	0.0061783	0.507384	mg/L	1.22%
QC value within limits for Cu		324.752		Recovery = 101.48%			
Fe 273.955	74603.7	5.07734	mg/L	0.072808	5.07734	mg/L	1.43%
QC value within limits for Fe		273.955		Recovery = 101.55%			
Pb 220.353	4044.8	0.516705	mg/L	0.0022499	0.516705	mg/L	0.44%
QC value within limits for Pb		220.353		Recovery = 103.34%			
Mg 279.077	755097.8	51.7712	mg/L	0.42371	51.7712	mg/L	0.82%
QC value within limits for Mg		279.077		Recovery = 103.54%			
Mn 257.610	244527.5	0.509318	mg/L	0.0060524	0.509318	mg/L	1.19%
QC value within limits for Mn		257.610		Recovery = 101.86%			
Mo 202.031	6565.5	0.516810	mg/L	0.0030978	0.516810	mg/L	0.60%
QC value within limits for Mo		202.031		Recovery = 103.36%			
Ni 231.604	21576.0	0.514708	mg/L	0.0046882	0.514708	mg/L	0.91%
QC value within limits for Ni		231.604		Recovery = 102.94%			
Se 196.026	1050.9	0.517864	mg/L	0.0050421	0.517864	mg/L	0.97%
QC value within limits for Se		196.026		Recovery = 103.57%			
Ag 328.068	11631.3	0.101085	mg/L	0.0021423	0.101085	mg/L	2.12%
QC value within limits for Ag		328.068		Recovery = 101.09%			
Na 330.237	21311.2	48.3023	mg/L	0.68048	48.3023	mg/L	1.41%
QC value within limits for Na		330.237		Recovery = 96.60%			
Tl 190.801	900.4	0.517563	mg/L	0.0001295	0.517563	mg/L	0.03%
QC value within limits for Tl		190.801		Recovery = 103.51%			
Sn 189.927	2613.7	0.525384	mg/L	0.0041427	0.525384	mg/L	0.79%
QC value within limits for Sn		189.927		Recovery = 105.08%			
Ti 334.940	159143.3	0.509426	mg/L	0.0052779	0.509426	mg/L	1.04%
QC value within limits for Ti		334.940		Recovery = 101.89%			
V 292.402	47533.7	0.499081	mg/L	0.0076758	0.499081	mg/L	1.54%
QC value within limits for V		292.402		Recovery = 99.82%			
Zn 206.200	16706.6	0.508341	mg/L	0.0028393	0.508341	mg/L	0.56%
QC value within limits for Zn		206.200		Recovery = 101.67%			

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 159

Sample ID: ICV V-128235 (2)

Date Collected: 12/9/2011 6:43:03 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	68145.0	9.89463	mg/L	0.101866	9.89463	mg/L	0.101866 1.03%
QC value within limits for Al		308.215	Recovery = 98.95%				
Sb 206.836	1401.8	0.996931	mg/L	0.0014283	0.996931	mg/L	0.0014283 0.14%
QC value within limits for Sb		206.836	Recovery = 99.69%				
As 188.979	1276.8	0.983577	mg/L	0.0083811	0.983577	mg/L	0.0083811 0.85%
QC value within limits for As		188.979	Recovery = 98.36%				
Ba 233.527	56193.0	0.999361	mg/L	0.0124528	0.999361	mg/L	0.0124528 1.25%
QC value within limits for Ba		233.527	Recovery = 99.94%				
Be 234.861	532858.9	0.996125	mg/L	0.0116049	0.996125	mg/L	0.0116049 1.17%
QC value within limits for Be		234.861	Recovery = 99.61%				
Cd 226.502	68588.3	0.984352	mg/L	0.0090364	0.984352	mg/L	0.0090364 0.92%
QC value within limits for Cd		226.502	Recovery = 98.44%				
Ca 315.887	5606744.4	98.3386	mg/L	0.48603	98.3386	mg/L	0.48603 0.49%
QC value within limits for Ca		315.887	Recovery = 98.34%				
Cr 206.158	14707.6	1.00987	mg/L	0.008079	1.00987	mg/L	0.008079 0.80%
QC value within limits for Cr		206.158	Recovery = 100.99%				
Co 228.616	25819.3	0.999709	mg/L	0.0085705	0.999709	mg/L	0.0085705 0.86%
QC value within limits for Co		228.616	Recovery = 99.97%				
Cu 324.752	109578.3	0.991828	mg/L	0.0138397	0.991828	mg/L	0.0138397 1.40%
QC value within limits for Cu		324.752	Recovery = 99.18%				
Fe 273.955	142848.4	9.74923	mg/L	0.093203	9.74923	mg/L	0.093203 0.96%
QC value within limits for Fe		273.955	Recovery = 97.49%				
Pb 220.353	7726.8	0.989037	mg/L	0.0041942	0.989037	mg/L	0.0041942 0.42%
QC value within limits for Pb		220.353	Recovery = 98.90%				
Mg 279.077	1430740.5	98.5570	mg/L	1.15409	98.5570	mg/L	1.15409 1.17%
QC value within limits for Mg		279.077	Recovery = 98.56%				
Mn 257.610	469381.2	0.980914	mg/L	0.0104298	0.980914	mg/L	0.0104298 1.06%
QC value within limits for Mn		257.610	Recovery = 98.09%				
Mo 202.031	12552.4	0.991477	mg/L	0.0014847	0.991477	mg/L	0.0014847 0.15%
QC value within limits for Mo		202.031	Recovery = 99.15%				
Ni 231.604	41355.2	0.990396	mg/L	0.0117640	0.990396	mg/L	0.0117640 1.19%
QC value within limits for Ni		231.604	Recovery = 99.04%				
Se 196.026	2033.1	1.00819	mg/L	0.002499	1.00819	mg/L	0.002499 0.25%
QC value within limits for Se		196.026	Recovery = 100.82%				
Ag 328.068	22625.6	0.196712	mg/L	0.0010743	0.196712	mg/L	0.0010743 0.55%
QC value within limits for Ag		328.068	Recovery = 98.36%				
Na 330.237	44381.2	100.033	mg/L	0.7338	100.033	mg/L	0.7338 0.73%
QC value within limits for Na		330.237	Recovery = 100.03%				
Tl 190.801	1793.2	1.03170	mg/L	0.000377	1.03170	mg/L	0.000377 0.04%
QC value within limits for Tl		190.801	Recovery = 103.17%				
Sn 189.927	5022.6	1.01336	mg/L	0.002652	1.01336	mg/L	0.002652 0.26%
QC value within limits for Sn		189.927	Recovery = 101.34%				
Ti 334.940	308507.1	0.990920	mg/L	0.0105041	0.990920	mg/L	0.0105041 1.06%
QC value within limits for Ti		334.940	Recovery = 99.09%				
V 292.402	91495.6	0.964633	mg/L	0.0102695	0.964633	mg/L	0.0102695 1.06%
QC value within limits for V		292.402	Recovery = 96.46%				
Zn 206.200	32349.3	0.986086	mg/L	0.0109229	0.986086	mg/L	0.0109229 1.11%
QC value within limits for Zn		206.200	Recovery = 98.61%				

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICB V-129815

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/9/2011 6:46:23 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-189.3	-0.0324052 mg/L	0.00667330	-0.0324052 mg/L	0.00667330	20.59%
QC value within limits for Al 308.215 Recovery = Not calculated						
Sb 206.836	3.9	0.0009031 mg/L	0.00358904	0.0009031 mg/L	0.00358904	397.40%
QC value within limits for Sb 206.836 Recovery = Not calculated						
As 188.979	3.0	0.0002158 mg/L	0.00276314	0.0002158 mg/L	0.00276314	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527	16.7	-0.0045102 mg/L	0.00010326	-0.0045102 mg/L	0.00010326	2.29%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 234.861	167.0	-0.0009186 mg/L	0.00001359	-0.0009186 mg/L	0.00001359	1.48%
QC value within limits for Be 234.861 Recovery = Not calculated						
Cd 226.502	12.5	-0.0026871 mg/L	0.00002824	-0.0026871 mg/L	0.00002824	1.05%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Ca 315.887	-245.0	-0.449950 mg/L	0.0014047	-0.449950 mg/L	0.0014047	0.31%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Cr 206.158	0.8	-0.0017825 mg/L	0.00030987	-0.0017825 mg/L	0.00030987	17.38%
QC value within limits for Cr 206.158 Recovery = Not calculated						
Co 228.616	7.9	-0.0011940 mg/L	0.00011980	-0.0011940 mg/L	0.00011980	10.03%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cu 324.752	98.9	-0.0014123 mg/L	0.00028106	-0.0014123 mg/L	0.00028106	19.90%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 273.955	-381.3	-0.0559761 mg/L	0.00164875	-0.0559761 mg/L	0.00164875	2.95%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Pb 220.353	2.7	-0.0017771 mg/L	0.00064190	-0.0017771 mg/L	0.00064190	36.12%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Mg 279.077	-34.8	-0.518957 mg/L	0.0011785	-0.518957 mg/L	0.0011785	0.23%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610	43.0	-0.0034315 mg/L	0.00003217	-0.0034315 mg/L	0.00003217	0.94%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031	20.5	-0.0020964 mg/L	0.00026490	-0.0020964 mg/L	0.00026490	12.64%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604	18.8	-0.0037407 mg/L	0.00025229	-0.0037407 mg/L	0.00025229	6.74%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Se 196.026	9.0	-0.0026120 mg/L	0.00395537	-0.0026120 mg/L	0.00395537	151.43%
QC value within limits for Se 196.026 Recovery = Not calculated						
Ag 328.068	-35.6	-0.0004249 mg/L	0.00095951	-0.0004249 mg/L	0.00095951	225.84%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Na 330.237	56.2	0.641595 mg/L	0.1132262	0.641595 mg/L	0.1132262	17.65%
QC value within limits for Na 330.237 Recovery = Not calculated						
Tl 190.801	-0.4	-0.0014076 mg/L	0.00206293	-0.0014076 mg/L	0.00206293	146.55%
QC value within limits for Tl 190.801 Recovery = Not calculated						
Sn 189.927	21.2	0.0000826 mg/L	0.00050123	0.0000826 mg/L	0.00050123	606.65%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940	1.9	-0.0035876 mg/L	0.00007226	-0.0035876 mg/L	0.00007226	2.01%
QC value within limits for Ti 334.940 Recovery = Not calculated						
V 292.402	104.2	-0.0026943 mg/L	0.00030814	-0.0026943 mg/L	0.00030814	11.44%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200	23.5	-0.0011193 mg/L	0.00021873	-0.0011193 mg/L	0.00021873	19.54%
QC value within limits for Zn 206.200 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA V-128666

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 12/9/2011 6:49:31 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3106154.3	451.803	mg/L	0.9956	451.803 mg/L	0.9956	0.22%
QC value within limits for Al 308.215 Recovery = 90.36%							
Sb 206.836	-70.8	0.0079367	mg/L	0.00929675	0.0079367 mg/L	0.00929675	117.14%
As 188.979	-17.5	0.0060623	mg/L	0.00297727	0.0060623 mg/L	0.00297727	49.11%
Ba 233.527	135.1	-0.0049522	mg/L	0.00007047	-0.0049522 mg/L	0.00007047	1.42%
Be 234.861	-86297.1	-0.0192726	mg/L	0.00152597	-0.0192726 mg/L	0.00152597	7.92%
Cd 226.502	1269.6	-0.0021571	mg/L	0.00012255	-0.0021571 mg/L	0.00012255	5.68%
Ca 315.887	25250992.1	444.447	mg/L	0.3318	444.447 mg/L	0.3318	0.07%
QC value within limits for Ca 315.887 Recovery = 88.89%							
Cr 206.158	32.2	0.0003259	mg/L	0.00004212	0.0003259 mg/L	0.00004212	12.92%
Co 228.616	215.1	0.0024337	mg/L	0.00040926	0.0024337 mg/L	0.00040926	16.82%
Cu 324.752	1706.7	0.0019731	mg/L	0.00008502	0.0019731 mg/L	0.00008502	4.31%
Fe 273.955	2473518.7	169.302	mg/L	0.4125	169.302 mg/L	0.4125	0.24%
QC value within limits for Fe 273.955 Recovery = 84.65%							
Pb 220.353	-545.7	0.0052922	mg/L	0.00026767	0.0052922 mg/L	0.00026767	5.06%
Mg 279.077	6882133.5	476.046	mg/L	0.2151	476.046 mg/L	0.2151	0.05%
QC value within limits for Mg 279.077 Recovery = 95.21%							
Mn 257.610	-3094.2	-0.0088425	mg/L	0.00009767	-0.0088425 mg/L	0.00009767	1.10%
Mo 202.031	-202.3	0.0028547	mg/L	0.00029647	0.0028547 mg/L	0.00029647	10.39%
Ni 231.604	288.8	-0.0013398	mg/L	0.00032055	-0.0013398 mg/L	0.00032055	23.93%
Se 196.026	-977.8	-0.0274519	mg/L	0.00084171	-0.0274519 mg/L	0.00084171	3.07%
Ag 328.068	-1249.1	-0.0008540	mg/L	0.00043442	-0.0008540 mg/L	0.00043442	50.87%
Na 330.237	-222.8	0.0160428	mg/L	0.09399227	0.0160428 mg/L	0.09399227	585.88%
Tl 190.801	-23.3	-0.0013573	mg/L	0.00396855	-0.0013573 mg/L	0.00396855	292.38%
Sn 189.927	-200.3	-0.0026960	mg/L	0.00099659	-0.0026960 mg/L	0.00099659	36.97%
Ti 334.940	-452.9	-0.0050538	mg/L	0.00020674	-0.0050538 mg/L	0.00020674	4.09%
V 292.402	16164.9	0.0250678	mg/L	0.00077877	0.0250678 mg/L	0.00077877	3.11%
Zn 206.200	22.8	-0.0134962	mg/L	0.00034828	-0.0134962 mg/L	0.00034828	2.58%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/9/2011 6:53:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3135654.2	456.094 mg/L	4.3635	456.094 mg/L	4.3635	0.96%
QC value within limits for Al		308.215	Recovery = 91.22%			
Sb 206.836	1303.9	0.970523 mg/L	0.0032166	0.970523 mg/L	0.0032166	0.33%
QC value within limits for Sb		206.836	Recovery = 97.05%			
As 188.979	1206.0	0.951227 mg/L	0.0115423	0.951227 mg/L	0.0115423	1.21%
QC value within limits for As		188.979	Recovery = 95.12%			
Ba 233.527	26598.2	0.467619 mg/L	0.0004624	0.467619 mg/L	0.0004624	0.10%
QC value within limits for Ba		233.527	Recovery = 93.52%			
Be 234.861	178835.8	0.474191 mg/L	0.0099202	0.474191 mg/L	0.0099202	2.09%
QC value within limits for Be		234.861	Recovery = 94.84%			
Cd 226.502	64341.4	0.906435 mg/L	0.0052357	0.906435 mg/L	0.0052357	0.58%
QC value within limits for Cd		226.502	Recovery = 90.64%			
Ca 315.887	25749766.2	453.235 mg/L	3.3000	453.235 mg/L	3.3000	0.73%
QC value within limits for Ca		315.887	Recovery = 90.65%			
Cr 206.158	6618.6	0.464574 mg/L	0.0003961	0.464574 mg/L	0.0003961	0.09%
QC value within limits for Cr		206.158	Recovery = 92.91%			
Co 228.616	11582.7	0.443964 mg/L	0.0017741	0.443964 mg/L	0.0017741	0.40%
QC value within limits for Co		228.616	Recovery = 88.79%			
Cu 324.752	56405.7	0.499279 mg/L	0.0073857	0.499279 mg/L	0.0073857	1.48%
QC value within limits for Cu		324.752	Recovery = 99.86%			
Fe 273.955	2496286.0	170.861 mg/L	1.7143	170.861 mg/L	1.7143	1.00%
QC value within limits for Fe		273.955	Recovery = 85.43%			
Pb 220.353	6554.7	0.912241 mg/L	0.0001304	0.912241 mg/L	0.0001304	0.01%
QC value within limits for Pb		220.353	Recovery = 91.22%			
Mg 279.077	7027300.6	486.099 mg/L	5.3280	486.099 mg/L	5.3280	1.10%
QC value within limits for Mg		279.077	Recovery = 97.22%			
Mn 257.610	221205.4	0.462005 mg/L	0.0049045	0.462005 mg/L	0.0049045	1.06%
QC value within limits for Mn		257.610	Recovery = 92.40%			
Mo 202.031	-225.2	0.0012553 mg/L	0.00174980	0.0012553 mg/L	0.00174980	139.39%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Ni 231.604	36327.1	0.865175 mg/L	0.0033218	0.865175 mg/L	0.0033218	0.38%
QC value within limits for Ni		231.604	Recovery = 86.52%			
Se 196.026	885.4	0.889319 mg/L	0.0268872	0.889319 mg/L	0.0268872	3.02%
QC value within limits for Se		196.026	Recovery = 88.93%			
Ag 328.068	117795.5	1.02685 mg/L	0.008109	1.02685 mg/L	0.008109	0.79%
QC value within limits for Ag		328.068	Recovery = 102.68%			
Na 330.237	-518.1	-0.646158 mg/L	0.0895339	-0.646158 mg/L	0.0895339	13.86%
QC value less than the lower limit for Na		330.237	Recovery = Not calculated			
Tl 190.801	1590.6	0.923994 mg/L	0.0066491	0.923994 mg/L	0.0066491	0.72%
QC value within limits for Tl		190.801	Recovery = 92.40%			
Sn 189.927	-187.7	0.0006599 mg/L	0.00079357	0.0006599 mg/L	0.00079357	120.25%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940	-429.5	-0.0049784 mg/L	0.00002102	-0.0049784 mg/L	0.00002102	0.42%
QC value within limits for Ti		334.940	Recovery = Not calculated			
V 292.402	57230.7	0.466821 mg/L	0.0021671	0.466821 mg/L	0.0021671	0.46%
QC value within limits for V		292.402	Recovery = 93.36%			
Zn 206.200	29057.4	0.875244 mg/L	0.0022619	0.875244 mg/L	0.0022619	0.26%
QC value within limits for Zn		206.200	Recovery = 87.52%			

QC Failed. Continue with analysis.

Sequence No.: 11  
 Sample ID: MB 11678 (100)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 78  
 Date Collected: 12/9/2011 6:57:12 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11678 (100)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	812.2	0.113290	mg/L	0.0035085	0.113290	mg/L	0.0035085	3.10%
Sb 206.836	-4.2	-0.0047651	mg/L	0.00289544	-0.0047651	mg/L	0.00289544	60.76%
As 188.979	3.4	0.0005369	mg/L	0.00208810	0.0005369	mg/L	0.00208810	388.92%
Ba 233.527	41.4	-0.0040706	mg/L	0.00005764	-0.0040706	mg/L	0.00005764	1.42%
Be 234.861	-0.8	-0.0011578	mg/L	0.00001145	-0.0011578	mg/L	0.00001145	0.99%
Cd 226.502	-0.2	-0.0028794	mg/L	0.00011051	-0.0028794	mg/L	0.00011051	3.84%
Ca 315.887	27659.5	0.0416946	mg/L	0.00985289	0.0416946	mg/L	0.00985289	23.63%
Cr 206.158	8.0	-0.0011743	mg/L	0.00012056	-0.0011743	mg/L	0.00012056	10.27%
Co 228.616	6.1	-0.0012668	mg/L	0.00007711	-0.0012668	mg/L	0.00007711	6.09%
Cu 324.752	100.3	-0.0014105	mg/L	0.00057481	-0.0014105	mg/L	0.00057481	40.75%
Fe 273.955	874.5	0.0299936	mg/L	0.00073554	0.0299936	mg/L	0.00073554	2.45%
Pb 220.353	-1.8	-0.0023202	mg/L	0.00051188	-0.0023202	mg/L	0.00051188	22.06%
Mg 279.077	1318.5	-0.425250	mg/L	0.0083255	-0.425250	mg/L	0.0083255	1.96%
Mn 257.610	696.6	-0.0020564	mg/L	0.00002068	-0.0020564	mg/L	0.00002068	1.01%
Mo 202.031	-1.1	-0.0038015	mg/L	0.00002956	-0.0038015	mg/L	0.00002956	0.78%
Ni 231.604	29.2	-0.0034936	mg/L	0.00001727	-0.0034936	mg/L	0.00001727	0.49%
Se 196.026	9.3	-0.0022512	mg/L	0.00300707	-0.0022512	mg/L	0.00300707	133.57%
Ag 328.068	-33.4	-0.0003964	mg/L	0.00011704	-0.0003964	mg/L	0.00011704	29.53%
Na 330.237	76.9	0.688077	mg/L	0.3094801	0.688077	mg/L	0.3094801	44.98%
Tl 190.801	-6.7	-0.0050202	mg/L	0.00092728	-0.0050202	mg/L	0.00092728	18.47%
Sn 189.927	110.1	0.0179766	mg/L	0.00012645	0.0179766	mg/L	0.00012645	0.70%
Ti 334.940	56.7	-0.0034110	mg/L	0.00024256	-0.0034110	mg/L	0.00024256	7.11%
V 292.402	59.0	-0.0032269	mg/L	0.00003164	-0.0032269	mg/L	0.00003164	0.98%
Zn 206.200	182.5	0.0037473	mg/L	0.00029745	0.0037473	mg/L	0.00029745	7.94%

Sequence No.: 12  
 Sample ID: LCS 11678  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 79  
 Date Collected: 12/9/2011 7:00:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCS 11678

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	473440.5	68.8444	mg/L	0.04552	68.8444	mg/L	0.04552	0.07%
Sb 206.836	973.8	0.710005	mg/L	0.0020554	0.710005	mg/L	0.0020554	0.29%
As 188.979	2065.6	1.60360	mg/L	0.004083	1.60360	mg/L	0.004083	0.25%
Ba 233.527	223633.8	3.98828	mg/L	0.013743	3.98828	mg/L	0.013743	0.34%
Be 234.861	738766.0	1.46438	mg/L	0.004401	1.46438	mg/L	0.004401	0.30%
Cd 226.502	109977.6	1.57006	mg/L	0.003033	1.57006	mg/L	0.003033	0.19%
Ca 315.887	4730225.5	82.8954	mg/L	0.15959	82.8954	mg/L	0.15959	0.19%
Cr 206.158	26549.0	1.87050	mg/L	0.002959	1.87050	mg/L	0.002959	0.16%
Co 228.616	28895.3	1.11390	mg/L	0.011554	1.11390	mg/L	0.011554	1.04%
Cu 324.752	186156.1	1.68926	mg/L	0.008356	1.68926	mg/L	0.008356	0.49%
Fe 273.955	1640293.0	112.261	mg/L	0.0292	112.261	mg/L	0.0292	0.03%
Pb 220.353	8135.5	1.05103	mg/L	0.002873	1.05103	mg/L	0.002873	0.27%
Mg 279.077	517004.2	35.2841	mg/L	0.10527	35.2841	mg/L	0.10527	0.30%
Mn 257.610	1829139.8	3.84197	mg/L	0.008159	3.84197	mg/L	0.008159	0.21%
Mo 202.031	15336.6	1.21790	mg/L	0.009902	1.21790	mg/L	0.009902	0.81%
Ni 231.604	59710.6	1.42938	mg/L	0.000116	1.42938	mg/L	0.000116	0.01%
Se 196.026	2436.2	1.50590	mg/L	0.040141	1.50590	mg/L	0.040141	2.67%
Ag 328.068	89036.0	0.769934	mg/L	0.0003315	0.769934	mg/L	0.0003315	0.04%
Na 330.237	41.2	0.608028	mg/L	0.1421890	0.608028	mg/L	0.1421890	23.39%
Tl 190.801	2800.1	1.62524	mg/L	0.032125	1.62524	mg/L	0.032125	1.98%
Sn 189.927	8332.3	1.67675	mg/L	0.008808	1.67675	mg/L	0.008808	0.53%
Ti 334.940	765321.2	2.46352	mg/L	0.012819	2.46352	mg/L	0.012819	0.52%
V 292.402	108383.1	1.16810	mg/L	0.001460	1.16810	mg/L	0.001460	0.12%
Zn 206.200	118347.3	3.62087	mg/L	0.006987	3.62087	mg/L	0.006987	0.19%

Sequence No.: 13  
 Sample ID: LCS MR 11678  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 80  
 Date Collected: 12/9/2011 7:03:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCS MR 11678

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Al 308.215	485504.8	70.5981	mg/L	0.99991	70.5981	mg/L	0.99991	1.42%
Sb 206.836	983.2	0.718111	mg/L	0.0007381	0.718111	mg/L	0.0007381	0.10%
As 188.979	2144.9	1.66522	mg/L	0.044985	1.66522	mg/L	0.044985	2.70%
Ba 233.527	230762.4	4.11560	mg/L	0.043033	4.11560	mg/L	0.043033	1.05%
Be 234.861	767449.5	1.52052	mg/L	0.017997	1.52052	mg/L	0.017997	1.18%
Cd 226.502	113775.0	1.62441	mg/L	0.032000	1.62441	mg/L	0.032000	1.97%
Ca 315.887	4959814.6	86.9405	mg/L	0.59320	86.9405	mg/L	0.59320	0.68%
Cr 206.158	28023.4	1.97370	mg/L	0.018929	1.97370	mg/L	0.018929	0.96%
Co 228.616	30559.2	1.17835	mg/L	0.004633	1.17835	mg/L	0.004633	0.39%
Cu 324.752	196729.0	1.78531	mg/L	0.028741	1.78531	mg/L	0.028741	1.61%
Fe 273.955	1690727.6	115.714	mg/L	1.5877	115.714	mg/L	1.5877	1.37%
Pb 220.353	8496.9	1.09763	mg/L	0.002183	1.09763	mg/L	0.002183	0.20%
Mg 279.077	522871.1	35.6904	mg/L	0.27775	35.6904	mg/L	0.27775	0.78%
Mn 257.610	2009189.1	4.22016	mg/L	0.052681	4.22016	mg/L	0.052681	1.25%
Mo 202.031	16401.0	1.30241	mg/L	0.009270	1.30241	mg/L	0.009270	0.71%
Ni 231.604	63133.8	1.51165	mg/L	0.020227	1.51165	mg/L	0.020227	1.34%
Se 196.026	2568.5	1.58032	mg/L	0.011487	1.58032	mg/L	0.011487	0.73%
Ag 328.068	87571.0	0.757281	mg/L	0.0148207	0.757281	mg/L	0.0148207	1.96%
Na 330.237	134.2	0.816424	mg/L	0.0700088	0.816424	mg/L	0.0700088	8.58%
Tl 190.801	2925.2	1.69822	mg/L	0.021687	1.69822	mg/L	0.021687	1.28%
Sn 189.927	9090.1	1.82920	mg/L	0.029241	1.82920	mg/L	0.029241	1.60%
Ti 334.940	785918.7	2.52992	mg/L	0.021096	2.52992	mg/L	0.021096	0.83%
V 292.402	112352.0	1.21163	mg/L	0.020093	1.21163	mg/L	0.020093	1.66%
Zn 206.200	123913.0	3.79128	mg/L	0.033544	3.79128	mg/L	0.033544	0.88%

Sequence No.: 14  
 Sample ID: 63081-035  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 81  
 Date Collected: 12/9/2011 7:05:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-035

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	415043.7	60.3655	mg/L	0.54687	60.3655	mg/L	0.54687	0.91%
Sb 206.836	-24.8	-0.0001953	mg/L	0.00194446	-0.0001953	mg/L	0.00194446	995.45%
As 188.979	150.9	0.132337	mg/L	0.0027219	0.132337	mg/L	0.0027219	2.06%
Ba 233.527	104835.4	1.86484	mg/L	0.006590	1.86484	mg/L	0.006590	0.35%
Be 234.861	-84281.7	-0.0131793	mg/L	0.00083411	-0.0131793	mg/L	0.00083411	6.33%
Cd 226.502	1298.7	-0.0020292	mg/L	0.00014528	-0.0020292	mg/L	0.00014528	7.16%
Ca 315.887	2586399.6	45.1237	mg/L	0.32419	45.1237	mg/L	0.32419	0.72%
Cr 206.158	3336.4	0.246787	mg/L	0.0034692	0.246787	mg/L	0.0034692	1.41%
Co 228.616	2034.9	0.0684102	mg/L	0.00016671	0.0684102	mg/L	0.00016671	0.24%
Cu 324.752	34788.5	0.314015	mg/L	0.0013413	0.314015	mg/L	0.0013413	0.43%
Fe 273.955	2514457.4	172.105	mg/L	1.4471	172.105	mg/L	1.4471	0.84%
Pb 220.353	14337.4	1.83784	mg/L	0.002254	1.83784	mg/L	0.002254	0.12%
Mg 279.077	241795.3	16.2269	mg/L	0.04955	16.2269	mg/L	0.04955	0.31%
Mn 257.610	1515614.4	3.18705	mg/L	0.024104	3.18705	mg/L	0.024104	0.76%
Mo 202.031	125.3	0.0145896	mg/L	0.00031645	0.0145896	mg/L	0.00031645	2.17%
Ni 231.604	5886.8	0.133211	mg/L	0.0006964	0.133211	mg/L	0.0006964	0.52%
Se 196.026	-945.7	0.0265952	mg/L	0.00820615	0.0265952	mg/L	0.00820615	30.86%
Ag 328.068	-302.7	-0.0010015	mg/L	0.00004113	-0.0010015	mg/L	0.00004113	4.11%
Na 330.237	-750.8	-1.16788	mg/L	0.113787	-1.16788	mg/L	0.113787	9.74%
Tl 190.801	-53.7	-0.0087629	mg/L	0.00142467	-0.0087629	mg/L	0.00142467	16.26%
Sn 189.927	1468.3	0.296027	mg/L	0.0006973	0.296027	mg/L	0.0006973	0.24%
Ti 334.940	786917.0	2.53314	mg/L	0.015718	2.53314	mg/L	0.015718	0.62%
V 292.402	20756.0	0.214791	mg/L	0.0002709	0.214791	mg/L	0.0002709	0.13%
Zn 206.200	32242.4	0.984947	mg/L	0.0012398	0.984947	mg/L	0.0012398	0.13%

Sequence No.: 15  
 Sample ID: 63081-035 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 82  
 Date Collected: 12/9/2011 7:09:04 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-035 MR

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	418768.4	60.9072	mg/L	0.42496	60.9072	mg/L	0.42496	0.70%
Sb 206.836	-32.2	-0.0013793	mg/L	0.00300902	-0.0013793	mg/L	0.00300902	218.16%
As 188.979	136.3	0.127778	mg/L	0.0028240	0.127778	mg/L	0.0028240	2.21%
Ba 233.527	101371.8	1.80234	mg/L	0.003400	1.80234	mg/L	0.003400	0.19%
Be 234.861	-104183.4	-0.0137159	mg/L	0.00058180	-0.0137159	mg/L	0.00058180	4.24%
Cd 226.502	1609.5	-0.0020544	mg/L	0.00029743	-0.0020544	mg/L	0.00029743	14.48%
Ca 315.887	3278537.5	57.3184	mg/L	0.25134	57.3184	mg/L	0.25134	0.44%
Cr 206.158	2925.7	0.222603	mg/L	0.0004935	0.222603	mg/L	0.0004935	0.22%
Co 228.616	2086.8	0.0698248	mg/L	0.00026010	0.0698248	mg/L	0.00026010	0.37%
Cu 324.752	38327.9	0.345777	mg/L	0.0007526	0.345777	mg/L	0.0007526	0.22%
Fe 273.955	3148066.6	215.480	mg/L	1.3898	215.480	mg/L	1.3898	0.64%
Pb 220.353	13338.3	1.70992	mg/L	0.002439	1.70992	mg/L	0.002439	0.14%
Mg 279.077	216308.6	14.4620	mg/L	0.02237	14.4620	mg/L	0.02237	0.15%
Mn 257.610	1891105.0	3.97764	mg/L	0.020708	3.97764	mg/L	0.020708	0.52%
Mo 202.031	187.7	0.0211026	mg/L	0.00020765	0.0211026	mg/L	0.00020765	0.98%
Ni 231.604	6918.5	0.156975	mg/L	0.0006254	0.156975	mg/L	0.0006254	0.40%
Se 196.026	-1205.1	0.0248945	mg/L	0.01011014	0.0248945	mg/L	0.01011014	40.61%
Ag 328.068	-391.8	-0.0013185	mg/L	0.00056431	-0.0013185	mg/L	0.00056431	42.80%
Na 330.237	-660.6	-0.965723	mg/L	0.0240605	-0.965723	mg/L	0.0240605	2.49%
Tl 190.801	-54.9	-0.0075549	mg/L	0.00412403	-0.0075549	mg/L	0.00412403	54.59%
Sn 189.927	1174.5	0.238086	mg/L	0.0027844	0.238086	mg/L	0.0027844	1.17%
Ti 334.940	697833.1	2.24597	mg/L	0.009882	2.24597	mg/L	0.009882	0.44%
V 292.402	22692.4	0.236480	mg/L	0.0007077	0.236480	mg/L	0.0007077	0.30%
Zn 206.200	36637.2	1.11956	mg/L	0.000422	1.11956	mg/L	0.000422	0.04%

Sequence No.: 16  
 Sample ID: 63081-035 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 83  
 Date Collected: 12/9/2011 7:12:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-035 MS 1

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	516100.4	75.0590	mg/L	0.72949	75.0590	mg/L	0.72949	0.97%
Sb 206.836	357.4	0.285607	mg/L	0.0037486	0.285607	mg/L	0.0037486	1.31%
As 188.979	711.4	0.580920	mg/L	0.0037600	0.580920	mg/L	0.0037600	0.65%
Ba 233.527	150359.9	2.67644	mg/L	0.026449	2.67644	mg/L	0.026449	0.99%
Be 234.861	110490.8	0.447347	mg/L	0.0003741	0.447347	mg/L	0.0003741	0.08%
Cd 226.502	35136.2	0.473267	mg/L	0.0044170	0.473267	mg/L	0.0044170	0.93%
Ca 315.887	5852819.9	102.674	mg/L	0.3393	102.674	mg/L	0.3393	0.33%
Cr 206.158	9349.5	0.661590	mg/L	0.0077425	0.661590	mg/L	0.0077425	1.17%
Co 228.616	14417.0	0.545971	mg/L	0.0001023	0.545971	mg/L	0.0001023	0.02%
Cu 324.752	87752.9	0.794206	mg/L	0.0043630	0.794206	mg/L	0.0043630	0.55%
Fe 273.955	4237070.9	290.031	mg/L	0.1009	290.031	mg/L	0.1009	0.03%
Pb 220.353	14810.8	1.90096	mg/L	0.002245	1.90096	mg/L	0.002245	0.12%
Mg 279.077	910786.5	62.5521	mg/L	0.40099	62.5521	mg/L	0.40099	0.64%
Mn 257.610	2428657.5	5.10928	mg/L	0.010453	5.10928	mg/L	0.010453	0.20%
Mo 202.031	5898.5	0.476746	mg/L	0.0001591	0.476746	mg/L	0.0001591	0.03%
Ni 231.604	26613.9	0.628956	mg/L	0.0043268	0.628956	mg/L	0.0043268	0.69%
Se 196.026	-844.8	0.414465	mg/L	0.0034843	0.414465	mg/L	0.0034843	0.84%
Ag 328.068	10298.5	0.0921893	mg/L	0.00081863	0.0921893	mg/L	0.00081863	0.89%
Na 330.237	19662.8	44.6060	mg/L	0.33850	44.6060	mg/L	0.33850	0.76%
Tl 190.801	788.5	0.482209	mg/L	0.0030732	0.482209	mg/L	0.0030732	0.64%
Sn 189.927	3427.6	0.694688	mg/L	0.0029213	0.694688	mg/L	0.0029213	0.42%
Ti 334.940	871754.1	2.80662	mg/L	0.034195	2.80662	mg/L	0.034195	1.22%
V 292.402	64392.4	0.676914	mg/L	0.0062723	0.676914	mg/L	0.0062723	0.93%
Zn 206.200	46988.0	1.43524	mg/L	0.007453	1.43524	mg/L	0.007453	0.52%

Sequence No.: 17  
 Sample ID: 63081-035 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 84  
 Date Collected: 12/9/2011 7:16:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-035 MS 2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	567815.6	82.5811	mg/L	1.44294	82.5811	1.44294	1.75%
Sb 206.836	390.2	0.296749	mg/L	0.0009847	0.296749	0.0009847	0.33%
As 188.979	777.9	0.611774	mg/L	0.0003017	0.611774	0.0003017	0.05%
Ba 233.527	118627.8	2.11191	mg/L	0.012983	2.11191	0.012983	0.61%
Be 234.861	189099.8	0.472646	mg/L	0.0069174	0.472646	0.0069174	1.46%
Cd 226.502	34194.3	0.474616	mg/L	0.0003777	0.474616	0.0003777	0.08%
Ca 315.887	4734207.8	82.9656	mg/L	1.17468	82.9656	1.17468	1.42%
Cr 206.158	10017.8	0.704207	mg/L	0.0026653	0.704207	0.0026653	0.38%
Co 228.616	14439.5	0.550118	mg/L	0.0012708	0.550118	0.0012708	0.23%
Cu 324.752	90157.7	0.816681	mg/L	0.0070472	0.816681	0.0070472	0.86%
Fe 273.955	2137808.2	146.320	mg/L	2.4073	146.320	2.4073	1.65%
Pb 220.353	17864.8	2.29342	mg/L	0.009204	2.29342	0.009204	0.40%
Mg 279.077	936220.4	64.3133	mg/L	0.95843	64.3133	0.95843	1.49%
Mn 257.610	1275661.2	2.68120	mg/L	0.043317	2.68120	0.043317	1.62%
Mo 202.031	6029.0	0.482203	mg/L	0.0027576	0.482203	0.0027576	0.57%
Ni 231.604	25500.9	0.605660	mg/L	0.0012981	0.605660	0.0012981	0.21%
Se 196.026	107.6	0.464221	mg/L	0.0055447	0.464221	0.0055447	1.19%
Ag 328.068	10401.9	0.0919128	mg/L	0.00037545	0.0919128	0.00037545	0.41%
Na 330.237	19707.4	44.7061	mg/L	0.28054	44.7061	0.28054	0.63%
Tl 190.801	806.2	0.483986	mg/L	0.0041938	0.483986	0.0041938	0.87%
Sn 189.927	3694.9	0.746617	mg/L	0.0011610	0.746617	0.0011610	0.16%
Ti 334.940	953108.7	3.06888	mg/L	0.076951	3.06888	0.076951	2.51%
V 292.402	65491.0	0.688240	mg/L	0.0023271	0.688240	0.0023271	0.34%
Zn 206.200	44087.3	1.34638	mg/L	0.008183	1.34638	0.008183	0.61%

Sequence No.: 18  
 Sample ID: 63081-035 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 85  
 Date Collected: 12/9/2011 7:19:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-035 PS

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	436235.5	63.4419	mg/L	0.83285	63.4419	mg/L	0.83285	1.31%
Sb 206.836	655.4	0.483522	mg/L	0.0054402	0.483522	mg/L	0.0054402	1.13%
As 188.979	753.7	0.596779	mg/L	0.0049877	0.596779	mg/L	0.0049877	0.84%
Ba 233.527	126650.0	2.25486	mg/L	0.021846	2.25486	mg/L	0.021846	0.97%
Be 234.861	179752.2	0.473405	mg/L	0.0004764	0.473405	mg/L	0.0004764	0.10%
Cd 226.502	34537.3	0.477318	mg/L	0.0079067	0.477318	mg/L	0.0079067	1.66%
Ca 315.887	5201692.6	91.2021	mg/L	1.02886	91.2021	mg/L	1.02886	1.13%
Cr 206.158	10109.3	0.711531	mg/L	0.0048587	0.711531	mg/L	0.0048587	0.68%
Co 228.616	14403.8	0.548542	mg/L	0.0010834	0.548542	mg/L	0.0010834	0.20%
Cu 324.752	88565.1	0.801900	mg/L	0.0113144	0.801900	mg/L	0.0113144	1.41%
Fe 273.955	2452997.2	167.897	mg/L	1.4387	167.897	mg/L	1.4387	0.86%
Pb 220.353	17052.4	2.18647	mg/L	0.007551	2.18647	mg/L	0.007551	0.35%
Mg 279.077	935816.0	64.2853	mg/L	0.32826	64.2853	mg/L	0.32826	0.51%
Mn 257.610	1640552.5	3.44840	mg/L	0.037327	3.44840	mg/L	0.037327	1.08%
Mo 202.031	6135.0	0.490681	mg/L	0.0019571	0.490681	mg/L	0.0019571	0.40%
Ni 231.604	26021.3	0.617657	mg/L	0.0044000	0.617657	mg/L	0.0044000	0.71%
Se 196.026	21.8	0.484000	mg/L	0.0014611	0.484000	mg/L	0.0014611	0.30%
Ag 328.068	10368.0	0.0917825	mg/L	0.00101315	0.0917825	mg/L	0.00101315	1.10%
Na 330.237	19660.7	44.6015	mg/L	0.57407	44.6015	mg/L	0.57407	1.29%
Tl 190.801	805.4	0.484730	mg/L	0.0039144	0.484730	mg/L	0.0039144	0.81%
Sn 189.927	3986.3	0.805749	mg/L	0.0011081	0.805749	mg/L	0.0011081	0.14%
Ti 334.940	890656.5	2.86756	mg/L	0.023483	2.86756	mg/L	0.023483	0.82%
V 292.402	64195.6	0.674376	mg/L	0.0058927	0.674376	mg/L	0.0058927	0.87%
Zn 206.200	45632.1	1.39368	mg/L	0.008216	1.39368	mg/L	0.008216	0.59%

Sequence No.: 19  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/9/2011 7:23:04 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	33013.4	4.79082 mg/L	0.075436	4.79082 mg/L	0.075436	1.57%
QC value within limits for Al		308.215	Recovery = 95.82%			
Sb 206.836	689.5	0.489583 mg/L	0.0019234	0.489583 mg/L	0.0019234	0.39%
QC value within limits for Sb		206.836	Recovery = 97.92%			
As 188.979	617.6	0.474716 mg/L	0.0013284	0.474716 mg/L	0.0013284	0.28%
QC value within limits for As		188.979	Recovery = 94.94%			
Ba 233.527	28216.3	0.499415 mg/L	0.0095472	0.499415 mg/L	0.0095472	1.91%
QC value within limits for Ba		233.527	Recovery = 99.88%			
Be 234.861	261729.9	0.488782 mg/L	0.0079434	0.488782 mg/L	0.0079434	1.63%
QC value within limits for Be		234.861	Recovery = 97.76%			
Cd 226.502	34175.3	0.489023 mg/L	0.0060704	0.489023 mg/L	0.0060704	1.24%
QC value within limits for Cd		226.502	Recovery = 97.80%			
Ca 315.887	2818574.5	49.2143 mg/L	0.04057	49.2143 mg/L	0.04057	0.08%
QC value within limits for Ca		315.887	Recovery = 98.43%			
Cr 206.158	7169.0	0.491349 mg/L	0.0017446	0.491349 mg/L	0.0017446	0.36%
QC value within limits for Cr		206.158	Recovery = 98.27%			
Co 228.616	12606.7	0.487334 mg/L	0.0018459	0.487334 mg/L	0.0018459	0.38%
QC value within limits for Co		228.616	Recovery = 97.47%			
Cu 324.752	54163.6	0.489061 mg/L	0.0084186	0.489061 mg/L	0.0084186	1.72%
QC value within limits for Cu		324.752	Recovery = 97.81%			
Fe 273.955	72236.0	4.91525 mg/L	0.056327	4.91525 mg/L	0.056327	1.15%
QC value within limits for Fe		273.955	Recovery = 98.31%			
Pb 220.353	3894.0	0.497342 mg/L	0.0086573	0.497342 mg/L	0.0086573	0.13%
QC value within limits for Pb		220.353	Recovery = 99.47%			
Mg 279.077	719179.2	49.2840 mg/L	0.06266	49.2840 mg/L	0.06266	0.13%
QC value within limits for Mg		279.077	Recovery = 98.57%			
Mn 257.610	235231.4	0.489831 mg/L	0.0081683	0.489831 mg/L	0.0081683	1.67%
QC value within limits for Mn		257.610	Recovery = 97.97%			
Mo 202.031	6292.8	0.495189 mg/L	0.0010585	0.495189 mg/L	0.0010585	0.21%
QC value within limits for Mo		202.031	Recovery = 99.04%			
Ni 231.604	20753.7	0.494929 mg/L	0.0062278	0.494929 mg/L	0.0062278	1.26%
QC value within limits for Ni		231.604	Recovery = 98.99%			
Se 196.026	1002.6	0.493927 mg/L	0.0027048	0.493927 mg/L	0.0027048	0.55%
QC value within limits for Se		196.026	Recovery = 98.79%			
Ag 328.068	10990.8	0.0955231 mg/L	0.00153146	0.0955231 mg/L	0.00153146	1.60%
QC value within limits for Ag		328.068	Recovery = 95.52%			
Na 330.237	20158.8	45.7182 mg/L	0.39921	45.7182 mg/L	0.39921	0.87%
QC value within limits for Na		330.237	Recovery = 91.44%			
Tl 190.801	885.7	0.509046 mg/L	0.0008932	0.509046 mg/L	0.0008932	0.18%
QC value within limits for Tl		190.801	Recovery = 101.81%			
Sn 189.927	2471.4	0.496618 mg/L	0.0013412	0.496618 mg/L	0.0013412	0.27%
QC value within limits for Sn		189.927	Recovery = 99.32%			
Ti 334.940	154328.2	0.493904 mg/L	0.0083845	0.493904 mg/L	0.0083845	1.70%
QC value within limits for Ti		334.940	Recovery = 98.78%			
V 292.402	45710.4	0.479922 mg/L	0.0083860	0.479922 mg/L	0.0083860	1.75%
QC value within limits for V		292.402	Recovery = 95.98%			
Zn 206.200	15834.7	0.481709 mg/L	0.0000563	0.481709 mg/L	0.0000563	0.01%
QC value within limits for Zn		206.200	Recovery = 96.34%			

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/9/2011 7:26:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	-79.4	-0.0164131	mg/L	0.00335193	-0.0164131	mg/L	0.00335193 20.42%
QC value within limits			for Al 308.215				Recovery = Not calculated
Sb 206.836	5.5	0.0019954	mg/L	0.00332350	0.0019954	mg/L	0.00332350 166.56%
QC value within limits			for Sb 206.836				Recovery = Not calculated
As 188.979	-0.8	-0.0027079	mg/L	0.00005209	-0.0027079	mg/L	0.00005209 1.92%
QC value within limits			for As 188.979				Recovery = Not calculated
Ba 233.527	49.2	-0.0039312	mg/L	0.00019425	-0.0039312	mg/L	0.00019425 4.94%
QC value within limits			for Ba 233.527				Recovery = Not calculated
Be 234.861	95.2	-0.0009979	mg/L	0.00001083	-0.0009979	mg/L	0.00001083 1.09%
QC value within limits			for Be 234.861				Recovery = Not calculated
Cd 226.502	3.6	-0.0028219	mg/L	0.00001635	-0.0028219	mg/L	0.00001635 0.58%
QC value within limits			for Cd 226.502				Recovery = Not calculated
Ca 315.887	172.1	-0.442601	mg/L	0.0004690	-0.442601	mg/L	0.0004690 0.11%
QC value within limits			for Ca 315.887				Recovery = Not calculated
Cr 206.158	7.2	-0.0013435	mg/L	0.00017862	-0.0013435	mg/L	0.00017862 13.30%
QC value within limits			for Cr 206.158				Recovery = Not calculated
Co 228.616	8.7	-0.0011654	mg/L	0.00018831	-0.0011654	mg/L	0.00018831 16.16%
QC value within limits			for Co 228.616				Recovery = Not calculated
Cu 324.752	111.8	-0.0012938	mg/L	0.00012384	-0.0012938	mg/L	0.00012384 9.57%
QC value within limits			for Cu 324.752				Recovery = Not calculated
Fe 273.955	554.9	0.0081189	mg/L	0.00317731	0.0081189	mg/L	0.00317731 39.13%
QC value within limits			for Fe 273.955				Recovery = Not calculated
Pb 220.353	-2.9	-0.0024902	mg/L	0.00018888	-0.0024902	mg/L	0.00018888 7.58%
QC value within limits			for Pb 220.353				Recovery = Not calculated
Mg 279.077	-146.4	-0.526687	mg/L	0.0061420	-0.526687	mg/L	0.0061420 1.17%
QC value within limits			for Mg 279.077				Recovery = Not calculated
Mn 257.610	570.7	-0.0023203	mg/L	0.00006692	-0.0023203	mg/L	0.00006692 2.88%
QC value within limits			for Mn 257.610				Recovery = Not calculated
Mo 202.031	12.2	-0.0027511	mg/L	0.00059874	-0.0027511	mg/L	0.00059874 21.76%
QC value within limits			for Mo 202.031				Recovery = Not calculated
Ni 231.604	13.9	-0.0038625	mg/L	0.00011236	-0.0038625	mg/L	0.00011236 2.91%
QC value within limits			for Ni 231.604				Recovery = Not calculated
Se 196.026	16.4	0.0012053	mg/L	0.00022942	0.0012053	mg/L	0.00022942 19.03%
QC value within limits			for Se 196.026				Recovery = Not calculated
Ag 328.068	-53.5	-0.0005785	mg/L	0.00061868	-0.0005785	mg/L	0.00061868 106.94%
QC value within limits			for Ag 328.068				Recovery = Not calculated
Na 330.237	-2.6	0.509837	mg/L	0.3297198	0.509837	mg/L	0.3297198 64.67%
QC value within limits			for Na 330.237				Recovery = Not calculated
Tl 190.801	1.3	-0.0004345	mg/L	0.00007603	-0.0004345	mg/L	0.00007603 17.50%
QC value within limits			for Tl 190.801				Recovery = Not calculated
Sn 189.927	9.4	-0.0022844	mg/L	0.00052212	-0.0022844	mg/L	0.00052212 22.86%
QC value within limits			for Sn 189.927				Recovery = Not calculated
Ti 334.940	182.7	-0.0030049	mg/L	0.00010630	-0.0030049	mg/L	0.00010630 3.54%
QC value within limits			for Ti 334.940				Recovery = Not calculated
V 292.402	65.4	-0.0031188	mg/L	0.00005606	-0.0031188	mg/L	0.00005606 1.80%
QC value within limits			for V 292.402				Recovery = Not calculated
Zn 206.200	34.7	-0.0007776	mg/L	0.00019466	-0.0007776	mg/L	0.00019466 25.03%
QC value within limits			for Zn 206.200				Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63081-035 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 86  
 Date Collected: 12/9/2011 7:29:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-035 SD

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	81735.3		11.8840 mg/L	0.13759	11.8840 mg/L		0.13759	1.16%
Sb 206.836	-3.4	-0.0002797	mg/L	0.00095154	-0.0002797	mg/L	0.00095154	340.22%
As 188.979	34.2	0.0281703	mg/L	0.00006634	0.0281703	mg/L	0.00006634	0.24%
Ba 233.527	21440.5	0.377546	mg/L	0.0011004	0.377546	mg/L	0.0011004	0.29%
Be 234.861	-17405.5	-0.0029438	mg/L	0.00010740	-0.0029438	mg/L	0.00010740	3.65%
Cd 226.502	254.1	-0.0029915	mg/L	0.00001930	-0.0029915	mg/L	0.00001930	0.65%
Ca 315.887	534378.5	8.96949	mg/L	0.056343	8.96949	mg/L	0.056343	0.63%
Cr 206.158	682.1	0.0490496	mg/L	0.00025821	0.0490496	mg/L	0.00025821	0.53%
Co 228.616	431.7	0.0133757	mg/L	0.00016207	0.0133757	mg/L	0.00016207	1.21%
Cu 324.752	6967.7	0.0610394	mg/L	0.00043404	0.0610394	mg/L	0.00043404	0.71%
Fe 273.955	532073.0	36.3947	mg/L	0.28725	36.3947	mg/L	0.28725	0.79%
Pb 220.353	3034.6	0.387154	mg/L	0.0014031	0.387154	mg/L	0.0014031	0.36%
Mg 279.077	50614.0	2.98828	mg/L	0.010487	2.98828	mg/L	0.010487	0.35%
Mn 257.610	315857.5	0.661429	mg/L	0.0042056	0.661429	mg/L	0.0042056	0.64%
Mo 202.031	39.0	0.0011126	mg/L	0.00033623	0.0011126	mg/L	0.00033623	30.22%
Ni 231.604	1235.4	0.0246334	mg/L	0.00036382	0.0246334	mg/L	0.00036382	1.48%
Se 196.026	-178.6	0.0107143	mg/L	0.00346022	0.0107143	mg/L	0.00346022	32.30%
Ag 328.068	-110.8	-0.0007094	mg/L	0.00102363	-0.0007094	mg/L	0.00102363	144.30%
Na 330.237	-190.5	0.0883224	mg/L	0.09569739	0.0883224	mg/L	0.09569739	108.35%
Tl 190.801	-11.3	-0.0029075	mg/L	0.00373151	-0.0029075	mg/L	0.00373151	128.34%
Sn 189.927	306.6	0.0585090	mg/L	0.00118575	0.0585090	mg/L	0.00118575	2.03%
Ti 334.940	159449.7	0.510414	mg/L	0.0031491	0.510414	mg/L	0.0031491	0.62%
V 292.402	4184.1	0.0402029	mg/L	0.00008796	0.0402029	mg/L	0.00008796	0.22%
Zn 206.200	6680.7	0.202625	mg/L	0.0008773	0.202625	mg/L	0.0008773	0.43%

Sequence No.: 22  
 Sample ID: 63081-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 87  
 Date Collected: 12/9/2011 7:32:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	1186851.9	172.630	mg/L	0.1115	172.630	mg/L	0.1115 0.06%
Sb 206.836	-19.0	0.0281585	mg/L	0.00355574	0.0281585	mg/L	0.00355574 12.63%
As 188.979	111.6	0.107337	mg/L	0.0010146	0.107337	mg/L	0.0010146 0.95%
Ba 233.527	251619.1	4.48466	mg/L	0.009998	4.48466	mg/L	0.009998 0.22%
Be 234.861	-135385.8	-0.0220938	mg/L	0.00214752	-0.0220938	mg/L	0.00214752 9.72%
Cd 226.502	2224.3	0.0006769	mg/L	0.00004798	0.0006769	mg/L	0.00004798 7.09%
Ca 315.887	17595663.8	309.569	mg/L	0.3973	309.569	mg/L	0.3973 0.13%
Cr 206.158	2096.7	0.158923	mg/L	0.0002020	0.158923	mg/L	0.0002020 0.13%
Co 228.616	1770.4	0.0457321	mg/L	0.00049529	0.0457321	mg/L	0.00049529 1.08%
Cu 324.752	30275.5	0.268496	mg/L	0.0021683	0.268496	mg/L	0.0021683 0.81%
Fe 273.955	4010293.3	274.506	mg/L	0.0060	274.506	mg/L	0.0060 0.00%
Pb 220.353	41352.1	5.31020	mg/L	0.061751	5.31020	mg/L	0.061751 1.16%
Mg 279.077	190658.3	12.6858	mg/L	0.13837	12.6858	mg/L	0.13837 1.09%
Mn 257.610	7504600.9	15.7664	mg/L	0.03272	15.7664	mg/L	0.03272 0.21%
Mo 202.031	-53.4	0.0082104	mg/L	0.00025670	0.0082104	mg/L	0.00025670 3.13%
Ni 231.604	3712.4	0.0784527	mg/L	0.00013221	0.0784527	mg/L	0.00013221 0.17%
Se 196.026	-1600.0	-0.0255573	mg/L	0.01090906	-0.0255573	mg/L	0.01090906 42.68%
Ag 328.068	-757.0	-0.0023971	mg/L	0.00035462	-0.0023971	mg/L	0.00035462 14.79%
Na 330.237	-372.0	-0.318517	mg/L	0.0049912	-0.318517	mg/L	0.0049912 1.57%
Tl 190.801	-153.7	-0.0089152	mg/L	0.00178391	-0.0089152	mg/L	0.00178391 20.01%
Sn 189.927	116166.6	23.3369	mg/L	0.09482	23.3369	mg/L	0.09482 0.41%
Ti 334.940	2435740.3	7.84834	mg/L	0.019330	7.84834	mg/L	0.019330 0.25%
V 292.402	29575.5	0.308863	mg/L	0.0013599	0.308863	mg/L	0.0013599 0.44%
Zn 206.200	26153.4	0.798601	mg/L	0.0090366	0.798601	mg/L	0.0090366 1.13%

Sequence No.: 23  
 Sample ID: 63081-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 88  
 Date Collected: 12/9/2011 7:36:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-003

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	695688.8	101.187	mg/L	0.4682	101.187	mg/L	0.4682	0.46%
Sb 206.836	-31.5	-0.0005795	mg/L	0.00344007	-0.0005795	mg/L	0.00344007	593.66%
As 188.979	41.5	0.0499668	mg/L	0.00056077	0.0499668	mg/L	0.00056077	1.12%
Ba 233.527	57433.3	1.01778	mg/L	0.000972	1.01778	mg/L	0.000972	0.10%
Be 234.861	-99053.0	-0.0122677	mg/L	0.00098404	-0.0122677	mg/L	0.00098404	8.02%
Cd 226.502	1499.3	-0.0026433	mg/L	0.00007485	-0.0026433	mg/L	0.00007485	2.83%
Ca 315.887	1977136.6	34.3892	mg/L	0.13245	34.3892	mg/L	0.13245	0.39%
Cr 206.158	3737.5	0.263464	mg/L	0.0003179	0.263464	mg/L	0.0003179	0.12%
Co 228.616	2213.8	0.0729859	mg/L	0.00017358	0.0729859	mg/L	0.00017358	0.24%
Cu 324.752	30856.6	0.278865	mg/L	0.0008660	0.278865	mg/L	0.0008660	0.31%
Fe 273.955	3007527.7	205.859	mg/L	0.9126	205.859	mg/L	0.9126	0.44%
Pb 220.353	10057.5	1.29821	mg/L	0.000998	1.29821	mg/L	0.000998	0.08%
Mg 279.077	273914.3	18.4510	mg/L	0.02044	18.4510	mg/L	0.02044	0.11%
Mn 257.610	2128299.5	4.47508	mg/L	0.020446	4.47508	mg/L	0.020446	0.46%
Mo 202.031	29.7	0.0097141	mg/L	0.00036287	0.0097141	mg/L	0.00036287	3.74%
Ni 231.604	6041.4	0.136111	mg/L	0.0006775	0.136111	mg/L	0.0006775	0.50%
Se 196.026	-1147.1	0.0270069	mg/L	0.01298014	0.0270069	mg/L	0.01298014	48.06%
Ag 328.068	-430.9	-0.0023180	mg/L	0.00022786	-0.0023180	mg/L	0.00022786	9.83%
Na 330.237	-892.1	-1.48473	mg/L	0.046491	-1.48473	mg/L	0.046491	3.13%
Tl 190.801	-72.2	-0.0109915	mg/L	0.00283567	-0.0109915	mg/L	0.00283567	25.80%
Sn 189.927	465.3	0.0942110	mg/L	0.00057665	0.0942110	mg/L	0.00057665	0.61%
Ti 334.940	1039937.3	3.34878	mg/L	0.016038	3.34878	mg/L	0.016038	0.48%
V 292.402	33057.8	0.346934	mg/L	0.0001599	0.346934	mg/L	0.0001599	0.05%
Zn 206.200	18915.2	0.576827	mg/L	0.0003826	0.576827	mg/L	0.0003826	0.07%

Sequence No.: 24  
 Sample ID: 63081-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 89  
 Date Collected: 12/9/2011 7:39:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-004

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	329897.9	47.9806	mg/L	0.04321	47.9806	mg/L	0.04321	0.09%
Sb 206.836	-13.3	0.0051642	mg/L	0.00327509	0.0051642	mg/L	0.00327509	63.42%
As 188.979	83.5	0.0783653	mg/L	0.00420378	0.0783653	mg/L	0.00420378	5.36%
Ba 233.527	65783.0	1.16766	mg/L	0.000558	1.16766	mg/L	0.000558	0.05%
Be 234.861	-76267.3	-0.0120980	mg/L	0.00031484	-0.0120980	mg/L	0.00031484	2.60%
Cd 226.502	1176.4	-0.0020853	mg/L	0.00006214	-0.0020853	mg/L	0.00006214	2.98%
Ca 315.887	1613504.0	27.9824	mg/L	0.28698	27.9824	mg/L	0.28698	1.03%
Cr 206.158	1613.7	0.125969	mg/L	0.0013477	0.125969	mg/L	0.0013477	1.07%
Co 228.616	1907.0	0.0642724	mg/L	0.00070035	0.0642724	mg/L	0.00070035	1.09%
Cu 324.752	45191.0	0.408976	mg/L	0.0010456	0.408976	mg/L	0.0010456	0.26%
Fe 273.955	2274360.7	155.668	mg/L	1.4435	155.668	mg/L	1.4435	0.93%
Pb 220.353	35775.3	4.57087	mg/L	0.019387	4.57087	mg/L	0.019387	0.42%
Mg 279.077	200700.9	13.3813	mg/L	0.03741	13.3813	mg/L	0.03741	0.28%
Mn 257.610	969390.7	2.03944	mg/L	0.019020	2.03944	mg/L	0.019020	0.93%
Mo 202.031	105.1	0.0119460	mg/L	0.00004998	0.0119460	mg/L	0.00004998	0.42%
Ni 231.604	5342.5	0.120518	mg/L	0.0008358	0.120518	mg/L	0.0008358	0.69%
Se 196.026	-875.7	0.0148583	mg/L	0.00041384	0.0148583	mg/L	0.00041384	2.79%
Ag 328.068	-406.5	-0.0020697	mg/L	0.00035274	-0.0020697	mg/L	0.00035274	17.04%
Na 330.237	-305.8	-0.170111	mg/L	0.0393084	-0.170111	mg/L	0.0393084	23.11%
Tl 190.801	-53.7	-0.0132568	mg/L	0.00200912	-0.0132568	mg/L	0.00200912	15.16%
Sn 189.927	15477.3	3.10510	mg/L	0.017571	3.10510	mg/L	0.017571	0.57%
Ti 334.940	718670.7	2.31314	mg/L	0.031445	2.31314	mg/L	0.031445	1.36%
V 292.402	17975.0	0.185625	mg/L	0.0004746	0.185625	mg/L	0.0004746	0.26%
Zn 206.200	25442.9	0.776828	mg/L	0.0000888	0.776828	mg/L	0.0000888	0.01%

Sequence No.: 25  
 Sample ID: 63081-006  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 90  
 Date Collected: 12/9/2011 7:43:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-006

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	664694.2	96.6787	mg/L	1.49632	96.6787	mg/L	1.49632	1.55%
Sb 206.836	-21.5	0.0051847	mg/L	0.00065235	0.0051847	mg/L	0.00065235	12.58%
As 188.979	32.6	0.0401567	mg/L	0.00078121	0.0401567	mg/L	0.00078121	1.95%
Ba 233.527	37748.5	0.666358	mg/L	0.0055364	0.666358	mg/L	0.0055364	0.83%
Be 234.861	-95032.4	-0.0116067	mg/L	0.00439612	-0.0116067	mg/L	0.00439612	37.88%
Cd 226.502	1465.8	-0.0022837	mg/L	0.00043420	-0.0022837	mg/L	0.00043420	19.01%
Ca 315.887	1510669.8	26.1706	mg/L	0.31924	26.1706	mg/L	0.31924	1.22%
Cr 206.158	5708.4	0.391001	mg/L	0.0010765	0.391001	mg/L	0.0010765	0.28%
Co 228.616	2071.5	0.0662995	mg/L	0.00077234	0.0662995	mg/L	0.00077234	1.16%
Cu 324.752	31949.0	0.289320	mg/L	0.0049379	0.289320	mg/L	0.0049379	1.71%
Fe 273.955	2889140.6	197.755	mg/L	2.7502	197.755	mg/L	2.7502	1.39%
Pb 220.353	3155.3	0.417383	mg/L	0.0010845	0.417383	mg/L	0.0010845	0.26%
Mg 279.077	289778.1	19.5495	mg/L	0.20795	19.5495	mg/L	0.20795	1.06%
Mn 257.610	1305597.6	2.74736	mg/L	0.031148	2.74736	mg/L	0.031148	1.13%
Mo 202.031	-8.7	0.0062180	mg/L	0.00022097	0.0062180	mg/L	0.00022097	3.55%
Ni 231.604	5315.1	0.118840	mg/L	0.0004443	0.118840	mg/L	0.0004443	0.37%
Se 196.026	-1135.5	0.0099927	mg/L	0.01437612	0.0099927	mg/L	0.01437612	143.87%
Ag 328.068	-356.7	-0.0014375	mg/L	0.00083636	-0.0014375	mg/L	0.00083636	58.18%
Na 330.237	-1301.5	-2.40292	mg/L	0.030399	-2.40292	mg/L	0.030399	1.27%
Tl 190.801	-92.3	-0.0245299	mg/L	0.00460724	-0.0245299	mg/L	0.00460724	18.78%
Sn 189.927	225.3	0.0456917	mg/L	0.00118534	0.0456917	mg/L	0.00118534	2.59%
Ti 334.940	1271527.0	4.09534	mg/L	0.066723	4.09534	mg/L	0.066723	1.63%
V 292.402	33522.7	0.351266	mg/L	0.0064903	0.351266	mg/L	0.0064903	1.85%
Zn 206.200	12783.9	0.389067	mg/L	0.0001769	0.389067	mg/L	0.0001769	0.05%

Sequence No.: 26  
 Sample ID: 63081-008  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 91  
 Date Collected: 12/9/2011 7:46:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-008

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	494278.0	71.8907	mg/L	1.06877	71.8907	mg/L	1.06877	1.49%
Sb 206.836	-22.2	-0.0017063	mg/L	0.00058727	-0.0017063	mg/L	0.00058727	34.42%
As 188.979	73.1	0.0667094	mg/L	0.00133875	0.0667094	mg/L	0.00133875	2.01%
Ba 233.527	97014.2	1.72577	mg/L	0.009834	1.72577	mg/L	0.009834	0.57%
Be 234.861	-62705.4	-0.0071458	mg/L	0.00219409	-0.0071458	mg/L	0.00219409	30.70%
Cd 226.502	996.5	-0.0021761	mg/L	0.00018339	-0.0021761	mg/L	0.00018339	8.43%
Ca 315.887	1732229.6	30.0742	mg/L	0.23822	30.0742	mg/L	0.23822	0.79%
Cr 206.158	2358.0	0.185034	mg/L	0.0002016	0.185034	mg/L	0.0002016	0.11%
Co 228.616	1765.6	0.0592424	mg/L	0.00027958	0.0592424	mg/L	0.00027958	0.47%
Cu 324.752	45114.0	0.408263	mg/L	0.0022315	0.408263	mg/L	0.0022315	0.55%
Fe 273.955	1922413.0	131.574	mg/L	1.9238	131.574	mg/L	1.9238	1.46%
Pb 220.353	29522.7	3.77733	mg/L	0.029369	3.77733	mg/L	0.029369	0.78%
Mg 279.077	238906.7	16.0269	mg/L	0.11358	16.0269	mg/L	0.11358	0.71%
Mn 257.610	752268.1	1.58232	mg/L	0.014355	1.58232	mg/L	0.014355	0.91%
Mo 202.031	35.7	0.0064576	mg/L	0.00058875	0.0064576	mg/L	0.00058875	9.12%
Ni 231.604	4436.4	0.0993094	mg/L	0.00013771	0.0993094	mg/L	0.00013771	0.14%
Se 196.026	-722.8	0.0197387	mg/L	0.00571253	0.0197387	mg/L	0.00571253	28.94%
Ag 328.068	42.5	0.0017265	mg/L	0.00002176	0.0017265	mg/L	0.00002176	1.26%
Na 330.237	-654.4	-0.951769	mg/L	0.0936501	-0.951769	mg/L	0.0936501	9.84%
Tl 190.801	-57.3	-0.0160980	mg/L	0.00075842	-0.0160980	mg/L	0.00075842	4.71%
Sn 189.927	2186.2	0.438591	mg/L	0.0006158	0.438591	mg/L	0.0006158	0.14%
Ti 334.940	746815.6	2.40387	mg/L	0.036665	2.40387	mg/L	0.036665	1.53%
V 292.402	22420.6	0.232885	mg/L	0.0029575	0.232885	mg/L	0.0029575	1.27%
Zn 206.200	37314.8	1.14026	mg/L	0.006886	1.14026	mg/L	0.006886	0.60%

Sequence No.: 27  
 Sample ID: 63081-009  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 92  
 Date Collected: 12/9/2011 7:49:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-009

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	625093.9		90.9186 mg/L	0.65697	90.9186 mg/L	0.65697	0.72%	
Sb 206.836	-29.8	0.0011644	mg/L	0.00167351	0.0011644 mg/L	0.00167351	143.72%	
As 188.979	52.7	0.0613759	mg/L	0.00089376	0.0613759 mg/L	0.00089376	1.46%	
Ba 233.527	69948.8	1.24106	mg/L	0.004703	1.24106 mg/L	0.004703	0.38%	
Be 234.861	-106327.6	-0.0128035	mg/L	0.00149299	-0.0128035 mg/L	0.00149299	11.66%	
Cd 226.502	1625.8	-0.0024239	mg/L	0.00026501	-0.0024239 mg/L	0.00026501	10.93%	
Ca 315.887	1722321.2	29.8996	mg/L	0.10181	29.8996 mg/L	0.10181	0.34%	
Cr 206.158	2895.6	0.205911	mg/L	0.0002445	0.205911 mg/L	0.0002445	0.12%	
Co 228.616	2337.9	0.0779271	mg/L	0.00006271	0.0779271 mg/L	0.00006271	0.08%	
Cu 324.752	28582.2	0.258173	mg/L	0.0000988	0.258173 mg/L	0.0000988	0.04%	
Fe 273.955	3233218.7	221.309	mg/L	1.0753	221.309 mg/L	1.0753	0.49%	
Pb 220.353	22334.7	2.86256	mg/L	0.006702	2.86256 mg/L	0.006702	0.23%	
Mg 279.077	291234.6	19.6504	mg/L	0.02011	19.6504 mg/L	0.02011	0.10%	
Mn 257.610	2615854.2	5.49949	mg/L	0.021900	5.49949 mg/L	0.021900	0.40%	
Mo 202.031	15.1	0.0087335	mg/L	0.00002723	0.0087335 mg/L	0.00002723	0.31%	
Ni 231.604	5172.7	0.114850	mg/L	0.0007259	0.114850 mg/L	0.0007259	0.63%	
Se 196.026	-1266.3	0.0136927	mg/L	0.00420232	0.0136927 mg/L	0.00420232	30.69%	
Ag 328.068	-353.0	-0.0018540	mg/L	0.00055271	-0.0018540 mg/L	0.00055271	29.81%	
Na 330.237	-899.2	-1.50072	mg/L	0.013925	-1.50072 mg/L	0.013925	0.93%	
Tl 190.801	-64.6	-0.0048587	mg/L	0.00128451	-0.0048587 mg/L	0.00128451	26.44%	
Sn 189.927	697.7	0.140264	mg/L	0.0005424	0.140264 mg/L	0.0005424	0.39%	
Ti 334.940	951102.6	3.06241	mg/L	0.016978	3.06241 mg/L	0.016978	0.55%	
V 292.402	29581.1	0.309026	mg/L	0.0004709	0.309026 mg/L	0.0004709	0.15%	
Zn 206.200	17539.9	0.534686	mg/L	0.0037925	0.534686 mg/L	0.0037925	0.71%	

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Sequence No.: 28                               Autosampler Location: 5
Sample ID: ICSA V-128666                       Date Collected: 12/9/2011 7:53:28 PM
Analyst:                                         Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                       Sample Prep Vol:
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Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Units	Std.Dev.	RSD
Al 308.215	3072153.5	446.858	mg/L	4.4457	446.858	mg/L	4.4457	0.99%
QC value within limits for Al 308.215 Recovery = 89.37%								
Sb 206.836	-74.3	0.0046649	mg/L	0.00069000	0.0046649	mg/L	0.00069000	14.79%
As 188.979	-12.2	0.0099435	mg/L	0.00171302	0.0099435	mg/L	0.00171302	17.23%
Ba 233.527	161.5	-0.0044554	mg/L	0.00025974	-0.0044554	mg/L	0.00025974	5.83%
Be 234.861	-82275.3	-0.0133182	mg/L	0.00158188	-0.0133182	mg/L	0.00158188	11.88%
Cd 226.502	1235.5	-0.0024623	mg/L	0.00027450	-0.0024623	mg/L	0.00027450	11.15%
Ca 315.887	24792133.6	436.363	mg/L	0.3818	436.363	mg/L	0.3818	0.09%
QC value within limits for Ca 315.887 Recovery = 87.27%								
Cr 206.158	33.7	0.0004279	mg/L	0.00001941	0.0004279	mg/L	0.00001941	4.54%
Co 228.616	196.3	0.0017465	mg/L	0.00036770	0.0017465	mg/L	0.00036770	21.05%
Cu 324.752	1658.9	0.0017432	mg/L	0.00042638	0.0017432	mg/L	0.00042638	24.46%
Fe 273.955	2447219.8	167.502	mg/L	1.5227	167.502	mg/L	1.5227	0.91%
QC value within limits for Fe 273.955 Recovery = 83.75%								
Pb 220.353	-515.2	0.0082846	mg/L	0.00110295	0.0082846	mg/L	0.00110295	13.31%
Mg 279.077	6795144.3	470.023	mg/L	0.4487	470.023	mg/L	0.4487	0.10%
QC value within limits for Mg 279.077 Recovery = 94.00%								
Mn 257.610	-2174.3	-0.0069087	mg/L	0.00009830	-0.0069087	mg/L	0.00009830	1.42%
Mo 202.031	-205.6	0.0023490	mg/L	0.00029766	0.0023490	mg/L	0.00029766	12.67%
Ni 231.604	275.0	-0.0016285	mg/L	0.00047149	-0.0016285	mg/L	0.00047149	28.95%
Se 196.026	-947.4	-0.0171245	mg/L	0.01454105	-0.0171245	mg/L	0.01454105	84.91%
Ag 328.068	-1306.1	-0.0015163	mg/L	0.00040984	-0.0015163	mg/L	0.00040984	27.03%
Na 330.237	-288.5	-0.131282	mg/L	0.0276350	-0.131282	mg/L	0.0276350	21.05%
Tl 190.801	-22.2	-0.0008478	mg/L	0.00166211	-0.0008478	mg/L	0.00166211	196.06%
Sn 189.927	-181.7	0.0002769	mg/L	0.00006881	0.0002769	mg/L	0.00006881	24.85%
Ti 334.940	-61.7	-0.0037930	mg/L	0.00042645	-0.0037930	mg/L	0.00042645	11.24%
V 292.402	15910.9	0.0241599	mg/L	0.00018490	0.0241599	mg/L	0.00018490	0.77%
Zn 206.200	24.8	-0.0132790	mg/L	0.00012006	-0.0132790	mg/L	0.00012006	0.90%

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/9/2011 7:57:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3097534.2	450.549 mg/L	0.7354	450.549 mg/L	0.7354	0.16%
QC value within limits for Al		308.215	Recovery = 90.11%			
Sb 206.836	1336.6	0.992356 mg/L	0.0044553	0.992356 mg/L	0.0044553	0.45%
QC value within limits for Sb		206.836	Recovery = 99.24%			
As 188.979	1177.3	0.928676 mg/L	0.0066859	0.928676 mg/L	0.0066859	0.72%
QC value within limits for As		188.979	Recovery = 92.87%			
Ba 233.527	26632.5	0.468268 mg/L	0.0014054	0.468268 mg/L	0.0014054	0.30%
QC value within limits for Ba		233.527	Recovery = 93.65%			
Be 234.861	176886.8	0.468678 mg/L	0.0042613	0.468678 mg/L	0.0042613	0.91%
QC value within limits for Be		234.861	Recovery = 93.74%			
Cd 226.502	63595.5	0.895923 mg/L	0.0024631	0.895923 mg/L	0.0024631	0.27%
QC value within limits for Cd		226.502	Recovery = 89.59%			
Ca 315.887	25076538.2	441.374 mg/L	0.2577	441.374 mg/L	0.2577	0.06%
QC value within limits for Ca		315.887	Recovery = 88.27%			
Cr 206.158	6590.9	0.462540 mg/L	0.0008804	0.462540 mg/L	0.0008804	0.19%
QC value within limits for Cr		206.158	Recovery = 92.51%			
Co 228.616	11629.2	0.445831 mg/L	0.0013105	0.445831 mg/L	0.0013105	0.29%
QC value within limits for Co		228.616	Recovery = 89.17%			
Cu 324.752	55629.2	0.492516 mg/L	0.0001472	0.492516 mg/L	0.0001472	0.03%
QC value within limits for Cu		324.752	Recovery = 98.50%			
Fe 273.955	2463299.9	168.602 mg/L	0.2609	168.602 mg/L	0.2609	0.15%
QC value within limits for Fe		273.955	Recovery = 84.30%			
Pb 220.353	6613.4	0.918674 mg/L	0.0065374	0.918674 mg/L	0.0065374	0.71%
QC value within limits for Pb		220.353	Recovery = 91.87%			
Mg 279.077	6863827.2	474.779 mg/L	0.1888	474.779 mg/L	0.1888	0.04%
QC value within limits for Mg		279.077	Recovery = 94.96%			
Mn 257.610	218180.6	0.455716 mg/L	0.0008160	0.455716 mg/L	0.0008160	0.18%
QC value within limits for Mn		257.610	Recovery = 91.14%			
Mo 202.031	-195.0	0.0033589 mg/L	0.00023836	0.0033589 mg/L	0.00023836	7.10%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Ni 231.604	36550.1	0.870594 mg/L	0.0011613	0.870594 mg/L	0.0011613	0.13%
QC value within limits for Ni		231.604	Recovery = 87.06%			
Se 196.026	919.3	0.900361 mg/L	0.0034272	0.900361 mg/L	0.0034272	0.38%
QC value within limits for Se		196.026	Recovery = 90.04%			
Ag 328.068	117057.3	1.02023 mg/L	0.002346	1.02023 mg/L	0.002346	0.23%
QC value within limits for Ag		328.068	Recovery = 102.02%			
Na 330.237	-564.3	-0.749891 mg/L	0.4824838	-0.749891 mg/L	0.4824838	64.34%
QC value less than the lower limit for Na		330.237	Recovery = Not calculated			
Tl 190.801	1539.5	0.894573 mg/L	0.0149091	0.894573 mg/L	0.0149091	1.67%
QC value within limits for Tl		190.801	Recovery = 89.46%			
Sn 189.927	-190.7	-0.0010591 mg/L	0.00167437	-0.0010591 mg/L	0.00167437	158.09%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940	-220.2	-0.0043037 mg/L	0.00012369	-0.0043037 mg/L	0.00012369	2.87%
QC value within limits for Ti		334.940	Recovery = Not calculated			
V 292.402	56731.1	0.464898 mg/L	0.0003443	0.464898 mg/L	0.0003443	0.07%
QC value within limits for V		292.402	Recovery = 92.98%			
Zn 206.200	28826.5	0.868470 mg/L	0.0008516	0.868470 mg/L	0.0008516	0.10%
QC value within limits for Zn		206.200	Recovery = 86.85%			

QC Failed. Continue with analysis.

Sequence No.: 30  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/9/2011 8:00:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	32897.8	4.77416 mg/L	0.047277	4.77416 mg/L	0.047277	0.99%
QC value within limits for Al	308.215	Recovery = 95.48%				
Sb 206.836	677.1	0.480778 mg/L	0.0041790	0.480778 mg/L	0.0041790	0.87%
QC value within limits for Sb	206.836	Recovery = 96.16%				
As 188.979	607.0	0.466519 mg/L	0.0017899	0.466519 mg/L	0.0017899	0.38%
QC value within limits for As	188.979	Recovery = 93.30%				
Ba 233.527	27616.1	0.488688 mg/L	0.0004370	0.488688 mg/L	0.0004370	0.09%
QC value within limits for Ba	233.527	Recovery = 97.74%				
Be 234.861	256679.9	0.479299 mg/L	0.0018739	0.479299 mg/L	0.0018739	0.39%
QC value within limits for Be	234.861	Recovery = 95.86%				
Cd 226.502	33166.9	0.474507 mg/L	0.0031834	0.474507 mg/L	0.0031834	0.67%
QC value within limits for Cd	226.502	Recovery = 94.90%				
Ca 315.887	2803693.8	48.9522 mg/L	0.16131	48.9522 mg/L	0.16131	0.33%
QC value within limits for Ca	315.887	Recovery = 97.90%				
Cr 206.158	7017.3	0.480898 mg/L	0.0025409	0.480898 mg/L	0.0025409	0.53%
QC value within limits for Cr	206.158	Recovery = 96.18%				
Co 228.616	12383.6	0.478688 mg/L	0.0021394	0.478688 mg/L	0.0021394	0.45%
QC value within limits for Co	228.616	Recovery = 95.74%				
Cu 324.752	53098.8	0.479384 mg/L	0.0017182	0.479384 mg/L	0.0017182	0.36%
QC value within limits for Cu	324.752	Recovery = 95.88%				
Fe 273.955	70330.5	4.78481 mg/L	0.039203	4.78481 mg/L	0.039203	0.82%
QC value within limits for Fe	273.955	Recovery = 95.70%				
Pb 220.353	3808.2	0.486372 mg/L	0.0019761	0.486372 mg/L	0.0019761	0.41%
QC value within limits for Pb	220.353	Recovery = 97.27%				
Mg 279.077	719103.2	49.2787 mg/L	0.09435	49.2787 mg/L	0.09435	0.19%
QC value within limits for Mg	279.077	Recovery = 98.56%				
Mn 257.610	229799.4	0.478419 mg/L	0.0029156	0.478419 mg/L	0.0029156	0.61%
QC value within limits for Mn	257.610	Recovery = 95.68%				
Mo 202.031	6133.7	0.482578 mg/L	0.0016426	0.482578 mg/L	0.0016426	0.34%
QC value within limits for Mo	202.031	Recovery = 96.52%				
Ni 231.604	20365.9	0.485603 mg/L	0.0031398	0.485603 mg/L	0.0031398	0.65%
QC value within limits for Ni	231.604	Recovery = 97.12%				
Se 196.026	968.6	0.476917 mg/L	0.0033283	0.476917 mg/L	0.0033283	0.70%
QC value within limits for Se	196.026	Recovery = 95.38%				
Ag 328.068	10730.7	0.0932763 mg/L	0.00085376	0.0932763 mg/L	0.00085376	0.92%
QC value within limits for Ag	328.068	Recovery = 93.28%				
Na 330.237	19740.4	44.7800 mg/L	0.32950	44.7800 mg/L	0.32950	0.74%
QC value less than the lower limit for Na	330.237	Recovery = 89.56%				
Tl 190.801	865.7	0.497508 mg/L	0.0041001	0.497508 mg/L	0.0041001	0.82%
QC value within limits for Tl	190.801	Recovery = 99.50%				
Sn 189.927	2421.8	0.486630 mg/L	0.0033520	0.486630 mg/L	0.0033520	0.69%
QC value within limits for Sn	189.927	Recovery = 97.33%				
Ti 334.940	150755.3	0.482386 mg/L	0.0034391	0.482386 mg/L	0.0034391	0.71%
QC value within limits for Ti	334.940	Recovery = 96.48%				
V 292.402	44810.6	0.470078 mg/L	0.0042675	0.470078 mg/L	0.0042675	0.91%
QC value within limits for V	292.402	Recovery = 94.02%				
Zn 206.200	15480.0	0.470848 mg/L	0.0024356	0.470848 mg/L	0.0024356	0.52%
QC value within limits for Zn	206.200	Recovery = 94.17%				

QC Failed. Continue with analysis.

Sequence No.: 31  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/9/2011 8:04:14 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	306.9	0.0397883	mg/L	0.00221336	0.0397883	0.00221336	5.56%
QC value within limits for Al 308.215			Recovery = Not calculated				
Sb 206.836	0.7	-0.0013375	mg/L	0.00084361	-0.0013375	0.00084361	63.07%
QC value within limits for Sb 206.836			Recovery = Not calculated				
As 188.979	3.8	0.0008829	mg/L	0.00286612	0.0008829	0.00286612	324.62%
QC value within limits for As 188.979			Recovery = Not calculated				
Ba 233.527	16.7	-0.0045123	mg/L	0.00003673	-0.0045123	0.00003673	0.81%
QC value within limits for Ba 233.527			Recovery = Not calculated				
Be 234.861	21.7	-0.0011406	mg/L	0.00001416	-0.0011406	0.00001416	1.24%
QC value within limits for Be 234.861			Recovery = Not calculated				
Cd 226.502	1.5	-0.0028516	mg/L	0.00000406	-0.0028516	0.00000406	0.14%
QC value within limits for Cd 226.502			Recovery = Not calculated				
Ca 315.887	3511.8	-0.383760	mg/L	0.0051414	-0.383760	0.0051414	1.34%
QC value within limits for Ca 315.887			Recovery = Not calculated				
Cr 206.158	-5.1	-0.0021896	mg/L	0.00010587	-0.0021896	0.00010587	4.84%
QC value within limits for Cr 206.158			Recovery = Not calculated				
Co 228.616	2.6	-0.0014032	mg/L	0.00000289	-0.0014032	0.00000289	0.21%
QC value within limits for Co 228.616			Recovery = Not calculated				
Cu 324.752	96.1	-0.0014383	mg/L	0.00022995	-0.0014383	0.00022995	15.99%
QC value within limits for Cu 324.752			Recovery = Not calculated				
Fe 273.955	449.0	0.0008673	mg/L	0.00244196	0.0008673	0.00244196	281.55%
QC value within limits for Fe 273.955			Recovery = Not calculated				
Pb 220.353	3.9	-0.0016034	mg/L	0.00038147	-0.0016034	0.00038147	23.79%
QC value within limits for Pb 220.353			Recovery = Not calculated				
Mg 279.077	805.4	-0.460780	mg/L	0.0051835	-0.460780	0.0051835	1.12%
QC value within limits for Mg 279.077			Recovery = Not calculated				
Mn 257.610	318.1	-0.0028521	mg/L	0.00002647	-0.0028521	0.00002647	0.93%
QC value within limits for Mn 257.610			Recovery = Not calculated				
Mo 202.031	6.5	-0.0032031	mg/L	0.00011653	-0.0032031	0.00011653	3.64%
QC value within limits for Mo 202.031			Recovery = Not calculated				
Ni 231.604	3.8	-0.0041046	mg/L	0.00007041	-0.0041046	0.00007041	1.72%
QC value within limits for Ni 231.604			Recovery = Not calculated				
Se 196.026	17.9	0.0019125	mg/L	0.00038385	0.0019125	0.00038385	20.07%
QC value within limits for Se 196.026			Recovery = Not calculated				
Ag 328.068	15.6	0.0000190	mg/L	0.00048047	0.0000190	0.00048047	>999.9%
QC value within limits for Ag 328.068			Recovery = Not calculated				
Na 330.237	-78.1	0.340513	mg/L	0.1822332	0.340513	0.1822332	53.52%
QC value within limits for Na 330.237			Recovery = Not calculated				
Tl 190.801	-4.1	-0.0035141	mg/L	0.00026897	-0.0035141	0.00026897	7.65%
QC value within limits for Tl 190.801			Recovery = Not calculated				
Sn 189.927	13.3	-0.0014855	mg/L	0.00019174	-0.0014855	0.00019174	12.91%
QC value within limits for Sn 189.927			Recovery = Not calculated				
Ti 334.940	119.4	-0.0032089	mg/L	0.00003208	-0.0032089	0.00003208	1.00%
QC value within limits for Ti 334.940			Recovery = Not calculated				
V 292.402	43.4	-0.0033807	mg/L	0.00009970	-0.0033807	0.00009970	2.95%
QC value within limits for V 292.402			Recovery = Not calculated				
Zn 206.200	13.3	-0.0014329	mg/L	0.00005809	-0.0014329	0.00005809	4.05%
QC value within limits for Zn 206.200			Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 32  
 Sample ID: 63081-013  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 93  
 Date Collected: 12/9/2011 8:07:28 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-013

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	258978.6	37.6648	mg/L	0.06287	37.6648	mg/L	0.06287	0.17%
Sb 206.836	8.3	0.0237372	mg/L	0.00388007	0.0237372	mg/L	0.00388007	16.35%
As 188.979	159.8	0.147007	mg/L	0.0000852	0.147007	mg/L	0.0000852	0.06%
Ba 233.527	262914.1	4.68744	mg/L	0.003571	4.68744	mg/L	0.003571	0.08%
Be 234.861	-100245.4	-0.0152167	mg/L	0.00417260	-0.0152167	mg/L	0.00417260	27.42%
Cd 226.502	1549.4	-0.0018307	mg/L	0.00014617	-0.0018307	mg/L	0.00014617	7.98%
Ca 315.887	1579294.7	27.3797	mg/L	0.09929	27.3797	mg/L	0.09929	0.36%
Cr 206.158	1624.4	0.151542	mg/L	0.0011387	0.151542	mg/L	0.0011387	0.75%
Co 228.616	1956.0	0.0671085	mg/L	0.00001439	0.0671085	mg/L	0.00001439	0.02%
Cu 324.752	90054.4	0.816549	mg/L	0.0009438	0.816549	mg/L	0.0009438	0.12%
Fe 273.955	2994727.8	204.983	mg/L	0.5119	204.983	mg/L	0.5119	0.25%
Pb 220.353	55739.0	7.11506	mg/L	0.004492	7.11506	mg/L	0.004492	0.06%
Mg 279.077	95492.3	6.09595	mg/L	0.023607	6.09595	mg/L	0.023607	0.39%
Mn 257.610	874505.7	1.84285	mg/L	0.005779	1.84285	mg/L	0.005779	0.31%
Mo 202.031	245.6	0.0244675	mg/L	0.00012503	0.0244675	mg/L	0.00012503	0.51%
Ni 231.604	5270.9	0.117613	mg/L	0.0002601	0.117613	mg/L	0.0002601	0.22%
Se 196.026	-1141.2	0.0295288	mg/L	0.00365153	0.0295288	mg/L	0.00365153	12.37%
Ag 328.068	-260.7	-0.0002666	mg/L	0.00030416	-0.0002666	mg/L	0.00030416	114.08%
Na 330.237	-434.8	-0.459429	mg/L	0.0138815	-0.459429	mg/L	0.0138815	3.02%
Tl 190.801	-33.8	-0.0061125	mg/L	0.00101488	-0.0061125	mg/L	0.00101488	16.60%
Sn 189.927	31214.1	6.26188	mg/L	0.011196	6.26188	mg/L	0.011196	0.18%
Ti 334.940	343729.8	1.10447	mg/L	0.004428	1.10447	mg/L	0.004428	0.40%
V 292.402	20643.0	0.217405	mg/L	0.0008051	0.217405	mg/L	0.0008051	0.37%
Zn 206.200	57794.7	1.76759	mg/L	0.003013	1.76759	mg/L	0.003013	0.17%

Sequence No.: 33  
 Sample ID: 63081-015  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 94  
 Date Collected: 12/9/2011 8:10:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-015

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	723739.4	105.267	mg/L	1.2159	105.267	mg/L	1.2159	1.16%
Sb 206.836	-25.0	0.0012916	mg/L	0.00362587	0.0012916	mg/L	0.00362587	280.73%
As 188.979	41.0	0.0434155	mg/L	0.00046581	0.0434155	mg/L	0.00046581	1.07%
Ba 233.527	36088.6	0.636995	mg/L	0.0019771	0.636995	mg/L	0.0019771	0.31%
Be 234.861	-85871.8	-0.0103811	mg/L	0.00493411	-0.0103811	mg/L	0.00493411	47.53%
Cd 226.502	1324.5	-0.0023679	mg/L	0.00018615	-0.0023679	mg/L	0.00018615	7.86%
Ca 315.887	1043092.7	17.9324	mg/L	0.19228	17.9324	mg/L	0.19228	1.07%
Cr 206.158	2990.6	0.225250	mg/L	0.0018322	0.225250	mg/L	0.0018322	0.81%
Co 228.616	2303.7	0.0753134	mg/L	0.00010633	0.0753134	mg/L	0.00010633	0.14%
Cu 324.752	29520.1	0.267550	mg/L	0.0013323	0.267550	mg/L	0.0013323	0.50%
Fe 273.955	2614525.2	178.955	mg/L	2.0348	178.955	mg/L	2.0348	1.14%
Pb 220.353	1662.4	0.228700	mg/L	0.0007657	0.228700	mg/L	0.0007657	0.33%
Mg 279.077	315098.6	21.3029	mg/L	0.10694	21.3029	mg/L	0.10694	0.50%
Mn 257.610	2093516.5	4.40064	mg/L	0.043998	4.40064	mg/L	0.043998	1.00%
Mo 202.031	-48.4	0.0027161	mg/L	0.00013550	0.0027161	mg/L	0.00013550	4.99%
Ni 231.604	5463.1	0.122851	mg/L	0.0006928	0.122851	mg/L	0.0006928	0.56%
Se 196.026	-1003.2	0.0201789	mg/L	0.00313371	0.0201789	mg/L	0.00313371	15.53%
Ag 328.068	-492.1	-0.0034072	mg/L	0.00015548	-0.0034072	mg/L	0.00015548	4.56%
Na 330.237	-1529.9	-2.91507	mg/L	0.058000	-2.91507	mg/L	0.058000	1.99%
Tl 190.801	-92.5	-0.0193335	mg/L	0.00086876	-0.0193335	mg/L	0.00086876	4.49%
Sn 189.927	251.0	0.0502056	mg/L	0.00077647	0.0502056	mg/L	0.00077647	1.55%
Ti 334.940	1355413.2	4.36576	mg/L	0.061122	4.36576	mg/L	0.061122	1.40%
V 292.402	35895.6	0.376284	mg/L	0.0014678	0.376284	mg/L	0.0014678	0.39%
Zn 206.200	34410.2	1.05119	mg/L	0.005201	1.05119	mg/L	0.005201	0.49%

Sequence No.: 34  
 Sample ID: 63081-016  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 95  
 Date Collected: 12/9/2011 8:14:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-016

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	409924.2	59.6209	mg/L	0.35077	59.6209	mg/L	0.35077	0.59%
Sb 206.836	3.0	0.0263665	mg/L	0.00111326	0.0263665	mg/L	0.00111326	4.22%
As 188.979	67.1	0.0788903	mg/L	0.00191028	0.0788903	mg/L	0.00191028	2.42%
Ba 233.527	44517.9	0.786270	mg/L	0.0046416	0.786270	mg/L	0.0046416	0.59%
Be 234.861	-127183.4	-0.0163300	mg/L	0.00287960	-0.0163300	mg/L	0.00287960	17.63%
Cd 226.502	2391.3	0.0042525	mg/L	0.00005545	0.0042525	mg/L	0.00005545	1.30%
Ca 315.887	2519683.7	43.9482	mg/L	0.14758	43.9482	mg/L	0.14758	0.34%
Cr 206.158	1999.9	0.209805	mg/L	0.0031740	0.209805	mg/L	0.0031740	1.51%
Co 228.616	2416.9	0.0797413	mg/L	0.00006796	0.0797413	mg/L	0.00006796	0.09%
Cu 324.752	103181.3	0.936388	mg/L	0.0082293	0.936388	mg/L	0.0082293	0.88%
Fe 273.955	3845617.2	263.233	mg/L	0.8007	263.233	mg/L	0.8007	0.30%
Pb 220.353	36287.4	4.63820	mg/L	0.028005	4.63820	mg/L	0.028005	0.60%
Mg 279.077	246921.9	16.5819	mg/L	0.12757	16.5819	mg/L	0.12757	0.77%
Mn 257.610	1387113.7	2.92188	mg/L	0.008132	2.92188	mg/L	0.008132	0.28%
Mo 202.031	28.9	0.0101884	mg/L	0.00064137	0.0101884	mg/L	0.00064137	6.30%
Ni 231.604	5417.9	0.119736	mg/L	0.0001351	0.119736	mg/L	0.0001351	0.11%
Se 196.026	-1524.1	0.0096618	mg/L	0.00042935	0.0096618	mg/L	0.00042935	4.44%
Ag 328.068	-427.3	-0.0010952	mg/L	0.00030695	-0.0010952	mg/L	0.00030695	28.03%
Na 330.237	-1713.0	-3.32564	mg/L	0.048305	-3.32564	mg/L	0.048305	1.45%
Tl 190.801	-65.8	-0.0120871	mg/L	0.00045009	-0.0120871	mg/L	0.00045009	3.72%
Sn 189.927	7973.8	1.60153	mg/L	0.005699	1.60153	mg/L	0.005699	0.36%
Ti 334.940	978243.5	3.14991	mg/L	0.021885	3.14991	mg/L	0.021885	0.69%
V 292.402	22465.2	0.232852	mg/L	0.0014511	0.232852	mg/L	0.0014511	0.62%
Zn 206.200	100840.9	3.08533	mg/L	0.024730	3.08533	mg/L	0.024730	0.80%

Sequence No.: 35  
 Sample ID: 63081-018  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 96  
 Date Collected: 12/9/2011 8:17:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-018

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	301561.5	43.8587	mg/L	0.24234	43.8587	mg/L	0.24234	0.55%
Sb 206.836	-20.8	-0.0037419	mg/L	0.00121437	-0.0037419	mg/L	0.00121437	32.45%
As 188.979	115.8	0.0985552	mg/L	0.00396508	0.0985552	mg/L	0.00396508	4.02%
Ba 233.527	128958.6	2.29678	mg/L	0.002036	2.29678	mg/L	0.002036	0.09%
Be 234.861	-45215.4	-0.0033555	mg/L	0.00097747	-0.0033555	mg/L	0.00097747	29.13%
Cd 226.502	829.0	-0.0010424	mg/L	0.00005983	-0.0010424	mg/L	0.00005983	5.74%
Ca 315.887	3277703.4	57.3037	mg/L	0.45099	57.3037	mg/L	0.45099	0.79%
Cr 206.158	1644.9	0.158450	mg/L	0.0029749	0.158450	mg/L	0.0029749	1.88%
Co 228.616	1633.2	0.0570913	mg/L	0.00030418	0.0570913	mg/L	0.00030418	0.53%
Cu 324.752	74493.7	0.674320	mg/L	0.0046872	0.674320	mg/L	0.0046872	0.70%
Fe 273.955	1423344.1	97.4092	mg/L	0.88459	97.4092	mg/L	0.88459	0.91%
Pb 220.353	49537.7	6.32679	mg/L	0.029929	6.32679	mg/L	0.029929	0.47%
Mg 279.077	105763.5	6.80719	mg/L	0.038477	6.80719	mg/L	0.038477	0.57%
Mn 257.610	616535.3	1.29575	mg/L	0.012200	1.29575	mg/L	0.012200	0.94%
Mo 202.031	261.0	0.0220591	mg/L	0.00000850	0.0220591	mg/L	0.00000850	0.04%
Ni 231.604	5599.8	0.128115	mg/L	0.0005240	0.128115	mg/L	0.0005240	0.41%
Se 196.026	-383.7	0.0840578	mg/L	0.00181791	0.0840578	mg/L	0.00181791	2.16%
Ag 328.068	-59.2	0.0010844	mg/L	0.00017388	0.0010844	mg/L	0.00017388	16.04%
Na 330.237	-301.6	-0.160794	mg/L	0.0339025	-0.160794	mg/L	0.0339025	21.08%
Tl 190.801	-32.8	-0.0087838	mg/L	0.00226120	-0.0087838	mg/L	0.00226120	25.74%
Sn 189.927	1547.6	0.312416	mg/L	0.0036343	0.312416	mg/L	0.0036343	1.16%
Ti 334.940	391575.8	1.25870	mg/L	0.000288	1.25870	mg/L	0.000288	0.02%
V 292.402	17312.3	0.181047	mg/L	0.0018197	0.181047	mg/L	0.0018197	1.01%
Zn 206.200	65000.5	1.98820	mg/L	0.008515	1.98820	mg/L	0.008515	0.43%

Sequence No.: 36  
 Sample ID: 63081-020  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 97  
 Date Collected: 12/9/2011 8:20:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-020

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	428931.3		62.3855 mg/L	0.00247	62.3855 mg/L		0.00247	0.00%
Sb 206.836	-24.1	0.0016631	mg/L	0.00054927	0.0016631 mg/L		0.00054927	33.03%
As 188.979	84.2	0.0831896	mg/L	0.00126635	0.0831896 mg/L		0.00126635	1.52%
Ba 233.527	86934.6	1.54501	mg/L	0.006112	1.54501 mg/L		0.006112	0.40%
Be 234.861	-87286.1	-0.0108592	mg/L	0.00211932	-0.0108592 mg/L		0.00211932	19.52%
Cd 226.502	1406.8	-0.0014488	mg/L	0.00010179	-0.0014488 mg/L		0.00010179	7.03%
Ca 315.887	3302698.6	57.7440	mg/L	0.19651	57.7440 mg/L		0.19651	0.34%
Cr 206.158	2521.8	0.213654	mg/L	0.0028257	0.213654 mg/L		0.0028257	1.32%
Co 228.616	1843.6	0.0613822	mg/L	0.00019598	0.0613822 mg/L		0.00019598	0.32%
Cu 324.752	80378.3	0.728222	mg/L	0.0071951	0.728222 mg/L		0.0071951	0.99%
Fe 273.955	2651897.2	181.513	mg/L	0.0827	181.513 mg/L		0.0827	0.05%
Pb 220.353	28104.3	3.59470	mg/L	0.012308	3.59470 mg/L		0.012308	0.34%
Mg 279.077	218716.7	14.6288	mg/L	0.04879	14.6288 mg/L		0.04879	0.33%
Mn 257.610	1066005.8	2.24358	mg/L	0.008346	2.24358 mg/L		0.008346	0.37%
Mo 202.031	120.7	0.0146337	mg/L	0.00019090	0.0146337 mg/L		0.00019090	1.30%
Ni 231.604	5404.6	0.121388	mg/L	0.0009513	0.121388 mg/L		0.0009513	0.78%
Se 196.026	-1001.3	0.0263910	mg/L	0.00182199	0.0263910 mg/L		0.00182199	6.90%
Ag 328.068	-346.3	-0.0007863	mg/L	0.00005719	-0.0007863 mg/L		0.00005719	7.27%
Na 330.237	-506.9	-0.621076	mg/L	0.0427926	-0.621076 mg/L		0.0427926	6.89%
Tl 190.801	-56.1	-0.0137799	mg/L	0.00623762	-0.0137799 mg/L		0.00623762	45.27%
Sn 189.927	6057.9	1.21789	mg/L	0.002128	1.21789 mg/L		0.002128	0.17%
Ti 334.940	677049.3	2.17897	mg/L	0.041407	2.17897 mg/L		0.041407	1.90%
V 292.402	21961.5	0.228499	mg/L	0.0004985	0.228499 mg/L		0.0004985	0.22%
Zn 206.200	60271.7	1.84321	mg/L	0.007421	1.84321 mg/L		0.007421	0.40%

Sequence No.: 37  
 Sample ID: 63081-021  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 98  
 Date Collected: 12/9/2011 8:23:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-021

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	485695.1	70.6422	mg/L	0.90446	70.6422	mg/L	0.90446	1.28%
Sb 206.836	-18.3	0.0126484	mg/L	0.00388828	0.0126484	mg/L	0.00388828	30.74%
As 188.979	80.1	0.0903048	mg/L	0.00332650	0.0903048	mg/L	0.00332650	3.68%
Ba 233.527	35160.2	0.619071	mg/L	0.0061085	0.619071	mg/L	0.0061085	0.99%
Be 234.861	-131258.4	-0.0190818	mg/L	0.00351699	-0.0190818	mg/L	0.00351699	18.43%
Cd 226.502	2051.4	-0.0012405	mg/L	0.00025436	-0.0012405	mg/L	0.00025436	20.50%
Ca 315.887	2522605.3	43.9997	mg/L	0.49138	43.9997	mg/L	0.49138	1.12%
Cr 206.158	2543.6	0.200224	mg/L	0.0007404	0.200224	mg/L	0.0007404	0.37%
Co 228.616	3265.5	0.113451	mg/L	0.0004651	0.113451	mg/L	0.0004651	0.41%
Cu 324.752	33303.7	0.300592	mg/L	0.0024843	0.300592	mg/L	0.0024843	0.83%
Fe 273.955	3929372.0	268.967	mg/L	2.5076	268.967	mg/L	2.5076	0.93%
Pb 220.353	2964.6	0.387354	mg/L	0.0001995	0.387354	mg/L	0.0001995	0.05%
Mg 279.077	373933.3	25.3770	mg/L	0.14468	25.3770	mg/L	0.14468	0.57%
Mn 257.610	1429917.8	3.01191	mg/L	0.033511	3.01191	mg/L	0.033511	1.11%
Mo 202.031	83.8	0.0151462	mg/L	0.00033004	0.0151462	mg/L	0.00033004	2.18%
Ni 231.604	8774.5	0.200310	mg/L	0.0002995	0.200310	mg/L	0.0002995	0.15%
Se 196.026	-1562.1	0.0076946	mg/L	0.01040970	0.0076946	mg/L	0.01040970	135.29%
Ag 328.068	-572.2	-0.0023117	mg/L	0.00025604	-0.0023117	mg/L	0.00025604	11.08%
Na 330.237	-13.3	0.485771	mg/L	0.0157136	0.485771	mg/L	0.0157136	3.23%
Tl 190.801	-56.1	-0.0077191	mg/L	0.00099896	-0.0077191	mg/L	0.00099896	12.94%
Sn 189.927	24345.7	4.88616	mg/L	0.037210	4.88616	mg/L	0.037210	0.76%
Ti 334.940	826796.7	2.66170	mg/L	0.032287	2.66170	mg/L	0.032287	1.21%
V 292.402	24106.7	0.248198	mg/L	0.0030948	0.248198	mg/L	0.0030948	1.25%
Zn 206.200	40878.9	1.24915	mg/L	0.007896	1.24915	mg/L	0.007896	0.63%

Sequence No.: 38  
 Sample ID: 63081-023  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 99  
 Date Collected: 12/9/2011 8:27:15 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-023

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	476950.0	69.3702	mg/L	1.22373	69.3702	mg/L	1.22373	1.76%
Sb 206.836	-21.1	0.0030772	mg/L	0.00128300	0.0030772	mg/L	0.00128300	41.69%
As 188.979	25.9	0.0348955	mg/L	0.00181062	0.0348955	mg/L	0.00181062	5.19%
Ba 233.527	25041.4	0.439532	mg/L	0.0000259	0.439532	mg/L	0.0000259	0.01%
Be 234.861	-91554.3	-0.0108389	mg/L	0.00016814	-0.0108389	mg/L	0.00016814	1.55%
Cd 226.502	1387.9	-0.0027028	mg/L	0.00010107	-0.0027028	mg/L	0.00010107	3.74%
Ca 315.887	786115.8	13.4048	mg/L	0.18918	13.4048	mg/L	0.18918	1.41%
Cr 206.158	1918.9	0.134477	mg/L	0.0002307	0.134477	mg/L	0.0002307	0.17%
Co 228.616	1842.7	0.0582962	mg/L	0.00033710	0.0582962	mg/L	0.00033710	0.58%
Cu 324.752	20792.3	0.188003	mg/L	0.0000302	0.188003	mg/L	0.0000302	0.02%
Fe 273.955	2790138.3	190.977	mg/L	2.7700	190.977	mg/L	2.7700	1.45%
Pb 220.353	3001.8	0.392993	mg/L	0.0016767	0.392993	mg/L	0.0016767	0.43%
Mg 279.077	350310.8	23.7412	mg/L	0.03497	23.7412	mg/L	0.03497	0.15%
Mn 257.610	1053727.8	2.21814	mg/L	0.030397	2.21814	mg/L	0.030397	1.37%
Mo 202.031	51.3	0.0097277	mg/L	0.00015636	0.0097277	mg/L	0.00015636	1.61%
Ni 231.604	4761.6	0.105697	mg/L	0.0001764	0.105697	mg/L	0.0001764	0.17%
Se 196.026	-1096.6	0.0105327	mg/L	0.01313649	0.0105327	mg/L	0.01313649	124.72%
Ag 328.068	-385.7	-0.0018510	mg/L	0.00025583	-0.0018510	mg/L	0.00025583	13.82%
Na 330.237	-1264.2	-2.31911	mg/L	0.000946	-2.31911	mg/L	0.000946	0.04%
Tl 190.801	-68.5	-0.0145608	mg/L	0.00183502	-0.0145608	mg/L	0.00183502	12.60%
Sn 189.927	1001.1	0.199943	mg/L	0.0001405	0.199943	mg/L	0.0001405	0.07%
Ti 334.940	1152089.4	3.71032	mg/L	0.061069	3.71032	mg/L	0.061069	1.65%
V 292.402	23147.8	0.237809	mg/L	0.0010500	0.237809	mg/L	0.0010500	0.44%
Zn 206.200	9854.3	0.299259	mg/L	0.0001462	0.299259	mg/L	0.0001462	0.05%

Sequence No.: 39  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/9/2011 8:30:35 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Al 308.215	32359.3	4.69583	mg/L	0.022241	4.69583	mg/L	0.022241	0.47%
	QC value within limits for Al	308.215	Recovery =	93.92%				
Sb 206.836	669.4	0.475344	mg/L	0.0001995	0.475344	mg/L	0.0001995	0.04%
	QC value within limits for Sb	206.836	Recovery =	95.07%				
As 188.979	611.3	0.469829	mg/L	0.0036947	0.469829	mg/L	0.0036947	0.79%
	QC value within limits for As	188.979	Recovery =	93.97%				
Ba 233.527	27562.2	0.487725	mg/L	0.0007962	0.487725	mg/L	0.0007962	0.16%
	QC value within limits for Ba	233.527	Recovery =	97.55%				
Be 234.861	256135.4	0.478338	mg/L	0.0008507	0.478338	mg/L	0.0008507	0.18%
	QC value within limits for Be	234.861	Recovery =	95.67%				
Cd 226.502	33534.2	0.479793	mg/L	0.0055679	0.479793	mg/L	0.0055679	1.16%
	QC value within limits for Cd	226.502	Recovery =	95.96%				
Ca 315.887	2786767.6	48.6539	mg/L	0.40041	48.6539	mg/L	0.40041	0.82%
	QC value within limits for Ca	315.887	Recovery =	97.31%				
Cr 206.158	6966.8	0.477519	mg/L	0.0004405	0.477519	mg/L	0.0004405	0.09%
	QC value within limits for Cr	206.158	Recovery =	95.50%				
Co 228.616	12361.3	0.477812	mg/L	0.0008282	0.477812	mg/L	0.0008282	0.17%
	QC value within limits for Co	228.616	Recovery =	95.56%				
Cu 324.752	53077.7	0.479202	mg/L	0.0022458	0.479202	mg/L	0.0022458	0.47%
	QC value within limits for Cu	324.752	Recovery =	95.84%				
Fe 273.955	71205.3	4.84469	mg/L	0.023849	4.84469	mg/L	0.023849	0.49%
	QC value within limits for Fe	273.955	Recovery =	96.89%				
Pb 220.353	3812.0	0.486833	mg/L	0.0019501	0.486833	mg/L	0.0019501	0.40%
	QC value within limits for Pb	220.353	Recovery =	97.37%				
Mg 279.077	711949.8	48.7834	mg/L	0.38145	48.7834	mg/L	0.38145	0.78%
	QC value within limits for Mg	279.077	Recovery =	97.57%				
Mn 257.610	230007.8	0.478868	mg/L	0.0016716	0.478868	mg/L	0.0016716	0.35%
	QC value within limits for Mn	257.610	Recovery =	95.77%				
Mo 202.031	6135.3	0.482704	mg/L	0.0008594	0.482704	mg/L	0.0008594	0.18%
	QC value within limits for Mo	202.031	Recovery =	96.54%				
Ni 231.604	20382.9	0.486009	mg/L	0.0016311	0.486009	mg/L	0.0016311	0.34%
	QC value within limits for Ni	231.604	Recovery =	97.20%				
Se 196.026	980.1	0.482736	mg/L	0.0011042	0.482736	mg/L	0.0011042	0.23%
	QC value within limits for Se	196.026	Recovery =	96.55%				
Ag 328.068	10854.4	0.0943395	mg/L	0.00018821	0.0943395	mg/L	0.00018821	0.20%
	QC value within limits for Ag	328.068	Recovery =	94.34%				
Na 330.237	19965.6	45.2851	mg/L	0.04433	45.2851	mg/L	0.04433	0.10%
	QC value within limits for Na	330.237	Recovery =	90.57%				
Tl 190.801	862.6	0.495762	mg/L	0.0030779	0.495762	mg/L	0.0030779	0.62%
	QC value within limits for Tl	190.801	Recovery =	99.15%				
Sn 189.927	2433.3	0.488902	mg/L	0.0011016	0.488902	mg/L	0.0011016	0.23%
	QC value within limits for Sn	189.927	Recovery =	97.78%				
Ti 334.940	152210.0	0.487076	mg/L	0.0060938	0.487076	mg/L	0.0060938	1.25%
	QC value within limits for Ti	334.940	Recovery =	97.42%				
V 292.402	44992.6	0.472200	mg/L	0.0030366	0.472200	mg/L	0.0030366	0.64%
	QC value within limits for V	292.402	Recovery =	94.44%				
Zn 206.200	15489.8	0.471161	mg/L	0.0009173	0.471161	mg/L	0.0009173	0.19%
	QC value within limits for Zn	206.200	Recovery =	94.23%				

All analyte(s) passed QC.

Sequence No.: 40  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/9/2011 8:33:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-78.3	-0.0162405 mg/L	0.00121876	-0.0162405 mg/L	0.00121876	7.50%
QC value within limits for Al 308.215		Recovery = Not calculated				
Sb 206.836	0.5	-0.0014774 mg/L	0.00088717	-0.0014774 mg/L	0.00088717	60.05%
QC value within limits for Sb 206.836		Recovery = Not calculated				
As 188.979	3.2	0.0004194 mg/L	0.00039907	0.0004194 mg/L	0.00039907	95.16%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527	27.8	-0.0043137 mg/L	0.00010400	-0.0043137 mg/L	0.00010400	2.41%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861	-10.6	-0.0011854 mg/L	0.00002822	-0.0011854 mg/L	0.00002822	2.38%
QC value within limits for Be 234.861		Recovery = Not calculated				
Cd 226.502	-6.5	-0.0029688 mg/L	0.00004753	-0.0029688 mg/L	0.00004753	1.60%
QC value within limits for Cd 226.502		Recovery = Not calculated				
Ca 315.887	-906.8	-0.461610 mg/L	0.0015178	-0.461610 mg/L	0.0015178	0.33%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cr 206.158	-2.7	-0.0020130 mg/L	0.00020597	-0.0020130 mg/L	0.00020597	10.23%
QC value within limits for Cr 206.158		Recovery = Not calculated				
Co 228.616	-1.8	-0.0015771 mg/L	0.00025015	-0.0015771 mg/L	0.00025015	15.86%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cu 324.752	59.5	-0.0017695 mg/L	0.00079596	-0.0017695 mg/L	0.00079596	44.98%
QC value within limits for Cu 324.752		Recovery = Not calculated				
Fe 273.955	712.8	0.0189281 mg/L	0.00305059	0.0189281 mg/L	0.00305059	16.12%
QC value within limits for Fe 273.955		Recovery = Not calculated				
Pb 220.353	-0.7	-0.0021984 mg/L	0.00012786	-0.0021984 mg/L	0.00012786	5.82%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Mg 279.077	-300.2	-0.537335 mg/L	0.0004955	-0.537335 mg/L	0.0004955	0.09%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610	425.8	-0.0026238 mg/L	0.00005779	-0.0026238 mg/L	0.00005779	2.20%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031	10.0	-0.0029239 mg/L	0.00026961	-0.0029239 mg/L	0.00026961	9.22%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604	1.7	-0.0041558 mg/L	0.00021219	-0.0041558 mg/L	0.00021219	5.11%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Se 196.026	14.9	0.0004988 mg/L	0.00479660	0.0004988 mg/L	0.00479660	961.63%
QC value within limits for Se 196.026		Recovery = Not calculated				
Ag 328.068	-41.0	-0.0004715 mg/L	0.00052538	-0.0004715 mg/L	0.00052538	111.42%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Na 330.237	-40.3	0.425139 mg/L	0.1797596	0.425139 mg/L	0.1797596	42.28%
QC value within limits for Na 330.237		Recovery = Not calculated				
Tl 190.801	-2.5	-0.0025743 mg/L	0.00146847	-0.0025743 mg/L	0.00146847	57.04%
QC value within limits for Tl 190.801		Recovery = Not calculated				
Sn 189.927	25.7	0.0009814 mg/L	0.00081939	0.0009814 mg/L	0.00081939	83.49%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940	357.9	-0.0024403 mg/L	0.00084277	-0.0024403 mg/L	0.00084277	34.54%
QC value within limits for Ti 334.940		Recovery = Not calculated				
V 292.402	88.5	-0.0028664 mg/L	0.00054492	-0.0028664 mg/L	0.00054492	19.01%
QC value within limits for V 292.402		Recovery = Not calculated				
Zn 206.200	30.5	-0.0009034 mg/L	0.00018499	-0.0009034 mg/L	0.00018499	20.48%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 41  
 Sample ID: 63081-025  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 100  
 Date Collected: 12/9/2011 8:37:06 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-025

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Al 308.215	471731.8	68.6112	mg/L	0.10836	68.6112	mg/L	0.10836	0.16%
Sb 206.836	-18.5	0.0001123	mg/L	0.00509197	0.0001123	mg/L	0.00509197	>999.9%
As 188.979	75.2	0.0678982	mg/L	0.00081968	0.0678982	mg/L	0.00081968	1.21%
Ba 233.527	81174.2	1.44299	mg/L	0.001576	1.44299	mg/L	0.001576	0.11%
Be 234.861	-60396.4	-0.0089687	mg/L	0.00042254	-0.0089687	mg/L	0.00042254	4.71%
Cd 226.502	935.9	-0.0022933	mg/L	0.00009533	-0.0022933	mg/L	0.00009533	4.16%
Ca 315.887	1782100.9	30.9529	mg/L	0.06700	30.9529	mg/L	0.06700	0.22%
Cr 206.158	2207.7	0.184155	mg/L	0.0004866	0.184155	mg/L	0.0004866	0.26%
Co 228.616	1367.9	0.0443499	mg/L	0.00000443	0.0443499	mg/L	0.00000443	0.01%
Cu 324.752	43285.6	0.391527	mg/L	0.0021142	0.391527	mg/L	0.0021142	0.54%
Fe 273.955	1816093.3	124.296	mg/L	0.2556	124.296	mg/L	0.2556	0.21%
Pb 220.353	47983.4	6.13228	mg/L	0.038279	6.13228	mg/L	0.038279	0.62%
Mg 279.077	236381.4	15.8520	mg/L	0.06900	15.8520	mg/L	0.06900	0.44%
Mn 257.610	756808.4	1.59149	mg/L	0.000578	1.59149	mg/L	0.000578	0.04%
Mo 202.031	21.6	0.0049583	mg/L	0.00008829	0.0049583	mg/L	0.00008829	1.78%
Ni 231.604	4126.6	0.0920334	mg/L	0.00038216	0.0920334	mg/L	0.00038216	0.42%
Se 196.026	-655.2	0.0316402	mg/L	0.00142640	0.0316402	mg/L	0.00142640	4.51%
Ag 328.068	-196.7	-0.0003985	mg/L	0.00004070	-0.0003985	mg/L	0.00004070	10.21%
Na 330.237	-709.6	-1.07550	mg/L	0.004268	-1.07550	mg/L	0.004268	0.40%
Tl 190.801	-46.4	-0.0108056	mg/L	0.00091351	-0.0108056	mg/L	0.00091351	8.45%
Sn 189.927	1874.0	0.375946	mg/L	0.0034557	0.375946	mg/L	0.0034557	0.92%
Ti 334.940	684753.0	2.20380	mg/L	0.007864	2.20380	mg/L	0.007864	0.36%
V 292.402	17368.8	0.178297	mg/L	0.0000568	0.178297	mg/L	0.0000568	0.03%
Zn 206.200	49299.7	1.50723	mg/L	0.006103	1.50723	mg/L	0.006103	0.40%

Sequence No.: 42  
 Sample ID: 63081-026  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 101  
 Date Collected: 12/9/2011 8:40:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-026

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Al 308.215	346380.5	50.3781	mg/L	0.33510	50.3781	mg/L	0.33510	0.67%
Sb 206.836	-33.5	-0.0056184	mg/L	0.00573583	-0.0056184	mg/L	0.00573583	102.09%
As 188.979	31.2	0.0396269	mg/L	0.00363426	0.0396269	mg/L	0.00363426	9.17%
Ba 233.527	24864.6	0.436883	mg/L	0.0036282	0.436883	mg/L	0.0036282	0.83%
Be 234.861	-74020.8	-0.0067700	mg/L	0.00270913	-0.0067700	mg/L	0.00270913	40.02%
Cd 226.502	1160.3	-0.0024605	mg/L	0.00022677	-0.0024605	mg/L	0.00022677	9.22%
Ca 315.887	6077572.7	106.634	mg/L	0.6036	106.634	mg/L	0.6036	0.57%
Cr 206.158	1681.6	0.125084	mg/L	0.0003061	0.125084	mg/L	0.0003061	0.24%
Co 228.616	1447.9	0.0465598	mg/L	0.00000437	0.0465598	mg/L	0.00000437	0.01%
Cu 324.752	18589.9	0.164997	mg/L	0.0009845	0.164997	mg/L	0.0009845	0.60%
Fe 273.955	2294513.0	157.048	mg/L	1.5387	157.048	mg/L	1.5387	0.98%
Pb 220.353	6104.5	0.786694	mg/L	0.0005423	0.786694	mg/L	0.0005423	0.07%
Mg 279.077	208430.3	13.9165	mg/L	0.00803	13.9165	mg/L	0.00803	0.06%
Mn 257.610	920953.2	1.93781	mg/L	0.008942	1.93781	mg/L	0.008942	0.46%
Mo 202.031	43.2	0.0071752	mg/L	0.00031157	0.0071752	mg/L	0.00031157	4.34%
Ni 231.604	3652.9	0.0798554	mg/L	0.00086933	0.0798554	mg/L	0.00086933	1.09%
Se 196.026	-827.6	0.0352585	mg/L	0.01346908	0.0352585	mg/L	0.01346908	38.20%
Ag 328.068	-503.3	-0.0013924	mg/L	0.00046444	-0.0013924	mg/L	0.00046444	33.36%
Na 330.237	-800.2	-1.27874	mg/L	0.009378	-1.27874	mg/L	0.009378	0.73%
Tl 190.801	-50.7	-0.0124884	mg/L	0.00147819	-0.0124884	mg/L	0.00147819	11.84%
Sn 189.927	696.0	0.146685	mg/L	0.0003645	0.146685	mg/L	0.0003645	0.25%
Ti 334.940	692099.6	2.22748	mg/L	0.003955	2.22748	mg/L	0.003955	0.18%
V 292.402	16740.7	0.172089	mg/L	0.0003769	0.172089	mg/L	0.0003769	0.22%
Zn 206.200	18356.0	0.559822	mg/L	0.0019631	0.559822	mg/L	0.0019631	0.35%

Sequence No.: 43  
 Sample ID: 63081-028  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 102  
 Date Collected: 12/9/2011 8:43:43 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-028

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	252260.4	36.6877	mg/L	0.02547	36.6877	mg/L	0.02547	0.07%
Sb 206.836	34.1	0.0696567	mg/L	0.00401095	0.0696567	mg/L	0.00401095	5.76%
As 188.979	182.2	0.205454	mg/L	0.0042797	0.205454	mg/L	0.0042797	2.08%
Ba 233.527	1115519.8	19.9095	mg/L	0.09365	19.9095	mg/L	0.09365	0.47%
Be 234.861	-254586.5	-0.0587276	mg/L	0.00164994	-0.0587276	mg/L	0.00164994	2.81%
Cd 226.502	4341.0	0.0083366	mg/L	0.00049445	0.0083366	mg/L	0.00049445	5.93%
Ca 315.887	8329005.8	146.302	mg/L	0.1102	146.302	mg/L	0.1102	0.08%
Cr 206.158	4729.6	0.514250	mg/L	0.0042421	0.514250	mg/L	0.0042421	0.82%
Co 228.616	3085.4	0.102668	mg/L	0.0009602	0.102668	mg/L	0.0009602	0.94%
Cu 324.752	389487.3	3.53728	mg/L	0.026223	3.53728	mg/L	0.026223	0.74%
Fe 273.955	7223649.4	494.486	mg/L	3.7827	494.486	mg/L	3.7827	0.76%
Pb 220.353	795514.9	101.505	mg/L	0.5277	101.505	mg/L	0.5277	0.52%
Mg 279.077	173705.8	11.5119	mg/L	0.04517	11.5119	mg/L	0.04517	0.39%
Mn 257.610	1609719.6	3.40108	mg/L	0.010421	3.40108	mg/L	0.010421	0.31%
Mo 202.031	165.6	0.0284693	mg/L	0.00060268	0.0284693	mg/L	0.00060268	2.12%
Ni 231.604	12447.6	0.283199	mg/L	0.0007205	0.283199	mg/L	0.0007205	0.25%
Se 196.026	-3129.9	-0.110080	mg/L	0.0144223	-0.110080	mg/L	0.0144223	13.10%
Ag 328.068	-486.6	0.0025330	mg/L	0.00009611	0.0025330	mg/L	0.00009611	3.79%
Na 330.237	-1851.9	-3.63692	mg/L	0.130985	-3.63692	mg/L	0.130985	3.60%
Tl 190.801	-56.1	-0.0075536	mg/L	0.00132369	-0.0075536	mg/L	0.00132369	17.52%
Sn 189.927	42785.5	8.59494	mg/L	0.010098	8.59494	mg/L	0.010098	0.12%
Ti 334.940	471801.9	1.51732	mg/L	0.004196	1.51732	mg/L	0.004196	0.28%
V 292.402	18699.8	0.194454	mg/L	0.0006488	0.194454	mg/L	0.0006488	0.33%
Zn 206.200	258725.9	7.91970	mg/L	0.045864	7.91970	mg/L	0.045864	0.58%

Sequence No.: 44  
 Sample ID: 63081-030  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 103  
 Date Collected: 12/9/2011 8:47:34 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-030

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	290812.4	42.2953	mg/L	0.40822	42.2953	mg/L	0.40822	0.97%
Sb 206.836	-12.1	0.0045291	mg/L	0.00382518	0.0045291	mg/L	0.00382518	84.46%
As 188.979	155.3	0.130628	mg/L	0.0012892	0.130628	mg/L	0.0012892	0.99%
Ba 233.527	125978.7	2.24348	mg/L	0.009869	2.24348	mg/L	0.009869	0.44%
Be 234.861	-48099.7	-0.0041987	mg/L	0.00092403	-0.0041987	mg/L	0.00092403	22.01%
Cd 226.502	884.6	-0.0007991	mg/L	0.00007327	-0.0007991	mg/L	0.00007327	9.17%
Ca 315.887	5890803.1	103.343	mg/L	0.5619	103.343	mg/L	0.5619	0.54%
Cr 206.158	1062.2	0.229637	mg/L	0.0031666	0.229637	mg/L	0.0031666	1.38%
Co 228.616	1388.5	0.0470375	mg/L	0.00060331	0.0470375	mg/L	0.00060331	1.28%
Cu 324.752	74450.0	0.672853	mg/L	0.0047438	0.672853	mg/L	0.0047438	0.71%
Fe 273.955	1501846.6	102.783	mg/L	1.1038	102.783	mg/L	1.1038	1.07%
Pb 220.353	65920.4	8.41865	mg/L	0.070166	8.41865	mg/L	0.070166	0.83%
Mg 279.077	144369.7	9.48053	mg/L	0.050557	9.48053	mg/L	0.050557	0.53%
Mn 257.610	801255.3	1.68381	mg/L	0.012206	1.68381	mg/L	0.012206	0.72%
Mo 202.031	195.8	0.0170231	mg/L	0.00014895	0.0170231	mg/L	0.00014895	0.87%
Ni 231.604	3926.1	0.0877388	mg/L	0.00008403	0.0877388	mg/L	0.00008403	0.10%
Se 196.026	-452.8	0.0622518	mg/L	0.00389163	0.0622518	mg/L	0.00389163	6.25%
Ag 328.068	-184.7	0.0008111	mg/L	0.00019983	0.0008111	mg/L	0.00019983	24.64%
Na 330.237	-1492.4	-2.83097	mg/L	0.153629	-2.83097	mg/L	0.153629	5.43%
Tl 190.801	-37.7	-0.0099232	mg/L	0.00087747	-0.0099232	mg/L	0.00087747	8.84%
Sn 189.927	1767.8	0.361025	mg/L	0.0016483	0.361025	mg/L	0.0016483	0.46%
Ti 334.940	460600.2	1.48121	mg/L	0.020186	1.48121	mg/L	0.020186	1.36%
V 292.402	17616.6	0.183378	mg/L	0.0011000	0.183378	mg/L	0.0011000	0.60%
Zn 206.200	208565.9	6.38392	mg/L	0.038151	6.38392	mg/L	0.038151	0.60%

Sequence No.: 45  
 Sample ID: 63081-031  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 104  
 Date Collected: 12/9/2011 8:50:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-031

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	158219.6	23.0090	mg/L	0.12943	23.0090	mg/L	0.12943	0.56%
Sb 206.836	-28.8	-0.0062578	mg/L	0.00206807	-0.0062578	mg/L	0.00206807	33.05%
As 188.979	193.3	0.160812	mg/L	0.0006993	0.160812	mg/L	0.0006993	0.43%
Ba 233.527	143626.1	2.55880	mg/L	0.026787	2.55880	mg/L	0.026787	1.05%
Be 234.861	-44263.5	-0.0066595	mg/L	0.00141491	-0.0066595	mg/L	0.00141491	21.25%
Cd 226.502	868.0	0.0001479	mg/L	0.00003774	0.0001479	mg/L	0.00003774	25.51%
Ca 315.887	9911915.4	174.191	mg/L	0.8259	174.191	mg/L	0.8259	0.47%
Cr 206.158	1419.8	0.206882	mg/L	0.0029412	0.206882	mg/L	0.0029412	1.42%
Co 228.616	798.2	0.0254592	mg/L	0.00031144	0.0254592	mg/L	0.00031144	1.22%
Cu 324.752	252082.7	2.28653	mg/L	0.026783	2.28653	mg/L	0.026783	1.17%
Fe 273.955	1335087.6	91.3674	mg/L	0.60835	91.3674	mg/L	0.60835	0.67%
Pb 220.353	47419.2	6.05546	mg/L	0.055092	6.05546	mg/L	0.055092	0.91%
Mg 279.077	181385.0	12.0437	mg/L	0.09292	12.0437	mg/L	0.09292	0.77%
Mn 257.610	755900.6	1.58797	mg/L	0.014663	1.58797	mg/L	0.014663	0.92%
Mo 202.031	132.2	0.0108705	mg/L	0.00066634	0.0108705	mg/L	0.00066634	6.13%
Ni 231.604	2211.4	0.0467797	mg/L	0.00021553	0.0467797	mg/L	0.00021553	0.46%
Se 196.026	-393.8	0.0510115	mg/L	0.00039969	0.0510115	mg/L	0.00039969	0.78%
Ag 328.068	-137.0	0.0024575	mg/L	0.00011319	0.0024575	mg/L	0.00011319	4.61%
Na 330.237	-1051.5	-1.84228	mg/L	0.049093	-1.84228	mg/L	0.049093	2.66%
Tl 190.801	-22.6	-0.0048856	mg/L	0.00082401	-0.0048856	mg/L	0.00082401	16.87%
Sn 189.927	1498.5	0.313317	mg/L	0.0010303	0.313317	mg/L	0.0010303	0.33%
Ti 334.940	281916.9	0.905203	mg/L	0.0011430	0.905203	mg/L	0.0011430	0.13%
V 292.402	10163.3	0.102077	mg/L	0.0003246	0.102077	mg/L	0.0003246	0.32%
Zn 206.200	147713.8	4.52064	mg/L	0.056088	4.52064	mg/L	0.056088	1.24%

Sequence No.: 46  
 Sample ID: 63081-033  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 105  
 Date Collected: 12/9/2011 8:54:06 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-033

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	330661.2	48.0916	mg/L	0.29379	48.0916	mg/L	0.29379	0.61%
Sb 206.836	-58.2	0.0147190	mg/L	0.00387201	0.0147190	mg/L	0.00387201	26.31%
As 188.979	192.2	0.229850	mg/L	0.0013047	0.229850	mg/L	0.0013047	0.57%
Ba 233.527	83929.6	1.48474	mg/L	0.002985	1.48474	mg/L	0.002985	0.20%
Be 234.861	-319777.2	-0.0729722	mg/L	0.00587212	-0.0729722	mg/L	0.00587212	8.05%
Cd 226.502	8296.1	0.0521158	mg/L	0.00014820	0.0521158	mg/L	0.00014820	0.28%
Ca 315.887	6676339.5	117.184	mg/L	0.2876	117.184	mg/L	0.2876	0.25%
Cr 206.158	610.0	0.327918	mg/L	0.0039937	0.327918	mg/L	0.0039937	1.22%
Co 228.616	8991.1	0.328346	mg/L	0.0002033	0.328346	mg/L	0.0002033	0.06%
Cu 324.752	457767.3	4.15917	mg/L	0.034315	4.15917	mg/L	0.034315	0.83%
Fe 273.955	9081807.4	621.691	mg/L	2.6101	621.691	mg/L	2.6101	0.42%
Pb 220.353	54805.2	6.99659	mg/L	0.053605	6.99659	mg/L	0.053605	0.77%
Mg 279.077	192266.2	12.7972	mg/L	0.06987	12.7972	mg/L	0.06987	0.55%
Mn 257.610	1462986.9	3.09946	mg/L	0.020903	3.09946	mg/L	0.020903	0.67%
Mo 202.031	135.9	0.0310938	mg/L	0.00059663	0.0310938	mg/L	0.00059663	1.92%
Ni 231.604	18273.0	0.420204	mg/L	0.0057728	0.420204	mg/L	0.0057728	1.37%
Se 196.026	-4106.4	-0.213502	mg/L	0.0012166	-0.213502	mg/L	0.0012166	0.57%
Ag 328.068	-606.1	0.0023388	mg/L	0.00115312	0.0023388	mg/L	0.00115312	49.30%
Na 330.237	-3200.0	-6.65986	mg/L	0.345177	-6.65986	mg/L	0.345177	5.18%
Tl 190.801	-56.9	-0.0046793	mg/L	0.00545129	-0.0046793	mg/L	0.00545129	116.50%
Sn 189.927	8537.3	1.72071	mg/L	0.000191	1.72071	mg/L	0.000191	0.01%
Ti 334.940	541520.1	1.74207	mg/L	0.019973	1.74207	mg/L	0.019973	1.15%
V 292.402	19450.5	0.202069	mg/L	0.0015456	0.202069	mg/L	0.0015456	0.76%
Zn 206.200	376006.8	11.5107	mg/L	0.09356	11.5107	mg/L	0.09356	0.81%

Sequence No.: 47  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/9/2011 8:58:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3038423.7	441.951	mg/L	3.3801	441.951 mg/L	3.3801	0.76%
QC value within limits for Al 308.215 Recovery = 88.39%							
Sb 206.836	-70.9	0.0065747	mg/L	0.00987247	0.0065747 mg/L	0.00987247	150.16%
As 188.979	-13.2	0.0089573	mg/L	0.00216525	0.0089573 mg/L	0.00216525	24.17%
Ba 233.527	206.2	-0.0036350	mg/L	0.00010561	-0.0036350 mg/L	0.00010561	2.91%
Be 234.861	-82240.7	-0.0143623	mg/L	0.00160966	-0.0143623 mg/L	0.00160966	11.21%
Cd 226.502	1211.7	-0.0026675	mg/L	0.00004866	-0.0026675 mg/L	0.00004866	1.82%
Ca 315.887	24606101.5	433.085	mg/L	2.1576	433.085 mg/L	2.1576	0.50%
QC value within limits for Ca 315.887 Recovery = 86.62%							
Cr 206.158	14.2	-0.0006758	mg/L	0.00041730	-0.0006758 mg/L	0.00041730	61.75%
Co 228.616	205.4	0.0021363	mg/L	0.00014611	0.0021363 mg/L	0.00014611	6.84%
Cu 324.752	1877.7	0.0038152	mg/L	0.00038120	0.0038152 mg/L	0.00038120	9.99%
Fe 273.955	2427929.8	166.181	mg/L	1.6187	166.181 mg/L	1.6187	0.97%
QC value within limits for Fe 273.955 Recovery = 83.09%							
Pb 220.353	-440.8	0.0169642	mg/L	0.00189832	0.0169642 mg/L	0.00189832	11.19%
Mg 279.077	6781554.2	469.081	mg/L	2.0900	469.081 mg/L	2.0900	0.45%
QC value within limits for Mg 279.077 Recovery = 93.82%							
Mn 257.610	-2521.6	-0.0076902	mg/L	0.00026260	-0.0076902 mg/L	0.00026260	3.41%
Mo 202.031	-194.6	0.0029880	mg/L	0.00008881	0.0029880 mg/L	0.00008881	2.97%
Ni 231.604	280.6	-0.0014602	mg/L	0.00002344	-0.0014602 mg/L	0.00002344	1.61%
Se 196.026	-940.9	-0.0175350	mg/L	0.00210719	-0.0175350 mg/L	0.00210719	12.02%
Ag 328.068	-1244.6	-0.0010603	mg/L	0.00009887	-0.0010603 mg/L	0.00009887	9.32%
Na 330.237	-290.5	-0.135747	mg/L	0.0094646	-0.135747 mg/L	0.0094646	6.97%
Tl 190.801	-25.0	-0.0026066	mg/L	0.00452602	-0.0026066 mg/L	0.00452602	173.64%
Sn 189.927	-197.2	-0.0031389	mg/L	0.00174575	-0.0031389 mg/L	0.00174575	55.62%
Ti 334.940	-244.3	-0.0043814	mg/L	0.00051478	-0.0043814 mg/L	0.00051478	11.75%
V 292.402	15961.7	0.0250052	mg/L	0.00023784	0.0250052 mg/L	0.00023784	0.95%
Zn 206.200	296.1	-0.0049479	mg/L	0.00130179	-0.0049479 mg/L	0.00130179	26.31%

All analyte(s) passed QC.

Sequence No.: 48  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/9/2011 9:02:07 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3061339.1	445.285 mg/L	3.4536	445.285 mg/L	3.4536	0.78%
QC value within limits for Al 308.215 Recovery = 89.06%						
Sb 206.836	1290.7	0.959963 mg/L	0.0252284	0.959963 mg/L	0.0252284	2.63%
QC value within limits for Sb 206.836 Recovery = 96.00%						
As 188.979	1173.0	0.925181 mg/L	0.0044964	0.925181 mg/L	0.0044964	0.49%
QC value within limits for As 188.979 Recovery = 92.52%						
Ba 233.527	26437.9	0.464818 mg/L	0.0041626	0.464818 mg/L	0.0041626	0.90%
QC value within limits for Ba 233.527 Recovery = 92.96%						
Be 234.861	173231.3	0.460456 mg/L	0.0083696	0.460456 mg/L	0.0083696	1.82%
QC value within limits for Be 234.861 Recovery = 92.09%						
Cd 226.502	62619.4	0.882036 mg/L	0.0025230	0.882036 mg/L	0.0025230	0.29%
QC value within limits for Cd 226.502 Recovery = 88.20%						
Ca 315.887	25163129.8	442.899 mg/L	0.3703	442.899 mg/L	0.3703	0.08%
QC value within limits for Ca 315.887 Recovery = 88.58%						
Cr 206.158	6472.7	0.454446 mg/L	0.0009947	0.454446 mg/L	0.0009947	0.22%
QC value within limits for Cr 206.158 Recovery = 90.89%						
Co 228.616	11518.2	0.441564 mg/L	0.0004943	0.441564 mg/L	0.0004943	0.11%
QC value within limits for Co 228.616 Recovery = 88.31%						
Cu 324.752	55074.6	0.487433 mg/L	0.0085512	0.487433 mg/L	0.0085512	1.75%
QC value within limits for Cu 324.752 Recovery = 97.49%						
Fe 273.955	2438303.5	166.891 mg/L	1.3212	166.891 mg/L	1.3212	0.79%
QC value within limits for Fe 273.955 Recovery = 83.45%						
Pb 220.353	6570.5	0.912412 mg/L	0.0113558	0.912412 mg/L	0.0113558	1.24%
QC value within limits for Pb 220.353 Recovery = 91.24%						
Mg 279.077	6868904.1	475.130 mg/L	1.6249	475.130 mg/L	1.6249	0.34%
QC value within limits for Mg 279.077 Recovery = 95.03%						
Mn 257.610	215538.0	0.450075 mg/L	0.0058939	0.450075 mg/L	0.0058939	1.31%
QC value within limits for Mn 257.610 Recovery = 90.01%						
Mo 202.031	-193.4	0.0032333 mg/L	0.00001552	0.0032333 mg/L	0.00001552	0.48%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604	36127.8	0.860479 mg/L	0.0076367	0.860479 mg/L	0.0076367	0.89%
QC value within limits for Ni 231.604 Recovery = 86.05%						
Se 196.026	932.5	0.901649 mg/L	0.0049663	0.901649 mg/L	0.0049663	0.55%
QC value within limits for Se 196.026 Recovery = 90.16%						
Ag 328.068	114959.8	1.00214 mg/L	0.007305	1.00214 mg/L	0.007305	0.73%
QC value within limits for Ag 328.068 Recovery = 100.21%						
Na 330.237	-495.0	-0.594385 mg/L	0.2613882	-0.594385 mg/L	0.2613882	43.98%
QC value less than the lower limit for Na 330.237 Recovery = Not calculated						
Tl 190.801	1529.3	0.888567 mg/L	0.0011265	0.888567 mg/L	0.0011265	0.13%
QC value within limits for Tl 190.801 Recovery = 88.86%						
Sn 189.927	-212.2	-0.0052249 mg/L	0.00682357	-0.0052249 mg/L	0.00682357	130.60%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940	-335.8	-0.0046763 mg/L	0.00024498	-0.0046763 mg/L	0.00024498	5.24%
QC value within limits for Ti 334.940 Recovery = Not calculated						
V 292.402	55900.3	0.455791 mg/L	0.0025178	0.455791 mg/L	0.0025178	0.55%
QC value within limits for V 292.402 Recovery = 91.16%						
Zn 206.200	28619.6	0.862125 mg/L	0.0063379	0.862125 mg/L	0.0063379	0.74%
QC value within limits for Zn 206.200 Recovery = 86.21%						

QC Failed. Continue with analysis.

Sequence No.: 49  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/9/2011 9:05:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	32659.0	4.73960 mg/L	0.032616	4.73960 mg/L	0.032616	0.69%
QC value within limits for Al		308.215	Recovery = 94.79%			
Sb 206.836	650.2	0.461765 mg/L	0.0007207	0.461765 mg/L	0.0007207	0.16%
QC value within limits for Sb		206.836	Recovery = 92.35%			
As 188.979	596.4	0.458397 mg/L	0.0010963	0.458397 mg/L	0.0010963	0.24%
QC value within limits for As		188.979	Recovery = 91.68%			
Ba 233.527	27169.4	0.480701 mg/L	0.0065353	0.480701 mg/L	0.0065353	1.36%
QC value within limits for Ba		233.527	Recovery = 96.14%			
Be 234.861	252228.5	0.471056 mg/L	0.0052845	0.471056 mg/L	0.0052845	1.12%
QC value within limits for Be		234.861	Recovery = 94.21%			
Cd 226.502	33253.2	0.475747 mg/L	0.0017962	0.475747 mg/L	0.0017962	0.38%
QC value within limits for Cd		226.502	Recovery = 95.15%			
Ca 315.887	2780675.1	48.5466 mg/L	0.77923	48.5466 mg/L	0.77923	1.61%
QC value within limits for Ca		315.887	Recovery = 97.09%			
Cr 206.158	6861.5	0.470271 mg/L	0.0017420	0.470271 mg/L	0.0017420	0.37%
QC value within limits for Cr		206.158	Recovery = 94.05%			
Co 228.616	12207.7	0.471861 mg/L	0.0020743	0.471861 mg/L	0.0020743	0.44%
QC value within limits for Co		228.616	Recovery = 94.37%			
Cu 324.752	52405.1	0.473088 mg/L	0.0084944	0.473088 mg/L	0.0084944	1.80%
QC value within limits for Cu		324.752	Recovery = 94.62%			
Fe 273.955	70684.5	4.80904 mg/L	0.030643	4.80904 mg/L	0.030643	0.64%
QC value within limits for Fe		273.955	Recovery = 96.18%			
Pb 220.353	3779.5	0.482676 mg/L	0.0015369	0.482676 mg/L	0.0015369	0.32%
QC value within limits for Pb		220.353	Recovery = 96.54%			
Mg 279.077	709890.0	48.6408 mg/L	0.76979	48.6408 mg/L	0.76979	1.58%
QC value within limits for Mg		279.077	Recovery = 97.28%			
Mn 257.610	227022.1	0.472599 mg/L	0.0043520	0.472599 mg/L	0.0043520	0.92%
QC value within limits for Mn		257.610	Recovery = 94.52%			
Mo 202.031	5965.6	0.469266 mg/L	0.0014907	0.469266 mg/L	0.0014907	0.32%
QC value within limits for Mo		202.031	Recovery = 93.85%			
Ni 231.604	20083.7	0.478811 mg/L	0.0046307	0.478811 mg/L	0.0046307	0.97%
QC value within limits for Ni		231.604	Recovery = 95.76%			
Se 196.026	961.8	0.473695 mg/L	0.0007513	0.473695 mg/L	0.0007513	0.16%
QC value within limits for Se		196.026	Recovery = 94.74%			
Ag 328.068	10834.0	0.0941649 mg/L	0.00043678	0.0941649 mg/L	0.00043678	0.46%
QC value within limits for Ag		328.068	Recovery = 94.16%			
Na 330.237	19689.8	44.6666 mg/L	0.50035	44.6666 mg/L	0.50035	1.12%
QC value less than the lower limit for Na		330.237	Recovery = 89.33%			
Tl 190.801	851.1	0.489124 mg/L	0.0017700	0.489124 mg/L	0.0017700	0.36%
QC value within limits for Tl		190.801	Recovery = 97.82%			
Sn 189.927	2382.9	0.478775 mg/L	0.0009590	0.478775 mg/L	0.0009590	0.20%
QC value within limits for Sn		189.927	Recovery = 95.76%			
Ti 334.940	148665.9	0.475651 mg/L	0.0042631	0.475651 mg/L	0.0042631	0.90%
QC value within limits for Ti		334.940	Recovery = 95.13%			
V 292.402	44237.0	0.463955 mg/L	0.0053034	0.463955 mg/L	0.0053034	1.14%
QC value within limits for V		292.402	Recovery = 92.79%			
Zn 206.200	15253.7	0.463935 mg/L	0.0015520	0.463935 mg/L	0.0015520	0.33%
QC value within limits for Zn		206.200	Recovery = 92.79%			

QC Failed. Continue with analysis.

Sequence No.: 50  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/9/2011 9:08:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	284.8	0.0365595 mg/L	0.00381814	0.0365595 mg/L	0.00381814	10.44%
QC value within limits for Al 308.215		Recovery = Not calculated				
Sb 206.836	1.6	-0.0007087 mg/L	0.00358386	-0.0007087 mg/L	0.00358386	505.71%
QC value within limits for Sb 206.836		Recovery = Not calculated				
As 188.979	0.5	-0.0016939 mg/L	0.00029041	-0.0016939 mg/L	0.00029041	17.14%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527	47.2	-0.0039672 mg/L	0.00023343	-0.0039672 mg/L	0.00023343	5.88%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861	20.6	-0.0011183 mg/L	0.00001941	-0.0011183 mg/L	0.00001941	1.74%
QC value within limits for Be 234.861		Recovery = Not calculated				
Cd 226.502	-5.6	-0.0029576 mg/L	0.00002122	-0.0029576 mg/L	0.00002122	0.72%
QC value within limits for Cd 226.502		Recovery = Not calculated				
Ca 315.887	3688.0	-0.380655 mg/L	0.0043384	-0.380655 mg/L	0.0043384	1.14%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cr 206.158	-0.6	-0.0018260 mg/L	0.00040775	-0.0018260 mg/L	0.00040775	22.33%
QC value within limits for Cr 206.158		Recovery = Not calculated				
Co 228.616	1.3	-0.0014530 mg/L	0.00003145	-0.0014530 mg/L	0.00003145	2.16%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cu 324.752	176.8	-0.0007050 mg/L	0.00039820	-0.0007050 mg/L	0.00039820	56.49%
QC value within limits for Cu 324.752		Recovery = Not calculated				
Fe 273.955	873.5	0.0299276 mg/L	0.00228901	0.0299276 mg/L	0.00228901	7.65%
QC value within limits for Fe 273.955		Recovery = Not calculated				
Pb 220.353	37.5	0.0026829 mg/L	0.00006372	0.0026829 mg/L	0.00006372	2.38%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Mg 279.077	763.2	-0.463699 mg/L	0.0003874	-0.463699 mg/L	0.0003874	0.08%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610	143.1	-0.0032178 mg/L	0.00000483	-0.0032178 mg/L	0.00000483	0.15%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031	16.4	-0.0024190 mg/L	0.00014521	-0.0024190 mg/L	0.00014521	6.00%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604	8.6	-0.0039885 mg/L	0.00008173	-0.0039885 mg/L	0.00008173	2.05%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Se 196.026	9.1	-0.0023119 mg/L	0.00167843	-0.0023119 mg/L	0.00167843	72.60%
QC value within limits for Se 196.026		Recovery = Not calculated				
Ag 328.068	-48.7	-0.0005357 mg/L	0.00016362	-0.0005357 mg/L	0.00016362	30.54%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Na 330.237	-3.4	0.508022 mg/L	0.0710976	0.508022 mg/L	0.0710976	13.99%
QC value within limits for Na 330.237		Recovery = Not calculated				
Tl 190.801	1.1	-0.0005225 mg/L	0.00096988	-0.0005225 mg/L	0.00096988	185.62%
QC value within limits for Tl 190.801		Recovery = Not calculated				
Sn 189.927	16.1	-0.0009316 mg/L	0.00019921	-0.0009316 mg/L	0.00019921	21.38%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940	-11.6	-0.0036312 mg/L	0.00002175	-0.0036312 mg/L	0.00002175	0.60%
QC value within limits for Ti 334.940		Recovery = Not calculated				
V 292.402	71.1	-0.0030731 mg/L	0.00038483	-0.0030731 mg/L	0.00038483	12.52%
QC value within limits for V 292.402		Recovery = Not calculated				
Zn 206.200	92.2	0.0009827 mg/L	0.00024097	0.0009827 mg/L	0.00024097	24.52%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Analyst J Blh 12/20/11

=====  
Analysis Begun

Start Time: 12/19/2011 3:40:19 PM Plasma On Time: 12/19/2011 9:47:27 AM  
Logged In Analyst: shiamala Technique: ICP Continuous  
Spectrometer Model: Optima 3300 DV, S/N 069N5072002 Autosampler Model: AS-91

Sample Information File: C:\pe\Administrator\Sample Information\12.19.11.sif  
Batch ID: 8336  
Results Data Set: S13406A  
Results Library: C:\pe\Administrator\Results\Results.mdb

gh 12/21/11

=====  
Method Loaded

Method Name: PE1 3000DV AXIAL Method Last Saved: 12/19/2011 3:31:41 PM  
IEC File: IEC092311.iec MSF File:  
Method Description: 200.7/6010B

=====  
Sequence No.: 1 Autosampler Location: 1  
Sample ID: Calib Blk 1 V-129815 Date Collected: 12/19/2011 3:41:19 PM  
Analyst: Data Type: Original  
Initial Sample Wt: Initial Sample Vol:  
Dilution: Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	1837.1	13.00	0.71%	[0.00]	mg/L
Sb 206.836	1.1	1.35	127.72%	[0.00]	mg/L
As 188.979	-6.0	1.89	31.69%	[0.00]	mg/L
Ba 233.527	-84.8	6.07	7.16%	[0.00]	mg/L
Be 234.861	-183.0	6.07	3.32%	[0.00]	mg/L
Cd 226.502	-102.0	1.84	1.80%	[0.00]	mg/L
Ca 315.887	4779.8	496.95	10.40%	[0.00]	mg/L
Cr 206.158	24.8	7.85	31.60%	[0.00]	mg/L
Co 228.616	-199.6	1.02	0.51%	[0.00]	mg/L
Cu 324.752	779.8	4.94	0.63%	[0.00]	mg/L
Fe 273.955	486.2	17.63	3.63%	[0.00]	mg/L
Pb 220.353	94.2	4.46	4.73%	[0.00]	mg/L
Mg 279.077	708.8	95.13	13.42%	[0.00]	mg/L
Mn 257.610	141.0	5.86	4.16%	[0.00]	mg/L
Mo 202.031	-140.7	0.54	0.39%	[0.00]	mg/L
Ni 231.604	-95.9	3.73	3.88%	[0.00]	mg/L
Se 196.026	19.0	7.18	37.72%	[0.00]	mg/L
Ag 328.068	169.4	30.35	17.91%	[0.00]	mg/L
Na 330.237	443.3	171.01	38.58%	[0.00]	mg/L
Tl 190.801	-18.0	0.55	3.07%	[0.00]	mg/L
Sn 189.927	7.9	2.10	26.65%	[0.00]	mg/L
Ti 334.940	-26.1	12.98	49.71%	[0.00]	mg/L
V 292.402	27.4	40.02	145.98%	[0.00]	mg/L
Zn 206.200	54.0	2.72	5.03%	[0.00]	mg/L

13406  
11715

As, Pb reported

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Sequence No.: 2

Sample ID: Calib Std 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 158

Date Collected: 12/19/2011 3:44:27 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:  
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Mean Data: Calib Std 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
As 188.979	3.4	0.44	12.79%	[0.005] mg/L
Be 234.861	1347.5	2.96	0.22%	[0.003] mg/L
Cd 226.502	190.7	9.53	5.00%	[0.003] mg/L
Pb 220.353	25.9	5.68	21.91%	[0.004] mg/L
Tl 190.801	2.6	0.34	13.08%	[0.005] mg/L

Sequence No.: 3

Autosampler Location: 160

Sample ID: Calib Std 2 V-128664

Date Collected: 12/19/2011 3:47:32 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib Std 2 V-128664

Analyte	Mean Corrected		RSD		Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units	
Al 308.215	891.9	72.96	8.18%	[0.1]	mg/L	
Sb 206.836	10.8	0.89	8.19%	[0.01]	mg/L	
As 188.979	8.7	3.63	41.52%	[0.01]	mg/L	
Ba 233.527	650.5	3.42	0.53%	[0.01]	mg/L	
Be 234.861	4234.4	23.71	0.56%	[0.01]	mg/L	
Cd 226.502	636.5	8.33	1.31%	[0.01]	mg/L	
Ca 315.887	64373.9	421.60	0.65%	[1]	mg/L	
Cr 206.158	119.5	3.92	3.28%	[0.01]	mg/L	
Co 228.616	222.8	0.75	0.34%	[0.01]	mg/L	
Cu 324.752	1024.7	66.76	6.51%	[0.01]	mg/L	
Fe 273.955	1586.8	22.96	1.45%	[0.1]	mg/L	
Pb 220.353	76.6	6.92	9.04%	[0.01]	mg/L	
Mg 279.077	16332.6	203.29	1.24%	[1]	mg/L	
Mn 257.610	6258.1	2.94	0.05%	[0.01]	mg/L	
Mo 202.031	87.3	0.81	0.93%	[0.01]	mg/L	
Ni 231.604	429.0	6.94	1.62%	[0.01]	mg/L	
Se 196.026	13.8	1.91	13.80%	[0.01]	mg/L	
Ag 328.068	206.4	33.31	16.14%	[0.002]	mg/L	
Na 330.237	504.5	205.40	40.72%	[1]	mg/L	
Tl 190.801	13.3	3.41	25.53%	[0.01]	mg/L	
Sn 189.927	43.8	3.93	8.97%	[0.01]	mg/L	
Ti 334.940	3412.8	9.73	0.29%	[0.01]	mg/L	
V 292.402	993.4	47.92	4.82%	[0.01]	mg/L	
Zn 206.200	243.7	13.86	5.69%	[0.01]	mg/L	

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib Std 3 V-128660

Date Collected: 12/19/2011 3:50:42 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib Std 3 V-128660

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	45252.7	699.17	1.55%	[5]	mg/L
Sb 206.836	466.2	1.58	0.34%	[0.5]	mg/L
As 188.979	407.4	5.09	1.25%	[0.5]	mg/L
Ba 233.527	30341.4	344.60	1.14%	[0.5]	mg/L
Be 234.861	217156.9	3187.10	1.47%	[0.5]	mg/L
Cd 226.502	31307.9	443.21	1.42%	[0.5]	mg/L
Ca 315.887	3128870.1	44384.58	1.42%	[50]	mg/L
Cr 206.158	5982.9	11.93	0.20%	[0.5]	mg/L
Co 228.616	10343.0	33.05	0.32%	[0.5]	mg/L
Cu 324.752	52886.1	794.26	1.50%	[0.5]	mg/L
Fe 273.955	83562.2	1078.33	1.29%	[5]	mg/L
Pb 220.353	3554.6	11.85	0.33%	[0.5]	mg/L
Mg 279.077	765644.2	9833.39	1.28%	[50]	mg/L
Mn 257.610	249110.8	3229.08	1.30%	[0.5]	mg/L
Mo 202.031	4751.3	9.30	0.20%	[0.5]	mg/L
Ni 231.604	20282.1	288.74	1.42%	[0.5]	mg/L
Se 196.026	697.7	7.96	1.14%	[0.5]	mg/L
Ag 328.068	12184.7	120.95	0.99%	[0.1]	mg/L
Na 330.237	28314.4	474.05	1.67%	[50]	mg/L
Tl 190.801	735.6	1.26	0.17%	[0.5]	mg/L
Sn 189.927	2223.9	2.33	0.10%	[0.5]	mg/L
Ti 334.940	162172.3	2209.06	1.36%	[0.5]	mg/L
V 292.402	50624.1	796.55	1.57%	[0.5]	mg/L
Zn 206.200	12699.0	7.50	0.06%	[0.5]	mg/L

Sequence No.: 5  
 Sample ID: Calib Std 4 V-129806  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/19/2011 3:53:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib Std 4 V-129806

Analyte	Mean Corrected			RSD	Calib Conc. Units
	Intensity	Std.Dev.			
Al 308.215	88160.4	464.23	0.53%		[10] mg/L
Sb 206.836	914.5	4.73	0.52%		[1.0] mg/L
As 188.979	808.8	2.34	0.29%		[1.0] mg/L
Ba 233.527	58935.6	229.70	0.39%		[1.0] mg/L
Be 234.861	437384.9	2861.32	0.65%		[1.0] mg/L
Cd 226.502	61539.1	192.55	0.31%		[1.0] mg/L
Ca 315.887	6009365.8	44040.98	0.73%		[100] mg/L
Cr 206.158	11691.5	35.79	0.31%		[1.0] mg/L
Co 228.616	20291.6	147.17	0.73%		[1.0] mg/L
Cu 324.752	105655.3	886.03	0.84%		[1.0] mg/L
Fe 273.955	163296.4	597.14	0.37%		[10] mg/L
Pb 220.353	6814.5	41.25	0.61%		[1.0] mg/L
Mg 279.077	1468887.6	6045.90	0.41%		[100] mg/L
Mn 257.610	491236.7	2777.34	0.57%		[1.0] mg/L
Mo 202.031	9130.9	60.09	0.66%		[1.0] mg/L
Ni 231.604	39663.4	235.64	0.59%		[1.0] mg/L
Se 196.026	1338.2	11.40	0.85%		[1.0] mg/L
Ag 328.068	24130.4	21.55	0.09%		[0.2] mg/L
Na 330.237	58835.2	310.23	0.53%		[100] mg/L
Tl 190.801	1409.8	15.28	1.08%		[1.0] mg/L
Sn 189.927	4246.4	19.14	0.45%		[1.0] mg/L
Ti 334.940	319478.3	2308.24	0.72%		[1.0] mg/L
V 292.402	99496.6	596.24	0.60%		[1.0] mg/L
Zn 206.200	25017.5	139.22	0.56%		[1.0] mg/L

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 Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	218.1	8837	0.00000	0.999906	
Sb 206.836	3	Lin, Calc Int	2.4	915.2	0.00000	0.999953	
As 188.979	4	Lin, Calc Int	0.4	809.5	0.00000	0.999993	
Ba 233.527	3	Lin, Calc Int	186.7	59060	0.00000	0.999887	
Be 234.861	4	Lin, Calc Int	-223.7	437000	0.00000	0.999994	
Cd 226.502	4	Lin, Calc Int	75.6	61660	0.00000	0.999964	
Ca 315.887	3	Lin, Calc Int	24545.5	60290	0.00000	0.999777	
Cr 206.158	3	Lin, Calc Int	26.1	11710	0.00000	0.999927	
Co 228.616	3	Lin, Calc Int	44.9	20320	0.00000	0.999952	
Cu 324.752	3	Lin, Calc Int	-3.8	105700	0.00000	1.000000	
Fe 273.955	3	Lin, Calc Int	327.4	16370	0.00000	0.999926	
Pb 220.353	4	Lin, Calc Int	20.6	6849	0.00000	0.999784	
Mg 279.077	3	Lin, Calc Int	6424.8	14740	0.00000	0.999766	
Mn 257.610	3	Lin, Calc Int	1246.6	491100	0.00000	0.999975	
Mo 202.031	3	Lin, Calc Int	32.0	9167	0.00000	0.999778	
Ni 231.604	3	Lin, Calc Int	96.7	39730	0.00000	0.999933	
Se 196.026	3	Lin, Calc Int	5.4	1343	0.00000	0.999760	
Ag 328.068	3	Lin, Calc Int	5.9	120900	0.00000	0.999984	
Na 330.237	3	Lin, Calc Int	-238.9	586.8	0.00000	0.999817	
Tl 190.801	4	Lin, Calc Int	2.2	1419	0.00000	0.999762	
Sn 189.927	3	Lin, Calc Int	18.9	4264	0.00000	0.999704	
Ti 334.940	3	Lin, Calc Int	541.8	319800	0.00000	0.999970	
V 292.402	3	Lin, Calc Int	158.7	99660	0.00000	0.999959	
Zn 206.200	3	Lin, Calc Int	31.7	25060	0.00000	0.999969	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-128660

Date Collected: 12/19/2011 3:57:17 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICS3 V-128660

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	44882.6	5.04803 mg/L	0.101470	5.04803 mg/L	0.101470	2.01%
QC value within limits for Al 308.215 Recovery = 100.96%						
Sb 206.836	462.8	0.510243 mg/L	0.0016573	0.510243 mg/L	0.0016573	0.32%
QC value within limits for Sb 206.836 Recovery = 102.05%						
As 188.979	405.9	0.502153 mg/L	0.0035048	0.502153 mg/L	0.0035048	0.70%
QC value within limits for As 188.979 Recovery = 100.43%						
Ba 233.527	30074.3	0.506381 mg/L	0.0088131	0.506381 mg/L	0.0088131	1.74%
QC value within limits for Ba 233.527 Recovery = 101.28%						
Be 234.861	215986.4	0.501020 mg/L	0.0115997	0.501020 mg/L	0.0115997	2.32%
QC value within limits for Be 234.861 Recovery = 100.20%						
Cd 226.502	31126.8	0.503597 mg/L	0.0128030	0.503597 mg/L	0.0128030	2.54%
QC value within limits for Cd 226.502 Recovery = 100.72%						
Ca 315.887	3142044.0	51.7048 mg/L	0.72685	51.7048 mg/L	0.72685	1.41%
QC value within limits for Ca 315.887 Recovery = 103.41%						
Cr 206.158	5921.0	0.515771 mg/L	0.0000729	0.515771 mg/L	0.0000729	0.01%
QC value within limits for Cr 206.158 Recovery = 103.15%						
Co 228.616	10269.5	0.502390 mg/L	0.0019999	0.502390 mg/L	0.0019999	0.40%
QC value within limits for Co 228.616 Recovery = 100.48%						
Cu 324.752	52701.4	0.497370 mg/L	0.0134791	0.497370 mg/L	0.0134791	2.71%
QC value within limits for Cu 324.752 Recovery = 99.47%						
Fe 273.955	82608.9	5.02740 mg/L	0.077530	5.02740 mg/L	0.077530	1.54%
QC value within limits for Fe 273.955 Recovery = 100.55%						
Pb 220.353	3525.9	0.514540 mg/L	0.0003404	0.514540 mg/L	0.0003404	0.07%
QC value within limits for Pb 220.353 Recovery = 102.91%						
Mg 279.077	768251.0	51.6976 mg/L	0.85746	51.6976 mg/L	0.85746	1.66%
QC value within limits for Mg 279.077 Recovery = 103.40%						
Mn 257.610	247669.1	0.501187 mg/L	0.0107975	0.501187 mg/L	0.0107975	2.15%
QC value within limits for Mn 257.610 Recovery = 100.24%						
Mo 202.031	4703.0	0.509930 mg/L	0.0000316	0.509930 mg/L	0.0000316	0.01%
QC value within limits for Mo 202.031 Recovery = 101.99%						
Ni 231.604	20213.1	0.506465 mg/L	0.0127860	0.506465 mg/L	0.0127860	2.52%
QC value within limits for Ni 231.604 Recovery = 101.29%						
Se 196.026	694.2	0.521478 mg/L	0.0002833	0.521478 mg/L	0.0002833	0.05%
QC value within limits for Se 196.026 Recovery = 104.30%						
Ag 328.068	12008.3	0.100110 mg/L	0.0022937	0.100110 mg/L	0.0022937	2.29%
QC value within limits for Ag 328.068 Recovery = 100.11%						
Na 330.237	28115.1	48.3181 mg/L	0.80932	48.3181 mg/L	0.80932	1.67%
QC value within limits for Na 330.237 Recovery = 96.64%						
Tl 190.801	726.8	0.515615 mg/L	0.0006838	0.515615 mg/L	0.0006838	0.13%
QC value within limits for Tl 190.801 Recovery = 103.12%						
Sn 189.927	2217.4	0.520721 mg/L	0.0001972	0.520721 mg/L	0.0001972	0.04%
QC value within limits for Sn 189.927 Recovery = 104.14%						
Ti 334.940	161529.3	0.503402 mg/L	0.0122152	0.503402 mg/L	0.0122152	2.43%
QC value within limits for Ti 334.940 Recovery = 100.68%						
V 292.402	50102.1	0.485543 mg/L	0.0099816	0.485543 mg/L	0.0099816	2.06%
QC value within limits for V 292.402 Recovery = 97.11%						
Zn 206.200	12590.3	0.499894 mg/L	0.0004813	0.499894 mg/L	0.0004813	0.10%
QC value within limits for Zn 206.200 Recovery = 99.98%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICV V-128235 (2)

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 159

Date Collected: 12/19/2011 4:00:33 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	88715.7	10.0021 mg/L	0.00164	10.0021 mg/L	0.00164	0.02%
QC value within limits for Al 308.215 Recovery = 100.02%						
Sb 206.836	910.8	1.00673 mg/L	0.012350	1.00673 mg/L	0.012350	1.23%
QC value within limits for Sb 206.836 Recovery = 100.67%						
As 188.979	805.2	0.996535 mg/L	0.0005626	0.996535 mg/L	0.0005626	0.06%
QC value within limits for As 188.979 Recovery = 99.65%						
Ba 233.527	59958.5	1.01270 mg/L	0.004629	1.01270 mg/L	0.004629	0.46%
QC value within limits for Ba 233.527 Recovery = 101.27%						
Be 234.861	437615.1	1.01426 mg/L	0.005376	1.01426 mg/L	0.005376	0.53%
QC value within limits for Be 234.861 Recovery = 101.43%						
Cd 226.502	61848.1	1.00184 mg/L	0.009960	1.00184 mg/L	0.009960	0.99%
QC value within limits for Cd 226.502 Recovery = 100.18%						
Ca 315.887	6068716.7	100.245 mg/L	0.7429	100.245 mg/L	0.7429	0.74%
QC value within limits for Ca 315.887 Recovery = 100.24%						
Cr 206.158	11667.5	1.01871 mg/L	0.005636	1.01871 mg/L	0.005636	0.55%
QC value within limits for Cr 206.158 Recovery = 101.87%						
Co 228.616	20599.3	1.00996 mg/L	0.006813	1.00996 mg/L	0.006813	0.67%
QC value within limits for Co 228.616 Recovery = 101.00%						
Cu 324.752	106389.7	1.00413 mg/L	0.003230	1.00413 mg/L	0.003230	0.32%
QC value within limits for Cu 324.752 Recovery = 100.41%						
Fe 273.955	162515.3	9.90968 mg/L	0.042947	9.90968 mg/L	0.042947	0.43%
QC value within limits for Fe 273.955 Recovery = 99.10%						
Pb 220.353	6844.3	1.00170 mg/L	0.004265	1.00170 mg/L	0.004265	0.43%
QC value within limits for Pb 220.353 Recovery = 100.17%						
Mg 279.077	1464490.1	98.9445 mg/L	0.79390	98.9445 mg/L	0.79390	0.80%
QC value within limits for Mg 279.077 Recovery = 98.94%						
Mn 257.610	490656.6	0.995441 mg/L	0.0047158	0.995441 mg/L	0.0047158	0.47%
QC value within limits for Mn 257.610 Recovery = 99.54%						
Mo 202.031	9250.2	1.00635 mg/L	0.004558	1.00635 mg/L	0.004558	0.45%
QC value within limits for Mo 202.031 Recovery = 100.64%						
Ni 231.604	40000.2	1.00464 mg/L	0.004970	1.00464 mg/L	0.004970	0.49%
QC value within limits for Ni 231.604 Recovery = 100.46%						
Se 196.026	1341.6	1.01206 mg/L	0.006954	1.01206 mg/L	0.006954	0.69%
QC value within limits for Se 196.026 Recovery = 101.21%						
Ag 328.068	23913.5	0.199360 mg/L	0.0005726	0.199360 mg/L	0.0005726	0.29%
QC value within limits for Ag 328.068 Recovery = 99.68%						
Na 330.237	58765.4	100.550 mg/L	0.3348	100.550 mg/L	0.3348	0.33%
QC value within limits for Na 330.237 Recovery = 100.55%						
Tl 190.801	1466.4	1.04182 mg/L	0.001923	1.04182 mg/L	0.001923	0.18%
QC value within limits for Tl 190.801 Recovery = 104.18%						
Sn 189.927	4342.6	1.02395 mg/L	0.002468	1.02395 mg/L	0.002468	0.24%
QC value within limits for Sn 189.927 Recovery = 102.39%						
Ti 334.940	321105.9	1.00239 mg/L	0.003318	1.00239 mg/L	0.003318	0.33%
QC value within limits for Ti 334.940 Recovery = 100.24%						
V 292.402	99890.1	0.971103 mg/L	0.0027728	0.971103 mg/L	0.0027728	0.29%
QC value within limits for V 292.402 Recovery = 97.11%						
Zn 206.200	24985.2	0.993370 mg/L	0.0088477	0.993370 mg/L	0.0088477	0.89%
QC value within limits for Zn 206.200 Recovery = 99.34%						

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/19/2011 4:03:53 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-289.7	-0.0574189 mg/L	0.00420067	-0.0574189 mg/L	0.00420067	7.32%
QC value within limits for Al 308.215 Recovery = Not calculated						
Sb 206.836	7.2	0.0052641 mg/L	0.00578435	0.0052641 mg/L	0.00578435	109.88%
QC value within limits for Sb 206.836 Recovery = Not calculated						
As 188.979	2.7	0.0028550 mg/L	0.00435633	0.0028550 mg/L	0.00435633	152.59%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527	71.8	-0.0019473 mg/L	0.00014215	-0.0019473 mg/L	0.00014215	7.30%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 234.861	486.6	0.0015908 mg/L	0.00005192	0.0015908 mg/L	0.00005192	3.26%
QC value within limits for Be 234.861 Recovery = Not calculated						
Cd 226.502	69.5	-0.0000997 mg/L	0.00000608	-0.0000997 mg/L	0.00000608	6.10%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Ca 315.887	3853.4	-0.343186 mg/L	0.0012253	-0.343186 mg/L	0.0012253	0.36%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Cr 206.158	13.5	-0.0010690 mg/L	0.00033904	-0.0010690 mg/L	0.00033904	31.72%
QC value within limits for Cr 206.158 Recovery = Not calculated						
Co 228.616	31.2	-0.0006754 mg/L	0.00007292	-0.0006754 mg/L	0.00007292	10.80%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cu 324.752	165.6	0.0016134 mg/L	0.00065223	0.0016134 mg/L	0.00065223	40.43%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 273.955	-121.9	-0.0274531 mg/L	0.00059012	-0.0274531 mg/L	0.00059012	2.15%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Pb 220.353	13.7	-0.0010187 mg/L	0.00040629	-0.0010187 mg/L	0.00040629	39.88%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Mg 279.077	1121.3	-0.359892 mg/L	0.0013590	-0.359892 mg/L	0.0013590	0.38%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610	587.9	-0.0013369 mg/L	0.00005539	-0.0013369 mg/L	0.00005539	4.14%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031	6.3	-0.0028046 mg/L	0.00012005	-0.0028046 mg/L	0.00012005	4.28%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604	66.2	-0.0007666 mg/L	0.00025079	-0.0007666 mg/L	0.00025079	32.71%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Se 196.026	13.4	0.0059481 mg/L	0.00807592	0.0059481 mg/L	0.00807592	135.77%
QC value within limits for Se 196.026 Recovery = Not calculated						
Ag 328.068	-9.1	-0.0001300 mg/L	0.00006821	-0.0001300 mg/L	0.00006821	52.46%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Na 330.237	-23.5	0.366935 mg/L	0.0313491	0.366935 mg/L	0.0313491	8.54%
QC value within limits for Na 330.237 Recovery = Not calculated						
Tl 190.801	-2.4	-0.0032077 mg/L	0.00062926	-0.0032077 mg/L	0.00062926	19.62%
QC value within limits for Tl 190.801 Recovery = Not calculated						
Sn 189.927	21.2	0.0005138 mg/L	0.00006004	0.0005138 mg/L	0.00006004	11.69%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940	422.0	-0.0003745 mg/L	0.00013944	-0.0003745 mg/L	0.00013944	37.23%
QC value within limits for Ti 334.940 Recovery = Not calculated						
V 292.402	123.9	-0.0002357 mg/L	0.00041949	-0.0002357 mg/L	0.00041949	178.00%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200	39.7	0.0003289 mg/L	0.00027800	0.0003289 mg/L	0.00027800	84.53%
QC value within limits for Zn 206.200 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA V-128666

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 12/19/2011 4:07:01 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3883981.1	439.509	mg/L	12.7459	439.509 mg/L	12.7459	2.90%
QC value within limits for Al 308.215 Recovery = 87.90%							
Sb 206.836	-43.0	-0.0088887	mg/L	0.00673442	-0.0088887 mg/L	0.00673442	75.76%
As 188.979	-38.4	-0.0144211	mg/L	0.00208625	-0.0144211 mg/L	0.00208625	14.47%
Ba 233.527	202.6	-0.0022699	mg/L	0.00000962	-0.0022699 mg/L	0.00000962	0.42%
Be 234.861	-93671.0	-0.0029978	mg/L	0.00170642	-0.0029978 mg/L	0.00170642	56.92%
Cd 226.502	115.4	0.0017904	mg/L	0.00022395	0.0017904 mg/L	0.00022395	12.51%
Ca 315.887	27142844.8	449.766	mg/L	0.2421	449.766 mg/L	0.2421	0.05%
QC value within limits for Ca 315.887 Recovery = 89.95%							
Cr 206.158	24.8	-0.0001256	mg/L	0.00050980	-0.0001256 mg/L	0.00050980	406.00%
Co 228.616	78.4	-0.0027366	mg/L	0.00015164	-0.0027366 mg/L	0.00015164	5.54%
Cu 324.752	1988.1	0.0074855	mg/L	0.00038011	0.0074855 mg/L	0.00038011	5.08%
Fe 273.955	2751153.0	168.075	mg/L	4.2016	168.075 mg/L	4.2016	2.50%
QC value within limits for Fe 273.955 Recovery = 84.04%							
Pb 220.353	-462.1	0.0047128	mg/L	0.00189422	0.0047128 mg/L	0.00189422	40.19%
Mg 279.077	6959092.4	471.809	mg/L	0.9878	471.809 mg/L	0.9878	0.21%
QC value within limits for Mg 279.077 Recovery = 94.36%							
Mn 257.610	-2670.0	-0.0067897	mg/L	0.00041941	-0.0067897 mg/L	0.00041941	6.18%
Mo 202.031	-137.1	0.0036613	mg/L	0.00137474	0.0036613 mg/L	0.00137474	37.55%
Ni 231.604	329.6	0.0018036	mg/L	0.00038714	0.0018036 mg/L	0.00038714	21.47%
Se 196.026	-617.7	0.0077401	mg/L	0.00850578	0.0077401 mg/L	0.00850578	109.89%
Ag 328.068	-1172.7	0.0003722	mg/L	0.00063341	0.0003722 mg/L	0.00063341	170.19%
Na 330.237	-300.4	-0.104835	mg/L	0.0174692	-0.104835 mg/L	0.0174692	16.66%
Tl 190.801	-11.5	0.0031608	mg/L	0.00387202	0.0031608 mg/L	0.00387202	122.50%
Sn 189.927	-170.4	-0.0022965	mg/L	0.00188314	-0.0022965 mg/L	0.00188314	82.00%
Ti 334.940	-119.4	-0.0020677	mg/L	0.00022596	-0.0020677 mg/L	0.00022596	10.93%
V 292.402	20309.6	0.0234704	mg/L	0.00119659	0.0234704 mg/L	0.00119659	5.10%
Zn 206.200	21.9	-0.0126219	mg/L	0.00017799	-0.0126219 mg/L	0.00017799	1.41%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/19/2011 4:11:30 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3905765.2	441.974 mg/L	0.3549	441.974 mg/L	0.3549	0.08%
QC value within limits for Al 308.215 Recovery = 88.39%						
Sb 206.836	844.0	0.960492 mg/L	0.0105153	0.960492 mg/L	0.0105153	1.09%
QC value within limits for Sb 206.836 Recovery = 96.05%						
As 188.979	743.8	0.951994 mg/L	0.0235591	0.951994 mg/L	0.0235591	2.47%
QC value within limits for As 188.979 Recovery = 95.20%						
Ba 233.527	28154.9	0.470999 mg/L	0.0011247	0.470999 mg/L	0.0011247	0.24%
QC value within limits for Ba 233.527 Recovery = 94.20%						
Be 234.861	118122.7	0.483049 mg/L	0.0027816	0.483049 mg/L	0.0027816	0.58%
QC value within limits for Be 234.861 Recovery = 96.61%						
Cd 226.502	55121.0	0.893833 mg/L	0.0060732	0.893833 mg/L	0.0060732	0.68%
QC value within limits for Cd 226.502 Recovery = 89.38%						
Ca 315.887	27049742.6	448.222 mg/L	6.4957	448.222 mg/L	6.4957	1.45%
QC value within limits for Ca 315.887 Recovery = 89.64%						
Cr 206.158	5239.1	0.467469 mg/L	0.0069136	0.467469 mg/L	0.0069136	1.48%
QC value within limits for Cr 206.158 Recovery = 93.49%						
Co 228.616	9023.5	0.437522 mg/L	0.0000618	0.437522 mg/L	0.0000618	0.01%
QC value within limits for Co 228.616 Recovery = 87.50%						
Cu 324.752	52733.7	0.487693 mg/L	0.0002501	0.487693 mg/L	0.0002501	0.05%
QC value within limits for Cu 324.752 Recovery = 97.54%						
Fe 273.955	2769914.5	169.222 mg/L	0.0890	169.222 mg/L	0.0890	0.05%
QC value within limits for Fe 273.955 Recovery = 84.61%						
Pb 220.353	5716.1	0.907347 mg/L	0.0027117	0.907347 mg/L	0.0027117	0.30%
QC value within limits for Pb 220.353 Recovery = 90.73%						
Mg 279.077	6930839.9	469.892 mg/L	7.1638	469.892 mg/L	7.1638	1.52%
QC value within limits for Mg 279.077 Recovery = 93.98%						
Mn 257.610	222916.1	0.452611 mg/L	0.0007528	0.452611 mg/L	0.0007528	0.17%
QC value within limits for Mn 257.610 Recovery = 90.52%						
Mo 202.031	-136.2	0.0038898 mg/L	0.00029803	0.0038898 mg/L	0.00029803	7.66%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604	34497.3	0.861838 mg/L	0.0059486	0.861838 mg/L	0.0059486	0.69%
QC value within limits for Ni 231.604 Recovery = 86.18%						
Se 196.026	575.3	0.899814 mg/L	0.0243042	0.899814 mg/L	0.0243042	2.70%
QC value within limits for Se 196.026 Recovery = 89.98%						
Ag 328.068	120082.1	1.00355 mg/L	0.000075	1.00355 mg/L	0.000075	0.01%
QC value within limits for Ag 328.068 Recovery = 100.35%						
Na 330.237	-623.6	-0.655691 mg/L	0.0114152	-0.655691 mg/L	0.0114152	1.74%
QC value less than the lower limit for Na 330.237 Recovery = Not calculated						
Tl 190.801	1247.1	0.890117 mg/L	0.0376387	0.890117 mg/L	0.0376387	4.23%
QC value within limits for Tl 190.801 Recovery = 89.01%						
Sn 189.927	-173.8	-0.0032316 mg/L	0.00209779	-0.0032316 mg/L	0.00209779	64.91%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940	-128.3	-0.0020955 mg/L	0.00009591	-0.0020955 mg/L	0.00009591	4.58%
QC value within limits for Ti 334.940 Recovery = Not calculated						
V 292.402	63373.0	0.456321 mg/L	0.0056871	0.456321 mg/L	0.0056871	1.25%
QC value within limits for V 292.402 Recovery = 91.26%						
Zn 206.200	22483.3	0.883901 mg/L	0.0043887	0.883901 mg/L	0.0043887	0.50%
QC value within limits for Zn 206.200 Recovery = 88.39%						
QC Failed. Continue with analysis.						

Sequence No.: 11  
 Sample ID: MB 11715 (100)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 9  
 Date Collected: 12/19/2011 4:15:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11715 (100)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	4902.7	0.530186	mg/L	0.0063952	0.530186	mg/L	0.0063952	1.21%
Sb 206.836	-3.7	-0.0066320	mg/L	0.00087977	-0.0066320	mg/L	0.00087977	13.27%
As 188.979	0.5	0.0002292	mg/L	0.00786902	0.0002292	mg/L	0.00786902	>999.9%
Ba 233.527	53.4	-0.0022627	mg/L	0.00007061	-0.0022627	mg/L	0.00007061	3.12%
Be 234.861	100.2	0.0009796	mg/L	0.00002868	0.0009796	mg/L	0.00002868	2.93%
Cd 226.502	48.2	-0.0004432	mg/L	0.00010741	-0.0004432	mg/L	0.00010741	24.24%
Ca 315.887	57082.9	0.539644	mg/L	0.0069983	0.539644	mg/L	0.0069983	1.30%
Cr 206.158	11.9	-0.0010104	mg/L	0.00083009	-0.0010104	mg/L	0.00083009	82.15%
Co 228.616	15.7	-0.0014394	mg/L	0.00001036	-0.0014394	mg/L	0.00001036	0.72%
Cu 324.752	178.3	0.0017107	mg/L	0.00040106	0.0017107	mg/L	0.00040106	23.44%
Fe 273.955	3438.3	0.190080	mg/L	0.0065333	0.190080	mg/L	0.0065333	3.44%
Pb 220.353	10.8	-0.0013389	mg/L	0.00044556	-0.0013389	mg/L	0.00044556	33.28%
Mg 279.077	8308.0	0.127793	mg/L	0.0104649	0.127793	mg/L	0.0104649	8.19%
Mn 257.610	537.7	-0.0014357	mg/L	0.00002870	-0.0014357	mg/L	0.00002870	2.00%
Mo 202.031	-1.5	-0.0036300	mg/L	0.00014305	-0.0036300	mg/L	0.00014305	3.94%
Ni 231.604	51.5	-0.0011439	mg/L	0.00028220	-0.0011439	mg/L	0.00028220	24.67%
Se 196.026	2.3	-0.0017574	mg/L	0.01463520	-0.0017574	mg/L	0.01463520	832.77%
Ag 328.068	71.4	0.0005545	mg/L	0.00019963	0.0005545	mg/L	0.00019963	36.00%
Na 330.237	10.3	0.424587	mg/L	0.0410075	0.424587	mg/L	0.0410075	9.66%
Tl 190.801	-3.7	-0.0041299	mg/L	0.00231628	-0.0041299	mg/L	0.00231628	56.09%
Sn 189.927	65.7	0.0110145	mg/L	0.00108461	0.0110145	mg/L	0.00108461	9.85%
Ti 334.940	244.8	-0.0009287	mg/L	0.00006745	-0.0009287	mg/L	0.00006745	7.26%
V 292.402	97.0	-0.0006973	mg/L	0.00032147	-0.0006973	mg/L	0.00032147	46.10%
Zn 206.200	237.7	0.0082193	mg/L	0.00002210	0.0082193	mg/L	0.00002210	0.27%

Sequence No.: 12  
 Sample ID: LCS 11715  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 10  
 Date Collected: 12/19/2011 4:18:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCS 11715

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Al 308.215	618015.7	69.8987	mg/L	0.03052	69.8987	mg/L	0.03052	0.04%
Sb 206.836	602.7	0.682598	mg/L	0.0104096	0.682598	mg/L	0.0104096	1.52%
As 188.979	1319.9	1.64272	mg/L	0.004256	1.64272	mg/L	0.004256	0.26%
Ba 233.527	230687.9	3.90207	mg/L	0.016085	3.90207	mg/L	0.016085	0.41%
Be 234.861	569421.1	1.44399	mg/L	0.003909	1.44399	mg/L	0.003909	0.27%
Cd 226.502	93089.8	1.50919	mg/L	0.015468	1.50919	mg/L	0.015468	1.02%
Ca 315.887	4978485.8	82.1628	mg/L	1.30493	82.1628	mg/L	1.30493	1.59%
Cr 206.158	20475.1	1.83305	mg/L	0.008383	1.83305	mg/L	0.008383	0.46%
Co 228.616	22828.1	1.11441	mg/L	0.000962	1.11441	mg/L	0.000962	0.09%
Cu 324.752	176273.0	1.66636	mg/L	0.000351	1.66636	mg/L	0.000351	0.02%
Fe 273.955	1834639.3	112.076	mg/L	0.3863	112.076	mg/L	0.3863	0.34%
Pb 220.353	7235.2	1.06861	mg/L	0.003913	1.06861	mg/L	0.003913	0.37%
Mg 279.077	520412.3	34.8793	mg/L	0.20798	34.8793	mg/L	0.20798	0.60%
Mn 257.610	1826418.8	3.72136	mg/L	0.012514	3.72136	mg/L	0.012514	0.34%
Mo 202.031	10715.1	1.17202	mg/L	0.007007	1.17202	mg/L	0.007007	0.60%
Ni 231.604	54687.5	1.37195	mg/L	0.004784	1.37195	mg/L	0.004784	0.35%
Se 196.026	1561.5	1.49747	mg/L	0.011548	1.49747	mg/L	0.011548	0.77%
Ag 328.068	87647.0	0.726649	mg/L	0.0021421	0.726649	mg/L	0.0021421	0.29%
Na 330.237	314.0	0.942107	mg/L	0.0599536	0.942107	mg/L	0.0599536	6.36%
Tl 190.801	2313.8	1.65810	mg/L	0.008697	1.65810	mg/L	0.008697	0.52%
Sn 189.927	7019.3	1.65078	mg/L	0.008370	1.65078	mg/L	0.008370	0.51%
Ti 334.940	782562.9	2.44535	mg/L	0.005373	2.44535	mg/L	0.005373	0.22%
V 292.402	113820.9	1.13579	mg/L	0.000184	1.13579	mg/L	0.000184	0.02%
Zn 206.200	87400.8	3.48614	mg/L	0.030023	3.48614	mg/L	0.030023	0.86%

Sequence No.: 13  
 Sample ID: LCS MR 11715  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 11  
 Date Collected: 12/19/2011 4:21:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCS MR 11715

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	623638.4	70.5346	mg/L	0.69223	70.5346	mg/L	0.69223	0.98%
Sb 206.836	615.5	0.697349	mg/L	0.0000008	0.697349	mg/L	0.0000008	0.00%
As 188.979	1366.0	1.70024	mg/L	0.007174	1.70024	mg/L	0.007174	0.42%
Ba 233.527	239114.7	4.04471	mg/L	0.038348	4.04471	mg/L	0.038348	0.95%
Be 234.861	588681.1	1.49349	mg/L	0.014879	1.49349	mg/L	0.014879	1.00%
Cd 226.502	95120.4	1.54215	mg/L	0.015731	1.54215	mg/L	0.015731	1.02%
Ca 315.887	5055441.6	83.4391	mg/L	1.14067	83.4391	mg/L	1.14067	1.37%
Cr 206.158	21071.5	1.88645	mg/L	0.003924	1.88645	mg/L	0.003924	0.21%
Co 228.616	23381.5	1.14148	mg/L	0.014275	1.14148	mg/L	0.014275	1.25%
Cu 324.752	180464.0	1.70599	mg/L	0.015950	1.70599	mg/L	0.015950	0.93%
Fe 273.955	1905470.5	116.404	mg/L	1.1517	116.404	mg/L	1.1517	0.99%
Pb 220.353	7406.2	1.09373	mg/L	0.000576	1.09373	mg/L	0.000576	0.05%
Mg 279.077	526027.3	35.2603	mg/L	0.30277	35.2603	mg/L	0.30277	0.86%
Mn 257.610	1889161.3	3.84932	mg/L	0.028100	3.84932	mg/L	0.028100	0.73%
Mo 202.031	11008.8	1.20423	mg/L	0.000327	1.20423	mg/L	0.000327	0.03%
Ni 231.604	56124.7	1.40804	mg/L	0.003715	1.40804	mg/L	0.003715	0.26%
Se 196.026	1622.3	1.55609	mg/L	0.001831	1.55609	mg/L	0.001831	0.12%
Ag 328.068	89142.7	0.739053	mg/L	0.0000574	0.739053	mg/L	0.0000574	0.01%
Na 330.237	432.8	1.14465	mg/L	0.064550	1.14465	mg/L	0.064550	5.64%
Tl 190.801	2329.9	1.66997	mg/L	0.008256	1.66997	mg/L	0.008256	0.49%
Sn 189.927	7151.8	1.68201	mg/L	0.006851	1.68201	mg/L	0.006851	0.41%
Ti 334.940	795700.3	2.48643	mg/L	0.014263	2.48643	mg/L	0.014263	0.57%
V 292.402	117713.2	1.17495	mg/L	0.002700	1.17495	mg/L	0.002700	0.23%
Zn 206.200	89889.8	3.58548	mg/L	0.031078	3.58548	mg/L	0.031078	0.87%

Sequence No.: 14  
 Sample ID: 63081-032  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 12  
 Date Collected: 12/19/2011 4:25:05 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-032

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	273162.4	30.8878	mg/L	0.04170	30.8878	0.04170	0.13%
Sb 206.836	5.5	0.0128339	mg/L	0.00270414	0.0128339	0.00270414	21.07%
As 188.979	89.5	0.130117	mg/L	0.0042410	0.130117	0.0042410	3.26%
Ba 233.527	118133.6	1.99566	mg/L	0.006743	1.99566	0.006743	0.34%
Be 234.861	-48038.5	0.0090512	mg/L	0.00284811	0.0090512	0.00284811	31.47%
Cd 226.502	341.5	0.0049558	mg/L	0.00004627	0.0049558	0.00004627	0.93%
Ca 315.887	13925226.0	230.547	mg/L	3.4650	230.547	3.4650	1.50%
Cr 206.158	7605.2	0.701211	mg/L	0.0024533	0.701211	0.0024533	0.35%
Co 228.616	843.7	0.0347553	mg/L	0.00071546	0.0347553	0.00071546	2.06%
Cu 324.752	48224.1	0.450989	mg/L	0.0033782	0.450989	0.0033782	0.75%
Fe 273.955	1545976.2	94.4392	mg/L	0.30827	94.4392	0.30827	0.33%
Pb 220.353	70198.8	10.2562	mg/L	0.09181	10.2562	0.09181	0.90%
Mg 279.077	167110.0	10.9041	mg/L	0.10344	10.9041	0.10344	0.95%
Mn 257.610	805242.0	1.64163	mg/L	0.009128	1.64163	0.009128	0.56%
Mo 202.031	128.1	0.0149958	mg/L	0.00023377	0.0149958	0.00023377	1.56%
Ni 231.604	2864.2	0.0673924	mg/L	0.00041243	0.0673924	0.00041243	0.61%
Se 196.026	-255.2	0.0706406	mg/L	0.00656702	0.0706406	0.00656702	9.30%
Ag 328.068	-194.3	0.0031622	mg/L	0.00001397	0.0031622	0.00001397	0.44%
Na 330.237	-461.8	-0.379966	mg/L	0.0060784	-0.379966	0.0060784	1.60%
Tl 190.801	-23.9	-0.0048612	mg/L	0.00126697	-0.0048612	0.00126697	26.06%
Sn 189.927	2173.9	0.527613	mg/L	0.0000662	0.527613	0.0000662	0.01%
Ti 334.940	368048.8	1.14918	mg/L	0.014088	1.14918	0.014088	1.23%
V 292.402	16598.3	0.160397	mg/L	0.0017319	0.160397	0.0017319	1.08%
Zn 206.200	54207.9	2.16198	mg/L	0.011649	2.16198	0.011649	0.54%

Sequence No.: 15  
 Sample ID: 63081-032 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 13  
 Date Collected: 12/19/2011 4:29:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-032 MR

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	280508.0	31.7191	mg/L	0.14412	31.7191	mg/L	0.14412	0.45%
Sb 206.836	-3.7	0.0043204	mg/L	0.00527246	0.0043204	mg/L	0.00527246	122.04%
As 188.979	132.2	0.186477	mg/L	0.0019611	0.186477	mg/L	0.0019611	1.05%
Ba 233.527	98297.7	1.65950	mg/L	0.012359	1.65950	mg/L	0.012359	0.74%
Be 234.861	-58902.9	0.0090476	mg/L	0.00401634	0.0090476	mg/L	0.00401634	44.39%
Cd 226.502	357.7	0.0053543	mg/L	0.00001073	0.0053543	mg/L	0.00001073	0.20%
Ca 315.887	15804077.3	261.709	mg/L	0.4835	261.709	mg/L	0.4835	0.18%
Cr 206.158	1399.7	0.207287	mg/L	0.0044897	0.207287	mg/L	0.0044897	2.17%
Co 228.616	864.6	0.0348258	mg/L	0.00023774	0.0348258	mg/L	0.00023774	0.68%
Cu 324.752	39057.5	0.363566	mg/L	0.0051624	0.363566	mg/L	0.0051624	1.42%
Fe 273.955	1870295.0	114.255	mg/L	0.6150	114.255	mg/L	0.6150	0.54%
Pb 220.353	62841.7	9.18287	mg/L	0.142537	9.18287	mg/L	0.142537	1.55%
Mg 279.077	201885.0	13.2640	mg/L	0.15633	13.2640	mg/L	0.15633	1.18%
Mn 257.610	1181875.1	2.40946	mg/L	0.016536	2.40946	mg/L	0.016536	0.69%
Mo 202.031	106.3	0.0133588	mg/L	0.00057791	0.0133588	mg/L	0.00057791	4.33%
Ni 231.604	3099.1	0.0728255	mg/L	0.00002082	0.0728255	mg/L	0.00002082	0.03%
Se 196.026	-335.6	0.0686198	mg/L	0.00916887	0.0686198	mg/L	0.00916887	13.36%
Ag 328.068	-412.8	0.0019283	mg/L	0.00056187	0.0019283	mg/L	0.00056187	29.14%
Na 330.237	-997.6	-1.29303	mg/L	0.159167	-1.29303	mg/L	0.159167	12.31%
Tl 190.801	-27.6	-0.0044886	mg/L	0.00302272	-0.0044886	mg/L	0.00302272	67.34%
Sn 189.927	1588.9	0.393441	mg/L	0.0009086	0.393441	mg/L	0.0009086	0.23%
Ti 334.940	445282.7	1.39069	mg/L	0.011865	1.39069	mg/L	0.011865	0.85%
V 292.402	15903.2	0.152398	mg/L	0.0003422	0.152398	mg/L	0.0003422	0.22%
Zn 206.200	89950.2	3.58846	mg/L	0.043737	3.58846	mg/L	0.043737	1.22%

Sequence No.: 16  
 Sample ID: 63081-032 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 14  
 Date Collected: 12/19/2011 4:32:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-032 MS 1

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	379192.0	42.8804	mg/L	0.81824	42.8804	mg/L	0.81824	1.91%
Sb 206.836	337.9	0.383003	mg/L	0.0052514	0.383003	mg/L	0.0052514	1.37%
As 188.979	476.7	0.608406	mg/L	0.0057269	0.608406	mg/L	0.0057269	0.94%
Ba 233.527	142473.9	2.40817	mg/L	0.047566	2.40817	mg/L	0.047566	1.98%
Be 234.861	173022.2	0.515593	mg/L	0.0126874	0.515593	mg/L	0.0126874	2.46%
Cd 226.502	30380.3	0.492104	mg/L	0.0129069	0.492104	mg/L	0.0129069	2.62%
Ca 315.887	16848946.9	279.038	mg/L	1.9054	279.038	mg/L	1.9054	0.68%
Cr 206.158	7036.4	0.655151	mg/L	0.0120423	0.655151	mg/L	0.0120423	1.84%
Co 228.616	10985.7	0.532901	mg/L	0.0004498	0.532901	mg/L	0.0004498	0.08%
Cu 324.752	92982.9	0.873322	mg/L	0.0203908	0.873322	mg/L	0.0203908	2.33%
Fe 273.955	1555485.3	95.0202	mg/L	1.76515	95.0202	mg/L	1.76515	1.86%
Pb 220.353	64712.3	9.45893	mg/L	0.165355	9.45893	mg/L	0.165355	1.75%
Mg 279.077	948439.7	63.9253	mg/L	1.39451	63.9253	mg/L	1.39451	2.18%
Mn 257.610	1381351.5	2.81384	mg/L	0.053885	2.81384	mg/L	0.053885	1.92%
Mo 202.031	4656.5	0.509472	mg/L	0.0016487	0.509472	mg/L	0.0016487	0.32%
Ni 231.604	22895.0	0.571801	mg/L	0.0094743	0.571801	mg/L	0.0094743	1.66%
Se 196.026	347.0	0.513833	mg/L	0.0014086	0.513833	mg/L	0.0014086	0.27%
Ag 328.068	11050.0	0.0967120	mg/L	0.00191641	0.0967120	mg/L	0.00191641	1.98%
Na 330.237	28279.0	48.5974	mg/L	0.69047	48.5974	mg/L	0.69047	1.42%
Tl 190.801	681.1	0.498885	mg/L	0.0003388	0.498885	mg/L	0.0003388	0.07%
Sn 189.927	3443.0	0.830136	mg/L	0.0017258	0.830136	mg/L	0.0017258	0.21%
Ti 334.940	579090.2	1.80910	mg/L	0.037776	1.80910	mg/L	0.037776	2.09%
V 292.402	68755.8	0.667457	mg/L	0.0122776	0.667457	mg/L	0.0122776	1.84%
Zn 206.200	56701.5	2.26013	mg/L	0.050171	2.26013	mg/L	0.050171	2.22%

Sequence No.: 17  
 Sample ID: 63081-032 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 12/19/2011 4:36:04 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-032 MS 2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	417241.7	47.1864 mg/L	0.55598	47.1864 mg/L	0.55598	1.18%
Sb 206.836	328.5	0.374949 mg/L	0.0021081	0.374949 mg/L	0.0021081	0.56%
As 188.979	486.7	0.624141 mg/L	0.0086884	0.624141 mg/L	0.0086884	1.39%
Ba 233.527	139334.3	2.35465 mg/L	0.031582	2.35465 mg/L	0.031582	1.34%
Be 234.861	160915.0	0.518254 mg/L	0.0097032	0.518254 mg/L	0.0097032	1.87%
Cd 226.502	30527.9	0.494662 mg/L	0.0089944	0.494662 mg/L	0.0089944	1.82%
Ca 315.887	18018217.4	298.431 mg/L	0.1729	298.431 mg/L	0.1729	0.06%
Cr 206.158	8445.5	0.779358 mg/L	0.0051635	0.779358 mg/L	0.0051635	0.66%
Co 228.616	11317.5	0.548090 mg/L	0.0028109	0.548090 mg/L	0.0028109	0.51%
Cu 324.752	104351.2	0.980519 mg/L	0.0177738	0.980519 mg/L	0.0177738	1.81%
Fe 273.955	1951680.2	119.228 mg/L	1.4309	119.228 mg/L	1.4309	1.20%
Pb 220.353	47196.6	6.90237 mg/L	0.100968	6.90237 mg/L	0.100968	1.46%
Mg 279.077	1018575.7	68.6847 mg/L	1.14833	68.6847 mg/L	1.14833	1.67%
Mn 257.610	1267172.9	2.58252 mg/L	0.037552	2.58252 mg/L	0.037552	1.45%
Mo 202.031	4644.5	0.509188 mg/L	0.0009753	0.509188 mg/L	0.0009753	0.19%
Ni 231.604	24153.6	0.602899 mg/L	0.0113335	0.602899 mg/L	0.0113335	1.88%
Se 196.026	244.7	0.510905 mg/L	0.0002062	0.510905 mg/L	0.0002062	0.04%
Ag 328.068	11329.3	0.0996965 mg/L	0.00087135	0.0996965 mg/L	0.00087135	0.87%
Na 330.237	28602.2	49.1482 mg/L	0.58770	49.1482 mg/L	0.58770	1.20%
Tl 190.801	678.7	0.500455 mg/L	0.0025287	0.500455 mg/L	0.0025287	0.51%
Sn 189.927	4796.6	1.14955 mg/L	0.000549	1.14955 mg/L	0.000549	0.05%
Ti 334.940	668718.8	2.08937 mg/L	0.032349	2.08937 mg/L	0.032349	1.55%
V 292.402	68981.5	0.667781 mg/L	0.0082855	0.667781 mg/L	0.0082855	1.24%
Zn 206.200	60617.8	2.41632 mg/L	0.043222	2.41632 mg/L	0.043222	1.79%

Sequence No.: 18  
 Sample ID: 63081-032 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 16  
 Date Collected: 12/19/2011 4:39:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-032 PS

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Al 308.215	302552.3	34.2075 mg/L	0.01613	34.2075 mg/L	0.01613	0.05%	
Sb 206.836	451.5	0.506668 mg/L	0.0063288	0.506668 mg/L	0.0063288	1.25%	
As 188.979	490.8	0.625972 mg/L	0.0065799	0.625972 mg/L	0.0065799	1.05%	
Ba 233.527	140713.2	2.37836 mg/L	0.002938	2.37836 mg/L	0.002938	0.12%	
Be 234.861	170777.5	0.510406 mg/L	0.0013546	0.510406 mg/L	0.0013546	0.27%	
Cd 226.502	30037.1	0.486538 mg/L	0.0007796	0.486538 mg/L	0.0007796	0.16%	
Ca 315.887	16058899.6	265.935 mg/L	1.5050	265.935 mg/L	1.5050	0.57%	
Cr 206.158	12859.5	1.15910 mg/L	0.000249	1.15910 mg/L	0.000249	0.02%	
Co 228.616	10913.1	0.529716 mg/L	0.0017277	0.529716 mg/L	0.0017277	0.33%	
Cu 324.752	100187.3	0.941736 mg/L	0.0012864	0.941736 mg/L	0.0012864	0.14%	
Fe 273.955	1554819.7	94.9795 mg/L	0.02697	94.9795 mg/L	0.02697	0.03%	
Pb 220.353	69675.7	10.1819 mg/L	0.00121	10.1819 mg/L	0.00121	0.01%	
Mg 279.077	883734.0	59.5343 mg/L	0.01596	59.5343 mg/L	0.01596	0.03%	
Mn 257.610	1004548.7	2.04671 mg/L	0.001197	2.04671 mg/L	0.001197	0.06%	
Mo 202.031	4639.3	0.507273 mg/L	0.0003112	0.507273 mg/L	0.0003112	0.06%	
Ni 231.604	22609.3	0.564609 mg/L	0.0032885	0.564609 mg/L	0.0032885	0.58%	
Se 196.026	373.5	0.535543 mg/L	0.0027410	0.535543 mg/L	0.0027410	0.51%	
Ag 328.068	10520.7	0.0922992 mg/L	0.00047875	0.0922992 mg/L	0.00047875	0.52%	
Na 330.237	27962.8	48.0586 mg/L	0.00435	48.0586 mg/L	0.00435	0.01%	
Tl 190.801	675.4	0.492303 mg/L	0.0019106	0.492303 mg/L	0.0019106	0.39%	
Sn 189.927	4219.2	1.01084 mg/L	0.004518	1.01084 mg/L	0.004518	0.45%	
Ti 334.940	511632.1	1.59816 mg/L	0.003787	1.59816 mg/L	0.003787	0.24%	
V 292.402	65582.9	0.637362 mg/L	0.0002887	0.637362 mg/L	0.0002887	0.05%	
Zn 206.200	63563.9	2.53413 mg/L	0.003107	2.53413 mg/L	0.003107	0.12%	

Sequence No.: 19  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 4:43:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	45695.7	5.14002 mg/L	0.055779	5.14002 mg/L	0.055779	1.09%
QC value within limits for Al		308.215	Recovery = 102.80%			
Sb 206.836	460.8	0.508150 mg/L	0.0061904	0.508150 mg/L	0.0061904	1.22%
QC value within limits for Sb		206.836	Recovery = 101.63%			
As 188.979	395.9	0.489787 mg/L	0.0136849	0.489787 mg/L	0.0136849	2.79%
QC value within limits for As		188.979	Recovery = 97.96%			
Ba 233.527	30477.6	0.513209 mg/L	0.0054225	0.513209 mg/L	0.0054225	1.06%
QC value within limits for Ba		233.527	Recovery = 102.64%			
Be 234.861	215513.5	0.500097 mg/L	0.0065074	0.500097 mg/L	0.0065074	1.30%
QC value within limits for Be		234.861	Recovery = 100.02%			
Cd 226.502	31351.4	0.507240 mg/L	0.0064659	0.507240 mg/L	0.0064659	1.27%
QC value within limits for Cd		226.502	Recovery = 101.45%			
Ca 315.887	3106336.0	51.1125 mg/L	0.19690	51.1125 mg/L	0.19690	0.39%
QC value within limits for Ca		315.887	Recovery = 102.23%			
Cr 206.158	5840.5	0.508932 mg/L	0.0006717	0.508932 mg/L	0.0006717	0.13%
QC value within limits for Cr		206.158	Recovery = 101.79%			
Co 228.616	10443.6	0.510952 mg/L	0.0007176	0.510952 mg/L	0.0007176	0.14%
QC value within limits for Co		228.616	Recovery = 102.19%			
Cu 324.752	53144.7	0.501579 mg/L	0.0067996	0.501579 mg/L	0.0067996	1.36%
QC value within limits for Cu		324.752	Recovery = 100.32%			
Fe 273.955	84686.0	5.15431 mg/L	0.063270	5.15431 mg/L	0.063270	1.23%
QC value within limits for Fe		273.955	Recovery = 103.09%			
Pb 220.353	3627.3	0.529358 mg/L	0.0001781	0.529358 mg/L	0.0001781	0.03%
QC value within limits for Pb		220.353	Recovery = 105.87%			
Mg 279.077	755618.1	50.8404 mg/L	0.30554	50.8404 mg/L	0.30554	0.60%
QC value within limits for Mg		279.077	Recovery = 101.68%			
Mn 257.610	247141.1	0.500131 mg/L	0.0054286	0.500131 mg/L	0.0054286	1.09%
QC value within limits for Mn		257.610	Recovery = 100.03%			
Mo 202.031	4722.9	0.512111 mg/L	0.0013949	0.512111 mg/L	0.0013949	0.27%
QC value within limits for Mo		202.031	Recovery = 102.42%			
Ni 231.604	20240.3	0.507147 mg/L	0.0056020	0.507147 mg/L	0.0056020	1.10%
QC value within limits for Ni		231.604	Recovery = 101.43%			
Se 196.026	687.5	0.516970 mg/L	0.0054352	0.516970 mg/L	0.0054352	1.05%
QC value within limits for Se		196.026	Recovery = 103.39%			
Ag 328.068	11791.2	0.0983042 mg/L	0.00041255	0.0983042 mg/L	0.00041255	0.42%
QC value within limits for Ag		328.068	Recovery = 98.30%			
Na 330.237	27830.7	47.8335 mg/L	0.50815	47.8335 mg/L	0.50815	1.06%
QC value within limits for Na		330.237	Recovery = 95.67%			
Tl 190.801	755.5	0.535909 mg/L	0.0037983	0.535909 mg/L	0.0037983	0.71%
QC value within limits for Tl		190.801	Recovery = 107.18%			
Sn 189.927	2195.0	0.515421 mg/L	0.0020695	0.515421 mg/L	0.0020695	0.40%
QC value within limits for Sn		189.927	Recovery = 103.08%			
Ti 334.940	162043.9	0.505012 mg/L	0.0055790	0.505012 mg/L	0.0055790	1.10%
QC value within limits for Ti		334.940	Recovery = 101.00%			
V 292.402	50135.6	0.486221 mg/L	0.0047986	0.486221 mg/L	0.0047986	0.99%
QC value within limits for V		292.402	Recovery = 97.24%			
Zn 206.200	12619.3	0.501074 mg/L	0.0004646	0.501074 mg/L	0.0004646	0.09%
QC value within limits for Zn		206.200	Recovery = 100.21%			

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/19/2011 4:47:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	76.3	-0.0160073 mg/L	0.00867860	-0.0160073 mg/L	0.00867860	54.22%
QC value within limits for Al 308.215		Recovery = Not calculated				
Sb 206.836	8.6	0.0067980 mg/L	0.00464355	0.0067980 mg/L	0.00464355	68.31%
QC value within limits for Sb 206.836		Recovery = Not calculated				
As 188.979	-0.4	-0.0009424 mg/L	0.00378016	-0.0009424 mg/L	0.00378016	401.14%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527	175.0	-0.0002027 mg/L	0.00011183	-0.0002027 mg/L	0.00011183	55.17%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861	247.2	0.0011867 mg/L	0.00002502	0.0011867 mg/L	0.00002502	2.11%
QC value within limits for Be 234.861		Recovery = Not calculated				
Cd 226.502	49.6	-0.0004211 mg/L	0.00003054	-0.0004211 mg/L	0.00003054	7.25%
QC value within limits for Cd 226.502		Recovery = Not calculated				
Ca 315.887	16745.4	-0.129367 mg/L	0.0103929	-0.129367 mg/L	0.0103929	8.03%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cr 206.158	10.3	-0.0012801 mg/L	0.00025809	-0.0012801 mg/L	0.00025809	20.16%
QC value within limits for Cr 206.158		Recovery = Not calculated				
Co 228.616	25.7	-0.0009505 mg/L	0.00043889	-0.0009505 mg/L	0.00043889	46.18%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cu 324.752	141.8	0.0013830 mg/L	0.00004223	0.0013830 mg/L	0.00004223	3.05%
QC value within limits for Cu 324.752		Recovery = Not calculated				
Fe 273.955	1752.5	0.0870732 mg/L	0.00004698	0.0870732 mg/L	0.00004698	0.05%
QC value within limits for Fe 273.955		Recovery = Not calculated				
Pb 220.353	104.9	0.0123039 mg/L	0.00135640	0.0123039 mg/L	0.00135640	11.02%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Mg 279.077	617.8	-0.394061 mg/L	0.0040302	-0.394061 mg/L	0.0040302	1.02%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610	1470.0	0.0004655 mg/L	0.00003723	0.0004655 mg/L	0.00003723	8.00%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031	4.5	-0.0029949 mg/L	0.00007267	-0.0029949 mg/L	0.00007267	2.43%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604	46.1	-0.0012768 mg/L	0.00023049	-0.0012768 mg/L	0.00023049	18.05%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Se 196.026	8.2	0.0023837 mg/L	0.00190872	0.0023837 mg/L	0.00190872	80.08%
QC value within limits for Se 196.026		Recovery = Not calculated				
Ag 328.068	-4.1	-0.0000839 mg/L	0.00049928	-0.0000839 mg/L	0.00049928	595.33%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Na 330.237	-82.2	0.266870 mg/L	0.2370557	0.266870 mg/L	0.2370557	88.83%
QC value within limits for Na 330.237		Recovery = Not calculated				
Tl 190.801	-3.4	-0.0039203 mg/L	0.00062982	-0.0039203 mg/L	0.00062982	16.07%
QC value within limits for Tl 190.801		Recovery = Not calculated				
Sn 189.927	14.1	-0.0011440 mg/L	0.00162379	-0.0011440 mg/L	0.00162379	141.94%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940	752.5	0.0006587 mg/L	0.00012263	0.0006587 mg/L	0.00012263	18.62%
QC value within limits for Ti 334.940		Recovery = Not calculated				
V 292.402	52.7	-0.0009392 mg/L	0.00014033	-0.0009392 mg/L	0.00014033	14.94%
QC value within limits for V 292.402		Recovery = Not calculated				
Zn 206.200	101.0	0.0027779 mg/L	0.00005363	0.0027779 mg/L	0.00005363	1.93%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63081-032 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 17  
 Date Collected: 12/19/2011 4:50:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-032 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	60677.2	6.84191	mg/L	0.063598	6.84191	mg/L	0.063598	0.93%
Sb 206.836	2.5	0.0022230	mg/L	0.00347413	0.0022230	mg/L	0.00347413	156.28%
As 188.979	10.6	0.0171347	mg/L	0.00437548	0.0171347	mg/L	0.00437548	25.54%
Ba 233.527	25887.3	0.434842	mg/L	0.0054362	0.434842	mg/L	0.0054362	1.25%
Be 234.861	-10499.2	0.0031085	mg/L	0.00066405	0.0031085	mg/L	0.00066405	21.36%
Cd 226.502	95.7	0.0004710	mg/L	0.00002539	0.0004710	mg/L	0.00002539	5.39%
Ca 315.887	3107600.8	51.1335	mg/L	0.07070	51.1335	mg/L	0.07070	0.14%
Cr 206.158	1643.8	0.149684	mg/L	0.0009902	0.149684	mg/L	0.0009902	0.66%
Co 228.616	201.6	0.0067129	mg/L	0.00031686	0.0067129	mg/L	0.00031686	4.72%
Cu 324.752	10346.2	0.0967440	mg/L	0.00137609	0.0967440	mg/L	0.00137609	1.42%
Fe 273.955	347670.7	21.2227	mg/L	0.25060	21.2227	mg/L	0.25060	1.18%
Pb 220.353	15161.4	2.21280	mg/L	0.001263	2.21280	mg/L	0.001263	0.06%
Mg 279.077	37322.8	2.09674	mg/L	0.023513	2.09674	mg/L	0.023513	1.12%
Mn 257.610	177874.9	0.360676	mg/L	0.0034994	0.360676	mg/L	0.0034994	0.97%
Mo 202.031	28.7	0.0006562	mg/L	0.00014527	0.0006562	mg/L	0.00014527	22.14%
Ni 231.604	646.5	0.0133275	mg/L	0.00009656	0.0133275	mg/L	0.00009656	0.72%
Se 196.026	-17.9	0.0422204	mg/L	0.00576066	0.0422204	mg/L	0.00576066	13.64%
Ag 328.068	-55.6	0.0005641	mg/L	0.00057774	0.0005641	mg/L	0.00057774	102.41%
Na 330.237	-169.0	0.119050	mg/L	0.0770349	0.119050	mg/L	0.0770349	64.71%
Tl 190.801	-12.4	-0.0073775	mg/L	0.00492178	-0.0073775	mg/L	0.00492178	66.71%
Sn 189.927	468.8	0.110434	mg/L	0.0014485	0.110434	mg/L	0.0014485	1.31%
Ti 334.940	78675.7	0.244322	mg/L	0.0024777	0.244322	mg/L	0.0024777	1.01%
V 292.402	3450.2	0.0321207	mg/L	0.00027105	0.0321207	mg/L	0.00027105	0.84%
Zn 206.200	11617.0	0.462334	mg/L	0.0003811	0.462334	mg/L	0.0003811	0.08%

Sequence No.: 22  
 Sample ID: 63245-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 18  
 Date Collected: 12/19/2011 4:53:35 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63245-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	1067528.7	120.783	mg/L	0.4758	120.783	mg/L	0.4758 0.39%
Sb 206.836	-30.8	-0.0082156	mg/L	0.00376124	-0.0082156	mg/L	0.00376124 45.78%
As 188.979	5.2	0.0335915	mg/L	0.00098134	0.0335915	mg/L	0.00098134 2.92%
Ba 233.527	35359.3	0.591462	mg/L	0.0103455	0.591462	mg/L	0.0103455 1.75%
Be 234.861	-137716.3	0.0255935	mg/L	0.00578563	0.0255935	mg/L	0.00578563 22.61%
Cd 226.502	241.4	0.0045375	mg/L	0.00004417	0.0045375	mg/L	0.00004417 0.97%
Ca 315.887	801188.3	12.8809	mg/L	0.00057	12.8809	mg/L	0.00057 0.00%
Cr 206.158	1559.1	0.139824	mg/L	0.0005131	0.139824	mg/L	0.0005131 0.37%
Co 228.616	1761.9	0.0704899	mg/L	0.00004957	0.0704899	mg/L	0.00004957 0.07%
Cu 324.752	13985.1	0.133621	mg/L	0.0032280	0.133621	mg/L	0.0032280 2.42%
Fe 273.955	4439224.6	271.217	mg/L	0.7498	271.217	mg/L	0.7498 0.28%
Pb 220.353	637.6	0.109423	mg/L	0.0020082	0.109423	mg/L	0.0020082 1.84%
Mg 279.077	234539.5	15.4799	mg/L	0.24764	15.4799	mg/L	0.24764 1.60%
Mn 257.610	2219537.1	4.53017	mg/L	0.004312	4.53017	mg/L	0.004312 0.10%
Mo 202.031	-13.6	0.0091737	mg/L	0.00059143	0.0091737	mg/L	0.00059143 6.45%
Ni 231.604	3216.8	0.0720013	mg/L	0.00077662	0.0720013	mg/L	0.00077662 1.08%
Se 196.026	-1118.4	0.0085285	mg/L	0.01906365	0.0085285	mg/L	0.01906365 223.53%
Ag 328.068	-717.4	-0.0042231	mg/L	0.00027360	-0.0042231	mg/L	0.00027360 6.48%
Na 330.237	-1433.8	-2.03639	mg/L	0.045066	-2.03639	mg/L	0.045066 2.21%
Tl 190.801	-65.7	0.0006973	mg/L	0.00195077	0.0006973	mg/L	0.00195077 279.75%
Sn 189.927	98.5	0.0218674	mg/L	0.00011531	0.0218674	mg/L	0.00011531 0.53%
Ti 334.940	1214117.4	3.79481	mg/L	0.008558	3.79481	mg/L	0.008558 0.23%
V 292.402	31445.9	0.306316	mg/L	0.0040416	0.306316	mg/L	0.0040416 1.32%
Zn 206.200	8985.0	0.356943	mg/L	0.0021303	0.356943	mg/L	0.0021303 0.60%

Sequence No.: 23  
 Sample ID: 63245-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 19  
 Date Collected: 12/19/2011 4:56:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63245-002

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Al 308.215	1133767.7	128.279	mg/L	0.2403	128.279	mg/L	0.2403	0.19%
Sb 206.836	-18.7	-0.0017632	mg/L	0.00644447	-0.0017632	mg/L	0.00644447	365.51%
As 188.979	27.5	0.0506147	mg/L	0.00236257	0.0506147	mg/L	0.00236257	4.67%
Ba 233.527	55208.4	0.928882	mg/L	0.0219950	0.928882	mg/L	0.0219950	2.37%
Be 234.861	-94472.1	0.0131783	mg/L	0.00138486	0.0131783	mg/L	0.00138486	10.51%
Cd 226.502	205.7	0.0033534	mg/L	0.00016781	0.0033534	mg/L	0.00016781	5.00%
Ca 315.887	746079.9	11.9669	mg/L	0.03534	11.9669	mg/L	0.03534	0.30%
Cr 206.158	1451.7	0.134347	mg/L	0.0000481	0.134347	mg/L	0.0000481	0.04%
Co 228.616	1328.1	0.0527440	mg/L	0.00079430	0.0527440	mg/L	0.00079430	1.51%
Cu 324.752	11903.7	0.113656	mg/L	0.0024174	0.113656	mg/L	0.0024174	2.13%
Fe 273.955	2986139.5	182.433	mg/L	0.3153	182.433	mg/L	0.3153	0.17%
Pb 220.353	1501.6	0.237245	mg/L	0.0011490	0.237245	mg/L	0.0011490	0.48%
Mg 279.077	248434.0	16.4228	mg/L	0.29418	16.4228	mg/L	0.29418	1.79%
Mn 257.610	3427319.8	6.98479	mg/L	0.012042	6.98479	mg/L	0.012042	0.17%
Mo 202.031	-9.5	0.0067084	mg/L	0.00031222	0.0067084	mg/L	0.00031222	4.65%
Ni 231.604	3317.5	0.0766745	mg/L	0.00038653	0.0766745	mg/L	0.00038653	0.50%
Se 196.026	-718.8	0.0276876	mg/L	0.00007452	0.0276876	mg/L	0.00007452	0.27%
Ag 328.068	-623.7	-0.0050465	mg/L	0.00023698	-0.0050465	mg/L	0.00023698	4.70%
Na 330.237	-1191.3	-1.62300	mg/L	0.074259	-1.62300	mg/L	0.074259	4.58%
Tl 190.801	-55.2	0.0001044	mg/L	0.00095605	0.0001044	mg/L	0.00095605	915.50%
Sn 189.927	92.9	0.0200928	mg/L	0.00015311	0.0200928	mg/L	0.00015311	0.76%
Ti 334.940	988819.6	3.09031	mg/L	0.009731	3.09031	mg/L	0.009731	0.31%
V 292.402	25138.0	0.242988	mg/L	0.0062484	0.242988	mg/L	0.0062484	2.57%
Zn 206.200	12677.9	0.504306	mg/L	0.0012205	0.504306	mg/L	0.0012205	0.24%

Sequence No.: 24

Sample ID: ICESA V-128666

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 12/19/2011 5:01:11 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICESA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3904825.7	441.868 mg/L		7.3576	441.868 mg/L	7.3576	1.67%
QC value within limits for Al 308.215 Recovery = 88.37%							
Sb 206.836	-39.3	-0.0048157 mg/L		0.00947978	-0.0048157 mg/L	0.00947978	196.85%
As 188.979	-44.3	-0.0220814 mg/L		0.00211322	-0.0220814 mg/L	0.00211322	9.57%
Ba 233.527	228.2	-0.0018510 mg/L		0.00002508	-0.0018510 mg/L	0.00002508	1.35%
Be 234.861	-93959.7	-0.0024799 mg/L		0.00457946	-0.0024799 mg/L	0.00457946	184.66%
Cd 226.502	68.0	0.0010286 mg/L		0.00005840	0.0010286 mg/L	0.00005840	5.68%
Ca 315.887	26413804.4	437.675 mg/L		0.9372	437.675 mg/L	0.9372	0.21%
QC value within limits for Ca 315.887 Recovery = 87.53%							
Cr 206.158	14.4	-0.0009748 mg/L		0.00026733	-0.0009748 mg/L	0.00026733	27.43%
Co 228.616	74.9	-0.0029411 mg/L		0.00053111	-0.0029411 mg/L	0.00053111	18.06%
Cu 324.752	1996.8	0.0078755 mg/L		0.00007880	0.0078755 mg/L	0.00007880	1.00%
Fe 273.955	2766530.7	169.015 mg/L		2.5468	169.015 mg/L	2.5468	1.51%
QC value within limits for Fe 273.955 Recovery = 84.51%							
Pb 220.353	-438.0	0.0083778 mg/L		0.00264995	0.0083778 mg/L	0.00264995	31.63%
Mg 279.077	6790112.5	460.342 mg/L		2.4775	460.342 mg/L	2.4775	0.54%
QC value within limits for Mg 279.077 Recovery = 92.07%							
Mn 257.610	63.7	-0.0009971 mg/L		0.00007584	-0.0009971 mg/L	0.00007584	7.61%
Mo 202.031	-146.8	0.0027178 mg/L		0.00125938	0.0027178 mg/L	0.00125938	46.34%
Ni 231.604	317.6	0.0014794 mg/L		0.00025788	0.0014794 mg/L	0.00025788	17.43%
Se 196.026	-635.2	-0.0007056 mg/L		0.01039450	-0.0007056 mg/L	0.01039450	>999.9%
Ag 328.068	-1179.5	0.0000987 mg/L		0.00024130	0.0000987 mg/L	0.00024130	244.57%
Na 330.237	-369.8	-0.223152 mg/L		0.0294526	-0.223152 mg/L	0.0294526	13.20%
Tl 190.801	-23.0	-0.0047815 mg/L		0.00087259	-0.0047815 mg/L	0.00087259	18.25%
Sn 189.927	-177.3	-0.0050455 mg/L		0.00101858	-0.0050455 mg/L	0.00101858	20.19%
Ti 334.940	814.2	0.0008517 mg/L		0.00015713	0.0008517 mg/L	0.00015713	18.45%
V 292.402	20255.4	0.0272573 mg/L		0.00089709	0.0272573 mg/L	0.00089709	3.29%
Zn 206.200	56.9	-0.0109256 mg/L		0.00038649	-0.0109256 mg/L	0.00038649	3.54%

All analyte(s) passed QC.

Sequence No.: 25  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/19/2011 5:05:35 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3923284.7	443.957 mg/L	5.8163	443.957 mg/L	5.8163	1.31%
QC value within limits for Al	308.215	Recovery = 88.79%				
Sb 206.836	815.0	0.929042 mg/L	0.0340501	0.929042 mg/L	0.0340501	3.67%
QC value within limits for Sb	206.836	Recovery = 92.90%				
As 188.979	732.0	0.937515 mg/L	0.0170760	0.937515 mg/L	0.0170760	1.82%
QC value within limits for As	188.979	Recovery = 93.75%				
Ba 233.527	27869.4	0.466157 mg/L	0.0170948	0.466157 mg/L	0.0170948	3.67%
QC value within limits for Ba	233.527	Recovery = 93.23%				
Be 234.861	122634.7	0.494235 mg/L	0.0069497	0.494235 mg/L	0.0069497	1.41%
QC value within limits for Be	234.861	Recovery = 98.85%				
Cd 226.502	55851.9	0.905691 mg/L	0.0110831	0.905691 mg/L	0.0110831	1.22%
QC value within limits for Cd	226.502	Recovery = 90.57%				
Ca 315.887	27084730.9	448.802 mg/L	1.7567	448.802 mg/L	1.7567	0.39%
QC value within limits for Ca	315.887	Recovery = 89.76%				
Cr 206.158	5154.2	0.459846 mg/L	0.0170707	0.459846 mg/L	0.0170707	3.71%
QC value within limits for Cr	206.158	Recovery = 91.97%				
Co 228.616	8913.5	0.432089 mg/L	0.0174861	0.432089 mg/L	0.0174861	4.05%
QC value within limits for Co	228.616	Recovery = 86.42%				
Cu 324.752	53129.9	0.491427 mg/L	0.0087079	0.491427 mg/L	0.0087079	1.77%
QC value within limits for Cu	324.752	Recovery = 98.29%				
Fe 273.955	2781166.8	169.909 mg/L	2.0876	169.909 mg/L	2.0876	1.23%
QC value within limits for Fe	273.955	Recovery = 84.95%				
Pb 220.353	5615.1	0.892916 mg/L	0.0335525	0.892916 mg/L	0.0335525	3.76%
QC value within limits for Pb	220.353	Recovery = 89.29%				
Mg 279.077	6965880.8	472.270 mg/L	2.4825	472.270 mg/L	2.4825	0.53%
QC value within limits for Mg	279.077	Recovery = 94.45%				
Mn 257.610	224345.6	0.455519 mg/L	0.0075396	0.455519 mg/L	0.0075396	1.66%
QC value within limits for Mn	257.610	Recovery = 91.10%				
Mo 202.031	-129.1	0.0047587 mg/L	0.00061769	0.0047587 mg/L	0.00061769	12.98%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604	33990.5	0.849066 mg/L	0.0344122	0.849066 mg/L	0.0344122	4.05%
QC value within limits for Ni	231.604	Recovery = 84.91%				
Se 196.026	585.7	0.909658 mg/L	0.0044756	0.909658 mg/L	0.0044756	0.49%
QC value within limits for Se	196.026	Recovery = 90.97%				
Ag 328.068	119498.2	0.998733 mg/L	0.0162187	0.998733 mg/L	0.0162187	1.62%
QC value within limits for Ag	328.068	Recovery = 99.87%				
Na 330.237	-598.5	-0.612825 mg/L	0.2939479	-0.612825 mg/L	0.2939479	47.97%
QC value less than the lower limit for Na	330.237	Recovery = Not calculated				
Tl 190.801	1233.8	0.880769 mg/L	0.0458392	0.880769 mg/L	0.0458392	5.20%
QC value within limits for Tl	190.801	Recovery = 88.08%				
Sn 189.927	-189.6	-0.0068686 mg/L	0.00212599	-0.0068686 mg/L	0.00212599	30.95%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940	465.5	-0.0002387 mg/L	0.00025183	-0.0002387 mg/L	0.00025183	105.52%
QC value within limits for Ti	334.940	Recovery = Not calculated				
V 292.402	63185.6	0.453546 mg/L	0.0078776	0.453546 mg/L	0.0078776	1.74%
QC value within limits for V	292.402	Recovery = 90.71%				
Zn 206.200	22104.5	0.868720 mg/L	0.0336582	0.868720 mg/L	0.0336582	3.87%
QC value within limits for Zn	206.200	Recovery = 86.87%				

QC Failed. Continue with analysis.

Sequence No.: 26  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 5:09:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	49699.4	5.59319 mg/L	0.005214	5.59319 mg/L	0.005214	0.09%
QC value greater than the upper limit for Al 308.215 Recovery = 111.86%						
Sb 206.836	456.0	0.502794 mg/L	0.0011058	0.502794 mg/L	0.0011058	0.22%
QC value within limits for Sb 206.836 Recovery = 100.56%						
As 188.979	394.9	0.488600 mg/L	0.0020906	0.488600 mg/L	0.0020906	0.43%
QC value within limits for As 188.979 Recovery = 97.72%						
Ba 233.527	30587.6	0.515065 mg/L	0.0007893	0.515065 mg/L	0.0007893	0.15%
QC value within limits for Ba 233.527 Recovery = 103.01%						
Be 234.861	216833.0	0.503306 mg/L	0.0010567	0.503306 mg/L	0.0010567	0.21%
QC value within limits for Be 234.861 Recovery = 100.66%						
Cd 226.502	31536.1	0.510235 mg/L	0.0020112	0.510235 mg/L	0.0020112	0.39%
QC value within limits for Cd 226.502 Recovery = 102.05%						
Ca 315.887	3156400.8	51.9429 mg/L	0.10900	51.9429 mg/L	0.10900	0.21%
QC value within limits for Ca 315.887 Recovery = 103.89%						
Cr 206.158	5777.4	0.503275 mg/L	0.0006839	0.503275 mg/L	0.0006839	0.14%
QC value within limits for Cr 206.158 Recovery = 100.66%						
Co 228.616	10350.5	0.506363 mg/L	0.0001117	0.506363 mg/L	0.0001117	0.02%
QC value within limits for Co 228.616 Recovery = 101.27%						
Cu 324.752	53385.3	0.503839 mg/L	0.0006250	0.503839 mg/L	0.0006250	0.12%
QC value within limits for Cu 324.752 Recovery = 100.77%						
Fe 273.955	87156.7	5.30527 mg/L	0.002953	5.30527 mg/L	0.002953	0.06%
QC value within limits for Fe 273.955 Recovery = 106.11%						
Pb 220.353	3506.8	0.511830 mg/L	0.0001564	0.511830 mg/L	0.0001564	0.03%
QC value within limits for Pb 220.353 Recovery = 102.37%						
Mg 279.077	772404.7	51.9795 mg/L	0.25871	51.9795 mg/L	0.25871	0.50%
QC value within limits for Mg 279.077 Recovery = 103.96%						
Mn 257.610	248591.5	0.503074 mg/L	0.0010504	0.503074 mg/L	0.0010504	0.21%
QC value within limits for Mn 257.610 Recovery = 100.61%						
Mo 202.031	4659.6	0.505233 mg/L	0.0005391	0.505233 mg/L	0.0005391	0.11%
QC value within limits for Mo 202.031 Recovery = 101.05%						
Ni 231.604	20275.1	0.508017 mg/L	0.0044637	0.508017 mg/L	0.0044637	0.88%
QC value within limits for Ni 231.604 Recovery = 101.60%						
Se 196.026	667.8	0.502630 mg/L	0.0088932	0.502630 mg/L	0.0088932	1.77%
QC value within limits for Se 196.026 Recovery = 100.53%						
Ag 328.068	11797.9	0.0983771 mg/L	0.00115905	0.0983771 mg/L	0.00115905	1.18%
QC value within limits for Ag 328.068 Recovery = 98.38%						
Na 330.237	28018.0	48.1527 mg/L	0.22116	48.1527 mg/L	0.22116	0.46%
QC value within limits for Na 330.237 Recovery = 96.31%						
Tl 190.801	748.7	0.531134 mg/L	0.0048979	0.531134 mg/L	0.0048979	0.92%
QC value within limits for Tl 190.801 Recovery = 106.23%						
Sn 189.927	2154.8	0.506071 mg/L	0.0013051	0.506071 mg/L	0.0013051	0.26%
QC value within limits for Sn 189.927 Recovery = 101.21%						
Ti 334.940	162459.9	0.506312 mg/L	0.0008972	0.506312 mg/L	0.0008972	0.18%
QC value within limits for Ti 334.940 Recovery = 101.26%						
V 292.402	50259.5	0.486976 mg/L	0.0019909	0.486976 mg/L	0.0019909	0.41%
QC value within limits for V 292.402 Recovery = 97.40%						
Zn 206.200	12354.5	0.490477 mg/L	0.0008055	0.490477 mg/L	0.0008055	0.16%
QC value within limits for Zn 206.200 Recovery = 98.10%						
QC Failed. Continue with analysis.						

Sequence No.: 27  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/19/2011 5:12:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	2664.5	0.276894 mg/L	0.0083815	0.276894 mg/L	0.0083815	3.03%
QC value within limits for Al		308.215	Recovery = Not calculated			
Sb 206.836	2.9	0.0005297 mg/L	0.00081829	0.0005297 mg/L	0.00081829	154.49%
QC value within limits for Sb		206.836	Recovery = Not calculated			
As 188.979	-1.7	-0.0025185 mg/L	0.00581202	-0.0025185 mg/L	0.00581202	230.77%
QC value within limits for As		188.979	Recovery = Not calculated			
Ba 233.527	54.3	-0.0022471 mg/L	0.00015246	-0.0022471 mg/L	0.00015246	6.78%
QC value within limits for Ba		233.527	Recovery = Not calculated			
Be 234.861	99.2	0.0009317 mg/L	0.00000258	0.0009317 mg/L	0.00000258	0.28%
QC value within limits for Be		234.861	Recovery = Not calculated			
Cd 226.502	42.5	-0.0005361 mg/L	0.00000822	-0.0005361 mg/L	0.00000822	1.53%
QC value within limits for Cd		226.502	Recovery = Not calculated			
Ca 315.887	18817.4	-0.0950036 mg/L	0.01583546	-0.0950036 mg/L	0.01583546	16.67%
QC value within limits for Ca		315.887	Recovery = Not calculated			
Cr 206.158	2.7	-0.0020087 mg/L	0.00030998	-0.0020087 mg/L	0.00030998	15.43%
QC value within limits for Cr		206.158	Recovery = Not calculated			
Co 228.616	12.9	-0.0015792 mg/L	0.00010430	-0.0015792 mg/L	0.00010430	6.61%
QC value within limits for Co		228.616	Recovery = Not calculated			
Cu 324.752	146.5	0.0014265 mg/L	0.00020028	0.0014265 mg/L	0.00020028	14.04%
QC value within limits for Cu		324.752	Recovery = Not calculated			
Fe 273.955	2844.9	0.153819 mg/L	0.0010119	0.153819 mg/L	0.0010119	0.66%
QC value within limits for Fe		273.955	Recovery = Not calculated			
Pb 220.353	22.5	0.0003154 mg/L	0.00063832	0.0003154 mg/L	0.00063832	202.39%
QC value within limits for Pb		220.353	Recovery = Not calculated			
Mg 279.077	4546.6	-0.127452 mg/L	0.0077926	-0.127452 mg/L	0.0077926	6.11%
QC value within limits for Mg		279.077	Recovery = Not calculated			
Mn 257.610	1104.7	-0.0002791 mg/L	0.00003841	-0.0002791 mg/L	0.00003841	13.76%
QC value within limits for Mn		257.610	Recovery = Not calculated			
Mo 202.031	2.0	-0.0032526 mg/L	0.00009396	-0.0032526 mg/L	0.00009396	2.89%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Ni 231.604	30.9	-0.0016602 mg/L	0.00027154	-0.0016602 mg/L	0.00027154	16.36%
QC value within limits for Ni		231.604	Recovery = Not calculated			
Se 196.026	1.0	-0.0027508 mg/L	0.00388390	-0.0027508 mg/L	0.00388390	141.19%
QC value within limits for Se		196.026	Recovery = Not calculated			
Ag 328.068	20.8	0.0001237 mg/L	0.00024302	0.0001237 mg/L	0.00024302	196.43%
QC value within limits for Ag		328.068	Recovery = Not calculated			
Na 330.237	-86.2	0.260180 mg/L	0.2028950	0.260180 mg/L	0.2028950	77.98%
QC value within limits for Na		330.237	Recovery = Not calculated			
Tl 190.801	-0.1	-0.0015854 mg/L	0.00407220	-0.0015854 mg/L	0.00407220	256.86%
QC value within limits for Tl		190.801	Recovery = Not calculated			
Sn 189.927	4.5	-0.0033782 mg/L	0.00074768	-0.0033782 mg/L	0.00074768	22.13%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940	491.5	-0.0001574 mg/L	0.00007948	-0.0001574 mg/L	0.00007948	50.50%
QC value within limits for Ti		334.940	Recovery = Not calculated			
V 292.402	17.8	-0.0013925 mg/L	0.00004900	-0.0013925 mg/L	0.00004900	3.52%
QC value within limits for V		292.402	Recovery = Not calculated			
Zn 206.200	21.5	-0.0004024 mg/L	0.00012464	-0.0004024 mg/L	0.00012464	30.98%
QC value within limits for Zn		206.200	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 28  
 Sample ID: 63207-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 20  
 Date Collected: 12/19/2011 5:15:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63207-003

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1764625.0	199.670	mg/L	0.0497	199.670	mg/L	0.0497	0.02%
Sb 206.836	-28.1	-0.0010406	mg/L	0.00521488	-0.0010406	mg/L	0.00521488	501.15%
As 188.979	42.4	0.0372627	mg/L	0.00385960	0.0372627	mg/L	0.00385960	10.36%
Ba 233.527	135203.4	2.28211	mg/L	0.000046	2.28211	mg/L	0.000046	0.00%
Be 234.861	-142412.6	0.0071843	mg/L	0.00043548	0.0071843	mg/L	0.00043548	6.06%
Cd 226.502	170.7	0.0033494	mg/L	0.00000815	0.0033494	mg/L	0.00000815	0.24%
Ca 315.887	1303951.5	21.2194	mg/L	0.06394	21.2194	mg/L	0.06394	0.30%
Cr 206.158	2271.8	0.202266	mg/L	0.0018094	0.202266	mg/L	0.0018094	0.89%
Co 228.616	3213.3	0.109317	mg/L	0.0015533	0.109317	mg/L	0.0015533	1.42%
Cu 324.752	36428.6	0.353223	mg/L	0.0012587	0.353223	mg/L	0.0012587	0.36%
Fe 273.955	4339229.3	265.107	mg/L	4.8514	265.107	mg/L	4.8514	1.83%
Pb 220.353	467.3	0.112325	mg/L	0.0010301	0.112325	mg/L	0.0010301	0.92%
Mg 279.077	1428324.4	96.4903	mg/L	0.09747	96.4903	mg/L	0.09747	0.10%
Mn 257.610	2363849.7	4.82243	mg/L	0.081423	4.82243	mg/L	0.081423	1.69%
Mo 202.031	-82.0	0.0043776	mg/L	0.00002962	0.0043776	mg/L	0.00002962	0.68%
Ni 231.604	5011.2	0.117314	mg/L	0.0010893	0.117314	mg/L	0.0010893	0.93%
Se 196.026	-1064.6	0.0208485	mg/L	0.03554303	0.0208485	mg/L	0.03554303	170.48%
Ag 328.068	-733.1	-0.0043389	mg/L	0.00017219	-0.0043389	mg/L	0.00017219	3.97%
Na 330.237	-7846.3	-12.9640	mg/L	0.15067	-12.9640	mg/L	0.15067	1.16%
Tl 190.801	-296.4	0.0191826	mg/L	0.00625395	0.0191826	mg/L	0.00625395	32.60%
Sn 189.927	90.5	0.0301602	mg/L	0.00043283	0.0301602	mg/L	0.00043283	1.44%
Ti 334.940	6938643.0	21.6952	mg/L	0.32747	21.6952	mg/L	0.32747	1.51%
V 292.402	80434.3	0.758968	mg/L	0.0041033	0.758968	mg/L	0.0041033	0.54%
Zn 206.200	10589.7	0.418888	mg/L	0.0030785	0.418888	mg/L	0.0030785	0.73%

Sequence No.: 29  
 Sample ID: 63207-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 21  
 Date Collected: 12/19/2011 5:20:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63207-004

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1314058.4	148.682	mg/L	0.2079	148.682	mg/L	0.2079	0.14%
Sb 206.836	-15.5	0.0036520	mg/L	0.01419357	0.0036520	mg/L	0.01419357	388.65%
As 188.979	11.0	0.0115103	mg/L	0.00653723	0.0115103	mg/L	0.00653723	56.79%
Ba 233.527	97387.1	1.64334	mg/L	0.003083	1.64334	mg/L	0.003083	0.19%
Be 234.861	-90501.5	-0.0021156	mg/L	0.00185678	-0.0021156	mg/L	0.00185678	87.76%
Cd 226.502	130.3	0.0019982	mg/L	0.00009367	0.0019982	mg/L	0.00009367	4.69%
Ca 315.887	20841079.1	345.249	mg/L	5.2560	345.249	mg/L	5.2560	1.52%
Cr 206.158	1502.6	0.133037	mg/L	0.0002029	0.133037	mg/L	0.0002029	0.15%
Co 228.616	2130.1	0.0702843	mg/L	0.00005488	0.0702843	mg/L	0.00005488	0.08%
Cu 324.752	29229.7	0.274273	mg/L	0.0020396	0.274273	mg/L	0.0020396	0.74%
Fe 273.955	2668036.3	162.997	mg/L	0.3759	162.997	mg/L	0.3759	0.23%
Pb 220.353	437.6	0.101356	mg/L	0.0007105	0.101356	mg/L	0.0007105	0.70%
Mg 279.077	3786296.8	256.503	mg/L	0.3861	256.503	mg/L	0.3861	0.15%
Mn 257.610	1559349.8	3.17671	mg/L	0.003912	3.17671	mg/L	0.003912	0.12%
Mo 202.031	-52.5	0.0020660	mg/L	0.00065247	0.0020660	mg/L	0.00065247	31.58%
Ni 231.604	3363.3	0.0782933	mg/L	0.00018709	0.0782933	mg/L	0.00018709	0.24%
Se 196.026	-583.9	0.0191811	mg/L	0.01084018	0.0191811	mg/L	0.01084018	56.51%
Ag 328.068	-1183.6	-0.0026004	mg/L	0.00048792	-0.0026004	mg/L	0.00048792	18.76%
Na 330.237	-5327.6	-8.67169	mg/L	0.092494	-8.67169	mg/L	0.092494	1.07%
Tl 190.801	-213.6	0.0080206	mg/L	0.00538885	0.0080206	mg/L	0.00538885	67.19%
Sn 189.927	-85.5	0.0158956	mg/L	0.00070057	0.0158956	mg/L	0.00070057	4.41%
Ti 334.940	4909349.4	15.3497	mg/L	0.25542	15.3497	mg/L	0.25542	1.66%
V 292.402	58932.0	0.485568	mg/L	0.0021993	0.485568	mg/L	0.0021993	0.45%
Zn 206.200	7022.5	0.272366	mg/L	0.0010415	0.272366	mg/L	0.0010415	0.38%

Sequence No.: 30  
 Sample ID: 63207-005  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 22  
 Date Collected: 12/19/2011 5:24:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63207-005

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1160643.5	131.320	mg/L	1.5795	131.320	mg/L	1.5795	1.20%
Sb 206.836	-16.7	0.0022795	mg/L	0.00370871	0.0022795	mg/L	0.00370871	162.70%
As 188.979	45.8	0.0775988	mg/L	0.01457247	0.0775988	mg/L	0.01457247	18.78%
Ba 233.527	30338.9	0.507485	mg/L	0.0044014	0.507485	mg/L	0.0044014	0.87%
Be 234.861	-105953.5	0.0127080	mg/L	0.00017073	0.0127080	mg/L	0.00017073	1.34%
Cd 226.502	265.7	0.0044665	mg/L	0.00010233	0.0044665	mg/L	0.00010233	2.29%
Ca 315.887	1177345.1	19.1196	mg/L	0.24416	19.1196	mg/L	0.24416	1.28%
Cr 206.158	2851.1	0.255401	mg/L	0.0001314	0.255401	mg/L	0.0001314	0.05%
Co 228.616	1117.5	0.0428838	mg/L	0.00003713	0.0428838	mg/L	0.00003713	0.09%
Cu 324.752	22944.2	0.217706	mg/L	0.0004185	0.217706	mg/L	0.0004185	0.19%
Fe 273.955	3322790.6	203.003	mg/L	2.8166	203.003	mg/L	2.8166	1.39%
Pb 220.353	2200.1	0.339127	mg/L	0.0001761	0.339127	mg/L	0.0001761	0.05%
Mg 279.077	191987.5	12.5923	mg/L	0.09553	12.5923	mg/L	0.09553	0.76%
Mn 257.610	797696.3	1.63176	mg/L	0.021832	1.63176	mg/L	0.021832	1.34%
Mo 202.031	9.3	0.0096110	mg/L	0.00004210	0.0096110	mg/L	0.00004210	0.44%
Ni 231.604	4281.4	0.100444	mg/L	0.0005967	0.100444	mg/L	0.0005967	0.59%
Se 196.026	-812.7	0.0236581	mg/L	0.01113350	0.0236581	mg/L	0.01113350	47.06%
Ag 328.068	-618.4	-0.0031855	mg/L	0.00002908	-0.0031855	mg/L	0.00002908	0.91%
Na 330.237	-1112.9	-1.48946	mg/L	0.037211	-1.48946	mg/L	0.037211	2.50%
Tl 190.801	-54.1	-0.0060128	mg/L	0.00408595	-0.0060128	mg/L	0.00408595	67.95%
Sn 189.927	118.1	0.0263862	mg/L	0.00023045	0.0263862	mg/L	0.00023045	0.87%
Ti 334.940	806657.1	2.52069	mg/L	0.033395	2.52069	mg/L	0.033395	1.32%
V 292.402	44757.1	0.441586	mg/L	0.0012203	0.441586	mg/L	0.0012203	0.28%
Zn 206.200	14273.4	0.568086	mg/L	0.0012896	0.568086	mg/L	0.0012896	0.23%

Sequence No.: 31  
 Sample ID: 63207-009  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 23  
 Date Collected: 12/19/2011 5:28:08 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63207-009

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2427524.6	274.688	mg/L	2.5594	274.688	mg/L	2.5594	0.93%
Sb 206.836	-54.2	-0.0087987	mg/L	0.00052657	-0.0087987	mg/L	0.00052657	5.98%
As 188.979	29.3	0.0416565	mg/L	0.00368275	0.0416565	mg/L	0.00368275	8.84%
Ba 233.527	180796.5	3.05092	mg/L	0.029829	3.05092	mg/L	0.029829	0.98%
Be 234.861	-250043.6	0.0255298	mg/L	0.01018192	0.0255298	mg/L	0.01018192	39.88%
Cd 226.502	316.4	0.0071509	mg/L	0.00008084	0.0071509	mg/L	0.00008084	1.13%
Ca 315.887	466913.6	7.33682	mg/L	0.076595	7.33682	mg/L	0.076595	1.04%
Cr 206.158	3010.8	0.268856	mg/L	0.0016998	0.268856	mg/L	0.0016998	0.63%
Co 228.616	7823.3	0.325055	mg/L	0.0003743	0.325055	mg/L	0.0003743	0.12%
Cu 324.752	40097.5	0.389576	mg/L	0.0056681	0.389576	mg/L	0.0056681	1.45%
Fe 273.955	7792013.4	476.072	mg/L	4.2410	476.072	mg/L	4.2410	0.89%
Pb 220.353	829.0	0.176874	mg/L	0.0010836	0.176874	mg/L	0.0010836	0.61%
Mg 279.077	1266363.2	85.4996	mg/L	1.04911	85.4996	mg/L	1.04911	1.23%
Mn 257.610	3538535.8	7.22508	mg/L	0.081958	7.22508	mg/L	0.081958	1.13%
Mo 202.031	-48.1	0.0183854	mg/L	0.00005137	0.0183854	mg/L	0.00005137	0.28%
Ni 231.604	6140.0	0.140644	mg/L	0.0005014	0.140644	mg/L	0.0005014	0.36%
Se 196.026	-2125.7	-0.108396	mg/L	0.0144116	-0.108396	mg/L	0.0144116	13.30%
Ag 328.068	-1260.9	-0.0074742	mg/L	0.00081321	-0.0074742	mg/L	0.00081321	10.88%
Na 330.237	-6067.0	-9.93187	mg/L	0.073479	-9.93187	mg/L	0.073479	0.74%
Tl 190.801	-368.5	0.0069364	mg/L	0.00426034	0.0069364	mg/L	0.00426034	61.42%
Sn 189.927	82.0	0.0285071	mg/L	0.00187884	0.0285071	mg/L	0.00187884	6.59%
Ti 334.940	7929581.0	24.7938	mg/L	0.38837	24.7938	mg/L	0.38837	1.57%
V 292.402	138542.3	1.34483	mg/L	0.022029	1.34483	mg/L	0.022029	1.64%
Zn 206.200	14091.4	0.558932	mg/L	0.0033533	0.558932	mg/L	0.0033533	0.60%

Sequence No.: 32  
 Sample ID: 63223-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 24  
 Date Collected: 12/19/2011 5:32:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63223-001

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	1323661.2	149.768	mg/L	1.8208	149.768	mg/L 1.8208	1.22%
Sb 206.836	-26.1	-0.0006197	mg/L	0.00134608	-0.0006197	mg/L 0.00134608	217.21%
As 188.979	52.4	0.0775806	mg/L	0.00228242	0.0775806	mg/L 0.00228242	2.94%
Ba 233.527	137580.3	2.32215	mg/L	0.027039	2.32215	mg/L 0.027039	1.16%
Be 234.861	-145039.2	0.0183866	mg/L	0.00278130	0.0183866	mg/L 0.00278130	15.13%
Cd 226.502	848.7	0.0144384	mg/L	0.00000224	0.0144384	mg/L 0.00000224	0.02%
Ca 315.887	8248776.4	136.402	mg/L	2.7308	136.402	mg/L 2.7308	2.00%
Cr 206.158	2257.1	0.236850	mg/L	0.0027941	0.236850	mg/L 0.0027941	1.18%
Co 228.616	3246.8	0.126962	mg/L	0.0001040	0.126962	mg/L 0.0001040	0.08%
Cu 324.752	45200.4	0.429594	mg/L	0.0062703	0.429594	mg/L 0.0062703	1.46%
Fe 273.955	4563818.5	278.829	mg/L	5.2653	278.829	mg/L 5.2653	1.89%
Pb 220.353	19083.4	2.81725	mg/L	0.031639	2.81725	mg/L 0.031639	1.12%
Mg 279.077	799147.6	53.7943	mg/L	0.63565	53.7943	mg/L 0.63565	1.18%
Mn 257.610	2135071.9	4.35798	mg/L	0.054855	4.35798	mg/L 0.054855	1.26%
Mo 202.031	18.1	0.0139556	mg/L	0.00029695	0.0139556	mg/L 0.00029695	2.13%
Ni 231.604	5100.3	0.119229	mg/L	0.0000406	0.119229	mg/L 0.0000406	0.03%
Se 196.026	-1102.9	0.0240403	mg/L	0.01787997	0.0240403	mg/L 0.01787997	74.38%
Ag 328.068	-997.7	-0.0041087	mg/L	0.00076261	-0.0041087	mg/L 0.00076261	18.56%
Na 330.237	-1761.6	-2.59495	mg/L	0.038159	-2.59495	mg/L 0.038159	1.47%
Tl 190.801	-198.6	-0.0031117	mg/L	0.00759230	-0.0031117	mg/L 0.00759230	243.99%
Sn 189.927	132.9	0.0462195	mg/L	0.00099782	0.0462195	mg/L 0.00099782	2.16%
Ti 334.940	4082515.4	12.7642	mg/L	0.27853	12.7642	mg/L 0.27853	2.18%
V 292.402	75025.5	0.725036	mg/L	0.0104403	0.725036	mg/L 0.0104403	1.44%
Zn 206.200	46382.7	1.84855	mg/L	0.024709	1.84855	mg/L 0.024709	1.34%

Sequence No.: 33  
 Sample ID: 63223-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 25  
 Date Collected: 12/19/2011 5:36:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63223-002

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1120404.9	126.767	mg/L	0.7086	126.767	mg/L	0.7086	0.56%
Sb 206.836	-14.2	-0.0035832	mg/L	0.00755990	-0.0035832	mg/L	0.00755990	210.98%
As 188.979	12.3	0.0202218	mg/L	0.00766034	0.0202218	mg/L	0.00766034	37.88%
Ba 233.527	26106.8	0.437391	mg/L	0.0035577	0.437391	mg/L	0.0035577	0.81%
Be 234.861	-49446.0	0.0110038	mg/L	0.00296435	0.0110038	mg/L	0.00296435	26.94%
Cd 226.502	28.0	-0.0001007	mg/L	0.00018342	-0.0001007	mg/L	0.00018342	182.22%
Ca 315.887	621933.1	9.90787	mg/L	0.005239	9.90787	mg/L	0.005239	0.05%
Cr 206.158	2025.9	0.178213	mg/L	0.0012285	0.178213	mg/L	0.0012285	0.69%
Co 228.616	1931.5	0.0846004	mg/L	0.00012590	0.0846004	mg/L	0.00012590	0.15%
Cu 324.752	15851.2	0.151069	mg/L	0.0004178	0.151069	mg/L	0.0004178	0.28%
Fe 273.955	1613477.9	98.5635	mg/L	0.59537	98.5635	mg/L	0.59537	0.60%
Pb 220.353	692.5	0.119809	mg/L	0.0012326	0.119809	mg/L	0.0012326	1.03%
Mg 279.077	359093.1	23.9321	mg/L	0.04902	23.9321	mg/L	0.04902	0.20%
Mn 257.610	357743.6	0.730494	mg/L	0.0023734	0.730494	mg/L	0.0023734	0.32%
Mo 202.031	-32.5	0.0011362	mg/L	0.00061918	0.0011362	mg/L	0.00061918	54.50%
Ni 231.604	4655.3	0.112371	mg/L	0.0002517	0.112371	mg/L	0.0002517	0.22%
Se 196.026	-377.4	0.0220546	mg/L	0.00292780	0.0220546	mg/L	0.00292780	13.28%
Ag 328.068	-590.6	-0.0039447	mg/L	0.00021595	-0.0039447	mg/L	0.00021595	5.47%
Na 330.237	-355.5	-0.198750	mg/L	0.0138062	-0.198750	mg/L	0.0138062	6.95%
Tl 190.801	-56.8	-0.0047311	mg/L	0.00272983	-0.0047311	mg/L	0.00272983	57.70%
Sn 189.927	153.4	0.0341040	mg/L	0.00217097	0.0341040	mg/L	0.00217097	6.37%
Ti 334.940	994144.4	3.10696	mg/L	0.005390	3.10696	mg/L	0.005390	0.17%
V 292.402	22638.0	0.215030	mg/L	0.0002844	0.215030	mg/L	0.0002844	0.13%
Zn 206.200	7527.7	0.298558	mg/L	0.0009984	0.298558	mg/L	0.0009984	0.33%

Sequence No.: 34

Sample ID: ICESA V-128666

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 12/19/2011 5:39:54 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICESA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3897598.4	441.050 mg/L	0.1104	441.050 mg/L	0.1104	0.03%
QC value within limits for Al 308.215 Recovery = 88.21%						
Sb 206.836	-28.2	0.0073868 mg/L	0.00683803	0.0073868 mg/L	0.00683803	92.57%
As 188.979	-35.3	-0.0106009 mg/L	0.00473186	-0.0106009 mg/L	0.00473186	44.64%
Ba 233.527	283.4	-0.0009149 mg/L	0.00018905	-0.0009149 mg/L	0.00018905	20.66%
Be 234.861	-93413.1	-0.0013563 mg/L	0.00269745	-0.0013563 mg/L	0.00269745	198.89%
Cd 226.502	72.6	0.0011027 mg/L	0.00001971	0.0011027 mg/L	0.00001971	1.79%
Ca 315.887	27177052.1	450.333 mg/L	1.5045	450.333 mg/L	1.5045	0.33%
QC value within limits for Ca 315.887 Recovery = 90.07%						
Cr 206.158	24.1	-0.0001508 mg/L	0.00002330	-0.0001508 mg/L	0.00002330	15.45%
Co 228.616	77.7	-0.0028223 mg/L	0.00028463	-0.0028223 mg/L	0.00028463	10.09%
Cu 324.752	1902.4	0.0066681 mg/L	0.00024039	0.0066681 mg/L	0.00024039	3.61%
Fe 273.955	2764872.7	168.914 mg/L	0.2380	168.914 mg/L	0.2380	0.14%
QC value within limits for Fe 273.955 Recovery = 84.46%						
Pb 220.353	-462.4	0.0049110 mg/L	0.00091349	0.0049110 mg/L	0.00091349	18.60%
Mg 279.077	6950481.4	471.225 mg/L	0.5537	471.225 mg/L	0.5537	0.12%
QC value within limits for Mg 279.077 Recovery = 94.24%						
Mn 257.610	-631.3	-0.0025870 mg/L	0.00001722	-0.0025870 mg/L	0.00001722	0.67%
Mo 202.031	-147.3	0.0026389 mg/L	0.00102456	0.0026389 mg/L	0.00102456	38.82%
Ni 231.604	303.9	0.0011369 mg/L	0.00009813	0.0011369 mg/L	0.00009813	8.63%
Se 196.026	-622.8	0.0064927 mg/L	0.00425310	0.0064927 mg/L	0.00425310	65.51%
Ag 328.068	-1177.6	0.0003503 mg/L	0.00034459	0.0003503 mg/L	0.00034459	98.38%
Na 330.237	-347.3	-0.184763 mg/L	0.0646509	-0.184763 mg/L	0.0646509	34.99%
Tl 190.801	-22.3	-0.0042449 mg/L	0.00464721	-0.0042449 mg/L	0.00464721	109.48%
Sn 189.927	-181.7	-0.0048867 mg/L	0.00029309	-0.0048867 mg/L	0.00029309	6.00%
Ti 334.940	5000.7	0.0139428 mg/L	0.00027346	0.0139428 mg/L	0.00027346	1.96%
V 292.402	20369.9	0.0242801 mg/L	0.00015630	0.0242801 mg/L	0.00015630	0.64%
Zn 206.200	55.6	-0.0112622 mg/L	0.00020353	-0.0112622 mg/L	0.00020353	1.81%

All analyte(s) passed QC.

Sequence No.: 35  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/19/2011 5:44:23 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3917192.4	443.267 mg/L	2.0710	443.267 mg/L	2.0710	0.47%
QC value within limits for Al		308.215	Recovery = 88.65%			
Sb 206.836	776.9	0.887344 mg/L	0.0092255	0.887344 mg/L	0.0092255	1.04%
QC value within limits for Sb		206.836	Recovery = 88.73%			
As 188.979	741.4	0.949121 mg/L	0.0213917	0.949121 mg/L	0.0213917	2.25%
QC value within limits for As		188.979	Recovery = 94.91%			
Ba 233.527	27727.6	0.463755 mg/L	0.0047518	0.463755 mg/L	0.0047518	1.02%
QC value within limits for Ba		233.527	Recovery = 92.75%			
Be 234.861	118577.8	0.484965 mg/L	0.0050601	0.484965 mg/L	0.0050601	1.04%
QC value within limits for Be		234.861	Recovery = 96.99%			
Cd 226.502	54982.5	0.891592 mg/L	0.0080855	0.891592 mg/L	0.0080855	0.91%
QC value within limits for Cd		226.502	Recovery = 89.16%			
Ca 315.887	27150103.9	449.887 mg/L	3.4580	449.887 mg/L	3.4580	0.77%
QC value within limits for Ca		315.887	Recovery = 89.98%			
Cr 206.158	5067.5	0.452098 mg/L	0.0003097	0.452098 mg/L	0.0003097	0.07%
QC value within limits for Cr		206.158	Recovery = 90.42%			
Co 228.616	8844.4	0.428673 mg/L	0.0058867	0.428673 mg/L	0.0058867	1.37%
QC value within limits for Co		228.616	Recovery = 85.73%			
Cu 324.752	52704.4	0.487377 mg/L	0.0023788	0.487377 mg/L	0.0023788	0.49%
QC value within limits for Cu		324.752	Recovery = 97.48%			
Fe 273.955	2781334.1	169.920 mg/L	0.7001	169.920 mg/L	0.7001	0.41%
QC value within limits for Fe		273.955	Recovery = 84.96%			
Pb 220.353	5558.4	0.884542 mg/L	0.0079931	0.884542 mg/L	0.0079931	0.90%
QC value within limits for Pb		220.353	Recovery = 88.45%			
Mg 279.077	6973860.6	472.811 mg/L	4.7195	472.811 mg/L	4.7195	1.00%
QC value within limits for Mg		279.077	Recovery = 94.56%			
Mn 257.610	223602.5	0.453998 mg/L	0.0020719	0.453998 mg/L	0.0020719	0.46%
QC value within limits for Mn		257.610	Recovery = 90.80%			
Mo 202.031	-124.6	0.0052244 mg/L	0.00218913	0.0052244 mg/L	0.00218913	41.90%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Ni 231.604	33698.2	0.841706 mg/L	0.0050237	0.841706 mg/L	0.0050237	0.60%
QC value within limits for Ni		231.604	Recovery = 84.17%			
Se 196.026	583.8	0.908141 mg/L	0.0050076	0.908141 mg/L	0.0050076	0.55%
QC value within limits for Se		196.026	Recovery = 90.81%			
Ag 328.068	119689.7	1.00034 mg/L	0.002905	1.00034 mg/L	0.002905	0.29%
QC value within limits for Ag		328.068	Recovery = 100.03%			
Na 330.237	-681.9	-0.755005 mg/L	0.1565515	-0.755005 mg/L	0.1565515	20.74%
QC value less than the lower limit for Na		330.237	Recovery = Not calculated			
Tl 190.801	1226.6	0.875811 mg/L	0.0014267	0.875811 mg/L	0.0014267	0.16%
QC value within limits for Tl		190.801	Recovery = 87.58%			
Sn 189.927	-186.1	-0.0059646 mg/L	0.00338330	-0.0059646 mg/L	0.00338330	56.72%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940	2926.5	0.0074568 mg/L	0.00006121	0.0074568 mg/L	0.00006121	0.82%
QC value within limits for Ti		334.940	Recovery = Not calculated			
V 292.402	63148.5	0.452969 mg/L	0.0014234	0.452969 mg/L	0.0014234	0.31%
QC value within limits for V		292.402	Recovery = 90.59%			
Zn 206.200	21759.6	0.854943 mg/L	0.0017880	0.854943 mg/L	0.0017880	0.21%
QC value within limits for Zn		206.200	Recovery = 85.49%			
QC Failed.						

Continue with analysis.

Sequence No.: 36  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 5:48:14 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	49996.0	5.62676 mg/L	0.008274	5.62676 mg/L	0.008274	0.15%
QC value greater than the upper limit for Al 308.215 Recovery = 112.54%						
Sb 206.836	451.3	0.497666 mg/L	0.0015974	0.497666 mg/L	0.0015974	0.32%
QC value within limits for Sb 206.836 Recovery = 99.53%						
As 188.979	398.4	0.492887 mg/L	0.0000983	0.492887 mg/L	0.0000983	0.02%
QC value within limits for As 188.979 Recovery = 98.58%						
Ba 233.527	30576.3	0.514871 mg/L	0.0000688	0.514871 mg/L	0.0000688	0.01%
QC value within limits for Ba 233.527 Recovery = 102.97%						
Be 234.861	216016.8	0.501497 mg/L	0.0000795	0.501497 mg/L	0.0000795	0.02%
QC value within limits for Be 234.861 Recovery = 100.30%						
Cd 226.502	31388.7	0.507847 mg/L	0.0019755	0.507847 mg/L	0.0019755	0.39%
QC value within limits for Cd 226.502 Recovery = 101.57%						
Ca 315.887	3124602.9	51.4155 mg/L	0.50444	51.4155 mg/L	0.50444	0.98%
QC value within limits for Ca 315.887 Recovery = 102.83%						
Cr 206.158	5786.4	0.504041 mg/L	0.0011444	0.504041 mg/L	0.0011444	0.23%
QC value within limits for Cr 206.158 Recovery = 100.81%						
Co 228.616	10339.9	0.505832 mg/L	0.0000626	0.505832 mg/L	0.0000626	0.01%
QC value within limits for Co 228.616 Recovery = 101.17%						
Cu 324.752	53156.9	0.501692 mg/L	0.0002473	0.501692 mg/L	0.0002473	0.05%
QC value within limits for Cu 324.752 Recovery = 100.34%						
Fe 273.955	87918.3	5.35180 mg/L	0.004875	5.35180 mg/L	0.004875	0.09%
QC value within limits for Fe 273.955 Recovery = 107.04%						
Pb 220.353	3497.6	0.510491 mg/L	0.0007900	0.510491 mg/L	0.0007900	0.15%
QC value within limits for Pb 220.353 Recovery = 102.10%						
Mg 279.077	762978.2	51.3398 mg/L	0.50451	51.3398 mg/L	0.50451	0.98%
QC value within limits for Mg 279.077 Recovery = 102.68%						
Mn 257.610	247314.0	0.500486 mg/L	0.0003143	0.500486 mg/L	0.0003143	0.06%
QC value within limits for Mn 257.610 Recovery = 100.10%						
Mo 202.031	4655.7	0.504809 mg/L	0.0010703	0.504809 mg/L	0.0010703	0.21%
QC value within limits for Mo 202.031 Recovery = 100.96%						
Ni 231.604	20228.3	0.506836 mg/L	0.0026268	0.506836 mg/L	0.0026268	0.52%
QC value within limits for Ni 231.604 Recovery = 101.37%						
Se 196.026	679.2	0.511379 mg/L	0.0041894	0.511379 mg/L	0.0041894	0.82%
QC value within limits for Se 196.026 Recovery = 102.28%						
Ag 328.068	11808.4	0.0984548 mg/L	0.00047650	0.0984548 mg/L	0.00047650	0.48%
QC value within limits for Ag 328.068 Recovery = 98.45%						
Na 330.237	28064.0	48.2311 mg/L	0.18657	48.2311 mg/L	0.18657	0.39%
QC value within limits for Na 330.237 Recovery = 96.46%						
Tl 190.801	744.0	0.527829 mg/L	0.0057247	0.527829 mg/L	0.0057247	1.08%
QC value within limits for Tl 190.801 Recovery = 105.57%						
Sn 189.927	2150.8	0.505073 mg/L	0.0025361	0.505073 mg/L	0.0025361	0.50%
QC value within limits for Sn 189.927 Recovery = 101.01%						
Ti 334.940	163719.8	0.510252 mg/L	0.0005516	0.510252 mg/L	0.0005516	0.11%
QC value within limits for Ti 334.940 Recovery = 102.05%						
V 292.402	50158.0	0.486195 mg/L	0.0015489	0.486195 mg/L	0.0015489	0.32%
QC value within limits for V 292.402 Recovery = 97.24%						
Zn 206.200	12349.2	0.490284 mg/L	0.0000036	0.490284 mg/L	0.0000036	0.00%
QC value within limits for Zn 206.200 Recovery = 98.06%						
QC Failed. Continue with analysis.						

Sequence No.: 37  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/19/2011 5:51:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3104.6	0.326698 mg/L	0.0016067	0.326698 mg/L	0.0016067	0.49%
QC value within limits for Al		308.215				Recovery = Not calculated
Sb 206.836	-1.6	-0.0043841 mg/L	0.00362689	-0.0043841 mg/L	0.00362689	82.73%
QC value within limits for Sb		206.836				Recovery = Not calculated
As 188.979	-1.2	-0.0019079 mg/L	0.00699708	-0.0019079 mg/L	0.00699708	366.74%
QC value within limits for As		188.979				Recovery = Not calculated
Ba 233.527	65.5	-0.0020585 mg/L	0.00004478	-0.0020585 mg/L	0.00004478	2.18%
QC value within limits for Ba		233.527				Recovery = Not calculated
Be 234.861	74.2	0.0009331 mg/L	0.00000986	0.0009331 mg/L	0.00000986	1.06%
QC value within limits for Be		234.861				Recovery = Not calculated
Cd 226.502	40.3	-0.0005710 mg/L	0.00011371	-0.0005710 mg/L	0.00011371	19.91%
QC value within limits for Cd		226.502				Recovery = Not calculated
Ca 315.887	19490.6	-0.0838374 mg/L	0.01269600	-0.0838374 mg/L	0.01269600	15.14%
QC value within limits for Ca		315.887				Recovery = Not calculated
Cr 206.158	2.4	-0.0020379 mg/L	0.00038436	-0.0020379 mg/L	0.00038436	18.86%
QC value within limits for Cr		206.158				Recovery = Not calculated
Co 228.616	16.3	-0.0014181 mg/L	0.00005029	-0.0014181 mg/L	0.00005029	3.55%
QC value within limits for Co		228.616				Recovery = Not calculated
Cu 324.752	67.1	0.0006759 mg/L	0.00047807	0.0006759 mg/L	0.00047807	70.73%
QC value within limits for Cu		324.752				Recovery = Not calculated
Fe 273.955	3607.9	0.200441 mg/L	0.0100342	0.200441 mg/L	0.0100342	5.01%
QC value within limits for Fe		273.955				Recovery = Not calculated
Pb 220.353	10.4	-0.0014365 mg/L	0.00102179	-0.0014365 mg/L	0.00102179	71.13%
QC value within limits for Pb		220.353				Recovery = Not calculated
Mg 279.077	4918.2	-0.102238 mg/L	0.0089701	-0.102238 mg/L	0.0089701	8.77%
QC value within limits for Mg		279.077				Recovery = Not calculated
Mn 257.610	956.8	-0.0005783 mg/L	0.00007274	-0.0005783 mg/L	0.00007274	12.58%
QC value within limits for Mn		257.610				Recovery = Not calculated
Mo 202.031	3.3	-0.0031140 mg/L	0.00026093	-0.0031140 mg/L	0.00026093	8.38%
QC value within limits for Mo		202.031				Recovery = Not calculated
Ni 231.604	25.1	-0.0018068 mg/L	0.00026501	-0.0018068 mg/L	0.00026501	14.67%
QC value within limits for Ni		231.604				Recovery = Not calculated
Se 196.026	11.6	0.0052745 mg/L	0.00094559	0.0052745 mg/L	0.00094559	17.93%
QC value within limits for Se		196.026				Recovery = Not calculated
Ag 328.068	42.7	0.0003057 mg/L	0.00021772	0.0003057 mg/L	0.00021772	71.21%
QC value within limits for Ag		328.068				Recovery = Not calculated
Na 330.237	-105.2	0.227837 mg/L	0.4931199	0.227837 mg/L	0.4931199	216.44%
QC value within limits for Na		330.237				Recovery = Not calculated
Tl 190.801	-2.6	-0.0032895 mg/L	0.00382923	-0.0032895 mg/L	0.00382923	116.41%
QC value within limits for Tl		190.801				Recovery = Not calculated
Sn 189.927	4.9	-0.0032969 mg/L	0.00058184	-0.0032969 mg/L	0.00058184	17.65%
QC value within limits for Sn		189.927				Recovery = Not calculated
Ti 334.940	1633.4	0.0034135 mg/L	0.00022168	0.0034135 mg/L	0.00022168	6.49%
QC value within limits for Ti		334.940				Recovery = Not calculated
V 292.402	57.9	-0.0010003 mg/L	0.00017906	-0.0010003 mg/L	0.00017906	17.90%
QC value within limits for V		292.402				Recovery = Not calculated
Zn 206.200	18.0	-0.0005428 mg/L	0.00008456	-0.0005428 mg/L	0.00008456	15.58%
QC value within limits for Zn		206.200				Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 38  
 Sample ID: 63223-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 26  
 Date Collected: 12/19/2011 5:54:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63223-003

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	2290076.7		259.134 mg/L	1.5862	259.134 mg/L		1.5862	0.61%
Sb 206.836	-46.8	0.0011137	mg/L	0.02434014	0.0011137 mg/L		0.02434014	>999.9%
As 188.979	49.1	0.0575315	mg/L	0.00059439	0.0575315 mg/L		0.00059439	1.03%
Ba 233.527	156397.5	2.63741	mg/L	0.018681	2.63741 mg/L		0.018681	0.71%
Be 234.861	-271693.1	0.0082364	mg/L	0.00485036	0.0082364 mg/L		0.00485036	58.89%
Cd 226.502	303.8	0.0071222	mg/L	0.00102315	0.0071222 mg/L		0.00102315	14.37%
Ca 315.887	760142.1	12.2001	mg/L	0.05046	12.2001 mg/L		0.05046	0.41%
Cr 206.158	3340.2	0.299331	mg/L	0.0022256	0.299331 mg/L		0.0022256	0.74%
Co 228.616	5363.3	0.193686	mg/L	0.0061302	0.193686 mg/L		0.0061302	3.16%
Cu 324.752	34876.8	0.342239	mg/L	0.0014153	0.342239 mg/L		0.0014153	0.41%
Fe 273.955	8212729.9	501.778	mg/L	2.7450	501.778 mg/L		2.7450	0.55%
Pb 220.353	745.1	0.166377	mg/L	0.0016836	0.166377 mg/L		0.0016836	1.01%
Mg 279.077	2201582.3	148.964	mg/L	0.4807	148.964 mg/L		0.4807	0.32%
Mn 257.610	4137260.7	8.44445	mg/L	0.043044	8.44445 mg/L		0.043044	0.51%
Mo 202.031	-100.0	0.0130750	mg/L	0.00240488	0.0130750 mg/L		0.00240488	18.39%
Ni 231.604	6651.6	0.152899	mg/L	0.0037711	0.152899 mg/L		0.0037711	2.47%
Se 196.026	-2169.2	-0.0640629	mg/L	0.03863998	-0.0640629 mg/L		0.03863998	60.32%
Ag 328.068	-1418.8	-0.0087628	mg/L	0.00009952	-0.0087628 mg/L		0.00009952	1.14%
Na 330.237	-10326.5	-17.1904	mg/L	0.34274	-17.1904 mg/L		0.34274	1.99%
Tl 190.801	-422.7	0.0217197	mg/L	0.00369639	0.0217197 mg/L		0.00369639	17.02%
Sn 189.927	43.4	0.0226590	mg/L	0.00253255	0.0226590 mg/L		0.00253255	11.18%
Ti 334.940	9608317.1	30.0432	mg/L	0.28591	30.0432 mg/L		0.28591	0.95%
V 292.402	141984.1	1.35289	mg/L	0.000925	1.35289 mg/L		0.000925	0.07%
Zn 206.200	16448.4	0.651358	mg/L	0.0064113	0.651358 mg/L		0.0064113	0.98%

Sequence No.: 39  
 Sample ID: 63223-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 27  
 Date Collected: 12/19/2011 5:58:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63223-004

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Al 308.215	1866123.0		211.157 mg/L	2.1655	211.157 mg/L		2.1655	1.03%
Sb 206.836	-35.0	-0.0091186	mg/L	0.00365758	-0.0091186 mg/L	0.00365758	0.00365758	40.11%
As 188.979	42.8	0.0354826	mg/L	0.00171282	0.0354826 mg/L	0.00171282	0.00171282	4.83%
Ba 233.527	152184.9	2.56987	mg/L	0.027176	2.56987 mg/L	0.027176	0.027176	1.06%
Be 234.861	-134083.9	0.0064340	mg/L	0.00250498	0.0064340 mg/L	0.00250498	0.00250498	38.93%
Cd 226.502	139.6	0.0027381	mg/L	0.00007744	0.0027381 mg/L	0.00007744	0.00007744	2.83%
Ca 315.887	1055315.5	17.0957	mg/L	0.13567	17.0957 mg/L	0.13567	0.13567	0.79%
Cr 206.158	2194.1	0.195548	mg/L	0.0016931	0.195548 mg/L	0.0016931	0.0016931	0.87%
Co 228.616	3271.8	0.112769	mg/L	0.0015289	0.112769 mg/L	0.0015289	0.0015289	1.36%
Cu 324.752	32584.3	0.316916	mg/L	0.0044778	0.316916 mg/L	0.0044778	0.0044778	1.41%
Fe 273.955	4080781.9	249.316	mg/L	3.1163	249.316 mg/L	3.1163	3.1163	1.25%
Pb 220.353	394.4	0.103551	mg/L	0.0004196	0.103551 mg/L	0.0004196	0.0004196	0.41%
Mg 279.077	1516565.6	102.478	mg/L	0.8697	102.478 mg/L	0.8697	0.8697	0.85%
Mn 257.610	2103270.1	4.29097	mg/L	0.033848	4.29097 mg/L	0.033848	0.033848	0.79%
Mo 202.031	-93.8	0.0029446	mg/L	0.00003950	0.0029446 mg/L	0.00003950	0.00003950	1.34%
Ni 231.604	4966.3	0.116561	mg/L	0.0010777	0.116561 mg/L	0.0010777	0.0010777	0.92%
Se 196.026	-1011.9	0.0116395	mg/L	0.01839399	0.0116395 mg/L	0.01839399	0.01839399	158.03%
Ag 328.068	-652.2	-0.0037608	mg/L	0.00051698	-0.0037608 mg/L	0.00051698	0.00051698	13.75%
Na 330.237	-7846.0	-12.9635	mg/L	0.14806	-12.9635 mg/L	0.14806	0.14806	1.14%
Tl 190.801	-294.0	0.0198249	mg/L	0.00238523	0.0198249 mg/L	0.00238523	0.00238523	12.03%
Sn 189.927	62.7	0.0232248	mg/L	0.00045613	0.0232248 mg/L	0.00045613	0.00045613	1.96%
Ti 334.940	6910769.3	21.6080	mg/L	0.24041	21.6080 mg/L	0.24041	0.24041	1.11%
V 292.402	78108.6	0.733393	mg/L	0.0045296	0.733393 mg/L	0.0045296	0.0045296	0.62%
Zn 206.200	10507.2	0.415438	mg/L	0.0019613	0.415438 mg/L	0.0019613	0.0019613	0.47%

Sequence No.: 40  
 Sample ID: 63223-005  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 28  
 Date Collected: 12/19/2011 6:02:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63223-005

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1857195.0	210.146	mg/L	0.9709	210.146	mg/L	0.9709	0.46%
Sb 206.836	-29.1	0.0001668	mg/L	0.00260925	0.0001668	mg/L	0.00260925	>999.9%
As 188.979	39.7	0.0345849	mg/L	0.00729908	0.0345849	mg/L	0.00729908	21.10%
Ba 233.527	99222.6	1.67251	mg/L	0.013696	1.67251	mg/L	0.013696	0.82%
Be 234.861	-150973.6	0.0181944	mg/L	0.00376877	0.0181944	mg/L	0.00376877	20.71%
Cd 226.502	160.9	0.0033572	mg/L	0.00036683	0.0033572	mg/L	0.00036683	10.93%
Ca 315.887	621902.1	9.90736	mg/L	0.068577	9.90736	mg/L	0.068577	0.69%
Cr 206.158	2418.7	0.214426	mg/L	0.0000086	0.214426	mg/L	0.0000086	0.00%
Co 228.616	4937.6	0.191641	mg/L	0.0004544	0.191641	mg/L	0.0004544	0.24%
Cu 324.752	15314.1	0.154153	mg/L	0.0006773	0.154153	mg/L	0.0006773	0.44%
Fe 273.955	4738488.9	289.502	mg/L	0.2989	289.502	mg/L	0.2989	0.10%
Pb 220.353	584.3	0.131458	mg/L	0.0007193	0.131458	mg/L	0.0007193	0.55%
Mg 279.077	1163567.6	78.5239	mg/L	0.68683	78.5239	mg/L	0.68683	0.87%
Mn 257.610	2476031.6	5.05236	mg/L	0.015166	5.05236	mg/L	0.015166	0.30%
Mo 202.031	-87.0	0.0050833	mg/L	0.00018377	0.0050833	mg/L	0.00018377	3.62%
Ni 231.604	5067.2	0.118134	mg/L	0.0002514	0.118134	mg/L	0.0002514	0.21%
Se 196.026	-1202.0	-0.0040344	mg/L	0.00754181	-0.0040344	mg/L	0.00754181	186.94%
Ag 328.068	-906.8	-0.0058016	mg/L	0.00042792	-0.0058016	mg/L	0.00042792	7.38%
Na 330.237	-8066.6	-13.3393	mg/L	0.03203	-13.3393	mg/L	0.03203	0.24%
Tl 190.801	-308.3	0.0222655	mg/L	0.00340478	0.0222655	mg/L	0.00340478	15.29%
Sn 189.927	94.3	0.0305416	mg/L	0.00012187	0.0305416	mg/L	0.00012187	0.40%
Ti 334.940	7272829.5	22.7402	mg/L	0.03304	22.7402	mg/L	0.03304	0.15%
V 292.402	89027.1	0.851511	mg/L	0.0063594	0.851511	mg/L	0.0063594	0.75%
Zn 206.200	10213.7	0.404345	mg/L	0.0002419	0.404345	mg/L	0.0002419	0.06%

Sequence No.: 41  
 Sample ID: 63081-005  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 29  
 Date Collected: 12/19/2011 6:07:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-005

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	680271.8	76.9587	mg/L	1.15155	76.9587	mg/L	1.15155	1.50%
Sb 206.836	-17.1	-0.0050114	mg/L	0.00770635	-0.0050114	mg/L	0.00770635	153.78%
As 188.979	18.0	0.0381612	mg/L	0.00160263	0.0381612	mg/L	0.00160263	4.20%
Ba 233.527	56366.8	0.948971	mg/L	0.0079797	0.948971	mg/L	0.0079797	0.84%
Be 234.861	-77797.0	0.0121355	mg/L	0.00363957	0.0121355	mg/L	0.00363957	29.99%
Cd 226.502	141.1	0.0020927	mg/L	0.00015367	0.0020927	mg/L	0.00015367	7.34%
Ca 315.887	2494803.8	40.9701	mg/L	0.69718	40.9701	mg/L	0.69718	1.70%
Cr 206.158	1423.8	0.129259	mg/L	0.0006622	0.129259	mg/L	0.0006622	0.51%
Co 228.616	1430.5	0.0601027	mg/L	0.00071610	0.0601027	mg/L	0.00071610	1.19%
Cu 324.752	18045.5	0.170693	mg/L	0.0013764	0.170693	mg/L	0.0013764	0.81%
Fe 273.955	2474686.4	151.183	mg/L	2.1400	151.183	mg/L	2.1400	1.42%
Pb 220.353	3312.0	0.493646	mg/L	0.0006374	0.493646	mg/L	0.0006374	0.13%
Mg 279.077	208148.4	13.6890	mg/L	0.14393	13.6890	mg/L	0.14393	1.05%
Mn 257.610	1658229.5	3.38123	mg/L	0.053819	3.38123	mg/L	0.053819	1.59%
Mo 202.031	77.5	0.0131974	mg/L	0.00017140	0.0131974	mg/L	0.00017140	1.30%
Ni 231.604	4413.5	0.105021	mg/L	0.0002368	0.105021	mg/L	0.0002368	0.23%
Se 196.026	-568.2	0.0393199	mg/L	0.01258014	0.0393199	mg/L	0.01258014	31.99%
Ag 328.068	-343.5	-0.0015145	mg/L	0.00053805	-0.0015145	mg/L	0.00053805	35.53%
Na 330.237	-522.6	-0.483606	mg/L	0.0174721	-0.483606	mg/L	0.0174721	3.61%
Tl 190.801	-42.9	-0.0028753	mg/L	0.00387072	-0.0028753	mg/L	0.00387072	134.62%
Sn 189.927	250.2	0.0592670	mg/L	0.00065647	0.0592670	mg/L	0.00065647	1.11%
Ti 334.940	726263.3	2.26931	mg/L	0.044191	2.26931	mg/L	0.044191	1.95%
V 292.402	23590.4	0.228947	mg/L	0.0026270	0.228947	mg/L	0.0026270	1.15%
Zn 206.200	9971.9	0.396374	mg/L	0.0003787	0.396374	mg/L	0.0003787	0.10%

Sequence No.: 42  
 Sample ID: 63081-037  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 30  
 Date Collected: 12/19/2011 6:10:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-037

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	256961.5	29.0545	mg/L	0.33159	29.0545	mg/L	0.33159	1.14%
Sb 206.836	-2.3	0.0044590	mg/L	0.00707437	0.0044590	mg/L	0.00707437	158.65%
As 188.979	38.9	0.0602341	mg/L	0.00902077	0.0602341	mg/L	0.00902077	14.98%
Ba 233.527	116732.0	1.97185	mg/L	0.014451	1.97185	mg/L	0.014451	0.73%
Be 234.861	-51043.1	0.0080223	mg/L	0.00057125	0.0080223	mg/L	0.00057125	7.12%
Cd 226.502	143.2	0.0017711	mg/L	0.00006836	0.0017711	mg/L	0.00006836	3.86%
Ca 315.887	3260536.4	53.6700	mg/L	0.28945	53.6700	mg/L	0.28945	0.54%
Cr 206.158	857.1	0.107031	mg/L	0.0032238	0.107031	mg/L	0.0032238	3.01%
Co 228.616	880.8	0.0361696	mg/L	0.00040856	0.0361696	mg/L	0.00040856	1.13%
Cu 324.752	43812.5	0.413787	mg/L	0.0020074	0.413787	mg/L	0.0020074	0.49%
Fe 273.955	1622258.6	99.1000	mg/L	0.77033	99.1000	mg/L	0.77033	0.78%
Pb 220.353	40419.1	5.90450	mg/L	0.010768	5.90450	mg/L	0.010768	0.18%
Mg 279.077	142348.5	9.22380	mg/L	0.008335	9.22380	mg/L	0.008335	0.09%
Mn 257.610	734020.7	1.49688	mg/L	0.011346	1.49688	mg/L	0.011346	0.76%
Mo 202.031	54.4	0.0070638	mg/L	0.00010739	0.0070638	mg/L	0.00010739	1.52%
Ni 231.604	3254.2	0.0770928	mg/L	0.00032940	0.0770928	mg/L	0.00032940	0.43%
Se 196.026	-319.1	0.0609148	mg/L	0.00222097	0.0609148	mg/L	0.00222097	3.65%
Ag 328.068	-57.7	0.0010752	mg/L	0.00030595	0.0010752	mg/L	0.00030595	28.45%
Na 330.237	-413.2	-0.297021	mg/L	0.0147486	-0.297021	mg/L	0.0147486	4.97%
Tl 190.801	-31.0	-0.0072115	mg/L	0.00492795	-0.0072115	mg/L	0.00492795	68.33%
Sn 189.927	3406.8	0.800274	mg/L	0.0034198	0.800274	mg/L	0.0034198	0.43%
Ti 334.940	418547.1	1.30709	mg/L	0.007409	1.30709	mg/L	0.007409	0.57%
V 292.402	13582.4	0.130632	mg/L	0.0028388	0.130632	mg/L	0.0028388	2.17%
Zn 206.200	36083.3	1.43864	mg/L	0.003838	1.43864	mg/L	0.003838	0.27%

Sequence No.: 43  
 Sample ID: 63081-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 31  
 Date Collected: 12/19/2011 6:13:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-047

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
Al 308.215	814120.7	92.1058 mg/L		0.31892	92.1058 mg/L		0.31892	0.35%
Sb 206.836	0.8	0.0306634 mg/L		0.00965572	0.0306634 mg/L		0.00965572	31.49%
As 188.979	10605.8	13.1434 mg/L		0.08590	13.1434 mg/L		0.08590	0.65%
Ba 233.527	247335.8	4.17956 mg/L		0.017763	4.17956 mg/L		0.017763	0.42%
Be 234.861	-183610.8	0.0112821 mg/L		0.00056572	0.0112821 mg/L		0.00056572	5.01%
Cd 226.502	1357.1	0.0231248 mg/L		0.00045221	0.0231248 mg/L		0.00045221	1.96%
Ca 315.887	4864908.9	80.2791 mg/L		0.01675	80.2791 mg/L		0.01675	0.02%
Cr 206.158	24272.8	2.21803 mg/L		0.005359	2.21803 mg/L		0.005359	0.24%
Co 228.616	1722.5	0.0676397 mg/L		0.00119400	0.0676397 mg/L		0.00119400	1.77%
Cu 324.752	2180120.7	20.6282 mg/L		0.12796	20.6282 mg/L		0.12796	0.62%
Fe 273.955	5622703.9	343.527 mg/L		0.8469	343.527 mg/L		0.8469	0.25%
Pb 220.353	237888.2	34.7480 mg/L		0.23345	34.7480 mg/L		0.23345	0.67%
Mg 279.077	305997.2	20.3290 mg/L		0.17527	20.3290 mg/L		0.17527	0.86%
Mn 257.610	2160912.1	4.41440 mg/L		0.016598	4.41440 mg/L		0.016598	0.38%
Mo 202.031	12.6	0.0135735 mg/L		0.00066581	0.0135735 mg/L		0.00066581	4.91%
Ni 231.604	5405.1	0.125341 mg/L		0.0000551	0.125341 mg/L		0.0000551	0.04%
Se 196.026	-1416.2	0.0052627 mg/L		0.03201216	0.0052627 mg/L		0.03201216	608.28%
Ag 328.068	-48.0	0.0033452 mg/L		0.00018279	0.0033452 mg/L		0.00018279	5.46%
Na 330.237	-2876.6	-4.49493 mg/L		0.135087	-4.49493 mg/L		0.135087	3.01%
Tl 190.801	-64.0	-0.0030266 mg/L		0.00185044	-0.0030266 mg/L		0.00185044	61.14%
Sn 189.927	28022.3	6.57689 mg/L		0.117264	6.57689 mg/L		0.117264	1.78%
Ti 334.940	1043793.1	3.26221 mg/L		0.016353	3.26221 mg/L		0.016353	0.50%
V 292.402	41288.0	0.403509 mg/L		0.0001515	0.403509 mg/L		0.0001515	0.04%
Zn 206.200	148121.3	5.90998 mg/L		0.032015	5.90998 mg/L		0.032015	0.54%

Sequence No.: 44  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/19/2011 6:17:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3870585.8	437.993	mg/L	1.4180	437.993 mg/L	1.4180	0.32%
QC value within limits for Al 308.215 Recovery = 87.60%							
Sb 206.836	-37.1	-0.0026510	mg/L	0.01313331	-0.0026510 mg/L	0.01313331	495.41%
As 188.979	-36.1	-0.0117547	mg/L	0.00535401	-0.0117547 mg/L	0.00535401	45.55%
Ba 233.527	331.8	-0.0000781	mg/L	0.00009120	-0.0000781 mg/L	0.00009120	116.73%
Be 234.861	-90151.8	0.0046591	mg/L	0.00838292	0.0046591 mg/L	0.00838292	179.93%
Cd 226.502	79.0	0.0011983	mg/L	0.00000358	0.0011983 mg/L	0.00000358	0.30%
Ca 315.887	26954810.2	446.648	mg/L	2.2663	446.648 mg/L	2.2663	0.51%
QC value within limits for Ca 315.887 Recovery = 89.33%							
Cr 206.158	24.9	0.0000021	mg/L	0.00012502	0.0000021 mg/L	0.00012502	>999.9%
Co 228.616	73.0	-0.0030115	mg/L	0.00079531	-0.0030115 mg/L	0.00079531	26.41%
Cu 324.752	3021.5	0.0173473	mg/L	0.00075179	0.0173473 mg/L	0.00075179	4.33%
Fe 273.955	2745994.8	167.760	mg/L	0.8297	167.760 mg/L	0.8297	0.49%
QC value within limits for Fe 273.955 Recovery = 83.88%							
Pb 220.353	-305.0	0.0273677	mg/L	0.00162374	0.0273677 mg/L	0.00162374	5.93%
Mg 279.077	6920304.2	469.177	mg/L	3.9508	469.177 mg/L	3.9508	0.84%
QC value within limits for Mg 279.077 Recovery = 93.84%							
Mn 257.610	-538.2	-0.0024242	mg/L	0.00003918	-0.0024242 mg/L	0.00003918	1.62%
Mo 202.031	-139.1	0.0033713	mg/L	0.00123529	0.0033713 mg/L	0.00123529	36.64%
Ni 231.604	313.0	0.0013951	mg/L	0.00021501	0.0013951 mg/L	0.00021501	15.41%
Se 196.026	-630.4	-0.0022901	mg/L	0.01739317	-0.0022901 mg/L	0.01739317	759.50%
Ag 328.068	-1152.4	0.0004773	mg/L	0.00046376	0.0004773 mg/L	0.00046376	97.16%
Na 330.237	-347.7	-0.185569	mg/L	0.0074532	-0.185569 mg/L	0.0074532	4.02%
Tl 190.801	-16.7	-0.0004589	mg/L	0.00272501	-0.0004589 mg/L	0.00272501	593.87%
Sn 189.927	-158.2	0.0002910	mg/L	0.00212026	0.0002910 mg/L	0.00212026	728.63%
Ti 334.940	2928.7	0.0074638	mg/L	0.00016619	0.0074638 mg/L	0.00016619	2.23%
V 292.402	20024.9	0.0216037	mg/L	0.00338068	0.0216037 mg/L	0.00338068	15.65%
Zn 206.200	140.8	-0.0078084	mg/L	0.00064307	-0.0078084 mg/L	0.00064307	8.24%

All analyte(s) passed QC.

Sequence No.: 45  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/19/2011 6:21:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3883884.0	439.498 mg/L	2.1051	439.498 mg/L	2.1051	0.48%
QC value within limits for Al		308.215	Recovery = 87.90%			
Sb 206.836	810.9	0.924091 mg/L	0.0299928	0.924091 mg/L	0.0299928	3.25%
QC value within limits for Sb		206.836	Recovery = 92.41%			
As 188.979	739.2	0.946037 mg/L	0.0009766	0.946037 mg/L	0.0009766	0.10%
QC value within limits for As		188.979	Recovery = 94.60%			
Ba 233.527	28262.7	0.472836 mg/L	0.0029417	0.472836 mg/L	0.0029417	0.62%
QC value within limits for Ba		233.527	Recovery = 94.57%			
Be 234.861	117100.5	0.479555 mg/L	0.0004566	0.479555 mg/L	0.0004566	0.10%
QC value within limits for Be		234.861	Recovery = 95.91%			
Cd 226.502	54236.9	0.879490 mg/L	0.0055884	0.879490 mg/L	0.0055884	0.64%
QC value within limits for Cd		226.502	Recovery = 87.95%			
Ca 315.887	26787762.6	443.877 mg/L	2.9349	443.877 mg/L	2.9349	0.66%
QC value within limits for Ca		315.887	Recovery = 88.78%			
Cr 206.158	5166.6	0.460972 mg/L	0.0061336	0.460972 mg/L	0.0061336	1.33%
QC value within limits for Cr		206.158	Recovery = 92.19%			
Co 228.616	8988.2	0.435796 mg/L	0.0025725	0.435796 mg/L	0.0025725	0.59%
QC value within limits for Co		228.616	Recovery = 87.16%			
Cu 324.752	52910.3	0.489478 mg/L	0.0022695	0.489478 mg/L	0.0022695	0.46%
QC value within limits for Cu		324.752	Recovery = 97.90%			
Fe 273.955	2754845.5	168.301 mg/L	0.8697	168.301 mg/L	0.8697	0.52%
QC value within limits for Fe		273.955	Recovery = 84.15%			
Pb 220.353	5724.1	0.908061 mg/L	0.0046013	0.908061 mg/L	0.0046013	0.51%
QC value within limits for Pb		220.353	Recovery = 90.81%			
Mg 279.077	6890303.4	467.141 mg/L	3.6434	467.141 mg/L	3.6434	0.78%
QC value within limits for Mg		279.077	Recovery = 93.43%			
Mn 257.610	222324.8	0.451403 mg/L	0.0022540	0.451403 mg/L	0.0022540	0.50%
QC value within limits for Mn		257.610	Recovery = 90.28%			
Mo 202.031	-172.6	-0.0002059 mg/L	0.00155122	-0.0002059 mg/L	0.00155122	753.47%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Ni 231.604	34326.9	0.857569 mg/L	0.0081391	0.857569 mg/L	0.0081391	0.95%
QC value within limits for Ni		231.604	Recovery = 85.76%			
Se 196.026	564.6	0.889540 mg/L	0.0264974	0.889540 mg/L	0.0264974	2.98%
QC value within limits for Se		196.026	Recovery = 88.95%			
Ag 328.068	119324.4	0.997189 mg/L	0.0032153	0.997189 mg/L	0.0032153	0.32%
QC value within limits for Ag		328.068	Recovery = 99.72%			
Na 330.237	-709.2	-0.801505 mg/L	0.0353929	-0.801505 mg/L	0.0353929	4.42%
QC value less than the lower limit for Na		330.237	Recovery = Not calculated			
Tl 190.801	1249.8	0.891994 mg/L	0.0150356	0.891994 mg/L	0.0150356	1.69%
QC value within limits for Tl		190.801	Recovery = 89.20%			
Sn 189.927	-146.7	0.0027315 mg/L	0.00072378	0.0027315 mg/L	0.00072378	26.50%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940	1822.3	0.0040039 mg/L	0.00001592	0.0040039 mg/L	0.00001592	0.40%
QC value within limits for Ti		334.940	Recovery = Not calculated			
V 292.402	62741.5	0.450990 mg/L	0.0026031	0.450990 mg/L	0.0026031	0.58%
QC value within limits for V		292.402	Recovery = 90.20%			
Zn 206.200	22172.1	0.871553 mg/L	0.0021414	0.871553 mg/L	0.0021414	0.25%
QC value within limits for Zn		206.200	Recovery = 87.16%			

QC Failed. Continue with analysis.

Sequence No.: 46  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 6:25:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Al 308.215	49926.1	5.61889	mg/L	0.104000	5.61889	mg/L	0.104000	1.85%
QC value greater than the upper limit for Al 308.215 Recovery = 112.38%								
Sb 206.836	451.9	0.498331	mg/L	0.0044776	0.498331	mg/L	0.0044776	0.90%
QC value within limits for Sb 206.836 Recovery = 99.67%								
As 188.979	395.4	0.489290	mg/L	0.0005782	0.489290	mg/L	0.0005782	0.12%
QC value within limits for As 188.979 Recovery = 97.86%								
Ba 233.527	30877.3	0.519966	mg/L	0.0075147	0.519966	mg/L	0.0075147	1.45%
QC value within limits for Ba 233.527 Recovery = 103.99%								
Be 234.861	217920.7	0.505880	mg/L	0.0073549	0.505880	mg/L	0.0073549	1.45%
QC value within limits for Be 234.861 Recovery = 101.18%								
Cd 226.502	31688.8	0.512714	mg/L	0.0091214	0.512714	mg/L	0.0091214	1.78%
QC value within limits for Cd 226.502 Recovery = 102.54%								
Ca 315.887	3135430.8	51.5951	mg/L	0.00464	51.5951	mg/L	0.00464	0.01%
QC value within limits for Ca 315.887 Recovery = 103.19%								
Cr 206.158	5758.8	0.501659	mg/L	0.0029277	0.501659	mg/L	0.0029277	0.58%
QC value within limits for Cr 206.158 Recovery = 100.33%								
Co 228.616	10313.3	0.504517	mg/L	0.0025390	0.504517	mg/L	0.0025390	0.50%
QC value within limits for Co 228.616 Recovery = 100.90%								
Cu 324.752	54230.5	0.511849	mg/L	0.0094985	0.511849	mg/L	0.0094985	1.86%
QC value within limits for Cu 324.752 Recovery = 102.37%								
Fe 273.955	88271.4	5.37338	mg/L	0.091560	5.37338	mg/L	0.091560	1.70%
QC value within limits for Fe 273.955 Recovery = 107.47%								
Pb 220.353	3528.9	0.515058	mg/L	0.0055850	0.515058	mg/L	0.0055850	1.08%
QC value within limits for Pb 220.353 Recovery = 103.01%								
Mg 279.077	765377.8	51.5026	mg/L	0.17097	51.5026	mg/L	0.17097	0.33%
QC value within limits for Mg 279.077 Recovery = 103.01%								
Mn 257.610	250047.8	0.506051	mg/L	0.0066478	0.506051	mg/L	0.0066478	1.31%
QC value within limits for Mn 257.610 Recovery = 101.21%								
Mo 202.031	4629.9	0.501992	mg/L	0.0048427	0.501992	mg/L	0.0048427	0.96%
QC value within limits for Mo 202.031 Recovery = 100.40%								
Ni 231.604	20405.2	0.511288	mg/L	0.0042807	0.511288	mg/L	0.0042807	0.84%
QC value within limits for Ni 231.604 Recovery = 102.26%								
Se 196.026	676.0	0.508988	mg/L	0.0124021	0.508988	mg/L	0.0124021	2.44%
QC value within limits for Se 196.026 Recovery = 101.80%								
Ag 328.068	11947.7	0.0996100	mg/L	0.00020538	0.0996100	mg/L	0.00020538	0.21%
QC value within limits for Ag 328.068 Recovery = 99.61%								
Na 330.237	28199.7	48.4623	mg/L	0.83061	48.4623	mg/L	0.83061	1.71%
QC value within limits for Na 330.237 Recovery = 96.92%								
Tl 190.801	741.0	0.525770	mg/L	0.0014883	0.525770	mg/L	0.0014883	0.28%
QC value within limits for Tl 190.801 Recovery = 105.15%								
Sn 189.927	2157.2	0.506592	mg/L	0.0047375	0.506592	mg/L	0.0047375	0.94%
QC value within limits for Sn 189.927 Recovery = 101.32%								
Ti 334.940	164721.7	0.513385	mg/L	0.0049551	0.513385	mg/L	0.0049551	0.97%
QC value within limits for Ti 334.940 Recovery = 102.68%								
V 292.402	50754.1	0.492089	mg/L	0.0064643	0.492089	mg/L	0.0064643	1.31%
QC value within limits for V 292.402 Recovery = 98.42%								
Zn 206.200	12326.2	0.489359	mg/L	0.0033786	0.489359	mg/L	0.0033786	0.69%
QC value within limits for Zn 206.200 Recovery = 97.87%								
QC Failed. Continue with analysis.								

Sequence No.: 47

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/19/2011 6:28:49 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	3210.5	0.338686	mg/L	0.0179263	0.338686	0.0179263	5.29%
QC value within limits for Al 308.215 Recovery = Not calculated							
Sb 206.836	0.1	-0.0025134	mg/L	0.00117317	-0.0025134	0.00117317	46.68%
QC value within limits for Sb 206.836 Recovery = Not calculated							
As 188.979	2.9	0.0031627	mg/L	0.00008284	0.0031627	0.00008284	2.62%
QC value within limits for As 188.979 Recovery = Not calculated							
Ba 233.527	72.5	-0.0019402	mg/L	0.00008359	-0.0019402	0.00008359	4.31%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 234.861	56.3	0.0009097	mg/L	0.00002562	0.0009097	0.00002562	2.82%
QC value within limits for Be 234.861 Recovery = Not calculated							
Cd 226.502	41.2	-0.0005567	mg/L	0.00018542	-0.0005567	0.00018542	33.30%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Ca 315.887	20965.8	-0.0593714	mg/L	0.01284759	-0.0593714	0.01284759	21.64%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Cr 206.158	5.5	-0.0017358	mg/L	0.00046045	-0.0017358	0.00046045	26.53%
QC value within limits for Cr 206.158 Recovery = Not calculated							
Co 228.616	14.4	-0.0015119	mg/L	0.00038180	-0.0015119	0.00038180	25.25%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu 324.752	448.2	0.0042817	mg/L	0.00032453	0.0042817	0.00032453	7.58%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 273.955	3837.2	0.214449	mg/L	0.0116334	0.214449	0.0116334	5.42%
QC value within limits for Fe 273.955 Recovery = Not calculated							
Pb 220.353	46.3	0.0038105	mg/L	0.00097800	0.0038105	0.00097800	25.67%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Mg 279.077	5339.1	-0.0736720	mg/L	0.01445223	-0.0736720	0.01445223	19.62%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mn 257.610	1038.7	-0.0004112	mg/L	0.00008790	-0.0004112	0.00008790	21.37%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031	-0.3	-0.0035052	mg/L	0.00006550	-0.0035052	0.00006550	1.87%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Ni 231.604	37.5	-0.0014951	mg/L	0.00013890	-0.0014951	0.00013890	9.29%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Se 196.026	9.8	0.0039245	mg/L	0.01137666	0.0039245	0.01137666	289.89%
QC value within limits for Se 196.026 Recovery = Not calculated							
Ag 328.068	-31.2	-0.0003050	mg/L	0.00058040	-0.0003050	0.00058040	190.29%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Na 330.237	48.5	0.489696	mg/L	0.0704860	0.489696	0.0704860	14.39%
QC value within limits for Na 330.237 Recovery = Not calculated							
Tl 190.801	-3.8	-0.0041899	mg/L	0.00120752	-0.0041899	0.00120752	28.82%
QC value within limits for Tl 190.801 Recovery = Not calculated							
Sn 189.927	9.9	-0.0021153	mg/L	0.00082397	-0.0021153	0.00082397	38.95%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti 334.940	1365.0	0.0025740	mg/L	0.00010694	0.0025740	0.00010694	4.15%
QC value within limits for Ti 334.940 Recovery = Not calculated							
V 292.402	63.6	-0.0009564	mg/L	0.00002626	-0.0009564	0.00002626	2.75%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200	56.7	0.0010014	mg/L	0.00016069	0.0010014	0.00016069	16.05%
QC value within limits for Zn 206.200 Recovery = Not calculated							

All analyte(s) passed QC.

*Y. Kahrin 12.12.11*

=====  
Analysis Begun

Start Time: 12/12/2011 1:14:00 PM      Plasma On Time: 12/12/2011 9:37:29 AM  
Logged In Analyst: usermet              Technique: ICP Continuous  
Spectrometer Model: Optima 7300 DV, S/N 077C0061602 Autosampler Model: S10

Sample Information File: C:\pe\Administrator\Sample Information\SOIL.sif  
Batch ID: SOIL  
Results Data Set: S13374A3  
Results Library: C:\pe\Administrator\Results\Results.mdb

13374  
(11679)

*sh 12/12/11*

=====  
Method Loaded

Method Name: PE3 7300DV AXIAL      Method Last Saved: 12/9/2011 12:49:52 PM  
IEC File: IEC091211A.iec            MSF File:  
Method Description: 200.776010B

=====  
Sequence No.: 1                            Autosampler Location: 1  
Sample ID: Calib Blk 1 V-129815        Date Collected: 12/12/2011 1:15:00 PM  
Analyst:                                    Data Type: Original  
Initial Sample Wt:                        Initial Sample Vol:  
Dilution:                                    Sample Prep Vol:

RESET

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	507482.5	6355.01	1.25%	100	%
Y 371.029	197175.7	3123.66	1.58%	100	%
Ag 328.068†	54.7	4.47	8.17%	[0.00]	mg/L
Al 308.215†	3636.0	132.64	3.65%	[0.00]	mg/L
As 188.979†	32.5	4.58	14.08%	[0.00]	mg/L
Ba 233.527†	-135.1	11.97	8.85%	[0.00]	mg/L
Be 313.107†	869.5	135.43	15.58%	[0.00]	mg/L
Ca 317.933†	887.1	56.43	6.36%	[0.00]	mg/L
Cd 228.802†	379.3	5.19	1.37%	[0.00]	mg/L
Co 228.616†	664.2	11.82	1.78%	[0.00]	mg/L
Cr 267.716†	20.1	1.47	7.32%	[0.00]	mg/L
Cu 327.393†	682.9	1.64	0.24%	[0.00]	mg/L
Fe 273.955†	-202.4	19.93	9.85%	[0.00]	mg/L
K 404.721†	-21355.3	323.88	1.52%	[0.00]	mg/L
Mg 279.077†	157.1	41.30	26.29%	[0.00]	mg/L
Mn 257.610†	333.4	12.52	3.76%	[0.00]	mg/L
Mo 202.031†	39.9	15.45	38.72%	[0.00]	mg/L
Na 330.237†	-4251.2	79.26	1.86%	[0.00]	mg/L
Ni 231.604†	1720.6	25.09	1.46%	[0.00]	mg/L
Pb 220.353†	-0.4	9.06	>999.9%	[0.00]	mg/L
Sb 206.836†	53.6	6.04	11.28%	[0.00]	mg/L
Se 196.026†	6.3	2.22	35.14%	[0.00]	mg/L
Sn 189.927†	-19.6	2.86	14.58%	[0.00]	mg/L
Ti 334.940†	-398.7	1.61	0.40%	[0.00]	mg/L
Tl 190.801†	-3.1	2.36	77.41%	[0.00]	mg/L
V 290.880†	2102.5	1.53	0.07%	[0.00]	mg/L
Zn 206.200†	-168.4	11.58	6.87%	[0.00]	mg/L

As, Pb reported.

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=====
Sequence No.: 2                               Autosampler Location: 10
Sample ID: Calib 1 V-128669                   Date Collected: 12/12/2011 1:18:19 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	511144.9	3349.43	0.66%	101	%
Y 371.029	196939.6	1500.63	0.76%	99.9	%
As 188.979†	8.9	6.25	70.25%	[0.005]	mg/L
Be 313.107†	5932.0	135.75	2.29%	[0.003]	mg/L
Cd 228.802†	93.7	12.23	13.05%	[0.003]	mg/L
Pb 220.353†	29.5	11.11	37.71%	[0.004]	mg/L
Tl 190.801†	4.9	4.86	99.50%	[0.005]	mg/L

Sequence No.: 3

Sample ID: Calib 2 V-128664

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 12/12/2011 1:21:39 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 2 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	506469.5	4013.83	0.79%	99.8	%
Y 371.029	196330.1	1317.95	0.67%	99.6	%
Ag 328.068†	234.5	23.66	10.09%	[0.002]	mg/L
Al 308.215†	1771.9	68.37	3.86%	[0.10]	mg/L
As 188.979†	9.2	0.79	8.62%	[0.010]	mg/L
Ba 233.527†	1077.5	2.18	0.20%	[0.010]	mg/L
Be 313.107†	18885.3	51.32	0.27%	[0.010]	mg/L
Ca 317.933†	52547.4	326.67	0.62%	[1.0]	mg/L
Cd 228.802†	278.0	6.85	2.46%	[0.010]	mg/L
Co 228.616†	314.0	13.25	4.22%	[0.010]	mg/L
Cr 267.716†	290.7	5.76	1.98%	[0.010]	mg/L
Cu 327.393†	800.9	35.90	4.48%	[0.010]	mg/L
Fe 273.955†	2273.0	59.05	2.60%	[0.10]	mg/L
K 404.721†	-666.0	209.74	31.49%	[1.0]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	9430.2	17.83	0.19%	[1.0]	mg/L
Mn 257.610†	3840.8	34.53	0.90%	[0.010]	mg/L
Mo 202.031†	117.6	2.41	2.05%	[0.010]	mg/L
Na 330.237†	379.2	17.03	4.49%	[1.0]	mg/L
Ni 231.604†	304.6	40.17	13.19%	[0.010]	mg/L
Pb 220.353†	43.2	4.67	10.80%	[0.010]	mg/L
Sb 206.836†	12.6	3.57	28.31%	[0.010]	mg/L
Se 196.026†	7.6	6.08	80.50%	[0.010]	mg/L
Sn 189.927†	36.0	3.35	9.31%	[0.010]	mg/L
Ti 334.940†	3164.5	121.80	3.85%	[0.010]	mg/L
Tl 190.801†	6.8	2.70	39.53%	[0.010]	mg/L
V 290.880†	991.1	33.63	3.39%	[0.010]	mg/L
Zn 206.200†	349.1	9.67	2.77%	[0.010]	mg/L

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=====
Sequence No.: 4                               Autosampler Location: 3
Sample ID: Calib 3 V-128661                 Date Collected: 12/12/2011 1:25:00 PM
Analyst:                                     Data Type: Original
Initial Sample Wt:                           Initial Sample Vol:
Dilution:                                    Sample Prep Vol:
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## Mean Data: Calib 3 V-128661

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	484536.3	3645.81	0.75%	95.5 %	
Y 371.029	183494.0	943.13	0.51%	93.1 %	
Ag 328.068†	9461.4	145.24	1.54%	[0.10] mg/L	
Al 308.215†	81032.1	41.62	0.05%	[5.0] mg/L	
As 188.979†	580.0	3.73	0.64%	[0.50] mg/L	
Ba 233.527†	51014.3	179.07	0.35%	[0.50] mg/L	
Be 313.107†	972808.4	2077.38	0.21%	[0.50] mg/L	
Ca 317.933†	2557792.6	36294.66	1.42%	[50] mg/L	
Cd 228.802†	14262.1	43.91	0.31%	[0.50] mg/L	
Co 228.616†	14201.0	44.14	0.31%	[0.50] mg/L	
Cr 267.716†	15010.2	73.01	0.49%	[0.50] mg/L	
Cu 327.393†	38471.7	11.29	0.03%	[0.50] mg/L	
Fe 273.955†	105845.2	157.64	0.15%	[5.0] mg/L	
K 404.721†	360.4	139.65	38.75%	[50] mg/L	
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	440678.4	1340.10	0.30%	[50] mg/L	
Mn 257.610†	179923.4	284.21	0.16%	[0.50] mg/L	
Mo 202.031†	5730.3	12.22	0.21%	[0.50] mg/L	
Na 330.237†	23253.2	57.48	0.25%	[50] mg/L	
Ni 231.604†	13492.6	13.49	0.10%	[0.50] mg/L	
Pb 220.353†	2110.1	6.53	0.31%	[0.50] mg/L	
Sb 206.836†	697.4	3.24	0.46%	[0.50] mg/L	
Se 196.026†	368.3	1.25	0.34%	[0.50] mg/L	
Sn 189.927†	1841.7	7.04	0.38%	[0.50] mg/L	
Ti 334.940†	156172.3	1053.65	0.67%	[0.50] mg/L	
Tl 190.801†	431.6	9.20	2.13%	[0.50] mg/L	
V 290.880†	45537.6	108.63	0.24%	[0.50] mg/L	
Zn 206.200†	18024.9	10.03	0.06%	[0.50] mg/L	

Sequence No.: 5

Sample ID: Calib 4 V-129806

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 12/12/2011 1:28:33 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: Calib 4 V-129806

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	477488.9	2252.56	0.47%	94.1 %
Y 371.029	180969.8	446.40	0.25%	91.8 %
Ag 328.068†	18968.9	95.13	0.50%	[0.20] mg/L
Al 308.215†	159811.9	50.51	0.03%	[10] mg/L
As 188.979†	1160.4	19.70	1.70%	[1.0] mg/L
Ba 233.527†	101012.8	142.01	0.14%	[1.0] mg/L
Be 313.107†	1932961.0	1024.49	0.05%	[1.0] mg/L
Ca 317.933†	4988820.6	70794.63	1.42%	[100] mg/L
Cd 228.802†	28339.9	418.63	1.48%	[1.0] mg/L
Co 228.616†	27906.8	428.27	1.53%	[1.0] mg/L
Cr 267.716†	30279.9	9.39	0.03%	[1.0] mg/L
Cu 327.393†	76552.7	187.82	0.25%	[1.0] mg/L
Fe 273.955†	209270.2	90.54	0.04%	[10] mg/L
K 404.721†	2407.2	212.90	8.84%	[100] mg/L
Standard intensity and concentration values are not in the same order.				
Mg 279.077†	867422.9	971.18	0.11%	[100] mg/L
Mn 257.610†	357068.5	213.26	0.06%	[1.0] mg/L
Mo 202.031†	11353.6	163.16	1.44%	[1.0] mg/L
Na 330.237†	48472.8	72.19	0.15%	[100] mg/L
Ni 231.604†	26969.1	20.71	0.08%	[1.0] mg/L
Pb 220.353†	4130.4	60.44	1.46%	[1.0] mg/L
Sb 206.836†	1386.2	27.25	1.97%	[1.0] mg/L
Se 196.026†	736.3	14.56	1.98%	[1.0] mg/L
Sn 189.927†	3630.9	50.96	1.40%	[1.0] mg/L
Ti 334.940†	310943.6	2655.95	0.85%	[1.0] mg/L
Tl 190.801†	847.8	26.57	3.13%	[1.0] mg/L
V 290.880†	89431.0	176.89	0.20%	[1.0] mg/L
Zn 206.200†	35334.8	593.35	1.68%	[1.0] mg/L

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Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	16.2	94700	0.00000	0.999996	
Al 308.215	3	Lin, Calc Int	283.9	15990	0.00000	0.999975	
As 188.979	4	Lin, Calc Int	0.2	1160	0.00000	0.999993	
Ba 233.527	3	Lin, Calc Int	123.0	101100	0.00000	0.999987	
Be 313.107	4	Lin, Calc Int	691.8	1935000	0.00000	0.999995	
Ca 317.933	3	Lin, Calc Int	12742.9	49990	0.00000	0.999916	
Cd 228.802	4	Lin, Calc Int	12.5	28360	0.00000	0.999995	
Co 228.616	3	Lin, Calc Int	60.9	27930	0.00000	0.999960	
Cr 267.716	3	Lin, Calc Int	-29.1	30260	0.00000	0.999991	
Cu 327.393	3	Lin, Calc Int	51.6	76570	0.00000	0.999997	
Fe 273.955	3	Lin, Calc Int	302.1	20940	0.00000	0.999983	
K 404.721	3	Lin, Calc Int	-466.7	26.28	0.00000	0.944685	
Mg 279.077	3	Lin, Calc Int	1611.2	8683	0.00000	0.999967	
Mn 257.610	3	Lin, Calc Int	375.4	357200	0.00000	0.999992	
Mo 202.031	3	Lin, Calc Int	11.6	11360	0.00000	0.999989	
Na 330.237	3	Lin, Calc Int	-226.8	483.5	0.00000	0.999789	
Ni 231.604	3	Lin, Calc Int	17.3	26950	0.00000	0.999999	
Pb 220.353	4	Lin, Calc Int	10.3	4136	0.00000	0.999946	
Sb 206.836	3	Lin, Calc Int	0.2	1388	0.00000	0.999994	
Se 196.026	3	Lin, Calc Int	0.1	736.3	0.00000	1.000000	
Sn 189.927	3	Lin, Calc Int	4.6	3636	0.00000	0.999972	
Ti 334.940	3	Lin, Calc Int	152.5	311000	0.00000	0.999997	
Tl 190.801	4	Lin, Calc Int	0.6	850.1	0.00000	0.999957	
V 290.880	3	Lin, Calc Int	193.6	89530	0.00000	0.999957	
Zn 206.200	3	Lin, Calc Int	63.2	35400	0.00000	0.999945	

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Sequence No.: 6                               Autosampler Location: 3
Sample ID: ICS3 V-128661                     Date Collected: 12/12/2011 1:33:26 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: ICS3 V-128661

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	488153.3	96.2 %	0.17			0.18%
Y 371.029	184869.4	93.8 %	0.30			0.31%
Ag 328.068†	9405.3	0.101322 mg/L	0.0007275	0.101322 mg/L	0.0007275	0.72%
QC value within limits for Ag		328.068 Recovery = 101.32%				
Al 308.215†	80623.8	5.01082 mg/L	0.000006	5.01082 mg/L	0.000006	0.00%
QC value within limits for Al		308.215 Recovery = 100.22%				
As 188.979†	579.9	0.502365 mg/L	0.0048504	0.502365 mg/L	0.0048504	0.97%
QC value within limits for As		188.979 Recovery = 100.47%				
Ba 233.527†	50909.5	0.502499 mg/L	0.0002286	0.502499 mg/L	0.0002286	0.05%
QC value within limits for Ba		233.527 Recovery = 100.50%				
Be 313.107†	965436.6	0.498666 mg/L	0.0012460	0.498666 mg/L	0.0012460	0.25%
QC value within limits for Be		313.107 Recovery = 99.73%				
Ca 317.933†	2515972.3	50.0766 mg/L	0.46772	50.0766 mg/L	0.46772	0.93%
QC value within limits for Ca		317.933 Recovery = 100.15%				
Cd 228.802†	14273.8	0.503586 mg/L	0.0008806	0.503586 mg/L	0.0008806	0.17%
QC value within limits for Cd		228.802 Recovery = 100.72%				
Co 228.616†	14238.8	0.507044 mg/L	0.0011734	0.507044 mg/L	0.0011734	0.23%
QC value within limits for Co		228.616 Recovery = 101.41%				
Cr 267.716†	15085.3	0.499964 mg/L	0.0007414	0.499964 mg/L	0.0007414	0.15%
QC value within limits for Cr		267.716 Recovery = 99.99%				
Cu 327.393†	38197.3	0.501576 mg/L	0.0022980	0.501576 mg/L	0.0022980	0.46%
QC value within limits for Cu		327.393 Recovery = 100.32%				
Fe 273.955†	105592.7	5.02843 mg/L	0.006718	5.02843 mg/L	0.006718	0.13%
QC value within limits for Fe		273.955 Recovery = 100.57%				
K 404.721†	879.0	51.2039 mg/L	2.75285	51.2039 mg/L	2.75285	5.38%
Mg 279.077†	441379.7	50.6593 mg/L	0.04262	50.6593 mg/L	0.04262	0.08%
QC value within limits for Mg		279.077 Recovery = 101.32%				
Mn 257.610†	179486.9	0.500781 mg/L	0.0003991	0.500781 mg/L	0.0003991	0.08%
QC value within limits for Mn		257.610 Recovery = 100.16%				
Mo 202.031†	5716.3	0.502236 mg/L	0.0002417	0.502236 mg/L	0.0002417	0.05%
QC value within limits for Mo		202.031 Recovery = 100.45%				
Na 330.237†	23256.4	48.5666 mg/L	0.10713	48.5666 mg/L	0.10713	0.22%
QC value within limits for Na		330.237 Recovery = 97.13%				
Ni 231.604†	13527.5	0.502669 mg/L	0.0011116	0.502669 mg/L	0.0011116	0.22%
QC value within limits for Ni		231.604 Recovery = 100.53%				
Pb 220.353†	2099.0	0.502293 mg/L	0.0024534	0.502293 mg/L	0.0024534	0.49%
QC value within limits for Pb		220.353 Recovery = 100.46%				
Sb 206.836†	698.0	0.512659 mg/L	0.0057035	0.512659 mg/L	0.0057035	1.11%
QC value within limits for Sb		206.836 Recovery = 102.53%				
Se 196.026†	369.9	0.505032 mg/L	0.0139706	0.505032 mg/L	0.0139706	2.77%
QC value within limits for Se		196.026 Recovery = 101.01%				
Sn 189.927†	1857.8	0.510523 mg/L	0.0018264	0.510523 mg/L	0.0018264	0.36%
QC value within limits for Sn		189.927 Recovery = 102.10%				
Ti 334.940†	15357.3	0.498864 mg/L	0.0008592	0.498864 mg/L	0.0008592	0.17%
QC value within limits for Ti		334.940 Recovery = 99.77%				
Tl 190.801†	422.6	0.498166 mg/L	0.0023313	0.498166 mg/L	0.0023313	0.47%
QC value within limits for Tl		190.801 Recovery = 99.63%				
V 290.880†	45302.1	0.495456 mg/L	0.0005268	0.495456 mg/L	0.0005268	0.11%
QC value within limits for V		290.880 Recovery = 99.09%				
Zn 206.200†	18062.9	0.507503 mg/L	0.0014346	0.507503 mg/L	0.0014346	0.28%
QC value within limits for Zn		206.200 Recovery = 101.50%				

All analyte(s) passed QC.

Sequence No.: 7  
 Sample ID: ICV (2) V-128235  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 11  
 Date Collected: 12/12/2011 1:36:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICV (2) V-128235

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	472617.5	93.1 %	0.47			0.50%
Y 371.029	179342.6	91.0 %	0.39			0.43%
Ag 328.068†	18924.6	0.204029 mg/L	0.0015294	0.204029 mg/L	0.0015294	0.75%
	QC value within limits for Ag	328.068 Recovery =	102.01%			
Al 308.215†	162069.3	10.0905 mg/L	0.02797	10.0905 mg/L	0.02797	0.28%
	QC value within limits for Al	308.215 Recovery =	100.91%			
As 188.979†	1174.6	1.01762 mg/L	0.015783	1.01762 mg/L	0.015783	1.55%
	QC value within limits for As	188.979 Recovery =	101.76%			
Ba 233.527†	103232.2	1.02020 mg/L	0.001863	1.02020 mg/L	0.001863	0.18%
	QC value within limits for Ba	233.527 Recovery =	102.02%			
Be 313.107†	1967326.9	1.01653 mg/L	0.000083	1.01653 mg/L	0.000083	0.01%
	QC value within limits for Be	313.107 Recovery =	101.65%			
Ca 317.933†	5059743.4	100.964 mg/L	0.5271	100.964 mg/L	0.5271	0.52%
	QC value within limits for Ca	317.933 Recovery =	100.96%			
Cd 228.802†	28603.8	1.00959 mg/L	0.013865	1.00959 mg/L	0.013865	1.37%
	QC value within limits for Cd	228.802 Recovery =	100.96%			
Co 228.616†	28533.6	1.01828 mg/L	0.015141	1.01828 mg/L	0.015141	1.49%
	QC value within limits for Co	228.616 Recovery =	101.83%			
Cr 267.716†	30387.6	1.00615 mg/L	0.002130	1.00615 mg/L	0.002130	0.21%
	QC value within limits for Cr	267.716 Recovery =	100.61%			
Cu 327.393†	77978.8	1.02455 mg/L	0.000789	1.02455 mg/L	0.000789	0.08%
	QC value within limits for Cu	327.393 Recovery =	102.45%			
Fe 273.955†	209996.9	10.0145 mg/L	0.02233	10.0145 mg/L	0.02233	0.22%
	QC value within limits for Fe	273.955 Recovery =	100.15%			
K 404.721†	1529.9	75.9692 mg/L	2.48837	75.9692 mg/L	2.48837	3.28%
Mg 279.077†	886815.2	101.972 mg/L	0.2295	101.972 mg/L	0.2295	0.23%
	QC value within limits for Mg	279.077 Recovery =	101.97%			
Mn 257.610†	357817.4	0.999368 mg/L	0.0020729	0.999368 mg/L	0.0020729	0.21%
	QC value within limits for Mn	257.610 Recovery =	99.94%			
Mo 202.031†	11527.5	1.01384 mg/L	0.014675	1.01384 mg/L	0.014675	1.45%
	QC value within limits for Mo	202.031 Recovery =	101.38%			
Na 330.237†	48500.3	100.774 mg/L	0.4769	100.774 mg/L	0.4769	0.47%
	QC value within limits for Na	330.237 Recovery =	100.77%			
Ni 231.604†	26983.6	1.00336 mg/L	0.013269	1.00336 mg/L	0.013269	1.32%
	QC value within limits for Ni	231.604 Recovery =	100.34%			
Pb 220.353†	4200.5	1.00764 mg/L	0.019185	1.00764 mg/L	0.019185	1.90%
	QC value within limits for Pb	220.353 Recovery =	100.76%			
Sb 206.836†	1381.7	1.01532 mg/L	0.019624	1.01532 mg/L	0.019624	1.93%
	QC value within limits for Sb	206.836 Recovery =	101.53%			
Se 196.026†	737.6	1.00714 mg/L	0.015305	1.00714 mg/L	0.015305	1.52%
	QC value within limits for Se	196.026 Recovery =	100.71%			
Sn 189.927†	3723.0	1.02433 mg/L	0.010700	1.02433 mg/L	0.010700	1.04%
	QC value within limits for Sn	189.927 Recovery =	102.43%			
Ti 334.940†	311323.7	1.00018 mg/L	0.005149	1.00018 mg/L	0.005149	0.51%
	QC value within limits for Ti	334.940 Recovery =	100.02%			
Tl 190.801†	894.5	1.05517 mg/L	0.011949	1.05517 mg/L	0.011949	1.13%
	QC value within limits for Tl	190.801 Recovery =	105.52%			
V 290.880†	90577.2	0.992671 mg/L	0.0024144	0.992671 mg/L	0.0024144	0.24%
	QC value within limits for V	290.880 Recovery =	99.27%			
Zn 206.200†	35714.7	1.00517 mg/L	0.015033	1.00517 mg/L	0.015033	1.50%
	QC value within limits for Zn	206.200 Recovery =	100.52%			

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/12/2011 1:41:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	504763.1	99.5 %		0.82			0.83%
Y 371.029	196337.4	99.6 %		0.91			0.92%
Ag 328.068†	-46.4	-0.0006690 mg/L		0.00020025	-0.0006690 mg/L	0.00020025	29.93%
QC value within limits for Ag 328.068			Recovery = Not calculated				
Al 308.215†	28.2	-0.0159697 mg/L		0.00062888	-0.0159697 mg/L	0.00062888	3.94%
QC value within limits for Al 308.215			Recovery = Not calculated				
As 188.979†	0.2	-0.0000026 mg/L		0.00099473	-0.0000026 mg/L	0.00099473	>999.9%
QC value within limits for As 188.979			Recovery = Not calculated				
Ba 233.527†	28.1	-0.0009395 mg/L		0.00007163	-0.0009395 mg/L	0.00007163	7.62%
QC value within limits for Ba 233.527			Recovery = Not calculated				
Be 313.107†	-23.9	-0.0003700 mg/L		0.00001883	-0.0003700 mg/L	0.00001883	5.09%
QC value within limits for Be 313.107			Recovery = Not calculated				
Ca 317.933†	37.7	-0.254166 mg/L		0.0011095	-0.254166 mg/L	0.0011095	0.44%
QC value within limits for Ca 317.933			Recovery = Not calculated				
Cd 228.802†	7.4	-0.0001796 mg/L		0.00058168	-0.0001796 mg/L	0.00058168	323.82%
QC value within limits for Cd 228.802			Recovery = Not calculated				
Co 228.616†	8.4	-0.0018820 mg/L		0.00031558	-0.0018820 mg/L	0.00031558	16.77%
QC value within limits for Co 228.616			Recovery = Not calculated				
Cr 267.716†	-4.0	0.0008294 mg/L		0.00035839	0.0008294 mg/L	0.00035839	43.21%
QC value within limits for Cr 267.716			Recovery = Not calculated				
Cu 327.393†	39.2	-0.0001719 mg/L		0.00002904	-0.0001719 mg/L	0.00002904	16.90%
QC value within limits for Cu 327.393			Recovery = Not calculated				
Fe 273.955†	20.4	-0.0134547 mg/L		0.00019332	-0.0134547 mg/L	0.00019332	1.44%
QC value within limits for Fe 273.955			Recovery = Not calculated				
K 404.721†	-635.9	-6.43703 mg/L		4.245974	-6.43703 mg/L	4.245974	65.96%
Mg 279.077†	14.3	-0.183926 mg/L		0.0038506	-0.183926 mg/L	0.0038506	2.09%
QC value within limits for Mg 279.077			Recovery = Not calculated				
Mn 257.610†	39.9	-0.0009366 mg/L		0.00002427	-0.0009366 mg/L	0.00002427	2.59%
QC value within limits for Mn 257.610			Recovery = Not calculated				
Mo 202.031†	4.0	-0.0006702 mg/L		0.00019545	-0.0006702 mg/L	0.00019545	29.16%
QC value within limits for Mo 202.031			Recovery = Not calculated				
Na 330.237†	-48.9	0.368064 mg/L		0.0345247	0.368064 mg/L	0.0345247	9.38%
QC value within limits for Na 330.237			Recovery = Not calculated				
Ni 231.604†	30.5	0.0004850 mg/L		0.00010208	0.0004850 mg/L	0.00010208	21.05%
QC value within limits for Ni 231.604			Recovery = Not calculated				
Pb 220.353†	11.8	0.0003846 mg/L		0.00006646	0.0003846 mg/L	0.00006646	17.28%
QC value within limits for Pb 220.353			Recovery = Not calculated				
Sb 206.836†	0.1	-0.0001100 mg/L		0.00119155	-0.0001100 mg/L	0.00119155	>999.9%
QC value within limits for Sb 206.836			Recovery = Not calculated				
Se 196.026†	-5.8	-0.0080138 mg/L		0.00092949	-0.0080138 mg/L	0.00092949	11.60%
QC value within limits for Se 196.026			Recovery = Not calculated				
Sn 189.927†	8.5	0.0010563 mg/L		0.00062003	0.0010563 mg/L	0.00062003	58.70%
QC value within limits for Sn 189.927			Recovery = Not calculated				
Ti 334.940†	207.9	0.0001779 mg/L		0.00026095	0.0001779 mg/L	0.00026095	146.67%
QC value within limits for Ti 334.940			Recovery = Not calculated				
Tl 190.801†	-0.2	-0.0009878 mg/L		0.00343252	-0.0009878 mg/L	0.00343252	347.50%
QC value within limits for Tl 190.801			Recovery = Not calculated				
V 290.880†	72.4	-0.0013222 mg/L		0.00170849	-0.0013222 mg/L	0.00170849	129.22%
QC value within limits for V 290.880			Recovery = Not calculated				
Zn 206.200†	-9.7	-0.0020496 mg/L		0.00018237	-0.0020496 mg/L	0.00018237	8.90%
QC value within limits for Zn 206.200			Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 9  
 Sample ID: ICSA V-129812  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/12/2011 1:44:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSA V-129812

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	455067.1		89.7 %	1.35			1.51%
Y 371.029	172127.7		87.3 %	1.04			1.19%
Ag 328.068†	-3052.5	0.0179092	mg/L	0.00141599	0.0179092	mg/L	0.00141599 7.91%
Al 308.215†	7980992.0	499.041	mg/L	16.0039	499.041	mg/L	16.0039 3.21%
QC value within limits for Al 308.215 Recovery = 99.81%							
As 188.979†	-0.7	0.0014184	mg/L	0.00195811	0.0014184	mg/L	0.00195811 138.05%
Ba 233.527†	694.1	0.0056500	mg/L	0.00017235	0.0056500	mg/L	0.00017235 3.05%
Be 313.107†	-1268.5	-0.0010133	mg/L	0.00000384	-0.0010133	mg/L	0.00000384 0.38%
Ca 317.933†	24576212.8	491.387	mg/L	8.0366	491.387	mg/L	8.0366 1.64%
QC value within limits for Ca 317.933 Recovery = 98.28%							
Cd 228.802†	59.7	0.0016637	mg/L	0.00076740	0.0016637	mg/L	0.00076740 46.13%
Co 228.616†	95.4	0.0012371	mg/L	0.00030816	0.0012371	mg/L	0.00030816 24.91%
Cr 267.716†	-82.3	-0.0017591	mg/L	0.00021245	-0.0017591	mg/L	0.00021245 12.08%
Cu 327.393†	-2215.0	-0.0008796	mg/L	0.00121196	-0.0008796	mg/L	0.00121196 137.78%
Fe 273.955†	4008680.9	191.431	mg/L	6.7456	191.431	mg/L	6.7456 3.52%
QC value within limits for Fe 273.955 Recovery = 95.72%							
K 404.721†	-1848.2	-52.5644	mg/L	19.68061	-52.5644	mg/L	19.68061 37.44%
Mg 279.077†	4495640.9	517.585	mg/L	18.8837	517.585	mg/L	18.8837 3.65%
QC value within limits for Mg 279.077 Recovery = 103.52%							
Mn 257.610†	987.2	-0.0072839	mg/L	0.00053114	-0.0072839	mg/L	0.00053114 7.29%
Mo 202.031†	10.2	-0.0001172	mg/L	0.00011887	-0.0001172	mg/L	0.00011887 101.39%
Na 330.237†	3803.6	8.33550	mg/L	0.271503	8.33550	mg/L	0.271503 3.26%
Ni 231.604†	7.7	-0.0003568	mg/L	0.00004949	-0.0003568	mg/L	0.00004949 13.87%
Pb 220.353†	1335.2	-0.0172899	mg/L	0.00812015	-0.0172899	mg/L	0.00812015 46.96%
Sb 206.836†	12.8	-0.0063186	mg/L	0.00100990	-0.0063186	mg/L	0.00100990 15.98%
Se 196.026†	-59.9	-0.0050418	mg/L	0.00753075	-0.0050418	mg/L	0.00753075 149.37%
Sn 189.927†	-32.8	0.0090893	mg/L	0.00026467	0.0090893	mg/L	0.00026467 2.91%
Ti 334.940†	-253.2	-0.0013039	mg/L	0.00003044	-0.0013039	mg/L	0.00003044 2.33%
Tl 190.801†	-3.6	-0.0017815	mg/L	0.00536969	-0.0017815	mg/L	0.00536969 301.42%
V 290.880†	10293.0	0.0164946	mg/L	0.00056231	0.0164946	mg/L	0.00056231 3.41%
Zn 206.200†	-65.7	-0.0207878	mg/L	0.00079232	-0.0207878	mg/L	0.00079232 3.81%

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: ICSAB V-128667

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 12/12/2011 1:50:00 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	460680.3	90.8 %	1.45			1.60%
Y 371.029	174268.2	88.4 %	1.60			1.81%
Ag 328.068†	97131.3	1.07516 mg/L	0.019250	1.07516 mg/L	0.019250	1.79%
QC value within limits for Ag		328.068	Recovery = 107.52%			
Al 308.215†	7848887.0	490.781 mg/L	13.2286	490.781 mg/L	13.2286	2.70%
QC value within limits for Al		308.215	Recovery = 98.16%			
As 188.979†	1192.2	1.03130 mg/L	0.003331	1.03130 mg/L	0.003331	0.32%
QC value within limits for As		188.979	Recovery = 103.13%			
Ba 233.527†	53100.2	0.524174 mg/L	0.0058733	0.524174 mg/L	0.0058733	1.12%
QC value within limits for Ba		233.527	Recovery = 104.83%			
Be 313.107†	978599.6	0.505470 mg/L	0.0130275	0.505470 mg/L	0.0130275	2.58%
QC value within limits for Be		313.107	Recovery = 101.09%			
Ca 317.933†	24320619.8	486.274 mg/L	7.2471	486.274 mg/L	7.2471	1.49%
QC value within limits for Ca		317.933	Recovery = 97.25%			
Cd 228.802†	28975.4	1.02261 mg/L	0.010591	1.02261 mg/L	0.010591	1.04%
QC value within limits for Cd		228.802	Recovery = 102.26%			
Co 228.616†	13766.2	0.490480 mg/L	0.0051587	0.490480 mg/L	0.0051587	1.05%
QC value within limits for Co		228.616	Recovery = 98.10%			
Cr 267.716†	14792.6	0.489760 mg/L	0.0054927	0.489760 mg/L	0.0054927	1.12%
QC value within limits for Cr		267.716	Recovery = 97.95%			
Cu 327.393†	38270.0	0.527537 mg/L	0.0066764	0.527537 mg/L	0.0066764	1.27%
QC value within limits for Cu		327.393	Recovery = 105.51%			
Fe 273.955†	3956513.4	188.939 mg/L	4.7759	188.939 mg/L	4.7759	2.53%
QC value within limits for Fe		273.955	Recovery = 94.47%			
K 404.721†	-1602.9	-43.2280 mg/L	16.94412	-43.2280 mg/L	16.94412	39.20%
Mg 279.077†	4439593.5	511.130 mg/L	13.5699	511.130 mg/L	13.5699	2.65%
QC value within limits for Mg		279.077	Recovery = 102.23%			
Mn 257.610†	179505.9	0.492638 mg/L	0.0053646	0.492638 mg/L	0.0053646	1.09%
QC value within limits for Mn		257.610	Recovery = 98.53%			
Mo 202.031†	-17.6	-0.0023653 mg/L	0.00181133	-0.0023653 mg/L	0.00181133	76.58%
Na 330.237†	4295.7	9.35319 mg/L	0.136249	9.35319 mg/L	0.136249	1.46%
Ni 231.604†	25602.9	0.949306 mg/L	0.0117868	0.949306 mg/L	0.0117868	1.24%
QC value within limits for Ni		231.604	Recovery = 94.93%			
Pb 220.353†	5386.0	0.968300 mg/L	0.0042127	0.968300 mg/L	0.0042127	0.44%
QC value within limits for Pb		220.353	Recovery = 96.83%			
Sb 206.836†	1445.4	1.02793 mg/L	0.000820	1.02793 mg/L	0.000820	0.08%
QC value within limits for Sb		206.836	Recovery = 102.79%			
Se 196.026†	689.6	1.01120 mg/L	0.006858	1.01120 mg/L	0.006858	0.68%
QC value within limits for Se		196.026	Recovery = 101.12%			
Sn 189.927†	-26.7	0.0105026 mg/L	0.00107042	0.0105026 mg/L	0.00107042	10.19%
Ti 334.940†	-242.7	-0.0013905 mg/L	0.00032684	-0.0013905 mg/L	0.00032684	23.51%
Tl 190.801†	836.4	0.985976 mg/L	0.0048363	0.985976 mg/L	0.0048363	0.49%
QC value within limits for Tl		190.801	Recovery = 98.60%			
V 290.880†	52402.8	0.488060 mg/L	0.0045360	0.488060 mg/L	0.0045360	0.93%
QC value within limits for V		290.880	Recovery = 97.61%			
Zn 206.200†	35449.9	0.983373 mg/L	0.0085382	0.983373 mg/L	0.0085382	0.87%
QC value within limits for Zn		206.200	Recovery = 98.34%			

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 11679 (100)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 14  
 Date Collected: 12/12/2011 1:55:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: MB 11679 (100)

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	516736.2	102 %	%	0.1			0.13%
Y 371.029	200034.2	101 %	%	0.1			0.11%
Ag 328.068†	41.7	0.0002752	mg/L	0.00016125	0.0002752	0.00016125	58.60%
Al 308.215†	75.0	-0.0130426	mg/L	0.00533247	-0.0130426	0.00533247	40.89%
As 188.979†	0.3	0.0000776	mg/L	0.00141085	0.0000776	0.00141085	>999.9%
Ba 233.527†	83.3	-0.0003936	mg/L	0.00008581	-0.0003936	0.00008581	21.80%
Be 313.107†	-17.5	-0.0003666	mg/L	0.00000122	-0.0003666	0.00000122	0.33%
Ca 317.933†	22577.7	0.196742	mg/L	0.0028321	0.196742	0.0028321	1.44%
Cd 228.802†	-8.2	-0.0007308	mg/L	0.00043389	-0.0007308	0.00043389	59.37%
Co 228.616†	-7.5	-0.0024527	mg/L	0.00057816	-0.0024527	0.00057816	23.57%
Cr 267.716†	14.5	0.0014406	mg/L	0.00027649	0.0014406	0.00027649	19.19%
Cu 327.393†	-11.6	-0.0008175	mg/L	0.00026143	-0.0008175	0.00026143	31.98%
Fe 273.955†	356.6	0.0026018	mg/L	0.00078187	0.0026018	0.00078187	30.05%
K 404.721†	-66.9	15.2122	mg/L	2.10768	15.2122	2.10768	13.86%
Mg 279.077†	441.5	-0.134728	mg/L	0.0072292	-0.134728	0.0072292	5.37%
Mn 257.610†	220.1	-0.0004330	mg/L	0.00000454	-0.0004330	0.00000454	1.05%
Mo 202.031†	3.6	-0.0007043	mg/L	0.00141915	-0.0007043	0.00141915	201.49%
Na 330.237†	64.6	0.602789	mg/L	0.0986927	0.602789	0.0986927	16.37%
Ni 231.604†	37.2	0.0007333	mg/L	0.00041433	0.0007333	0.00041433	56.50%
Pb 220.353†	10.9	0.0001729	mg/L	0.00008925	0.0001729	0.00008925	51.63%
Sb 206.836†	5.9	0.0040879	mg/L	0.00186015	0.0040879	0.00186015	45.50%
Se 196.026†	-7.5	-0.0102932	mg/L	0.00201204	-0.0102932	0.00201204	19.55%
Sn 189.927†	50.9	0.0127301	mg/L	0.00009035	0.0127301	0.00009035	0.71%
Ti 334.940†	199.1	0.0001495	mg/L	0.00020498	0.0001495	0.00020498	137.15%
Tl 190.801†	-1.3	-0.0022818	mg/L	0.00457328	-0.0022818	0.00457328	200.43%
V 290.880†	52.2	-0.0015573	mg/L	0.00024840	-0.0015573	0.00024840	15.95%
Zn 206.200†	202.3	0.0039370	mg/L	0.00012995	0.0039370	0.00012995	3.30%

Sequence No.: 12  
 Sample ID: LCS 11679  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 12/12/2011 1:58:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCS 11679

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	515556.1	102	%	0.7				0.72%
Y 371.029	233460.4	118	%	1.1				0.89%
Ag 328.068†	68738.8	0.751647	mg/L	0.0043322	0.751647	mg/L	0.0043322	0.58%
Al 308.215†	1198114.8	74.8723	mg/L	0.42569	74.8723	mg/L	0.42569	0.57%
As 188.979†	1834.0	1.59453	mg/L	0.003462	1.59453	mg/L	0.003462	0.22%
Ba 233.527†	383396.0	3.79223	mg/L	0.003857	3.79223	mg/L	0.003857	0.10%
Be 313.107†	2690977.6	1.39058	mg/L	0.011073	1.39058	mg/L	0.011073	0.80%
Ca 317.933†	3769571.5	75.1546	mg/L	0.80799	75.1546	mg/L	0.80799	1.08%
Cd 228.802†	40976.9	1.44637	mg/L	0.000671	1.44637	mg/L	0.000671	0.05%
Co 228.616†	30225.1	1.07489	mg/L	0.007492	1.07489	mg/L	0.007492	0.70%
Cr 267.716†	53028.3	1.75441	mg/L	0.001737	1.75441	mg/L	0.001737	0.10%
Cu 327.393†	124268.6	1.63745	mg/L	0.003782	1.63745	mg/L	0.003782	0.23%
Fe 273.955†	2493464.9	119.067	mg/L	1.0009	119.067	mg/L	1.0009	0.84%
K 404.721†	444.6	34.6777	mg/L	1.26958	34.6777	mg/L	1.26958	3.66%
Mg 279.077†	306119.1	35.0944	mg/L	0.05013	35.0944	mg/L	0.05013	0.14%
Mn 257.610†	1313784.2	3.67706	mg/L	0.031098	3.67706	mg/L	0.031098	0.85%
Mo 202.031†	12921.5	1.13706	mg/L	0.009733	1.13706	mg/L	0.009733	0.86%
Na 330.237†	3854.1	8.43993	mg/L	0.042833	8.43993	mg/L	0.042833	0.51%
Ni 231.604†	36296.1	1.34923	mg/L	0.001733	1.34923	mg/L	0.001733	0.13%
Pb 220.353†	4435.0	1.01995	mg/L	0.000303	1.01995	mg/L	0.000303	0.03%
Sb 206.836†	1003.8	0.750924	mg/L	0.0018178	0.750924	mg/L	0.0018178	0.24%
Se 196.026†	1066.8	1.47632	mg/L	0.003296	1.47632	mg/L	0.003296	0.22%
Sn 189.927†	5720.2	1.58574	mg/L	0.012931	1.58574	mg/L	0.012931	0.82%
Ti 334.940†	835794.3	2.68618	mg/L	0.009320	2.68618	mg/L	0.009320	0.35%
Tl 190.801†	1318.8	1.56143	mg/L	0.009952	1.56143	mg/L	0.009952	0.64%
V 290.880†	102965.8	1.13655	mg/L	0.001507	1.13655	mg/L	0.001507	0.13%
Zn 206.200†	124764.3	3.52391	mg/L	0.000402	3.52391	mg/L	0.000402	0.01%

Sequence No.: 13  
 Sample ID: LCS 11679 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 16  
 Date Collected: 12/12/2011 2:03:12 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCS 11679 MR

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
Sc 361.383	515845.7	102 %	%	0.5				0.53%
Y 371.029	232867.4	118 %	%	0.1				0.08%
Ag 328.068†	68098.1	0.745012	mg/L	0.0068855	0.745012	mg/L	0.0068855	0.92%
Al 308.215†	1198073.8	74.8688	mg/L	0.24291	74.8688	mg/L	0.24291	0.32%
As 188.979†	1832.5	1.59340	mg/L	0.002167	1.59340	mg/L	0.002167	0.14%
Ba 233.527†	393189.3	3.88913	mg/L	0.015370	3.88913	mg/L	0.015370	0.40%
Be 313.107†	2735675.2	1.41368	mg/L	0.007545	1.41368	mg/L	0.007545	0.53%
Ca 317.933†	4016551.7	80.0954	mg/L	0.09377	80.0954	mg/L	0.09377	0.12%
Cd 228.802†	40433.2	1.42725	mg/L	0.000633	1.42725	mg/L	0.000633	0.04%
Co 228.616†	30532.0	1.08595	mg/L	0.004788	1.08595	mg/L	0.004788	0.44%
Cr 267.716†	54058.2	1.78848	mg/L	0.018411	1.78848	mg/L	0.018411	1.03%
Cu 327.393†	126574.6	1.66773	mg/L	0.008298	1.66773	mg/L	0.008298	0.50%
Fe 273.955†	2495150.3	119.148	mg/L	0.2593	119.148	mg/L	0.2593	0.22%
K 404.721†	883.8	51.3883	mg/L	5.88363	51.3883	mg/L	5.88363	11.45%
Mg 279.077†	308406.3	35.3585	mg/L	0.11215	35.3585	mg/L	0.11215	0.32%
Mn 257.610†	1338056.2	3.74503	mg/L	0.009145	3.74503	mg/L	0.009145	0.24%
Mo 202.031†	13318.0	1.17197	mg/L	0.002859	1.17197	mg/L	0.002859	0.24%
Na 330.237†	3983.2	8.70700	mg/L	0.074849	8.70700	mg/L	0.074849	0.86%
Ni 231.604†	37259.2	1.38506	mg/L	0.000676	1.38506	mg/L	0.000676	0.05%
Pb 220.353†	4421.9	1.01685	mg/L	0.001822	1.01685	mg/L	0.001822	0.18%
Sb 206.836†	1034.1	0.773326	mg/L	0.0072201	0.773326	mg/L	0.0072201	0.93%
Se 196.026†	1072.7	1.48447	mg/L	0.008017	1.48447	mg/L	0.008017	0.54%
Sn 189.927†	5750.6	1.59409	mg/L	0.007303	1.59409	mg/L	0.007303	0.46%
Ti 334.940†	832066.2	2.67418	mg/L	0.007284	2.67418	mg/L	0.007284	0.27%
Tl 190.801†	1320.4	1.56319	mg/L	0.009140	1.56319	mg/L	0.009140	0.58%
V 290.880†	105156.9	1.16100	mg/L	0.003104	1.16100	mg/L	0.003104	0.27%
Zn 206.200†	126545.0	3.57425	mg/L	0.021204	3.57425	mg/L	0.021204	0.59%

Sequence No.: 14  
 Sample ID: 63081-038  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 17  
 Date Collected: 12/12/2011 2:08:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-038

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	529275.7	104	%	2.3			2.22%
Y 371.029	226536.0	115	%	2.4			2.05%
Ag 328.068†	-1775.4	0.0125434	mg/L	0.00054302	0.0125434	mg/L	0.00054302 4.33%
Al 308.215†	673690.3	42.1086	mg/L	0.39820	42.1086	mg/L	0.39820 0.95%
As 188.979†	56.6	0.0616022	mg/L	0.00124781	0.0616022	mg/L	0.00124781 2.03%
Ba 233.527†	112358.3	1.11049	mg/L	0.010058	1.11049	mg/L	0.010058 0.91%
Be 313.107†	4971.2	0.0022120	mg/L	0.00001380	0.0022120	mg/L	0.00001380 0.62%
Ca 317.933†	1459486.2	28.9418	mg/L	0.37941	28.9418	mg/L	0.37941 1.31%
Cd 228.802†	115.7	0.0037972	mg/L	0.00001741	0.0037972	mg/L	0.00001741 0.46%
Co 228.616†	1530.8	0.0470769	mg/L	0.00158807	0.0470769	mg/L	0.00158807 3.37%
Cr 267.716†	3578.2	0.119203	mg/L	0.0030106	0.119203	mg/L	0.0030106 2.53%
Cu 327.393†	38942.0	0.522160	mg/L	0.0055990	0.522160	mg/L	0.0055990 1.07%
Fe 273.955†	3166737.8	151.221	mg/L	1.3365	151.221	mg/L	1.3365 0.88%
K 404.721†	805.2	48.3980	mg/L	20.23625	48.3980	mg/L	20.23625 41.81%
Mg 279.077†	119420.9	13.5685	mg/L	0.13587	13.5685	mg/L	0.13587 1.00%
Mn 257.610†	787376.6	2.20318	mg/L	0.019795	2.20318	mg/L	0.019795 0.90%
Mo 202.031†	74.7	0.0058240	mg/L	0.00058836	0.0058240	mg/L	0.00058836 10.10%
Na 330.237†	893.1	2.31610	mg/L	0.254390	2.31610	mg/L	0.254390 10.98%
Ni 231.604†	2877.5	0.106139	mg/L	0.0046850	0.106139	mg/L	0.0046850 4.41%
Pb 220.353†	12778.7	3.05412	mg/L	0.071411	3.05412	mg/L	0.071411 2.34%
Sb 206.836†	12.0	0.0139312	mg/L	0.00442628	0.0139312	mg/L	0.00442628 31.77%
Se 196.026†	-17.0	0.0112568	mg/L	0.00320020	0.0112568	mg/L	0.00320020 28.43%
Sn 189.927†	1367.9	0.391764	mg/L	0.0070730	0.391764	mg/L	0.0070730 1.81%
Ti 334.940†	745485.4	2.39623	mg/L	0.013306	2.39623	mg/L	0.013306 0.56%
Tl 190.801†	-16.4	-0.0094091	mg/L	0.00069414	-0.0094091	mg/L	0.00069414 7.38%
V 290.880†	16013.8	0.166518	mg/L	0.0024846	0.166518	mg/L	0.0024846 1.49%
Zn 206.200†	46525.7	1.31217	mg/L	0.009239	1.31217	mg/L	0.009239 0.70%

Sequence No.: 15  
 Sample ID: 63081-038 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 18  
 Date Collected: 12/12/2011 2:11:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-038 MR

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	519548.4		102 %	0.3				0.30%
Y 371.029	222511.5		113 %	0.1				0.06%
Ag 328.068†	-1746.8	0.0132126	mg/L	0.00063251	0.0132126	mg/L	0.00063251	4.79%
Al 308.215†	687954.6	43.0006	mg/L	0.10806	43.0006	mg/L	0.10806	0.25%
As 188.979†	46.2	0.0528506	mg/L	0.00004876	0.0528506	mg/L	0.00004876	0.09%
Ba 233.527†	75985.2	0.750606	mg/L	0.0010202	0.750606	mg/L	0.0010202	0.14%
Be 313.107†	5172.1	0.0023158	mg/L	0.00001194	0.0023158	mg/L	0.00001194	0.52%
Ca 317.933†	1418162.7	28.1151	mg/L	0.08048	28.1151	mg/L	0.08048	0.29%
Cd 228.802†	162.1	0.0054323	mg/L	0.00052514	0.0054323	mg/L	0.00052514	9.67%
Co 228.616†	1514.1	0.0470132	mg/L	0.00052204	0.0470132	mg/L	0.00052204	1.11%
Cr 267.716†	3635.2	0.121087	mg/L	0.0003088	0.121087	mg/L	0.0003088	0.26%
Cu 327.393†	34023.2	0.457430	mg/L	0.0013415	0.457430	mg/L	0.0013415	0.29%
Fe 273.955†	3206450.0	153.118	mg/L	0.3322	153.118	mg/L	0.3322	0.22%
K 404.721†	294.8	28.9764	mg/L	3.08311	28.9764	mg/L	3.08311	10.64%
Mg 279.077†	125847.2	14.3086	mg/L	0.01970	14.3086	mg/L	0.01970	0.14%
Mn 257.610†	760150.2	2.12694	mg/L	0.003352	2.12694	mg/L	0.003352	0.16%
Mo 202.031†	66.7	0.0051376	mg/L	0.00223115	0.0051376	mg/L	0.00223115	43.43%
Na 330.237†	852.6	2.23247	mg/L	0.038025	2.23247	mg/L	0.038025	1.70%
Ni 231.604†	2871.2	0.105903	mg/L	0.0001282	0.105903	mg/L	0.0001282	0.12%
Pb 220.353†	11477.0	2.73886	mg/L	0.010371	2.73886	mg/L	0.010371	0.38%
Sb 206.836†	10.0	0.0120778	mg/L	0.00057232	0.0120778	mg/L	0.00057232	4.74%
Se 196.026†	-24.6	0.0015612	mg/L	0.00280579	0.0015612	mg/L	0.00280579	179.73%
Sn 189.927†	1070.5	0.309990	mg/L	0.0012215	0.309990	mg/L	0.0012215	0.39%
Ti 334.940†	672741.9	2.16236	mg/L	0.010289	2.16236	mg/L	0.010289	0.48%
Tl 190.801†	-15.8	-0.0097238	mg/L	0.00663428	-0.0097238	mg/L	0.00663428	68.23%
V 290.880†	15619.9	0.161894	mg/L	0.0005268	0.161894	mg/L	0.0005268	0.33%
Zn 206.200†	48864.6	1.37822	mg/L	0.003316	1.37822	mg/L	0.003316	0.24%

Sequence No.: 16  
 Sample ID: 63081-038 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 19  
 Date Collected: 12/12/2011 2:14:48 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-038 MS 1  
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Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	504056.7	99.3 %	2.18			2.20%	
Y 371.029	215299.8	109 %	2.3			2.06%	
Ag 328.068†	6686.6	0.103406 mg/L	0.0010352	0.103406 mg/L	0.0010352	1.00%	
Al 308.215†	896599.3	56.0358 mg/L	1.21909	56.0358 mg/L	1.21909	2.18%	
As 188.979†	582.1	0.516194 mg/L	0.0070144	0.516194 mg/L	0.0070144	1.36%	
Ba 233.527†	143620.7	1.41981 mg/L	0.002444	1.41981 mg/L	0.002444	0.17%	
Be 313.107†	883122.7	0.456119 mg/L	0.0093339	0.456119 mg/L	0.0093339	2.05%	
Ca 317.933†	3796238.0	75.6881 mg/L	1.59133	75.6881 mg/L	1.59133	2.10%	
Cd 228.802†	13176.2	0.464972 mg/L	0.0075601	0.464972 mg/L	0.0075601	1.63%	
Co 228.616†	14762.8	0.520329 mg/L	0.0082064	0.520329 mg/L	0.0082064	1.58%	
Cr 267.716†	17177.6	0.569051 mg/L	0.0020008	0.569051 mg/L	0.0020008	0.35%	
Cu 327.393†	79653.9	1.05683 mg/L	0.004798	1.05683 mg/L	0.004798	0.45%	
Fe 273.955†	3211073.0	153.339 mg/L	3.0795	153.339 mg/L	3.0795	2.01%	
K 404.721†	1285.7	66.6773 mg/L	4.65017	66.6773 mg/L	4.65017	6.97%	
Mg 279.077†	525129.0	60.3039 mg/L	0.10349	60.3039 mg/L	0.10349	0.17%	
Mn 257.610†	910554.4	2.54741 mg/L	0.051901	2.54741 mg/L	0.051901	2.04%	
Mo 202.031†	5172.3	0.454652 mg/L	0.0083951	0.454652 mg/L	0.0083951	1.85%	
Na 330.237†	21681.4	45.3092 mg/L	0.14654	45.3092 mg/L	0.14654	0.32%	
Ni 231.604†	15144.9	0.562547 mg/L	0.0088787	0.562547 mg/L	0.0088787	1.58%	
Pb 220.353†	14122.9	3.37070 mg/L	0.041256	3.37070 mg/L	0.041256	1.22%	
Sb 206.836†	429.7	0.323488 mg/L	0.0081689	0.323488 mg/L	0.0081689	2.53%	
Se 196.026†	296.6	0.439610 mg/L	0.0025619	0.439610 mg/L	0.0025619	0.58%	
Sn 189.927†	2840.7	0.797309 mg/L	0.0099223	0.797309 mg/L	0.0099223	1.24%	
Ti 334.940†	881873.0	2.83461 mg/L	0.070900	2.83461 mg/L	0.070900	2.50%	
Tl 190.801†	376.4	0.454465 mg/L	0.0037204	0.454465 mg/L	0.0037204	0.82%	
V 290.880†	55957.6	0.605059 mg/L	0.0022921	0.605059 mg/L	0.0022921	0.38%	
Zn 206.200†	70490.1	1.98822 mg/L	0.005493	1.98822 mg/L	0.005493	0.28%	

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Sequence No.: 17                               Autosampler Location: 20
Sample ID: 63081-038 MS 2                     Date Collected: 12/12/2011 2:18:23 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                            Initial Sample Vol:
Dilution:                                    Sample Prep Vol:
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## Mean Data: 63081-038 MS 2

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
Sc 361.383	507856.4	100 %		0.8				0.76%
Y 371.029	219853.5	112 %		0.7				0.65%
Ag 328.068†	6688.8	0.105557 mg/L	0.0002087		0.105557 mg/L	0.0002087		0.20%
Al 308.215†	1017251.1	63.5802 mg/L	0.02840		63.5802 mg/L	0.02840		0.04%
As 188.979†	569.6	0.506003 mg/L	0.0036595		0.506003 mg/L	0.0036595		0.72%
Ba 233.527†	142182.1	1.40558 mg/L	0.003245		1.40558 mg/L	0.003245		0.23%
Be 313.107†	872575.4	0.450667 mg/L	0.0005320		0.450667 mg/L	0.0005320		0.12%
Ca 317.933†	3750259.1	74.7683 mg/L	0.28937		74.7683 mg/L	0.28937		0.39%
Cd 228.802†	13084.1	0.461774 mg/L	0.0022052		0.461774 mg/L	0.0022052		0.48%
Co 228.616†	14891.2	0.523042 mg/L	0.0037178		0.523042 mg/L	0.0037178		0.71%
Cr 267.716†	17867.4	0.591847 mg/L	0.0010886		0.591847 mg/L	0.0010886		0.18%
Cu 327.393†	75635.3	1.00676 mg/L	0.000315		1.00676 mg/L	0.000315		0.03%
Fe 273.955†	3432009.6	163.890 mg/L	0.0422		163.890 mg/L	0.0422		0.03%
K 404.721†	1553.3	76.8600 mg/L	5.49457		76.8600 mg/L	5.49457		7.15%
Mg 279.077†	546776.0	62.7971 mg/L	0.23051		62.7971 mg/L	0.23051		0.37%
Mn 257.610†	1003193.6	2.80674 mg/L	0.000746		2.80674 mg/L	0.000746		0.03%
Mo 202.031†	5202.5	0.457289 mg/L	0.0000615		0.457289 mg/L	0.0000615		0.01%
Na 330.237†	21559.3	45.0568 mg/L	0.19637		45.0568 mg/L	0.19637		0.44%
Ni 231.604†	16019.3	0.594998 mg/L	0.0038657		0.594998 mg/L	0.0038657		0.65%
Pb 220.353†	14182.1	3.37940 mg/L	0.019848		3.37940 mg/L	0.019848		0.59%
Sb 206.836†	410.9	0.311584 mg/L	0.0003294		0.311584 mg/L	0.0003294		0.11%
Se 196.026†	293.4	0.437390 mg/L	0.0063800		0.437390 mg/L	0.0063800		1.46%
Sn 189.927†	2914.2	0.819105 mg/L	0.0021768		0.819105 mg/L	0.0021768		0.27%
Ti 334.940†	1136273.7	3.65251 mg/L	0.005286		3.65251 mg/L	0.005286		0.14%
Tl 190.801†	374.4	0.455851 mg/L	0.0076748		0.455851 mg/L	0.0076748		1.68%
V 290.880†	57462.6	0.620901 mg/L	0.0003162		0.620901 mg/L	0.0003162		0.05%
Zn 206.200†	65824.6	1.85638 mg/L	0.007422		1.85638 mg/L	0.007422		0.40%

Sequence No.: 18  
 Sample ID: 63081-038 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 21  
 Date Collected: 12/12/2011 2:21:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-038 PS

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	504288.8		99.4 %	1.50			1.51%	
Y 371.029	214830.1		109 %	1.5			1.41%	
Ag 328.068†	6580.7	0.102467	mg/L	0.0007295	0.102467	mg/L	0.0007295	0.71%
Al 308.215†	745877.2	46.6104	mg/L	0.02316	46.6104	mg/L	0.02316	0.05%
As 188.979†	602.3	0.534353	mg/L	0.0104148	0.534353	mg/L	0.0104148	1.95%
Ba 233.527†	160959.2	1.59137	mg/L	0.003706	1.59137	mg/L	0.003706	0.23%
Be 313.107†	909662.1	0.469837	mg/L	0.0085766	0.469837	mg/L	0.0085766	1.83%
Ca 317.933†	3803982.7	75.8430	mg/L	1.45310	75.8430	mg/L	1.45310	1.92%
Cd 228.802†	13534.6	0.477645	mg/L	0.0084523	0.477645	mg/L	0.0084523	1.77%
Co 228.616†	15300.9	0.539580	mg/L	0.0110106	0.539580	mg/L	0.0110106	2.04%
Cr 267.716†	17894.3	0.592756	mg/L	0.0005885	0.592756	mg/L	0.0005885	0.10%
Cu 327.393†	77114.8	1.02376	mg/L	0.000667	1.02376	mg/L	0.000667	0.07%
Fe 273.955†	3229088.3	154.199	mg/L	2.8314	154.199	mg/L	2.8314	1.84%
K 404.721†	1543.4	76.4837	mg/L	20.70109	76.4837	mg/L	20.70109	27.07%
Mg 279.077†	538696.3	61.8669	mg/L	0.14212	61.8669	mg/L	0.14212	0.23%
Mn 257.610†	938835.7	2.62658	mg/L	0.048243	2.62658	mg/L	0.048243	1.84%
Mo 202.031†	5417.0	0.476151	mg/L	0.0105255	0.476151	mg/L	0.0105255	2.21%
Na 330.237†	22748.5	47.5162	mg/L	0.02996	47.5162	mg/L	0.02996	0.06%
Ni 231.604†	15757.3	0.585329	mg/L	0.0122018	0.585329	mg/L	0.0122018	2.08%
Pb 220.353†	14203.5	3.39624	mg/L	0.065757	3.39624	mg/L	0.065757	1.94%
Sb 206.836†	656.4	0.487519	mg/L	0.0054968	0.487519	mg/L	0.0054968	1.13%
Se 196.026†	318.8	0.469614	mg/L	0.0153460	0.469614	mg/L	0.0153460	3.27%
Sn 189.927†	3162.7	0.885988	mg/L	0.0133547	0.885988	mg/L	0.0133547	1.51%
Ti 334.940†	887103.0	2.85142	mg/L	0.046415	2.85142	mg/L	0.046415	1.63%
Tl 190.801†	388.6	0.468768	mg/L	0.0163017	0.468768	mg/L	0.0163017	3.48%
V 290.880†	59062.3	0.639445	mg/L	0.0009581	0.639445	mg/L	0.0009581	0.15%
Zn 206.200†	63361.7	1.78684	mg/L	0.007379	1.78684	mg/L	0.007379	0.41%

Sequence No.: 19

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/12/2011 2:25:33 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	488780.5	96.3 %	2.17			2.26%
Y 371.029	186196.7	94.4 %	2.12			2.25%
Ag 328.068†	9416.8	0.101416 mg/L	0.0006701	0.101416 mg/L	0.0006701	0.66%
QC value within limits for Ag		328.068	Recovery = 101.42%			
Al 308.215†	79872.1	4.96376 mg/L	0.004806	4.96376 mg/L	0.004806	0.10%
QC value within limits for Al		308.215	Recovery = 99.28%			
As 188.979†	566.9	0.491141 mg/L	0.0109302	0.491141 mg/L	0.0109302	2.23%
QC value within limits for As		188.979	Recovery = 98.23%			
Ba 233.527†	51107.3	0.504456 mg/L	0.0000472	0.504456 mg/L	0.0000472	0.01%
QC value within limits for Ba		233.527	Recovery = 100.89%			
Be 313.107†	960690.7	0.496213 mg/L	0.0009410	0.496213 mg/L	0.0009410	0.19%
QC value within limits for Be		313.107	Recovery = 99.24%			
Ca 317.933†	2494104.6	49.6391 mg/L	0.04155	49.6391 mg/L	0.04155	0.08%
QC value within limits for Ca		317.933	Recovery = 99.28%			
Cd 228.802†	14114.4	0.497954 mg/L	0.0092323	0.497954 mg/L	0.0092323	1.85%
QC value within limits for Cd		228.802	Recovery = 99.59%			
Co 228.616†	14161.4	0.504281 mg/L	0.0096817	0.504281 mg/L	0.0096817	1.92%
QC value within limits for Co		228.616	Recovery = 100.86%			
Cr 267.716†	14890.5	0.493530 mg/L	0.0078866	0.493530 mg/L	0.0078866	1.60%
QC value within limits for Cr		267.716	Recovery = 98.71%			
Cu 327.393†	38420.7	0.504471 mg/L	0.0008305	0.504471 mg/L	0.0008305	0.16%
QC value within limits for Cu		327.393	Recovery = 100.89%			
Fe 273.955†	103745.1	4.94019 mg/L	0.009637	4.94019 mg/L	0.009637	0.20%
QC value within limits for Fe		273.955	Recovery = 98.80%			
K 404.721†	1339.0	68.7085 mg/L	2.73117	68.7085 mg/L	2.73117	3.98%
Mg 279.077†	434093.2	49.8202 mg/L	0.19880	49.8202 mg/L	0.19880	0.40%
QC value within limits for Mg		279.077	Recovery = 99.64%			
Mn 257.610†	178194.5	0.497178 mg/L	0.0002503	0.497178 mg/L	0.0002503	0.05%
QC value within limits for Mn		257.610	Recovery = 99.44%			
Mo 202.031†	5742.1	0.504500 mg/L	0.0111313	0.504500 mg/L	0.0111313	2.21%
QC value within limits for Mo		202.031	Recovery = 100.90%			
Na 330.237†	23041.6	48.1224 mg/L	0.08210	48.1224 mg/L	0.08210	0.17%
QC value within limits for Na		330.237	Recovery = 96.24%			
Ni 231.604†	13332.6	0.495445 mg/L	0.0082334	0.495445 mg/L	0.0082334	1.66%
QC value within limits for Ni		231.604	Recovery = 99.09%			
Pb 220.353†	2064.9	0.494086 mg/L	0.0074592	0.494086 mg/L	0.0074592	1.51%
QC value within limits for Pb		220.353	Recovery = 98.82%			
Sb 206.836†	681.8	0.501002 mg/L	0.0174413	0.501002 mg/L	0.0174413	3.48%
QC value within limits for Sb		206.836	Recovery = 100.20%			
Se 196.026†	356.9	0.487289 mg/L	0.0054620	0.487289 mg/L	0.0054620	1.12%
QC value within limits for Se		196.026	Recovery = 97.46%			
Sn 189.927†	1834.0	0.503976 mg/L	0.0072203	0.503976 mg/L	0.0072203	1.43%
QC value within limits for Sn		189.927	Recovery = 100.80%			
Ti 334.940†	155270.4	0.498587 mg/L	0.0003160	0.498587 mg/L	0.0003160	0.06%
QC value within limits for Ti		334.940	Recovery = 99.72%			
Tl 190.801†	428.7	0.505355 mg/L	0.0133405	0.505355 mg/L	0.0133405	2.64%
QC value within limits for Tl		190.801	Recovery = 101.07%			
V 290.880†	45253.3	0.495057 mg/L	0.0020324	0.495057 mg/L	0.0020324	0.41%
QC value within limits for V		290.880	Recovery = 99.01%			
Zn 206.200†	17627.2	0.495214 mg/L	0.0075493	0.495214 mg/L	0.0075493	1.52%
QC value within limits for Zn		206.200	Recovery = 99.04%			

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/12/2011 2:28:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	500704.0	98.7 %	0.34			0.34%
Y 371.029	195129.9	99.0 %	0.20			0.20%
Ag 328.068†	15.6	-0.0000143 mg/L	0.00015603	-0.0000143 mg/L	0.00015603	>999.9%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 308.215†	-12.0	-0.0184740 mg/L	0.00557944	-0.0184740 mg/L	0.00557944	30.20%
QC value within limits for Al 308.215		Recovery = Not calculated				
As 188.979†	-2.4	-0.0021828 mg/L	0.00304236	-0.0021828 mg/L	0.00304236	139.38%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	11.7	-0.0011016 mg/L	0.00008061	-0.0011016 mg/L	0.00008061	7.32%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 313.107†	117.7	-0.0002968 mg/L	0.00002601	-0.0002968 mg/L	0.00002601	8.77%
QC value within limits for Be 313.107		Recovery = Not calculated				
Ca 317.933†	94.4	-0.253032 mg/L	0.0011466	-0.253032 mg/L	0.0011466	0.45%
QC value within limits for Ca 317.933		Recovery = Not calculated				
Cd 228.802†	-5.6	-0.0006408 mg/L	0.00073108	-0.0006408 mg/L	0.00073108	114.09%
QC value within limits for Cd 228.802		Recovery = Not calculated				
Co 228.616†	-7.9	-0.0024658 mg/L	0.00026487	-0.0024658 mg/L	0.00026487	10.74%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cr 267.716†	-5.0	0.0007956 mg/L	0.00026258	0.0007956 mg/L	0.00026258	33.00%
QC value within limits for Cr 267.716		Recovery = Not calculated				
Cu 327.393†	-49.4	-0.0013303 mg/L	0.00032878	-0.0013303 mg/L	0.00032878	24.71%
QC value within limits for Cu 327.393		Recovery = Not calculated				
Fe 273.955†	47.1	-0.0121806 mg/L	0.00237173	-0.0121806 mg/L	0.00237173	19.47%
QC value within limits for Fe 273.955		Recovery = Not calculated				
K 404.721†	160.7	23.8751 mg/L	3.26554	23.8751 mg/L	3.26554	13.68%
Mg 279.077†	43.8	-0.180535 mg/L	0.0074807	-0.180535 mg/L	0.0074807	4.14%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610†	27.0	-0.0009728 mg/L	0.00013471	-0.0009728 mg/L	0.00013471	13.85%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031†	0.4	-0.0009798 mg/L	0.00135944	-0.0009798 mg/L	0.00135944	138.75%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Na 330.237†	123.9	0.725373 mg/L	0.2049156	0.725373 mg/L	0.2049156	28.25%
QC value within limits for Na 330.237		Recovery = Not calculated				
Ni 231.604†	1.2	-0.0006016 mg/L	0.00039614	-0.0006016 mg/L	0.00039614	65.85%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Pb 220.353†	16.9	0.0016127 mg/L	0.00037171	0.0016127 mg/L	0.00037171	23.05%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Sb 206.836†	-1.4	-0.0011968 mg/L	0.00339091	-0.0011968 mg/L	0.00339091	283.33%
QC value within limits for Sb 206.836		Recovery = Not calculated				
Se 196.026†	-6.5	-0.0090426 mg/L	0.00238804	-0.0090426 mg/L	0.00238804	26.41%
QC value within limits for Se 196.026		Recovery = Not calculated				
Sn 189.927†	3.6	-0.0002713 mg/L	0.00030663	-0.0002713 mg/L	0.00030663	113.03%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940†	138.5	-0.0000451 mg/L	0.00013983	-0.0000451 mg/L	0.00013983	309.91%
QC value within limits for Ti 334.940		Recovery = Not calculated				
Tl 190.801†	-1.1	-0.0020236 mg/L	0.00167212	-0.0020236 mg/L	0.00167212	82.63%
QC value within limits for Tl 190.801		Recovery = Not calculated				
V 290.880†	-18.4	-0.0023371 mg/L	0.00032083	-0.0023371 mg/L	0.00032083	13.73%
QC value within limits for V 290.880		Recovery = Not calculated				
Zn 206.200†	-1.2	-0.0018112 mg/L	0.00058110	-0.0018112 mg/L	0.00058110	32.08%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63081-038 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 22  
 Date Collected: 12/12/2011 2:32:15 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-038 SD

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	502733.7	99.1 %		1.42			1.43%
Y 371.029	198286.2	101 %		1.4			1.42%
Ag 328.068†	-387.9	0.0023298 mg/L		0.00022740	0.0023298 mg/L	0.00022740	9.76%
Al 308.215†	141521.0	8.83168 mg/L		0.001935	8.83168 mg/L	0.001935	0.02%
As 188.979†	11.7	0.0126733 mg/L		0.00245437	0.0126733 mg/L	0.00245437	19.37%
Ba 233.527†	23369.9	0.230012 mg/L		0.0014392	0.230012 mg/L	0.0014392	0.63%
Be 313.107†	1072.5	0.0001968 mg/L		0.00005435	0.0001968 mg/L	0.00005435	27.62%
Ca 317.933†	310250.4	5.95158 mg/L		0.040804	5.95158 mg/L	0.040804	0.69%
Cd 228.802†	33.8	0.0007825 mg/L		0.00048220	0.0007825 mg/L	0.00048220	61.62%
Co 228.616†	322.0	0.0082071 mg/L		0.00103715	0.0082071 mg/L	0.00103715	12.64%
Cr 267.716†	744.7	0.0255703 mg/L		0.00108317	0.0255703 mg/L	0.00108317	4.24%
Cu 327.393†	8161.9	0.108880 mg/L		0.0012679	0.108880 mg/L	0.0012679	1.16%
Fe 273.955†	664514.2	31.7212 mg/L		0.06618	31.7212 mg/L	0.06618	0.21%
K 404.721†	-131.7	12.7480 mg/L		7.46941	12.7480 mg/L	7.46941	58.59%
Mg 279.077†	25080.1	2.70296 mg/L		0.001025	2.70296 mg/L	0.001025	0.04%
Mn 257.610†	165121.6	0.461204 mg/L		0.0001834	0.461204 mg/L	0.0001834	0.04%
Mo 202.031†	17.2	0.0005492 mg/L		0.00016900	0.0005492 mg/L	0.00016900	30.77%
Na 330.237†	126.5	0.730794 mg/L		0.2334803	0.730794 mg/L	0.2334803	31.95%
Ni 231.604†	601.3	0.0216698 mg/L		0.00227718	0.0216698 mg/L	0.00227718	10.51%
Pb 220.353†	2662.5	0.634328 mg/L		0.0176310	0.634328 mg/L	0.0176310	2.78%
Sb 206.836†	5.8	0.0051222 mg/L		0.00459777	0.0051222 mg/L	0.00459777	89.76%
Se 196.026†	-4.3	0.0012888 mg/L		0.00070614	0.0012888 mg/L	0.00070614	54.79%
Sn 189.927†	282.4	0.0799080 mg/L		0.00269984	0.0799080 mg/L	0.00269984	3.38%
Ti 334.940†	153221.4	0.492113 mg/L		0.0004370	0.492113 mg/L	0.0004370	0.09%
Tl 190.801†	-8.6	-0.0086588 mg/L		0.00210599	-0.0086588 mg/L	0.00210599	24.32%
V 290.880†	3349.7	0.0331388 mg/L		0.00105673	0.0331388 mg/L	0.00105673	3.19%
Zn 206.200†	9533.3	0.267454 mg/L		0.0074959	0.267454 mg/L	0.0074959	2.80%

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Sequence No.: 22                               Autosampler Location: 23
Sample ID: 63081-036                           Date Collected: 12/12/2011 2:35:36 PM
Analyst:                                         Data Type: Original
Initial Sample Wt:                               Initial Sample Vol:
Dilution:                                       Sample Prep Vol:
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Mean Data: 63081-036

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	494360.2	97.4 %	0.36			0.37%
Y 371.029	205529.7	104 %	0.2			0.19%
Ag 328.068†	-4753.7	0.0305680 mg/L	0.00020051	0.0305680 mg/L	0.00020051	0.66%
Al 308.215†	436815.9	27.2966 mg/L	0.11020	27.2966 mg/L	0.11020	0.40%
As 188.979†	159.7	0.175684 mg/L	0.0011452	0.175684 mg/L	0.0011452	0.65%
Ba 233.527†	87576.9	0.865298 mg/L	0.0012577	0.865298 mg/L	0.0012577	0.15%
Be 313.107†	2822.0	0.0011011 mg/L	0.00008971	0.0011011 mg/L	0.00008971	8.15%
Ca 317.933†	1949673.3	38.7479 mg/L	0.15194	38.7479 mg/L	0.15194	0.39%
Cd 228.802†	355.9	0.0124050 mg/L	0.00052861	0.0124050 mg/L	0.00052861	4.26%
Co 228.616†	1852.3	0.0586984 mg/L	0.00093290	0.0586984 mg/L	0.00093290	1.59%
Cr 267.716†	3219.6	0.107355 mg/L	0.0004113	0.107355 mg/L	0.0004113	0.38%
Cu 327.393†	306658.0	4.03079 mg/L	0.011286	4.03079 mg/L	0.011286	0.28%
Fe 273.955†	8230642.5	393.061 mg/L	0.9624	393.061 mg/L	0.9624	0.24%
K 404.721†	-1109.1	-24.4400 mg/L	2.58749	-24.4400 mg/L	2.58749	10.59%
Mg 279.077†	42319.7	4.68861 mg/L	0.007787	4.68861 mg/L	0.007787	0.17%
Mn 257.610†	590833.2	1.65306 mg/L	0.002931	1.65306 mg/L	0.002931	0.18%
Mo 202.031†	92.2	0.0076859 mg/L	0.00110827	0.0076859 mg/L	0.00110827	14.42%
Na 330.237†	1674.9	3.93296 mg/L	0.042832	3.93296 mg/L	0.042832	1.09%
Ni 231.604†	5414.1	0.200258 mg/L	0.0017821	0.200258 mg/L	0.0017821	0.89%
Pb 220.353†	8107.7	1.92692 mg/L	0.001811	1.92692 mg/L	0.001811	0.09%
Sb 206.836†	11.2	0.0159646 mg/L	0.00128066	0.0159646 mg/L	0.00128066	8.02%
Se 196.026†	-59.1	0.0119335 mg/L	0.00714472	0.0119335 mg/L	0.00714472	59.87%
Sn 189.927†	512.1	0.180816 mg/L	0.0005498	0.180816 mg/L	0.0005498	0.30%
Ti 334.940†	731279.5	2.35056 mg/L	0.006958	2.35056 mg/L	0.006958	0.30%
Tl 190.801†	-21.9	-0.0159813 mg/L	0.00095198	-0.0159813 mg/L	0.00095198	5.96%
V 290.880†	12051.1	0.111048 mg/L	0.0003701	0.111048 mg/L	0.0003701	0.33%
Zn 206.200†	102342.2	2.88912 mg/L	0.002013	2.88912 mg/L	0.002013	0.07%

Sequence No.: 23

Autosampler Location: 24

Sample ID: 63081-040

Date Collected: 12/12/2011 2:39:15 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63081-040

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	498027.1	98.1	%	0.70				0.71%
Y 371.029	208775.2	106	%	0.9				0.84%
Ag 328.068†	-5579.6	0.0359801	mg/L	0.00093420	0.0359801	mg/L	0.00093420	2.60%
Al 308.215†	505046.0	31.5623	mg/L	0.00535	31.5623	mg/L	0.00535	0.02%
As 188.979†	176.1	0.197125	mg/L	0.0009357	0.197125	mg/L	0.0009357	0.47%
Ba 233.527†	240901.1	2.38234	mg/L	0.000461	2.38234	mg/L	0.000461	0.02%
Be 313.107†	4684.8	0.0020639	mg/L	0.00000057	0.0020639	mg/L	0.00000057	0.03%
Ca 317.933†	4630946.6	92.3862	mg/L	0.27617	92.3862	mg/L	0.27617	0.30%
Cd 228.802†	310.3	0.0105976	mg/L	0.00028169	0.0105976	mg/L	0.00028169	2.66%
Co 228.616†	1768.7	0.0591929	mg/L	0.00012255	0.0591929	mg/L	0.00012255	0.21%
Cr 267.716†	3093.4	0.103218	mg/L	0.0012498	0.103218	mg/L	0.0012498	1.21%
Cu 327.393†	35412.5	0.489996	mg/L	0.0007049	0.489996	mg/L	0.0007049	0.14%
Fe 273.955†	9556725.8	456.392	mg/L	0.5908	456.392	mg/L	0.5908	0.13%
K 404.721†	-713.3	-9.38143	mg/L	4.371720	-9.38143	mg/L	4.371720	46.60%
Mg 279.077†	62990.2	7.06989	mg/L	0.000754	7.06989	mg/L	0.000754	0.01%
Mn 257.610†	771669.8	2.15933	mg/L	0.000213	2.15933	mg/L	0.000213	0.01%
Mo 202.031†	432.9	0.0375372	mg/L	0.00159283	0.0375372	mg/L	0.00159283	4.24%
Na 330.237†	3320.4	7.33621	mg/L	0.231110	7.33621	mg/L	0.231110	3.15%
Ni 231.604†	1826.0	0.0672102	mg/L	0.00070618	0.0672102	mg/L	0.00070618	1.05%
Pb 220.353†	14578.1	3.48597	mg/L	0.037747	3.48597	mg/L	0.037747	1.08%
Sb 206.836†	32.5	0.0290626	mg/L	0.00109452	0.0290626	mg/L	0.00109452	3.77%
Se 196.026†	-57.3	0.0310565	mg/L	0.00164242	0.0310565	mg/L	0.00164242	5.29%
Sn 189.927†	3039.2	0.881335	mg/L	0.0075433	0.881335	mg/L	0.0075433	0.86%
Ti 334.940†	266135.6	0.855116	mg/L	0.0136237	0.855116	mg/L	0.0136237	1.59%
Tl 190.801†	-27.5	-0.0297592	mg/L	0.00392391	-0.0297592	mg/L	0.00392391	13.19%
V 290.880†	16976.1	0.162358	mg/L	0.0002213	0.162358	mg/L	0.0002213	0.14%
Zn 206.200†	77495.3	2.18717	mg/L	0.008751	2.18717	mg/L	0.008751	0.40%

Sequence No.: 24  
 Sample ID: 63081-041  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 25  
 Date Collected: 12/12/2011 2:42:53 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-041

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	497791.3		98.1 %	0.67				0.68%
Y 371.029	201459.4		102 %	0.8				0.77%
Ag 328.068†	-4017.0	0.0256088	mg/L	0.00016017	0.0256088	mg/L	0.00016017	0.63%
Al 308.215†	521543.2	32.5947	mg/L	0.05855	32.5947	mg/L	0.05855	0.18%
As 188.979†	27.4	0.0553428	mg/L	0.00468692	0.0553428	mg/L	0.00468692	8.47%
Ba 233.527†	50465.9	0.498110	mg/L	0.0003717	0.498110	mg/L	0.0003717	0.07%
Be 313.107†	2724.9	0.0010509	mg/L	0.00001517	0.0010509	mg/L	0.00001517	1.44%
Ca 317.933†	1863331.2	37.0206	mg/L	0.07216	37.0206	mg/L	0.07216	0.19%
Cd 228.802†	102.2	0.0033009	mg/L	0.00016299	0.0033009	mg/L	0.00016299	4.94%
Co 228.616†	2189.5	0.0692005	mg/L	0.00153118	0.0692005	mg/L	0.00153118	2.21%
Cr 267.716†	3849.0	0.128151	mg/L	0.0013922	0.128151	mg/L	0.0013922	1.09%
Cu 327.393†	10246.0	0.158055	mg/L	0.0000731	0.158055	mg/L	0.0000731	0.05%
Fe 273.955†	6924874.6	330.701	mg/L	2.2707	330.701	mg/L	2.2707	0.69%
K 404.721†	-742.5	-10.4939	mg/L	1.11772	-10.4939	mg/L	1.11772	10.65%
Mg 279.077†	127177.1	14.4618	mg/L	0.02448	14.4618	mg/L	0.02448	0.17%
Mn 257.610†	2016494.6	5.64441	mg/L	0.038948	5.64441	mg/L	0.038948	0.69%
Mo 202.031†	77.6	0.0059012	mg/L	0.00057657	0.0059012	mg/L	0.00057657	9.77%
Na 330.237†	458.8	1.41807	mg/L	0.155602	1.41807	mg/L	0.155602	10.97%
Ni 231.604†	2528.7	0.0931944	mg/L	0.00198406	0.0931944	mg/L	0.00198406	2.13%
Pb 220.353†	5565.9	1.30945	mg/L	0.012101	1.30945	mg/L	0.012101	0.92%
Sb 206.836†	4.4	0.0116772	mg/L	0.00307424	0.0116772	mg/L	0.00307424	26.33%
Se 196.026†	-53.5	-0.0008468	mg/L	0.00474260	-0.0008468	mg/L	0.00474260	560.08%
Sn 189.927†	299.2	0.116378	mg/L	0.0018505	0.116378	mg/L	0.0018505	1.59%
Ti 334.940†	942071.5	3.02826	mg/L	0.032027	3.02826	mg/L	0.032027	1.06%
Tl 190.801†	-30.3	-0.0241112	mg/L	0.00385424	-0.0241112	mg/L	0.00385424	15.99%
V 290.880†	33191.4	0.348824	mg/L	0.0009282	0.348824	mg/L	0.0009282	0.27%
Zn 206.200†	15584.3	0.438141	mg/L	0.0062582	0.438141	mg/L	0.0062582	1.43%

Sequence No.: 25  
 Sample ID: 63081-043  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 26  
 Date Collected: 12/12/2011 2:46:28 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-043

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	518134.1	102	%	2.2			2.18%
Y 371.029	224285.4	114	%	1.3			1.17%
Ag 328.068†	-713.8	0.0061965	mg/L	0.00051193	0.0061965	0.00051193	8.26%
Al 308.215†	807175.5	50.4553	mg/L	0.08710	50.4553	0.08710	0.17%
As 188.979†	65.9	0.0606901	mg/L	0.00257278	0.0606901	0.00257278	4.24%
Ba 233.527†	155995.8	1.54226	mg/L	0.059294	1.54226	0.059294	3.84%
Be 313.107†	8375.8	0.0039717	mg/L	0.00017104	0.0039717	0.00017104	4.31%
Ca 317.933†	2191708.3	43.5898	mg/L	0.18949	43.5898	0.18949	0.43%
Cd 228.802†	76.5	0.0024354	mg/L	0.00027183	0.0024354	0.00027183	11.16%
Co 228.616†	1583.9	0.0524281	mg/L	0.00135976	0.0524281	0.00135976	2.59%
Cr 267.716†	2414.4	0.0807589	mg/L	0.00160179	0.0807589	0.00160179	1.98%
Cu 327.393†	24678.5	0.328607	mg/L	0.0125039	0.328607	0.0125039	3.81%
Fe 273.955†	1326673.7	63.3443	mg/L	0.01174	63.3443	0.01174	0.02%
K 404.721†	748.8	46.2523	mg/L	1.53475	46.2523	1.53475	3.32%
Mg 279.077†	36009.5	3.96203	mg/L	0.176204	3.96203	0.176204	4.45%
Mn 257.610†	324510.5	0.907439	mg/L	0.0326857	0.907439	0.0326857	3.60%
Mo 202.031†	189.5	0.0158741	mg/L	0.00076065	0.0158741	0.00076065	4.79%
Na 330.237†	2279.2	5.18292	mg/L	0.177219	5.18292	0.177219	3.42%
Ni 231.604†	3283.9	0.121245	mg/L	0.0036128	0.121245	0.0036128	2.98%
Pb 220.353†	9436.6	2.24385	mg/L	0.045385	2.24385	0.045385	2.02%
Sb 206.836†	4.3	0.0044405	mg/L	0.00105619	0.0044405	0.00105619	23.79%
Se 196.026†	-16.0	-0.0053437	mg/L	0.00808294	-0.0053437	0.00808294	151.26%
Sn 189.927†	1282.8	0.358522	mg/L	0.0069848	0.358522	0.0069848	1.95%
Ti 334.940†	282663.9	0.908260	mg/L	0.0360560	0.908260	0.0360560	3.97%
Tl 190.801†	-10.0	-0.0083013	mg/L	0.00436120	-0.0083013	0.00436120	52.54%
V 290.880†	16779.0	0.181283	mg/L	0.0080755	0.181283	0.0080755	4.45%
Zn 206.200†	37210.7	1.04931	mg/L	0.042273	1.04931	0.042273	4.03%

Sequence No.: 26  
 Sample ID: 63081-045  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 27  
 Date Collected: 12/12/2011 2:49:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-045

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	517242.6	102	%	0.4			0.43%
Y 371.029	235847.0	120	%	0.5			0.42%
Ag 328.068†	-2172.2	0.0140316	mg/L	0.00042768	0.0140316 mg/L	0.00042768	3.05%
Al 308.215†	1312022.5	82.0242	mg/L	0.01764	82.0242 mg/L	0.01764	0.02%
As 188.979†	19.1	0.0302220	mg/L	0.00215532	0.0302220 mg/L	0.00215532	7.13%
Ba 233.527†	85815.0	0.847865	mg/L	0.0007673	0.847865 mg/L	0.0007673	0.09%
Be 313.107†	8085.6	0.0038218	mg/L	0.00000285	0.0038218 mg/L	0.00000285	0.07%
Ca 317.933†	1452602.5	28.8041	mg/L	0.08732	28.8041 mg/L	0.08732	0.30%
Cd 228.802†	40.3	0.0011396	mg/L	0.00022341	0.0011396 mg/L	0.00022341	19.60%
Co 228.616†	1855.5	0.0575237	mg/L	0.00077155	0.0575237 mg/L	0.00077155	1.34%
Cr 267.716†	4976.7	0.165415	mg/L	0.0005088	0.165415 mg/L	0.0005088	0.31%
Cu 327.393†	22230.4	0.306460	mg/L	0.0015130	0.306460 mg/L	0.0015130	0.49%
Fe 273.955†	3750860.0	179.118	mg/L	0.1799	179.118 mg/L	0.1799	0.10%
K 404.721†	1149.4	61.4946	mg/L	3.45253	61.4946 mg/L	3.45253	5.61%
Mg 279.077†	139319.4	15.8602	mg/L	0.01283	15.8602 mg/L	0.01283	0.08%
Mn 257.610†	1213320.4	3.39569	mg/L	0.001824	3.39569 mg/L	0.001824	0.05%
Mo 202.031†	52.0	0.0036369	mg/L	0.00055673	0.0036369 mg/L	0.00055673	15.31%
Na 330.237†	462.7	1.42612	mg/L	0.068560	1.42612 mg/L	0.068560	4.81%
Ni 231.604†	2920.5	0.107728	mg/L	0.0014692	0.107728 mg/L	0.0014692	1.36%
Pb 220.353†	3971.7	0.897091	mg/L	0.0064157	0.897091 mg/L	0.0064157	0.72%
Sb 206.836†	-2.4	0.0040665	mg/L	0.00058316	0.0040665 mg/L	0.00058316	14.34%
Se 196.026†	-42.6	-0.0178124	mg/L	0.00258829	-0.0178124 mg/L	0.00258829	14.53%
Sn 189.927†	236.6	0.0837386	mg/L	0.00046502	0.0837386 mg/L	0.00046502	0.56%
Ti 334.940†	902051.4	2.89958	mg/L	0.001530	2.89958 mg/L	0.001530	0.05%
Tl 190.801†	-27.4	-0.0201502	mg/L	0.00030744	-0.0201502 mg/L	0.00030744	1.53%
V 290.880†	24994.2	0.264980	mg/L	0.0008772	0.264980 mg/L	0.0008772	0.33%
Zn 206.200†	13157.6	0.369601	mg/L	0.0013829	0.369601 mg/L	0.0013829	0.37%

Sequence No.: 27  
 Sample ID: 63081-046  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 28  
 Date Collected: 12/12/2011 2:53:23 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-046

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	533672.9	105 %	0.8			0.77%
Y 371.029	245554.6	125 %	0.7			0.56%
Ag 328.068†	-2988.2	0.0189604 mg/L	0.00020256	0.0189604 mg/L	0.00020256	1.07%
Al 308.215†	1424420.9	89.0525 mg/L	1.10099	89.0525 mg/L	1.10099	1.24%
As 188.979†	583.3	0.522871 mg/L	0.0036116	0.522871 mg/L	0.0036116	0.69%
Ba 233.527†	127179.7	1.25714 mg/L	0.001551	1.25714 mg/L	0.001551	0.12%
Be 313.107†	8669.1	0.0041234 mg/L	0.00002553	0.0041234 mg/L	0.00002553	0.62%
Ca 317.933†	1338313.7	26.5178 mg/L	0.34290	26.5178 mg/L	0.34290	1.29%
Cd 228.802†	610.2	0.0212157 mg/L	0.00045146	0.0212157 mg/L	0.00045146	2.13%
Co 228.616†	2046.1	0.0615057 mg/L	0.00088716	0.0615057 mg/L	0.00088716	1.44%
Cr 267.716†	7569.6	0.251093 mg/L	0.0026426	0.251093 mg/L	0.0026426	1.05%
Cu 327.393†	59096.4	0.794020 mg/L	0.0017774	0.794020 mg/L	0.0017774	0.22%
Fe 273.955†	5149149.9	245.897 mg/L	2.7244	245.897 mg/L	2.7244	1.11%
K 404.721†	1449.7	72.9180 mg/L	0.50061	72.9180 mg/L	0.50061	0.69%
Mg 279.077†	171450.8	19.5608 mg/L	0.01899	19.5608 mg/L	0.01899	0.10%
Mn 257.610†	1032334.4	2.88890 mg/L	0.032430	2.88890 mg/L	0.032430	1.12%
Mo 202.031†	49.8	0.0035245 mg/L	0.00020765	0.0035245 mg/L	0.00020765	5.89%
Na 330.237†	35.9	0.543342 mg/L	0.0030678	0.543342 mg/L	0.0030678	0.56%
Ni 231.604†	2588.3	0.0954014 mg/L	0.00118769	0.0954014 mg/L	0.00118769	1.24%
Pb 220.353†	11080.8	2.60890 mg/L	0.015395	2.60890 mg/L	0.015395	0.59%
Sb 206.836†	30.1	0.0306466 mg/L	0.00164323	0.0306466 mg/L	0.00164323	5.36%
Se 196.026†	-48.0	-0.0086499 mg/L	0.01186988	-0.0086499 mg/L	0.01186988	137.23%
Sn 189.927†	2510.9	0.716768 mg/L	0.0051998	0.716768 mg/L	0.0051998	0.73%
Ti 334.940†	1281905.6	4.12080 mg/L	0.040515	4.12080 mg/L	0.040515	0.98%
Tl 190.801†	-35.3	-0.0234890 mg/L	0.00127264	-0.0234890 mg/L	0.00127264	5.42%
V 290.880†	38039.4	0.406573 mg/L	0.0008940	0.406573 mg/L	0.0008940	0.22%
Zn 206.200†	27131.6	0.764334 mg/L	0.0057163	0.764334 mg/L	0.0057163	0.75%

Sequence No.: 28

Autosampler Location: 7

Sample ID: ICESA V-129812

Date Collected: 12/12/2011 2:56:56 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICESA V-129812

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	442601.4	87.2 %		0.53			0.61%
Y 371.029	167879.6	85.1 %		0.48			0.56%
Ag 328.068†	-2933.8	0.0199241 mg/L		0.00038047	0.0199241 mg/L	0.00038047	1.91%
Al 308.215†	8108660.4	507.024 mg/L		2.3309	507.024 mg/L	2.3309	0.46%
QC value within limits for Al 308.215 Recovery = 101.40%							
As 188.979†	-6.0	-0.0031738 mg/L		0.00039671	-0.0031738 mg/L	0.00039671	12.50%
Ba 233.527†	697.3	0.0056816 mg/L		0.00015320	0.0056816 mg/L	0.00015320	2.70%
Be 313.107†	-1227.3	-0.0009920 mg/L		0.00004975	-0.0009920 mg/L	0.00004975	5.01%
Ca 317.933†	24974903.8	499.363 mg/L		14.9564	499.363 mg/L	14.9564	3.00%
QC value within limits for Ca 317.933 Recovery = 99.87%							
Cd 228.802†	78.7	0.0023387 mg/L		0.00028034	0.0023387 mg/L	0.00028034	11.99%
Co 228.616†	118.2	0.0020567 mg/L		0.00022373	0.0020567 mg/L	0.00022373	10.88%
Cr 267.716†	-80.0	-0.0016805 mg/L		0.00015790	-0.0016805 mg/L	0.00015790	9.40%
Cu 327.393†	-2198.0	-0.0002061 mg/L		0.00005012	-0.0002061 mg/L	0.00005012	24.32%
Fe 273.955†	4068106.8	194.269 mg/L		1.0041	194.269 mg/L	1.0041	0.52%
QC value within limits for Fe 273.955 Recovery = 97.13%							
K 404.721†	-2058.7	-60.5735 mg/L		4.61695	-60.5735 mg/L	4.61695	7.62%
Mg 279.077†	4558721.8	524.850 mg/L		2.1376	524.850 mg/L	2.1376	0.41%
QC value within limits for Mg 279.077 Recovery = 104.97%							
Mn 257.610†	964.1	-0.0074744 mg/L		0.00002608	-0.0074744 mg/L	0.00002608	0.35%
Mo 202.031†	25.2	0.0011957 mg/L		0.00127558	0.0011957 mg/L	0.00127558	106.68%
Na 330.237†	3672.2	8.06368 mg/L		0.021993	8.06368 mg/L	0.021993	0.27%
Ni 231.604†	83.4	0.0024535 mg/L		0.00113294	0.0024535 mg/L	0.00113294	46.18%
Pb 220.353†	1361.0	-0.0164498 mg/L		0.00435516	-0.0164498 mg/L	0.00435516	26.48%
Sb 206.836†	24.8	0.0021247 mg/L		0.00792142	0.0021247 mg/L	0.00792142	372.83%
Se 196.026†	-55.5	0.0021083 mg/L		0.00245136	0.0021083 mg/L	0.00245136	116.27%
Sn 189.927†	-33.3	0.0092159 mg/L		0.00129484	0.0092159 mg/L	0.00129484	14.05%
Ti 334.940†	-317.8	-0.0015117 mg/L		0.00026522	-0.0015117 mg/L	0.00026522	17.54%
Tl 190.801†	-7.2	-0.0059286 mg/L		0.00118348	-0.0059286 mg/L	0.00118348	19.96%
V 290.880†	10375.0	0.0160522 mg/L		0.00263288	0.0160522 mg/L	0.00263288	16.40%
Zn 206.200†	-79.3	-0.0214144 mg/L		0.00049712	-0.0214144 mg/L	0.00049712	2.32%

All analyte(s) passed QC.

Sequence No.: 29

Autosampler Location: 8

Sample ID: ICSAB V-128667

Date Collected: 12/12/2011 3:01:56 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	444306.3	87.6 %	0.56			0.64%
Y 371.029	167994.8	85.2 %	0.47			0.56%
Ag 328.068†	99721.2	1.10360 mg/L	0.007258	1.10360 mg/L	0.007258	0.66%
QC value within limits for Ag	328.068	Recovery = 110.36%				
Al 308.215†	8090600.9	505.895 mg/L	6.3707	505.895 mg/L	6.3707	1.26%
QC value within limits for Al	308.215	Recovery = 101.18%				
As 188.979†	1204.2	1.04149 mg/L	0.025094	1.04149 mg/L	0.025094	2.41%
QC value within limits for As	188.979	Recovery = 104.15%				
Ba 233.527†	53976.2	0.532841 mg/L	0.0001433	0.532841 mg/L	0.0001433	0.03%
QC value within limits for Ba	233.527	Recovery = 106.57%				
Be 313.107†	1006993.9	0.520146 mg/L	0.0068284	0.520146 mg/L	0.0068284	1.31%
QC value within limits for Be	313.107	Recovery = 104.03%				
Ca 317.933†	24557835.3	491.020 mg/L	1.0437	491.020 mg/L	1.0437	0.21%
QC value within limits for Ca	317.933	Recovery = 98.20%				
Cd 228.802†	29361.3	1.03623 mg/L	0.020680	1.03623 mg/L	0.020680	2.00%
QC value within limits for Cd	228.802	Recovery = 103.62%				
Co 228.616†	13922.2	0.496068 mg/L	0.0091889	0.496068 mg/L	0.0091889	1.85%
QC value within limits for Co	228.616	Recovery = 99.21%				
Cr 267.716†	14953.7	0.495083 mg/L	0.0100332	0.495083 mg/L	0.0100332	2.03%
QC value within limits for Cr	267.716	Recovery = 99.02%				
Cu 327.393†	39286.6	0.541238 mg/L	0.0002451	0.541238 mg/L	0.0002451	0.05%
QC value within limits for Cu	327.393	Recovery = 108.25%				
Fe 273.955†	4057680.6	193.771 mg/L	2.5218	193.771 mg/L	2.5218	1.30%
QC value within limits for Fe	273.955	Recovery = 96.89%				
K 404.721†	-2092.7	-61.8672 mg/L	3.36228	-61.8672 mg/L	3.36228	5.43%
Mg 279.077†	4542598.6	522.993 mg/L	7.1503	522.993 mg/L	7.1503	1.37%
QC value within limits for Mg	279.077	Recovery = 104.60%				
Mn 257.610†	182643.7	0.501217 mg/L	0.0007541	0.501217 mg/L	0.0007541	0.15%
QC value within limits for Mn	257.610	Recovery = 100.24%				
Mo 202.031†	4.2	-0.0004467 mg/L	0.00175020	-0.0004467 mg/L	0.00175020	391.78%
Na 330.237†	4213.8	9.18393 mg/L	0.198490	9.18393 mg/L	0.198490	2.16%
Ni 231.604†	25809.9	0.956991 mg/L	0.0208292	0.956991 mg/L	0.0208292	2.18%
QC value within limits for Ni	231.604	Recovery = 95.70%				
Pb 220.353†	5398.8	0.961338 mg/L	0.0258031	0.961338 mg/L	0.0258031	2.68%
QC value within limits for Pb	220.353	Recovery = 96.13%				
Sb 206.836†	1459.4	1.03770 mg/L	0.015715	1.03770 mg/L	0.015715	1.51%
QC value within limits for Sb	206.836	Recovery = 103.77%				
Se 196.026†	704.4	1.03302 mg/L	0.022113	1.03302 mg/L	0.022113	2.14%
QC value within limits for Se	196.026	Recovery = 103.30%				
Sn 189.927†	-33.5	0.0091284 mg/L	0.00031109	0.0091284 mg/L	0.00031109	3.41%
Ti 334.940†	-292.9	-0.0015533 mg/L	0.00039589	-0.0015533 mg/L	0.00039589	25.49%
Tl 190.801†	833.9	0.983212 mg/L	0.0197082	0.983212 mg/L	0.0197082	2.00%
QC value within limits for Tl	190.801	Recovery = 98.32%				
V 290.880†	53397.5	0.496941 mg/L	0.0024337	0.496941 mg/L	0.0024337	0.49%
QC value within limits for V	290.880	Recovery = 99.39%				
Zn 206.200†	35581.1	0.986695 mg/L	0.0209470	0.986695 mg/L	0.0209470	2.12%
QC value within limits for Zn	206.200	Recovery = 98.67%				

All analyte(s) passed QC.

Sequence No.: 30  
 Sample ID: CCV V-129808  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 3:06:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	480118.2	94.6 %	0.48			0.51%
Y 371.029	181436.2	92.0 %	0.71			0.77%
Ag 328.068†	9490.7	0.102238 mg/L	0.0002470	0.102238 mg/L	0.0002470	0.24%
	QC value within limits for Ag	328.068	Recovery = 102.24%			
Al 308.215†	81072.7	5.03868 mg/L	0.004211	5.03868 mg/L	0.004211	0.08%
	QC value within limits for Al	308.215	Recovery = 100.77%			
As 188.979†	579.0	0.501615 mg/L	0.0034047	0.501615 mg/L	0.0034047	0.68%
	QC value within limits for As	188.979	Recovery = 100.32%			
Ba 233.527†	51828.1	0.511588 mg/L	0.0002883	0.511588 mg/L	0.0002883	0.06%
	QC value within limits for Ba	233.527	Recovery = 102.32%			
Be 313.107†	968960.0	0.500487 mg/L	0.0012052	0.500487 mg/L	0.0012052	0.24%
	QC value within limits for Be	313.107	Recovery = 100.10%			
Ca 317.933†	2557134.8	50.9000 mg/L	0.74786	50.9000 mg/L	0.74786	1.47%
	QC value within limits for Ca	317.933	Recovery = 101.80%			
Cd 228.802†	14317.2	0.505122 mg/L	0.0024969	0.505122 mg/L	0.0024969	0.49%
	QC value within limits for Cd	228.802	Recovery = 101.02%			
Co 228.616†	14370.8	0.511771 mg/L	0.0030385	0.511771 mg/L	0.0030385	0.59%
	QC value within limits for Co	228.616	Recovery = 102.35%			
Cr 267.716†	15040.2	0.498483 mg/L	0.0027185	0.498483 mg/L	0.0027185	0.55%
	QC value within limits for Cr	267.716	Recovery = 99.70%			
Cu 327.393†	38789.8	0.509359 mg/L	0.0002696	0.509359 mg/L	0.0002696	0.05%
	QC value within limits for Cu	327.393	Recovery = 101.87%			
Fe 273.955†	105139.2	5.00677 mg/L	0.003900	5.00677 mg/L	0.003900	0.08%
	QC value within limits for Fe	273.955	Recovery = 100.14%			
K 404.721†	972.6	54.7669 mg/L	2.40794	54.7669 mg/L	2.40794	4.40%
Mg 279.077†	439851.0	50.4834 mg/L	0.00494	50.4834 mg/L	0.00494	0.01%
	QC value within limits for Mg	279.077	Recovery = 100.97%			
Mn 257.610†	180656.4	0.504062 mg/L	0.0000834	0.504062 mg/L	0.0000834	0.02%
	QC value within limits for Mn	257.610	Recovery = 100.81%			
Mo 202.031†	5806.7	0.510190 mg/L	0.0009882	0.510190 mg/L	0.0009882	0.19%
	QC value within limits for Mo	202.031	Recovery = 102.04%			
Na 330.237†	23265.1	48.5844 mg/L	0.22706	48.5844 mg/L	0.22706	0.47%
	QC value within limits for Na	330.237	Recovery = 97.17%			
Ni 231.604†	13626.9	0.506378 mg/L	0.0019254	0.506378 mg/L	0.0019254	0.38%
	QC value within limits for Ni	231.604	Recovery = 101.28%			
Pb 220.353†	2108.1	0.504477 mg/L	0.0069722	0.504477 mg/L	0.0069722	1.38%
	QC value within limits for Pb	220.353	Recovery = 100.90%			
Sb 206.836†	694.9	0.510581 mg/L	0.0077870	0.510581 mg/L	0.0077870	1.53%
	QC value within limits for Sb	206.836	Recovery = 102.12%			
Se 196.026†	364.9	0.498192 mg/L	0.0090241	0.498192 mg/L	0.0090241	1.81%
	QC value within limits for Se	196.026	Recovery = 99.64%			
Sn 189.927†	1864.9	0.512490 mg/L	0.0018559	0.512490 mg/L	0.0018559	0.36%
	QC value within limits for Sn	189.927	Recovery = 102.50%			
Ti 334.940†	157218.7	0.504849 mg/L	0.0004860	0.504849 mg/L	0.0004860	0.10%
	QC value within limits for Ti	334.940	Recovery = 100.97%			
Tl 190.801†	425.0	0.501085 mg/L	0.0022347	0.501085 mg/L	0.0022347	0.45%
	QC value within limits for Tl	190.801	Recovery = 100.22%			
V 290.880†	45899.8	0.502168 mg/L	0.0004170	0.502168 mg/L	0.0004170	0.08%
	QC value within limits for V	290.880	Recovery = 100.43%			
Zn 206.200†	17875.6	0.502217 mg/L	0.0028833	0.502217 mg/L	0.0028833	0.57%
	QC value within limits for Zn	206.200	Recovery = 100.44%			

All analyte(s) passed QC.

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Sequence No.: 31                               Autosampler Location: 1
Sample ID: CCB V-129815                       Date Collected: 12/12/2011 3:10:21 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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## Mean Data: CCB V-129815

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	503640.7	99.2 %	0.39				0.39%
Y 371.029	195500.6	99.2 %	0.55				0.55%
Ag 328.068†	20.9	0.0000413 mg/L	0.00023102	0.0000413 mg/L	0.00023102	559.78%	
QC value within limits for Ag	328.068 Recovery = Not calculated						
Al 308.215†	-119.1	-0.0251949 mg/L	0.00375550	-0.0251949 mg/L	0.00375550	14.91%	
QC value within limits for Al	308.215 Recovery = Not calculated						
As 188.979†	3.6	0.0029536 mg/L	0.00472181	0.0029536 mg/L	0.00472181	159.86%	
QC value within limits for As	188.979 Recovery = Not calculated						
Ba 233.527†	13.0	-0.0010883 mg/L	0.00011355	-0.0010883 mg/L	0.00011355	10.43%	
QC value within limits for Ba	233.527 Recovery = Not calculated						
Be 313.107†	74.8	-0.0003189 mg/L	0.00002483	-0.0003189 mg/L	0.00002483	7.78%	
QC value within limits for Be	313.107 Recovery = Not calculated						
Ca 317.933†	142.0	-0.252079 mg/L	0.0003992	-0.252079 mg/L	0.0003992	0.16%	
QC value within limits for Ca	317.933 Recovery = Not calculated						
Cd 228.802†	-8.1	-0.0007269 mg/L	0.00023514	-0.0007269 mg/L	0.00023514	32.35%	
QC value within limits for Cd	228.802 Recovery = Not calculated						
Co 228.616†	-9.0	-0.0025055 mg/L	0.00095525	-0.0025055 mg/L	0.00095525	38.13%	
QC value within limits for Co	228.616 Recovery = Not calculated						
Cr 267.716†	3.3	0.0010692 mg/L	0.00006562	0.0010692 mg/L	0.00006562	6.14%	
QC value within limits for Cr	267.716 Recovery = Not calculated						
Cu 327.393†	0.7	-0.0006766 mg/L	0.00002960	-0.0006766 mg/L	0.00002960	4.37%	
QC value within limits for Cu	327.393 Recovery = Not calculated						
Fe 273.955†	26.9	-0.0131425 mg/L	0.00066348	-0.0131425 mg/L	0.00066348	5.05%	
QC value within limits for Fe	273.955 Recovery = Not calculated						
K 404.721†	193.0	25.1019 mg/L	1.31848	25.1019 mg/L	1.31848	5.25%	
Mg 279.077†	-23.6	-0.188290 mg/L	0.0082470	-0.188290 mg/L	0.0082470	4.38%	
QC value within limits for Mg	279.077 Recovery = Not calculated						
Mn 257.610†	27.8	-0.0009700 mg/L	0.00005104	-0.0009700 mg/L	0.00005104	5.26%	
QC value within limits for Mn	257.610 Recovery = Not calculated						
Mo 202.031†	9.8	-0.0001578 mg/L	0.00027536	-0.0001578 mg/L	0.00027536	174.46%	
QC value within limits for Mo	202.031 Recovery = Not calculated						
Na 330.237†	18.7	0.507764 mg/L	0.0263384	0.507764 mg/L	0.0263384	5.19%	
QC value within limits for Na	330.237 Recovery = Not calculated						
Ni 231.604†	4.9	-0.0004620 mg/L	0.00053964	-0.0004620 mg/L	0.00053964	116.81%	
QC value within limits for Ni	231.604 Recovery = Not calculated						
Pb 220.353†	9.3	-0.0002146 mg/L	0.00335196	-0.0002146 mg/L	0.00335196	>999.9%	
QC value within limits for Pb	220.353 Recovery = Not calculated						
Sb 206.836†	-0.2	-0.0003125 mg/L	0.00157605	-0.0003125 mg/L	0.00157605	504.34%	
QC value within limits for Sb	206.836 Recovery = Not calculated						
Se 196.026†	-6.6	-0.0090662 mg/L	0.00534407	-0.0090662 mg/L	0.00534407	58.95%	
QC value within limits for Se	196.026 Recovery = Not calculated						
Sn 189.927†	2.8	-0.0004965 mg/L	0.00174271	-0.0004965 mg/L	0.00174271	351.00%	
QC value within limits for Sn	189.927 Recovery = Not calculated						
Ti 334.940†	95.3	-0.0001843 mg/L	0.00024446	-0.0001843 mg/L	0.00024446	132.66%	
QC value within limits for Ti	334.940 Recovery = Not calculated						
Tl 190.801†	-6.1	-0.0079062 mg/L	0.00328127	-0.0079062 mg/L	0.00328127	41.50%	
QC value within limits for Tl	190.801 Recovery = Not calculated						
V 290.880†	8.3	-0.0020372 mg/L	0.00148470	-0.0020372 mg/L	0.00148470	72.88%	
QC value within limits for V	290.880 Recovery = Not calculated						
Zn 206.200†	-13.6	-0.0021605 mg/L	0.00011757	-0.0021605 mg/L	0.00011757	5.44%	
QC value within limits for Zn	206.200 Recovery = Not calculated						

All analyte(s) passed QC.

File S13373B

Batch 13373 Soil

Method: PE1 3000DV AXIAL

Page 1

Date: 12/12/2011 10:05:53 AM

Analyst S Bl 12/12/11

=====  
Analysis Begun

Start Time: 12/12/2011 10:02:56 AM

Plasma On Time: 12/12/2011 9:32:43 AM

Logged In Analyst: shiamala

Technique: ICP Continuous

Spectrometer Model: Optima 3300 DV, S/N 069N5072002 Autosampler Model: AS-91

Sample Information File: C:\pe\Administrator\Sample Information\12.12.11.sif

Batch ID: 8336

Results Data Set: S13373B

Results Library: C:\pe\Administrator\Results\Results.mdb

sh 12/14/11

=====  
Method Loaded

Method Name: PE1 3000DV AXIAL

Method Last Saved: 12/8/2011 10:32:40 AM

IEC File: IEC092311.iec

MSF File:

Method Description: 200.76010B

=====  
Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blk 1 V-129815

Date Collected: 12/12/2011 10:03:56 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	242.5	46.83	19.31%	[0.00]	mg/L
Sb 206.836	-21.9	1.61	7.36%	[0.00]	mg/L
As 188.979	-6.8	2.94	43.00%	[0.00]	mg/L
Ba 233.527	-88.8	2.97	3.35%	[0.00]	mg/L
Be 234.861	-266.7	6.37	2.39%	[0.00]	mg/L
Cd 226.502	-49.3	7.46	15.13%	[0.00]	mg/L
Ca 315.887	-590.0	78.62	13.33%	[0.00]	mg/L
Cr 206.158	29.3	0.62	2.13%	[0.00]	mg/L
Co 228.616	-152.2	3.40	2.24%	[0.00]	mg/L
Cu 324.752	1004.2	38.11	3.79%	[0.00]	mg/L
Fe 273.955	181.3	7.95	4.39%	[0.00]	mg/L
Pb 220.353	100.4	8.12	8.09%	[0.00]	mg/L
Mg 279.077	-226.6	15.42	6.80%	[0.00]	mg/L
Mn 257.610	192.3	8.25	4.29%	[0.00]	mg/L
Mo 202.031	-160.4	2.86	1.78%	[0.00]	mg/L
Ni 231.604	-57.7	0.60	1.04%	[0.00]	mg/L
Se 196.026	27.7	1.06	3.84%	[0.00]	mg/L
Ag 328.068	33.5	29.42	87.78%	[0.00]	mg/L
Na 330.237	226.8	85.40	37.66%	[0.00]	mg/L
Tl 190.801	-31.1	0.91	2.92%	[0.00]	mg/L
Sn 189.927	3.6	0.57	15.67%	[0.00]	mg/L
Ti 334.940	5.6	34.18	607.84%	[0.00]	mg/L
V 292.402	-24.4	21.64	88.82%	[0.00]	mg/L
Zn 206.200	29.4	4.41	15.02%	[0.00]	mg/L

13373  
11678

63081.028 4D Pb reported

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Sequence No.: 2	Autosampler Location: 158
Sample ID: Calib Std 1 V-128668	Date Collected: 12/12/2011 10:07:04 AM
Analyst:	Data Type: Original
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:

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## Mean Data: Calib Std 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
As 188.979	3.6	5.34	149.55%	[0.005]	mg/L
Be 234.861	1663.2	16.67	1.00%	[0.003]	mg/L
Cd 226.502	195.4	1.49	0.76%	[0.003]	mg/L
Pb 220.353	30.9	5.88	19.06%	[0.004]	mg/L
Tl 190.801	2.9	1.63	56.66%	[0.005]	mg/L

Sequence No.: 3  
 Sample ID: Calib Std 2 V-128664  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 160  
 Date Collected: 12/12/2011 10:10:09 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: Calib Std 2 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	603.9	7.51	1.24%	[0.1]	mg/L
Sb 206.836	14.2	2.48	17.41%	[0.01]	mg/L
As 188.979	10.3	3.91	37.93%	[0.01]	mg/L
Ba 233.527	548.5	10.37	1.89%	[0.01]	mg/L
Be 234.861	5446.4	28.92	0.53%	[0.01]	mg/L
Cd 226.502	625.8	3.90	0.62%	[0.01]	mg/L
Ca 315.887	57137.2	90.56	0.16%	[1]	mg/L
Cr 206.158	133.6	1.59	1.19%	[0.01]	mg/L
Co 228.616	233.2	7.83	3.36%	[0.01]	mg/L
Cu 324.752	1096.3	10.22	0.93%	[0.01]	mg/L
Fe 273.955	1326.0	2.39	0.18%	[0.1]	mg/L
Pb 220.353	76.0	7.24	9.53%	[0.01]	mg/L
Mg 279.077	15770.0	112.42	0.71%	[1]	mg/L
Mn 257.610	4673.4	43.37	0.93%	[0.01]	mg/L
Mo 202.031	117.8	6.50	5.52%	[0.01]	mg/L
Ni 231.604	394.0	2.04	0.52%	[0.01]	mg/L
Se 196.026	26.4	9.24	35.02%	[0.01]	mg/L
Ag 328.068	220.8	45.39	20.55%	[0.002]	mg/L
Na 330.237	257.1	25.70	9.99%	[1]	mg/L
Tl 190.801	11.8	1.37	11.63%	[0.01]	mg/L
Sn 189.927	42.5	1.70	4.01%	[0.01]	mg/L
Ti 334.940	2923.2	14.64	0.50%	[0.01]	mg/L
V 292.402	833.2	35.54	4.27%	[0.01]	mg/L
Zn 206.200	320.6	0.93	0.29%	[0.01]	mg/L

Sequence No.: 4  
 Sample ID: Calib Std 3 V-128660  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/12/2011 10:13:19 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib Std 3 V-128660

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Al 308.215	29023.4	404.64	1.39%	[5] mg/L	
Sb 206.836	607.8	0.12	0.02%	[0.5] mg/L	
As 188.979	552.0	3.17	0.57%	[0.5] mg/L	
Ba 233.527	25595.4	210.07	0.82%	[0.5] mg/L	
Be 234.861	267925.7	1968.32	0.73%	[0.5] mg/L	
Cd 226.502	29936.9	523.94	1.75%	[0.5] mg/L	
Ca 315.887	2706668.2	14180.33	0.52%	[50] mg/L	
Cr 206.158	6306.1	9.81	0.16%	[0.5] mg/L	
Co 228.616	11059.4	52.98	0.48%	[0.5] mg/L	
Cu 324.752	53361.5	559.49	1.05%	[0.5] mg/L	
Fe 273.955	62835.3	935.09	1.49%	[5] mg/L	
Pb 220.353	3687.1	10.84	0.29%	[0.5] mg/L	
Mg 279.077	736298.2	5999.32	0.81%	[50] mg/L	
Mn 257.610	215570.6	2352.78	1.09%	[0.5] mg/L	
Mo 202.031	5806.5	1.22	0.02%	[0.5] mg/L	
Ni 231.604	19394.7	333.27	1.72%	[0.5] mg/L	
Se 196.026	916.7	6.38	0.70%	[0.5] mg/L	
Ag 328.068	10319.5	134.14	1.30%	[0.1] mg/L	
Na 330.237	19237.8	308.28	1.60%	[50] mg/L	
Tl 190.801	760.4	1.71	0.23%	[0.5] mg/L	
Sn 189.927	2168.1	1.66	0.08%	[0.5] mg/L	
Ti 334.940	141389.5	2118.33	1.50%	[0.5] mg/L	
V 292.402	41956.9	565.04	1.35%	[0.5] mg/L	
Zn 206.200	15277.0	4.19	0.03%	[0.5] mg/L	

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Sequence No.: 5                               Autosampler Location: 2
Sample ID: Calib Std 4 V-129806              Date Collected: 12/12/2011 10:16:35 AM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                       Sample Prep Vol:
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Mean Data: Calib Std 4 V-129806

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Units
Al 308.215	57798.6	267.54	0.46%	[10]	mg/L
Sb 206.836	1185.3	27.25	2.30%	[1.0]	mg/L
As 188.979	1074.3	9.89	0.92%	[1.0]	mg/L
Ba 233.527	50016.8	303.93	0.61%	[1.0]	mg/L
Be 234.861	534237.0	2555.56	0.48%	[1.0]	mg/L
Cd 226.502	58318.5	467.48	0.80%	[1.0]	mg/L
Ca 315.887	5270823.3	3929.03	0.07%	[100]	mg/L
Cr 206.158	12388.1	55.16	0.45%	[1.0]	mg/L
Co 228.616	21902.5	120.31	0.55%	[1.0]	mg/L
Cu 324.752	107168.2	729.67	0.68%	[1.0]	mg/L
Fe 273.955	122170.6	758.26	0.62%	[10]	mg/L
Pb 220.353	7159.6	25.30	0.35%	[1.0]	mg/L
Mg 279.077	1416783.5	8228.00	0.58%	[100]	mg/L
Mn 257.610	423557.9	2363.32	0.56%	[1.0]	mg/L
Mo 202.031	11264.1	58.11	0.52%	[1.0]	mg/L
Ni 231.604	37752.1	114.45	0.30%	[1.0]	mg/L
Se 196.026	1794.1	19.60	1.09%	[1.0]	mg/L
Ag 328.068	20541.3	84.09	0.41%	[0.2]	mg/L
Na 330.237	41637.0	369.00	0.89%	[100]	mg/L
Tl 190.801	1495.1	14.03	0.94%	[1.0]	mg/L
Sn 189.927	4179.5	28.44	0.68%	[1.0]	mg/L
Ti 334.940	277903.7	1404.39	0.51%	[1.0]	mg/L
V 292.402	82465.0	445.36	0.54%	[1.0]	mg/L
Zn 206.200	30243.1	181.78	0.60%	[1.0]	mg/L

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Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	34.3	5781	0.00000	0.999998	
Sb 206.836	3	Lin, Calc Int	3.8	1187	0.00000	0.999918	
As 188.979	4	Lin, Calc Int	1.1	1079	0.00000	0.999905	
Ba 233.527	3	Lin, Calc Int	128.8	50100	0.00000	0.999929	
Be 234.861	4	Lin, Calc Int	152.0	534400	0.00000	0.999999	
Cd 226.502	4	Lin, Calc Int	116.6	58490	0.00000	0.999918	
Ca 315.887	3	Lin, Calc Int	14979.6	52810	0.00000	0.999905	
Cr 206.158	3	Lin, Calc Int	24.8	12400	0.00000	0.999958	
Co 228.616	3	Lin, Calc Int	26.1	21910	0.00000	0.999988	
Cu 324.752	3	Lin, Calc Int	-29.3	107100	0.00000	0.999998	
Fe 273.955	3	Lin, Calc Int	365.9	12240	0.00000	0.999894	
Pb 220.353	4	Lin, Calc Int	15.4	7184	0.00000	0.999896	
Mg 279.077	3	Lin, Calc Int	5806.4	14210	0.00000	0.999799	
Mn 257.610	3	Lin, Calc Int	888.8	424000	0.00000	0.999959	
Mo 202.031	3	Lin, Calc Int	34.1	11290	0.00000	0.999874	
Ni 231.604	3	Lin, Calc Int	101.9	37840	0.00000	0.999901	
Se 196.026	3	Lin, Calc Int	7.4	1793	0.00000	0.999940	
Ag 328.068	3	Lin, Calc Int	15.9	102700	0.00000	0.999997	
Na 330.237	3	Lin, Calc Int	-360.0	414.4	0.00000	0.999256	
Tl 190.801	4	Lin, Calc Int	-0.8	1501	0.00000	0.999955	
Sn 189.927	3	Lin, Calc Int	14.6	4193	0.00000	0.999814	
Ti 334.940	3	Lin, Calc Int	509.1	278300	0.00000	0.999960	
V 292.402	3	Lin, Calc Int	135.7	82590	0.00000	0.999959	
Zn 206.200	3	Lin, Calc Int	36.5	30260	0.00000	0.999987	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-128660

Date Collected: 12/12/2011 10:19:54 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICS3 V-128660

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Al 308.215	28796.3	4.96903 mg/L		0.022516	4.96903 mg/L	0.022516	0.45%
QC value within limits for Al		308.215	Recovery = 99.38%				
Sb 206.836	602.0	0.513324 mg/L		0.0052040	0.513324 mg/L	0.0052040	1.01%
QC value within limits for Sb		206.836	Recovery = 102.66%				
As 188.979	547.3	0.506174 mg/L		0.0037417	0.506174 mg/L	0.0037417	0.74%
QC value within limits for As		188.979	Recovery = 101.23%				
Ba 233.527	25603.2	0.508837 mg/L		0.0027017	0.508837 mg/L	0.0027017	0.53%
QC value within limits for Ba		233.527	Recovery = 101.77%				
Be 234.861	267646.0	0.504810 mg/L		0.0031254	0.504810 mg/L	0.0031254	0.62%
QC value within limits for Be		234.861	Recovery = 100.96%				
Cd 226.502	29752.1	0.506163 mg/L		0.0018883	0.506163 mg/L	0.0018883	0.37%
QC value within limits for Cd		226.502	Recovery = 101.23%				
Ca 315.887	2726888.3	51.3496 mg/L		0.85551	51.3496 mg/L	0.85551	1.67%
QC value within limits for Ca		315.887	Recovery = 102.70%				
Cr 206.158	6274.2	0.516509 mg/L		0.0001156	0.516509 mg/L	0.0001156	0.02%
QC value within limits for Cr		206.158	Recovery = 103.30%				
Co 228.616	10982.4	0.499078 mg/L		0.0008494	0.499078 mg/L	0.0008494	0.17%
QC value within limits for Co		228.616	Recovery = 99.82%				
Cu 324.752	53407.6	0.497543 mg/L		0.0034361	0.497543 mg/L	0.0034361	0.69%
QC value within limits for Cu		324.752	Recovery = 99.51%				
Fe 273.955	62182.8	5.04919 mg/L		0.018083	5.04919 mg/L	0.018083	0.36%
QC value within limits for Fe		273.955	Recovery = 100.98%				
Pb 220.353	3690.2	0.514225 mg/L		0.0014115	0.514225 mg/L	0.0014115	0.27%
QC value within limits for Pb		220.353	Recovery = 102.85%				
Mg 279.077	743092.6	51.8871 mg/L		0.91724	51.8871 mg/L	0.91724	1.77%
QC value within limits for Mg		279.077	Recovery = 103.77%				
Mn 257.610	215036.9	0.504509 mg/L		0.0023993	0.504509 mg/L	0.0023993	0.48%
QC value within limits for Mn		257.610	Recovery = 100.90%				
Mo 202.031	5821.8	0.512882 mg/L		0.0001004	0.512882 mg/L	0.0001004	0.02%
QC value within limits for Mo		202.031	Recovery = 102.58%				
Ni 231.604	19352.1	0.508872 mg/L		0.0036672	0.508872 mg/L	0.0036672	0.72%
QC value within limits for Ni		231.604	Recovery = 101.77%				
Se 196.026	922.6	0.520129 mg/L		0.0080984	0.520129 mg/L	0.0080984	1.56%
QC value within limits for Se		196.026	Recovery = 104.03%				
Ag 328.068	10299.9	0.100917 mg/L		0.0005299	0.100917 mg/L	0.0005299	0.53%
QC value within limits for Ag		328.068	Recovery = 100.92%				
Na 330.237	19512.2	47.9561 mg/L		0.16055	47.9561 mg/L	0.16055	0.33%
QC value within limits for Na		330.237	Recovery = 95.91%				
Tl 190.801	761.7	0.511129 mg/L		0.0041033	0.511129 mg/L	0.0041033	0.80%
QC value within limits for Tl		190.801	Recovery = 102.23%				
Sn 189.927	2172.2	0.519629 mg/L		0.0005811	0.519629 mg/L	0.0005811	0.11%
QC value within limits for Sn		189.927	Recovery = 103.93%				
Ti 334.940	141344.3	0.506119 mg/L		0.0018573	0.506119 mg/L	0.0018573	0.37%
QC value within limits for Ti		334.940	Recovery = 101.22%				
V 292.402	41872.0	0.493406 mg/L		0.0024171	0.493406 mg/L	0.0024171	0.49%
QC value within limits for V		292.402	Recovery = 98.68%				
Zn 206.200	15296.7	0.502936 mg/L		0.0008181	0.502936 mg/L	0.0008181	0.16%
QC value within limits for Zn		206.200	Recovery = 100.59%				

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICV V-128235 (2)

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 159

Date Collected: 12/12/2011 10:23:10 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	57108.7	9.86045 mg/L	0.031562	9.86045 mg/L	0.031562	0.32%
QC value within limits for Al 308.215 Recovery = 98.60%						
Sb 206.836	1184.5	1.01309 mg/L	0.003119	1.01309 mg/L	0.003119	0.31%
QC value within limits for Sb 206.836 Recovery = 101.31%						
As 188.979	1070.6	0.991108 mg/L	0.0158417	0.991108 mg/L	0.0158417	1.60%
QC value within limits for As 188.979 Recovery = 99.11%						
Ba 233.527	50307.2	1.00229 mg/L	0.001042	1.00229 mg/L	0.001042	0.10%
QC value within limits for Ba 233.527 Recovery = 100.23%						
Be 234.861	530838.4	1.00126 mg/L	0.001894	1.00126 mg/L	0.001894	0.19%
QC value within limits for Be 234.861 Recovery = 100.13%						
Cd 226.502	57676.2	0.983103 mg/L	0.0006661	0.983103 mg/L	0.0006661	0.07%
QC value within limits for Cd 226.502 Recovery = 98.31%						
Ca 315.887	5279464.3	99.6823 mg/L	0.81179	99.6823 mg/L	0.81179	0.81%
QC value within limits for Ca 315.887 Recovery = 99.68%						
Cr 206.158	12307.6	1.01524 mg/L	0.006733	1.01524 mg/L	0.006733	0.66%
QC value within limits for Cr 206.158 Recovery = 101.52%						
Co 228.616	21892.7	0.996086 mg/L	0.0001027	0.996086 mg/L	0.0001027	0.01%
QC value within limits for Co 228.616 Recovery = 99.61%						
Cu 324.752	107360.0	0.999975 mg/L	0.0030039	0.999975 mg/L	0.0030039	0.30%
QC value within limits for Cu 324.752 Recovery = 100.00%						
Fe 273.955	119549.7	9.73490 mg/L	0.023370	9.73490 mg/L	0.023370	0.24%
QC value within limits for Fe 273.955 Recovery = 97.35%						
Pb 220.353	7225.2	1.00891 mg/L	0.005034	1.00891 mg/L	0.005034	0.50%
QC value within limits for Pb 220.353 Recovery = 100.89%						
Mg 279.077	1416777.9	99.2981 mg/L	0.46159	99.2981 mg/L	0.46159	0.46%
QC value within limits for Mg 279.077 Recovery = 99.30%						
Mn 257.610	418393.3	0.983617 mg/L	0.0010308	0.983617 mg/L	0.0010308	0.10%
QC value within limits for Mn 257.610 Recovery = 98.36%						
Mo 202.031	11448.8	1.01151 mg/L	0.007795	1.01151 mg/L	0.007795	0.77%
QC value within limits for Mo 202.031 Recovery = 101.15%						
Ni 231.604	37930.9	1.00000 mg/L	0.000767	1.00000 mg/L	0.000767	0.08%
QC value within limits for Ni 231.604 Recovery = 100.00%						
Se 196.026	1787.4	1.01139 mg/L	0.001659	1.01139 mg/L	0.001659	0.16%
QC value within limits for Se 196.026 Recovery = 101.14%						
Ag 328.068	19991.6	0.196016 mg/L	0.0008929	0.196016 mg/L	0.0008929	0.46%
QC value within limits for Ag 328.068 Recovery = 98.01%						
Na 330.237	41144.5	100.160 mg/L	0.7700	100.160 mg/L	0.7700	0.77%
QC value within limits for Na 330.237 Recovery = 100.16%						
Tl 190.801	1564.9	1.04920 mg/L	0.009364	1.04920 mg/L	0.009364	0.89%
QC value within limits for Tl 190.801 Recovery = 104.92%						
Sn 189.927	4266.4	1.02382 mg/L	0.008418	1.02382 mg/L	0.008418	0.82%
QC value within limits for Sn 189.927 Recovery = 102.38%						
Ti 334.940	277729.2	0.996245 mg/L	0.0029766	0.996245 mg/L	0.0029766	0.30%
QC value within limits for Ti 334.940 Recovery = 99.62%						
V 292.402	82267.6	0.971842 mg/L	0.0075470	0.971842 mg/L	0.0075470	0.78%
QC value within limits for V 292.402 Recovery = 97.18%						
Zn 206.200	30113.5	0.991335 mg/L	0.0012526	0.991335 mg/L	0.0012526	0.13%
QC value within limits for Zn 206.200 Recovery = 99.13%						

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICB V-129815

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/12/2011 10:26:30 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	19.9	-0.0024655	mg/L	0.00167588	-0.0024655	mg/L	0.00167588	67.97%
QC value within limits for Al 308.215 Recovery = Not calculated								
Sb 206.836	2.8	-0.0009091	mg/L	0.00256644	-0.0009091	mg/L	0.00256644	282.30%
QC value within limits for Sb 206.836 Recovery = Not calculated								
As 188.979	7.0	0.0054111	mg/L	0.00031828	0.0054111	mg/L	0.00031828	5.88%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	12.0	-0.0023340	mg/L	0.00014054	-0.0023340	mg/L	0.00014054	6.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 234.861	185.6	0.0000389	mg/L	0.00002269	0.0000389	mg/L	0.00002269	58.36%
QC value within limits for Be 234.861 Recovery = Not calculated								
Cd 226.502	20.7	-0.0016363	mg/L	0.00010114	-0.0016363	mg/L	0.00010114	6.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ca 315.887	1946.7	-0.246775	mg/L	0.0002652	-0.246775	mg/L	0.0002652	0.11%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cr 206.158	10.1	-0.0011789	mg/L	0.00033893	-0.0011789	mg/L	0.00033893	28.75%
QC value within limits for Cr 206.158 Recovery = Not calculated								
Co 228.616	8.5	-0.0008010	mg/L	0.00008089	-0.0008010	mg/L	0.00008089	10.10%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cu 324.752	165.9	0.0018292	mg/L	0.00009381	0.0018292	mg/L	0.00009381	5.13%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	16.3	-0.0285534	mg/L	0.00076046	-0.0285534	mg/L	0.00076046	2.66%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Pb 220.353	-6.0	-0.0029905	mg/L	0.00040814	-0.0029905	mg/L	0.00040814	13.65%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Mg 279.077	597.2	-0.366599	mg/L	0.0009116	-0.366599	mg/L	0.0009116	0.25%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	97.8	-0.0018614	mg/L	0.00001611	-0.0018614	mg/L	0.00001611	0.87%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031	5.4	-0.0025378	mg/L	0.00011456	-0.0025378	mg/L	0.00011456	4.51%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604	21.9	-0.0021138	mg/L	0.00031034	-0.0021138	mg/L	0.00031034	14.68%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Se 196.026	14.2	0.0037180	mg/L	0.00564676	0.0037180	mg/L	0.00564676	151.88%
QC value within limits for Se 196.026 Recovery = Not calculated								
Ag 328.068	50.6	0.0003335	mg/L	0.00013314	0.0003335	mg/L	0.00013314	39.92%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Na 330.237	43.5	0.973634	mg/L	0.0719472	0.973634	mg/L	0.0719472	7.39%
QC value within limits for Na 330.237 Recovery = Not calculated								
Tl 190.801	0.6	0.0009653	mg/L	0.00091835	0.0009653	mg/L	0.00091835	95.14%
QC value within limits for Tl 190.801 Recovery = Not calculated								
Sn 189.927	17.2	0.0006032	mg/L	0.00010891	0.0006032	mg/L	0.00010891	18.05%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 334.940	119.7	-0.0013993	mg/L	0.00014006	-0.0013993	mg/L	0.00014006	10.01%
QC value within limits for Ti 334.940 Recovery = Not calculated								
V 292.402	-12.3	-0.0016995	mg/L	0.00000395	-0.0016995	mg/L	0.00000395	0.23%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	37.0	0.0000243	mg/L	0.00002326	0.0000243	mg/L	0.00002326	95.81%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

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Sequence No.: 9                               Autosampler Location: 5
Sample ID: ICSA V-128666                     Date Collected: 12/12/2011 10:29:38 AM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
    
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Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2631518.4	455.220	mg/L	0.0247	455.220	mg/L	0.0247	0.01%
QC value within limits for Al 308.215 Recovery = 91.04%								
Sb 206.836	-60.8	0.0051826	mg/L	0.00747725	0.0051826	mg/L	0.00747725	144.28%
As 188.979	-11.3	0.0102459	mg/L	0.00082895	0.0102459	mg/L	0.00082895	8.09%
Ba 233.527	163.1	-0.0018966	mg/L	0.00003761	-0.0018966	mg/L	0.00003761	1.98%
Be 234.861	-60898.7	0.0291062	mg/L	0.00063992	0.0291062	mg/L	0.00063992	2.20%
Cd 226.502	1174.5	0.0003551	mg/L	0.00032393	0.0003551	mg/L	0.00032393	91.22%
Ca 315.887	23511145.2	444.897	mg/L	2.5094	444.897	mg/L	2.5094	0.56%
QC value within limits for Ca 315.887 Recovery = 88.98%								
Cr 206.158	32.7	0.0006457	mg/L	0.00038221	0.0006457	mg/L	0.00038221	59.19%
Co 228.616	203.3	0.0036285	mg/L	0.00030139	0.0036285	mg/L	0.00030139	8.31%
Cu 324.752	1682.1	0.0047390	mg/L	0.00016728	0.0047390	mg/L	0.00016728	3.53%
Fe 273.955	2091412.5	170.796	mg/L	0.1121	170.796	mg/L	0.1121	0.07%
QC value within limits for Fe 273.955 Recovery = 85.40%								
Pb 220.353	-532.2	0.0013184	mg/L	0.00014530	0.0013184	mg/L	0.00014530	11.02%
Mg 279.077	6900226.0	485.200	mg/L	4.6178	485.200	mg/L	4.6178	0.95%
QC value within limits for Mg 279.077 Recovery = 97.04%								
Mn 257.610	-2380.1	-0.0065955	mg/L	0.00009134	-0.0065955	mg/L	0.00009134	1.38%
Mo 202.031	-194.6	0.0025265	mg/L	0.00025502	0.0025265	mg/L	0.00025502	10.09%
Ni 231.604	268.8	0.0002861	mg/L	0.00013934	0.0002861	mg/L	0.00013934	48.70%
Se 196.026	-970.3	-0.0823179	mg/L	0.01189619	-0.0823179	mg/L	0.01189619	14.45%
Ag 328.068	-852.5	0.0016069	mg/L	0.00031035	0.0016069	mg/L	0.00031035	19.31%
Na 330.237	-208.6	0.365342	mg/L	0.0551586	0.365342	mg/L	0.0551586	15.10%
Tl 190.801	-13.7	0.0047017	mg/L	0.00149590	0.0047017	mg/L	0.00149590	31.82%
Sn 189.927	-176.9	-0.0040031	mg/L	0.00150094	-0.0040031	mg/L	0.00150094	37.49%
Ti 334.940	-281.2	-0.0028399	mg/L	0.00006869	-0.0028399	mg/L	0.00006869	2.42%
V 292.402	15040.6	0.0315818	mg/L	0.00128266	0.0315818	mg/L	0.00128266	4.06%
Zn 206.200	44.2	-0.0123239	mg/L	0.00019385	-0.0123239	mg/L	0.00019385	1.57%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 6

Sample ID: ICSAB V-128667

Date Collected: 12/12/2011 10:33:41 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Al 308.215	2639004.8	456.515	mg/L	2.9157	456.515	mg/L	2.9157 0.64%
QC value within limits for Al		308.215	Recovery = 91.30%				
Sb 206.836	1095.1	0.979453	mg/L	0.0187969	0.979453	mg/L	0.0187969 1.92%
QC value within limits for Sb		206.836	Recovery = 97.95%				
As 188.979	1009.5	0.956641	mg/L	0.0230922	0.956641	mg/L	0.0230922 2.41%
QC value within limits for As		188.979	Recovery = 95.66%				
Ba 233.527	24455.6	0.483010	mg/L	0.0042234	0.483010	mg/L	0.0042234 0.87%
QC value within limits for Ba		233.527	Recovery = 96.60%				
Be 234.861	204801.7	0.526845	mg/L	0.0017481	0.526845	mg/L	0.0017481 0.33%
QC value within limits for Be		234.861	Recovery = 105.37%				
Cd 226.502	54408.1	0.910441	mg/L	0.0066094	0.910441	mg/L	0.0066094 0.73%
QC value within limits for Cd		226.502	Recovery = 91.04%				
Ca 315.887	23638968.1	447.317	mg/L	1.6271	447.317	mg/L	1.6271 0.36%
QC value within limits for Ca		315.887	Recovery = 89.46%				
Cr 206.158	5715.4	0.481890	mg/L	0.0063761	0.481890	mg/L	0.0063761 1.32%
QC value within limits for Cr		206.158	Recovery = 96.38%				
Co 228.616	10051.0	0.452985	mg/L	0.0056763	0.452985	mg/L	0.0056763 1.25%
QC value within limits for Co		228.616	Recovery = 90.60%				
Cu 324.752	56198.7	0.513633	mg/L	0.0009414	0.513633	mg/L	0.0009414 0.18%
QC value within limits for Cu		324.752	Recovery = 102.73%				
Fe 273.955	2099042.7	171.419	mg/L	0.8546	171.419	mg/L	0.8546 0.50%
QC value within limits for Fe		273.955	Recovery = 85.71%				
Pb 220.353	6282.7	0.950380	mg/L	0.0184583	0.950380	mg/L	0.0184583 1.94%
QC value within limits for Pb		220.353	Recovery = 95.04%				
Mg 279.077	6956823.6	489.183	mg/L	1.6879	489.183	mg/L	1.6879 0.35%
QC value within limits for Mg		279.077	Recovery = 97.84%				
Mn 257.610	199113.7	0.468591	mg/L	0.0009390	0.468591	mg/L	0.0009390 0.20%
QC value within limits for Mn		257.610	Recovery = 93.72%				
Mo 202.031	-194.8	0.0025776	mg/L	0.00135708	0.0025776	mg/L	0.00135708 52.65%
QC value within limits for Mo		202.031	Recovery = Not calculated				
Ni 231.604	34087.3	0.894074	mg/L	0.0064680	0.894074	mg/L	0.0064680 0.72%
QC value within limits for Ni		231.604	Recovery = 89.41%				
Se 196.026	728.5	0.866718	mg/L	0.0063419	0.866718	mg/L	0.0063419 0.73%
QC value within limits for Se		196.026	Recovery = 86.67%				
Ag 328.068	104130.5	1.02367	mg/L	0.005196	1.02367	mg/L	0.005196 0.51%
QC value within limits for Ag		328.068	Recovery = 102.37%				
Na 330.237	-341.1	0.0454864	mg/L	0.44270527	0.0454864	mg/L	0.44270527 973.27%
QC value within limits for Na		330.237	Recovery = Not calculated				
Tl 190.801	1402.1	0.949126	mg/L	0.0081737	0.949126	mg/L	0.0081737 0.86%
QC value within limits for Tl		190.801	Recovery = 94.91%				
Sn 189.927	-161.5	-0.0001165	mg/L	0.00005791	-0.0001165	mg/L	0.00005791 49.69%
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940	-265.4	-0.0027835	mg/L	0.00012370	-0.0027835	mg/L	0.00012370 4.44%
QC value within limits for Ti		334.940	Recovery = Not calculated				
V 292.402	52442.0	0.483212	mg/L	0.0014754	0.483212	mg/L	0.0014754 0.31%
QC value within limits for V		292.402	Recovery = 96.64%				
Zn 206.200	27878.9	0.907385	mg/L	0.0078338	0.907385	mg/L	0.0078338 0.86%
QC value within limits for Zn		206.200	Recovery = 90.74%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: 63081-028 4D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 24  
 Date Collected: 12/12/2011 10:37:06 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-028 4D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	55649.5	9.62084	mg/L	0.014490	9.62084	mg/L	0.014490	0.15%
Sb 206.836	2.8	0.0131107	mg/L	0.00227716	0.0131107	mg/L	0.00227716	17.37%
As 188.979	42.0	0.0579233	mg/L	0.00008998	0.0579233	mg/L	0.00008998	0.16%
Ba 233.527	284424.0	5.67275	mg/L	0.010690	5.67275	mg/L	0.010690	0.19%
Be 234.861	-50834.9	0.0286881	mg/L	0.00239581	0.0286881	mg/L	0.00239581	8.35%
Cd 226.502	1037.1	0.0003872	mg/L	0.00008332	0.0003872	mg/L	0.00008332	21.52%
Ca 315.887	2171288.2	40.8294	mg/L	0.11356	40.8294	mg/L	0.11356	0.28%
Cr 206.158	1022.2	0.137703	mg/L	0.0000894	0.137703	mg/L	0.0000894	0.06%
Co 228.616	771.0	0.0293904	mg/L	0.00036290	0.0293904	mg/L	0.00036290	1.23%
Cu 324.752	99608.3	0.929332	mg/L	0.0021037	0.929332	mg/L	0.0021037	0.23%
Fe 273.955	1810606.1	147.860	mg/L	0.2663	147.860	mg/L	0.2663	0.18%
Pb 220.353	211852.8	29.4892	mg/L	0.08175	29.4892	mg/L	0.08175	0.28%
Mg 279.077	50329.2	3.13333	mg/L	0.022446	3.13333	mg/L	0.022446	0.72%
Mn 257.610	400780.2	0.950595	mg/L	0.0010572	0.950595	mg/L	0.0010572	0.11%
Mo 202.031	40.9	0.0062531	mg/L	0.00042919	0.0062531	mg/L	0.00042919	6.86%
Ni 231.604	3193.7	0.0781517	mg/L	0.00036058	0.0781517	mg/L	0.00036058	0.46%
Se 196.026	-797.7	-0.0209941	mg/L	0.00132220	-0.0209941	mg/L	0.00132220	6.30%
Ag 328.068	94.1	0.0027713	mg/L	0.00071088	0.0027713	mg/L	0.00071088	25.65%
Na 330.237	60.1	1.01366	mg/L	0.106641	1.01366	mg/L	0.106641	10.52%
Tl 190.801	-11.6	0.0001687	mg/L	0.00141106	0.0001687	mg/L	0.00141106	836.66%
Sn 189.927	9820.5	2.34255	mg/L	0.005319	2.34255	mg/L	0.005319	0.23%
Ti 334.940	113716.2	0.406832	mg/L	0.0027100	0.406832	mg/L	0.0027100	0.67%
V 292.402	4294.5	0.0492124	mg/L	0.00011783	0.0492124	mg/L	0.00011783	0.24%
Zn 206.200	69135.0	2.28331	mg/L	0.006037	2.28331	mg/L	0.006037	0.26%

Sequence No.: 12

Autosampler Location: 5

Sample ID: ICSA V-128666

Date Collected: 12/12/2011 10:40:52 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Al 308.215	2641909.9	457.017 mg/L	0.3495	457.017 mg/L	0.3495	0.08%	
QC value within limits for Al 308.215 Recovery = 91.40%							
Sb 206.836	-66.6	0.0004210 mg/L	0.00813245	0.0004210 mg/L	0.00813245	>999.9%	
As 188.979	-13.2	0.0085145 mg/L	0.00148915	0.0085145 mg/L	0.00148915	17.49%	
Ba 233.527	198.0	-0.0012037 mg/L	0.00041209	-0.0012037 mg/L	0.00041209	34.24%	
Be 234.861	-61356.1	0.0284685 mg/L	0.00146364	0.0284685 mg/L	0.00146364	5.14%	
Cd 226.502	1177.0	0.0003717 mg/L	0.00016971	0.0003717 mg/L	0.00016971	45.65%	
Ca 315.887	23547180.7	445.579 mg/L	4.0038	445.579 mg/L	4.0038	0.90%	
QC value within limits for Ca 315.887 Recovery = 89.12%							
Cr 206.158	28.0	0.0003038 mg/L	0.00036479	0.0003038 mg/L	0.00036479	120.07%	
Co 228.616	187.9	0.0029208 mg/L	0.00020142	0.0029208 mg/L	0.00020142	6.90%	
Cu 324.752	1647.3	0.0043964 mg/L	0.00025853	0.0043964 mg/L	0.00025853	5.88%	
Fe 273.955	2094598.4	171.056 mg/L	0.6005	171.056 mg/L	0.6005	0.35%	
QC value within limits for Fe 273.955 Recovery = 85.53%							
Pb 220.353	-472.2	0.0099542 mg/L	0.00047251	0.0099542 mg/L	0.00047251	4.75%	
Mg 279.077	6918140.6	486.461 mg/L	4.0129	486.461 mg/L	4.0129	0.82%	
QC value within limits for Mg 279.077 Recovery = 97.29%							
Mn 257.610	-2433.1	-0.0067268 mg/L	0.00027052	-0.0067268 mg/L	0.00027052	4.02%	
Mo 202.031	-188.3	0.0031619 mg/L	0.00018602	0.0031619 mg/L	0.00018602	5.88%	
Ni 231.604	269.8	0.0003076 mg/L	0.00010251	0.0003076 mg/L	0.00010251	33.33%	
Se 196.026	-969.1	-0.0809219 mg/L	0.00943599	-0.0809219 mg/L	0.00943599	11.66%	
Ag 328.068	-916.3	0.0010009 mg/L	0.00087080	0.0010009 mg/L	0.00087080	87.00%	
Na 330.237	-260.2	0.240828 mg/L	0.0894187	0.240828 mg/L	0.0894187	37.13%	
Tl 190.801	-16.4	0.0029329 mg/L	0.00123904	0.0029329 mg/L	0.00123904	42.25%	
Sn 189.927	-186.4	-0.0062123 mg/L	0.00003329	-0.0062123 mg/L	0.00003329	0.54%	
Ti 334.940	-297.9	-0.0029000 mg/L	0.00010094	-0.0029000 mg/L	0.00010094	3.48%	
V 292.402	15194.2	0.0330598 mg/L	0.00002852	0.0330598 mg/L	0.00002852	0.09%	
Zn 206.200	87.0	-0.0109431 mg/L	0.00014246	-0.0109431 mg/L	0.00014246	1.30%	

All analyte(s) passed QC.

Sequence No.: 13

Autosampler Location: 6

Sample ID: ICSAB V-128667

Date Collected: 12/12/2011 10:44:55 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Al 308.215	2611550.0	451.765 mg/L	8.0338	451.765 mg/L	8.0338	1.78%	
QC value within limits for Al		308.215	Recovery = 90.35%				
Sb 206.836	1089.4	0.973982 mg/L	0.0073329	0.973982 mg/L	0.0073329	0.75%	
QC value within limits for Sb		206.836	Recovery = 97.40%				
As 188.979	995.9	0.943790 mg/L	0.0023580	0.943790 mg/L	0.0023580	0.25%	
QC value within limits for As		188.979	Recovery = 94.38%				
Ba 233.527	24356.0	0.481057 mg/L	0.0034159	0.481057 mg/L	0.0034159	0.71%	
QC value within limits for Ba		233.527	Recovery = 96.21%				
Be 234.861	200006.7	0.515963 mg/L	0.0091906	0.515963 mg/L	0.0091906	1.78%	
QC value within limits for Be		234.861	Recovery = 103.19%				
Cd 226.502	53907.4	0.902118 mg/L	0.0133966	0.902118 mg/L	0.0133966	1.49%	
QC value within limits for Cd		226.502	Recovery = 90.21%				
Ca 315.887	23436275.6	443.479 mg/L	1.7989	443.479 mg/L	1.7989	0.41%	
QC value within limits for Ca		315.887	Recovery = 88.70%				
Cr 206.158	5583.6	0.470821 mg/L	0.0013948	0.470821 mg/L	0.0013948	0.30%	
QC value within limits for Cr		206.158	Recovery = 94.16%				
Co 228.616	9936.8	0.447833 mg/L	0.0065548	0.447833 mg/L	0.0065548	1.46%	
QC value within limits for Co		228.616	Recovery = 89.57%				
Cu 324.752	55498.3	0.507190 mg/L	0.0099021	0.507190 mg/L	0.0099021	1.95%	
QC value within limits for Cu		324.752	Recovery = 101.44%				
Fe 273.955	2071199.3	169.145 mg/L	2.8122	169.145 mg/L	2.8122	1.66%	
QC value within limits for Fe		273.955	Recovery = 84.57%				
Pb 220.353	6220.3	0.940903 mg/L	0.0007148	0.940903 mg/L	0.0007148	0.08%	
QC value within limits for Pb		220.353	Recovery = 94.09%				
Mg 279.077	6875131.7	483.434 mg/L	1.8901	483.434 mg/L	1.8901	0.39%	
QC value within limits for Mg		279.077	Recovery = 96.69%				
Mn 257.610	196780.9	0.463063 mg/L	0.0084169	0.463063 mg/L	0.0084169	1.82%	
QC value within limits for Mn		257.610	Recovery = 92.61%				
Mo 202.031	-181.9	0.0034721 mg/L	0.00137801	0.0034721 mg/L	0.00137801	39.69%	
QC value within limits for Mo		202.031	Recovery = Not calculated				
Ni 231.604	33474.6	0.877937 mg/L	0.0046301	0.877937 mg/L	0.0046301	0.53%	
QC value within limits for Ni		231.604	Recovery = 87.79%				
Se 196.026	721.2	0.856276 mg/L	0.0008874	0.856276 mg/L	0.0008874	0.10%	
QC value within limits for Se		196.026	Recovery = 85.63%				
Ag 328.068	103371.4	1.01619 mg/L	0.018062	1.01619 mg/L	0.018062	1.78%	
QC value within limits for Ag		328.068	Recovery = 101.62%				
Na 330.237	-244.9	0.277620 mg/L	0.0340889	0.277620 mg/L	0.0340889	12.28%	
QC value within limits for Na		330.237	Recovery = Not calculated				
Tl 190.801	1348.3	0.913084 mg/L	0.0049567	0.913084 mg/L	0.0049567	0.54%	
QC value within limits for Tl		190.801	Recovery = 91.31%				
Sn 189.927	-202.9	-0.0103489 mg/L	0.00674509	-0.0103489 mg/L	0.00674509	65.18%	
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940	-197.5	-0.0025394 mg/L	0.00000831	-0.0025394 mg/L	0.00000831	0.33%	
QC value within limits for Ti		334.940	Recovery = Not calculated				
V 292.402	51815.0	0.477392 mg/L	0.0093007	0.477392 mg/L	0.0093007	1.95%	
QC value within limits for V		292.402	Recovery = 95.48%				
Zn 206.200	27341.8	0.889783 mg/L	0.0012128	0.889783 mg/L	0.0012128	0.14%	
QC value within limits for Zn		206.200	Recovery = 88.98%				

All analyte(s) passed QC.

Sequence No.: 14

Autosampler Location: 4

Sample ID: CCV V-128659

Date Collected: 12/12/2011 10:48:22 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Al 308.215	29682.1	5.12212	mg/L	0.122209	5.12212	mg/L	0.122209 2.39%
QC value within limits for Al		308.215		Recovery = 102.44%			
Sb 206.836	597.4	0.509608	mg/L	0.0027536	0.509608	mg/L	0.0027536 0.54%
QC value within limits for Sb		206.836		Recovery = 101.92%			
As 188.979	534.3	0.494088	mg/L	0.0034887	0.494088	mg/L	0.0034887 0.71%
QC value within limits for As		188.979		Recovery = 98.82%			
Ba 233.527	26480.1	0.526348	mg/L	0.0119225	0.526348	mg/L	0.0119225 2.27%
QC value within limits for Ba		233.527		Recovery = 105.27%			
Be 234.861	271609.1	0.512245	mg/L	0.0082689	0.512245	mg/L	0.0082689 1.61%
QC value within limits for Be		234.861		Recovery = 102.45%			
Cd 226.502	29922.0	0.509066	mg/L	0.0092288	0.509066	mg/L	0.0092288 1.81%
QC value within limits for Cd		226.502		Recovery = 101.81%			
Ca 315.887	2740991.8	51.6167	mg/L	0.33880	51.6167	mg/L	0.33880 0.66%
QC value within limits for Ca		315.887		Recovery = 103.23%			
Cr 206.158	6243.4	0.514121	mg/L	0.0033784	0.514121	mg/L	0.0033784 0.66%
QC value within limits for Cr		206.158		Recovery = 102.82%			
Co 228.616	11092.9	0.504106	mg/L	0.0020675	0.504106	mg/L	0.0020675 0.41%
QC value within limits for Co		228.616		Recovery = 100.82%			
Cu 324.752	55378.3	0.515934	mg/L	0.0089847	0.515934	mg/L	0.0089847 1.74%
QC value within limits for Cu		324.752		Recovery = 103.19%			
Fe 273.955	62454.6	5.07139	mg/L	0.097416	5.07139	mg/L	0.097416 1.92%
QC value within limits for Fe		273.955		Recovery = 101.43%			
Pb 220.353	3773.9	0.525928	mg/L	0.0002364	0.525928	mg/L	0.0002364 0.04%
QC value within limits for Pb		220.353		Recovery = 105.19%			
Mg 279.077	746602.0	52.1340	mg/L	0.38923	52.1340	mg/L	0.38923 0.75%
QC value within limits for Mg		279.077		Recovery = 104.27%			
Mn 257.610	217741.8	0.510885	mg/L	0.0091365	0.510885	mg/L	0.0091365 1.79%
QC value within limits for Mn		257.610		Recovery = 102.18%			
Mo 202.031	5942.8	0.523602	mg/L	0.0000342	0.523602	mg/L	0.0000342 0.01%
QC value within limits for Mo		202.031		Recovery = 104.72%			
Ni 231.604	19804.9	0.520844	mg/L	0.0056135	0.520844	mg/L	0.0056135 1.08%
QC value within limits for Ni		231.604		Recovery = 104.17%			
Se 196.026	919.6	0.518474	mg/L	0.0077822	0.518474	mg/L	0.0077822 1.50%
QC value within limits for Se		196.026		Recovery = 103.69%			
Ag 328.068	10235.3	0.100290	mg/L	0.0028522	0.100290	mg/L	0.0028522 2.84%
QC value within limits for Ag		328.068		Recovery = 100.29%			
Na 330.237	19695.6	48.3987	mg/L	0.99695	48.3987	mg/L	0.99695 2.06%
QC value within limits for Na		330.237		Recovery = 96.80%			
Tl 190.801	800.6	0.537092	mg/L	0.0010895	0.537092	mg/L	0.0010895 0.20%
QC value within limits for Tl		190.801		Recovery = 107.42%			
Sn 189.927	2167.0	0.518406	mg/L	0.0013008	0.518406	mg/L	0.0013008 0.25%
QC value within limits for Sn		189.927		Recovery = 103.68%			
Ti 334.940	143951.7	0.515489	mg/L	0.0087129	0.515489	mg/L	0.0087129 1.69%
QC value within limits for Ti		334.940		Recovery = 103.10%			
V 292.402	42795.0	0.504589	mg/L	0.0095610	0.504589	mg/L	0.0095610 1.89%
QC value within limits for V		292.402		Recovery = 100.92%			
Zn 206.200	15403.9	0.506473	mg/L	0.0006055	0.506473	mg/L	0.0006055 0.12%
QC value within limits for Zn		206.200		Recovery = 101.29%			

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/12/2011 10:51:39 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	667.5	0.109570 mg/L	0.0150337	0.109570 mg/L	0.0150337	13.72%
QC value within limits for Al	308.215	Recovery = Not calculated				
Sb 206.836	2.2	-0.0014332 mg/L	0.00066566	-0.0014332 mg/L	0.00066566	46.45%
QC value within limits for Sb	206.836	Recovery = Not calculated				
As 188.979	-0.6	-0.0016483 mg/L	0.00110440	-0.0016483 mg/L	0.00110440	67.00%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527	20.7	-0.0021605 mg/L	0.00002730	-0.0021605 mg/L	0.00002730	1.26%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 234.861	71.5	-0.0001321 mg/L	0.00003787	-0.0001321 mg/L	0.00003787	28.67%
QC value within limits for Be	234.861	Recovery = Not calculated				
Cd 226.502	21.4	-0.0016300 mg/L	0.00006030	-0.0016300 mg/L	0.00006030	3.70%
QC value within limits for Cd	226.502	Recovery = Not calculated				
Ca 315.887	7750.9	-0.136875 mg/L	0.0058878	-0.136875 mg/L	0.0058878	4.30%
QC value within limits for Ca	315.887	Recovery = Not calculated				
Cr 206.158	6.3	-0.0015021 mg/L	0.00042534	-0.0015021 mg/L	0.00042534	28.32%
QC value within limits for Cr	206.158	Recovery = Not calculated				
Co 228.616	-2.6	-0.0013076 mg/L	0.00000650	-0.0013076 mg/L	0.00000650	0.50%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cu 324.752	80.6	0.0010306 mg/L	0.00028982	0.0010306 mg/L	0.00028982	28.12%
QC value within limits for Cu	324.752	Recovery = Not calculated				
Fe 273.955	637.8	0.0222165 mg/L	0.00157257	0.0222165 mg/L	0.00157257	7.08%
QC value within limits for Fe	273.955	Recovery = Not calculated				
Pb 220.353	11.8	-0.0004935 mg/L	0.00050008	-0.0004935 mg/L	0.00050008	101.33%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Mg 279.077	2175.6	-0.255525 mg/L	0.0111986	-0.255525 mg/L	0.0111986	4.38%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610	1.2	-0.0020883 mg/L	0.00002797	-0.0020883 mg/L	0.00002797	1.34%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031	-0.2	-0.0030303 mg/L	0.00020992	-0.0030303 mg/L	0.00020992	6.93%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604	23.0	-0.0020849 mg/L	0.00013515	-0.0020849 mg/L	0.00013515	6.48%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Se 196.026	12.4	0.0028713 mg/L	0.00027424	0.0028713 mg/L	0.00027424	9.55%
QC value within limits for Se	196.026	Recovery = Not calculated				
Ag 328.068	98.8	0.0008055 mg/L	0.00075106	0.0008055 mg/L	0.00075106	93.24%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Na 330.237	17.0	0.909712 mg/L	0.1933554	0.909712 mg/L	0.1933554	21.25%
QC value within limits for Na	330.237	Recovery = Not calculated				
Tl 190.801	0.3	0.0007601 mg/L	0.00448895	0.0007601 mg/L	0.00448895	590.56%
QC value within limits for Tl	190.801	Recovery = Not calculated				
Sn 189.927	9.6	-0.0012039 mg/L	0.00115343	-0.0012039 mg/L	0.00115343	95.81%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940	77.7	-0.0015503 mg/L	0.00006579	-0.0015503 mg/L	0.00006579	4.24%
QC value within limits for Ti	334.940	Recovery = Not calculated				
V 292.402	18.9	-0.0013602 mg/L	0.00009904	-0.0013602 mg/L	0.00009904	7.28%
QC value within limits for V	292.402	Recovery = Not calculated				
Zn 206.200	24.8	-0.0003804 mg/L	0.00010373	-0.0003804 mg/L	0.00010373	27.27%
QC value within limits for Zn	206.200	Recovery = Not calculated				

All analyte(s) passed QC.

File SW13377B2

Batch 13377 SW846

Method: PE2 4300DV AXIAL

Page 1

Date: 12/12/2011 2:55:36 PM

Analyst S. Bul 12/12/11

=====  
Analysis Begun

Start Time: 12/12/2011 2:52:17 PM                      Plasma On Time: 12/12/2011 10:42:35 AM  
 Logged In Analyst: shiamala                              Technique: ICP Continuous  
 Spectrometer Model: Optima 4300 DV, S/N 069N-na      Autosampler Model: AS-93plus

Sample Information File: C:\pe\administrator\Sample Information\12.12.11.sif  
 Batch ID: 11227  
 Results Data Set: SW13377B2  
 Results Library: C:\pe\administrator\Results\Results.mdb

*shu* 12/14/11

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Method Loaded

Method Name: PE2 4300DV AXIAL                              Method Last Saved: 12/3/2011 7:33:06 PM  
 IEC File: IEC092611B2.iec                                      MSF File:  
 Method Description: 200.7/6010B

=====  
Sequence No.: 1

Sample ID: Calib Blk 1 V-128658                              Autosampler Location: 1  
 Date Collected: 12/12/2011 2:52:18 PM  
 Analyst:    Data Type: Original  
 Initial Sample Wt:    Initial Sample Vol:  
 Dilution:    Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-128658

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc	361.383	1163920.2	3091.09	0.27%	100 %
Y	371.029	453405.2	907.75	0.20%	100 %
Ag	328.068†	34.1	47.90	140.42%	[0.00] mg/L
Al	308.215†	5496.9	0.64	0.01%	[0.00] mg/L
As	188.979†	-14.0	2.83	20.24%	[0.00] mg/L
Ba	233.527†	-1215.0	1.85	0.15%	[0.00] mg/L
Be	313.107†	-2409.8	47.91	1.99%	[0.00] mg/L
Ca	315.887†	-26711.1	415.01	1.55%	[0.00] mg/L
Cd	228.802†	408.5	6.36	1.56%	[0.00] mg/L
Co	228.616†	106.2	1.24	1.17%	[0.00] mg/L
Cr	267.716†	358.2	0.37	0.10%	[0.00] mg/L
Cu	327.393†	-1915.1	47.26	2.47%	[0.00] mg/L
Fe	273.955†	-5941.7	1.10	0.02%	[0.00] mg/L
K	404.721†	1002.9	73.70	7.35%	[0.00] mg/L
Mg	279.077†	-10229.8	59.99	0.59%	[0.00] mg/L
Mn	257.610†	-2823.7	1.41	0.05%	[0.00] mg/L
Mo	202.031†	16.3	2.10	12.91%	[0.00] mg/L
Na	330.237†	-729.6	84.90	11.64%	[0.00] mg/L
Ni	231.604†	155.5	1.88	1.21%	[0.00] mg/L
Pb	220.353†	36.9	4.67	12.66%	[0.00] mg/L
Sb	206.836†	-71.6	4.80	6.69%	[0.00] mg/L
Se	196.026†	64.5	4.15	6.44%	[0.00] mg/L
Sn	189.927†	11.9	0.72	6.09%	[0.00] mg/L
Ti	334.940†	3084.3	38.11	1.24%	[0.00] mg/L
Tl	190.801†	-14.0	0.89	6.37%	[0.00] mg/L
V	290.880†	2706.0	10.62	0.39%	[0.00] mg/L
Zn	206.200†	-55.5	3.31	5.96%	[0.00] mg/L

13377  
11681

all elements reported  
except Pb, Na, K

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Sequence No.: 2                               Autosampler Location: 10
Sample ID: Calib 1 V-128668                   Date Collected: 12/12/2011 2:56:48 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: Calib 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1170376.3	9578.61	0.82%	101 %
Y 371.029	455503.6	3838.65	0.84%	100 %
As 188.979†	3.0	0.16	5.34%	[0.005] mg/L
Be 313.107†	10175.0	27.95	0.27%	[0.003] mg/L
Cd 228.802†	141.6	7.74	5.47%	[0.003] mg/L
Pb 220.353†	51.2	4.17	8.15%	[0.004] mg/L
Tl 190.801†	4.6	1.28	28.08%	[0.005] mg/L

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-127383

Date Collected: 12/12/2011 3:00:17 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: Calib 2 V-127383

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1171949.9	47793.01	4.08%	101	%
Y 371.029	455737.8	18302.57	4.02%	101	%
Ag 328.068†	346.8	30.78	8.88%	[0.002]	mg/L
Al 308.215†	3151.4	313.88	9.96%	[0.10]	mg/L
As 188.979†	12.9	4.78	37.09%	[0.010]	mg/L
Ba 233.527†	1541.1	68.00	4.41%	[0.010]	mg/L
Be 313.107†	31770.1	1464.96	4.61%	[0.010]	mg/L
Ca 315.887†	123445.6	4910.29	3.98%	[1.0]	mg/L
Cd 228.802†	435.2	27.83	6.39%	[0.010]	mg/L
Co 228.616†	433.1	9.73	2.25%	[0.010]	mg/L
Cr 267.716†	798.0	35.54	4.45%	[0.010]	mg/L
Cu 327.393†	1379.7	136.13	9.87%	[0.010]	mg/L
Fe 273.955†	954.0	127.78	13.39%	[0.10]	mg/L
K 404.721†	101.6	73.99	72.82%	[1.0]	mg/L
Mg 279.077†	17417.1	513.61	2.95%	[1.0]	mg/L
Mn 257.610†	4955.9	145.49	2.94%	[0.010]	mg/L
Mo 202.031†	136.7	0.24	0.17%	[0.010]	mg/L
Na 330.237†	1132.7	38.98	3.44%	[1.0]	mg/L
Ni 231.604†	521.1	26.85	5.15%	[0.010]	mg/L
Pb 220.353†	133.7	23.61	17.66%	[0.010]	mg/L
Sb 206.836†	17.3	0.84	4.87%	[0.010]	mg/L
Se 196.026†	12.9	2.77	21.53%	[0.010]	mg/L
Sn 189.927†	13.5	2.20	16.27%	[0.010]	mg/L
Ti 334.940†	7498.8	414.12	5.52%	[0.010]	mg/L
Tl 190.801†	10.2	1.61	15.77%	[0.010]	mg/L
V 290.880†	1587.4	157.52	9.92%	[0.010]	mg/L
Zn 206.200†	443.1	15.71	3.55%	[0.010]	mg/L

Sequence No.: 4

Sample ID: Calib 3 V-127384

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/12/2011 3:03:49 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 3 V-127384

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1088039.4	25346.48	2.33%	93.5 %
Y 371.029	418622.4	9270.87	2.21%	92.3 %
Ag 328.068†	13608.6	69.29	0.51%	[0.10] mg/L
Al 308.215†	164487.7	1690.82	1.03%	[5.0] mg/L
As 188.979†	685.5	6.06	0.88%	[0.50] mg/L
Ba 233.527†	73966.5	604.03	0.82%	[0.50] mg/L
Be 313.107†	1672407.1	61511.29	3.68%	[0.50] mg/L
Ca 315.887†	6245808.2	232345.87	3.72%	[50] mg/L
Cd 228.802†	22224.9	190.05	0.86%	[0.50] mg/L
Co 228.616†	20134.7	171.96	0.85%	[0.50] mg/L
Cr 267.716†	40578.9	347.62	0.86%	[0.50] mg/L
Cu 327.393†	64767.0	550.25	0.85%	[0.50] mg/L
Fe 273.955†	45542.8	233.97	0.51%	[5.0] mg/L
K 404.721†	5608.7	116.93	2.08%	[50] mg/L
Mg 279.077†	848602.3	32308.56	3.81%	[50] mg/L
Mn 257.610†	242417.8	1762.31	0.73%	[0.50] mg/L
Mo 202.031†	7500.1	103.06	1.37%	[0.50] mg/L
Na 330.237†	55818.8	462.86	0.83%	[50] mg/L
Ni 231.604†	25211.4	238.61	0.95%	[0.50] mg/L
Pb 220.353†	6119.9	99.86	1.63%	[0.50] mg/L
Sb 206.836†	602.4	10.97	1.82%	[0.50] mg/L
Se 196.026†	664.8	14.86	2.24%	[0.50] mg/L
Sn 189.927†	818.1	11.27	1.38%	[0.50] mg/L
Ti 334.940†	392900.6	14072.98	3.58%	[0.50] mg/L
Tl 190.801†	541.9	6.95	1.28%	[0.50] mg/L
V 290.880†	83193.0	813.12	0.98%	[0.50] mg/L
Zn 206.200†	21837.5	154.36	0.71%	[0.50] mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-128237

Date Collected: 12/12/2011 3:07:35 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 4 V-128237

Analyte	Mean Corrected			RSD	Conc. Units
	Intensity	Std.Dev.			
Sc 361.383	1051629.1	11563.63	1.10%		90.4 %
Y 371.029	404122.4	4411.12	1.09%		89.1 %
Ag 328.068†	28099.2	453.93	1.62%		[0.20] mg/L
Al 308.215†	333704.8	5697.20	1.71%		[10] mg/L
As 188.979†	1395.1	25.51	1.83%		[1.0] mg/L
Ba 233.527†	149726.5	2743.63	1.83%		[1.0] mg/L
Be 313.107†	3349736.9	55741.19	1.66%		[1.0] mg/L
Ca 315.887†	12358807.1	201229.47	1.63%		[100] mg/L
Cd 228.802†	45844.6	801.26	1.75%		[1.0] mg/L
Co 228.616†	40811.6	741.19	1.82%		[1.0] mg/L
Cr 267.716†	83154.3	1608.99	1.93%		[1.0] mg/L
Cu 327.393†	132843.4	2299.52	1.73%		[1.0] mg/L
Fe 273.955†	92591.1	1547.27	1.67%		[10] mg/L
K 404.721†	12193.3	235.31	1.93%		[100] mg/L
Mg 279.077†	1693800.6	31910.96	1.88%		[100] mg/L
Mn 257.610†	492093.4	9003.57	1.83%		[1.0] mg/L
Mo 202.031†	15095.9	306.75	2.03%		[1.0] mg/L
Na 330.237†	120881.4	1925.56	1.59%		[100] mg/L
Ni 231.604†	51096.0	916.73	1.79%		[1.0] mg/L
Pb 220.353†	12336.1	234.26	1.90%		[1.0] mg/L
Sb 206.836†	1217.6	17.86	1.47%		[1.0] mg/L
Se 196.026†	1382.1	33.54	2.43%		[1.0] mg/L
Sn 189.927†	1656.5	33.78	2.04%		[1.0] mg/L
Ti 334.940†	786343.4	14565.43	1.85%		[1.0] mg/L
Tl 190.801†	1095.3	26.95	2.46%		[1.0] mg/L
V 290.880†	168234.8	3136.60	1.86%		[1.0] mg/L
Zn 206.200†	44364.7	903.41	2.04%		[1.0] mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-50.4	139900	0.00000	0.999855	
Al 308.215	3	Lin, Calc Int	-514.7	33340	0.00000	0.999974	
As 188.979	4	Lin, Calc Int	-3.1	1394	0.00000	0.999966	
Ba 233.527	3	Lin, Calc Int	-143.3	149500	0.00000	0.999980	
Be 313.107	4	Lin, Calc Int	-805.6	3350000	0.00000	1.000000	
Ca 315.887	3	Lin, Calc Int	12021.1	123700	0.00000	0.999985	
Cd 228.802	4	Lin, Calc Int	-92.9	45680	0.00000	0.999890	
Co 228.616	3	Lin, Calc Int	-38.0	40750	0.00000	0.999975	
Cr 267.716	3	Lin, Calc Int	-196.9	82990	0.00000	0.999924	
Cu 327.393	3	Lin, Calc Int	-277.9	132500	0.00000	0.999915	
Fe 273.955	3	Lin, Calc Int	-124.3	9244	0.00000	0.999964	
K 404.721	3	Lin, Calc Int	-98.0	121.2	0.00000	0.999150	
Mg 279.077	3	Lin, Calc Int	527.3	16940	0.00000	1.000000	
Mn 257.610	3	Lin, Calc Int	-644.6	491400	0.00000	0.999971	
Mo 202.031	3	Lin, Calc Int	-15.2	15090	0.00000	0.999995	
Na 330.237	3	Lin, Calc Int	-875.7	1201	0.00000	0.999215	
Ni 231.604	3	Lin, Calc Int	-56.7	51030	0.00000	0.999976	
Pb 220.353	4	Lin, Calc Int	-2.2	12320	0.00000	0.999992	
Sb 206.836	3	Lin, Calc Int	1.2	1214	0.00000	0.999972	
Se 196.026	3	Lin, Calc Int	-5.2	1378	0.00000	0.999809	
Sn 189.927	3	Lin, Calc Int	-3.2	1656	0.00000	0.999982	
Ti 334.940	3	Lin, Calc Int	-214.9	786500	0.00000	1.000000	
Tl 190.801	4	Lin, Calc Int	-1.2	1095	0.00000	0.999988	
V 290.880	3	Lin, Calc Int	-211.3	168100	0.00000	0.999985	
Zn 206.200	3	Lin, Calc Int	-63.0	44300	0.00000	0.999968	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-127384

Date Collected: 12/12/2011 3:12:37 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICS3 V-127384

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1098702.4	94.4 %		0.24			0.26%
Y 371.029	422138.4	93.1 %		0.15			0.16%
Ag 328.068†	13661.8	0.0981135 mg/L	0.00040742	0.0981135 mg/L	0.00040742		0.42%
QC value within limits for Ag		328.068	Recovery = 98.11%				
Al 308.215†	165189.7	4.96065 mg/L	0.000135	4.96065 mg/L	0.000135		0.00%
QC value within limits for Al		308.215	Recovery = 99.21%				
As 188.979†	682.6	0.491775 mg/L	0.0026234	0.491775 mg/L	0.0026234		0.53%
QC value within limits for As		188.979	Recovery = 98.35%				
Ba 233.527†	74387.0	0.498393 mg/L	0.0000711	0.498393 mg/L	0.0000711		0.01%
QC value within limits for Ba		233.527	Recovery = 99.68%				
Be 313.107†	1662598.9	0.496226 mg/L	0.0017622	0.496226 mg/L	0.0017622		0.36%
QC value within limits for Be		313.107	Recovery = 99.25%				
Ca 315.887†	6215211.6	50.1436 mg/L	0.11850	50.1436 mg/L	0.11850		0.24%
QC value within limits for Ca		315.887	Recovery = 100.29%				
Cd 228.802†	22412.7	0.492621 mg/L	0.0000718	0.492621 mg/L	0.0000718		0.01%
QC value within limits for Cd		228.802	Recovery = 98.52%				
Co 228.616†	20291.8	0.499535 mg/L	0.0012237	0.499535 mg/L	0.0012237		0.24%
QC value within limits for Co		228.616	Recovery = 99.91%				
Cr 267.716†	40840.8	0.498081 mg/L	0.0004735	0.498081 mg/L	0.0004735		0.10%
QC value within limits for Cr		267.716	Recovery = 99.62%				
Cu 327.393†	65016.5	0.491241 mg/L	0.0008327	0.491241 mg/L	0.0008327		0.17%
QC value within limits for Cu		327.393	Recovery = 98.25%				
Fe 273.955†	45803.1	4.98828 mg/L	0.000090	4.98828 mg/L	0.000090		0.00%
QC value within limits for Fe		273.955	Recovery = 99.77%				
K 404.721†	5514.5	46.3212 mg/L	0.70229	46.3212 mg/L	0.70229		1.52%
QC value within limits for K		404.721	Recovery = 92.64%				
Mg 279.077†	845053.0	49.8584 mg/L	0.07823	49.8584 mg/L	0.07823		0.16%
QC value within limits for Mg		279.077	Recovery = 99.72%				
Mn 257.610†	243669.8	0.497512 mg/L	0.0003328	0.497512 mg/L	0.0003328		0.07%
QC value within limits for Mn		257.610	Recovery = 99.50%				
Mo 202.031†	7517.6	0.497990 mg/L	0.0016694	0.497990 mg/L	0.0016694		0.34%
QC value within limits for Mo		202.031	Recovery = 99.60%				
Na 330.237†	56017.4	47.3754 mg/L	0.11026	47.3754 mg/L	0.11026		0.23%
QC value within limits for Na		330.237	Recovery = 94.75%				
Ni 231.604†	25364.6	0.498608 mg/L	0.0004306	0.498608 mg/L	0.0004306		0.09%
QC value within limits for Ni		231.604	Recovery = 99.72%				
Pb 220.353†	6147.9	0.499543 mg/L	0.0020474	0.499543 mg/L	0.0020474		0.41%
QC value within limits for Pb		220.353	Recovery = 99.91%				
Sb 206.836†	596.4	0.492318 mg/L	0.0006448	0.492318 mg/L	0.0006448		0.13%
QC value within limits for Sb		206.836	Recovery = 98.46%				
Se 196.026†	667.8	0.488799 mg/L	0.0139256	0.488799 mg/L	0.0139256		2.85%
QC value within limits for Se		196.026	Recovery = 97.76%				
Sn 189.927†	824.8	0.499740 mg/L	0.0032381	0.499740 mg/L	0.0032381		0.65%
QC value within limits for Sn		189.927	Recovery = 99.95%				
Ti 334.940†	390638.2	0.496958 mg/L	0.0022565	0.496958 mg/L	0.0022565		0.45%
QC value within limits for Ti		334.940	Recovery = 99.39%				
Tl 190.801†	548.9	0.504525 mg/L	0.0024418	0.504525 mg/L	0.0024418		0.48%
QC value within limits for Tl		190.801	Recovery = 100.91%				
V 290.880†	83565.0	0.496162 mg/L	0.0004881	0.496162 mg/L	0.0004881		0.10%
QC value within limits for V		290.880	Recovery = 99.23%				
Zn 206.200†	21996.8	0.496371 mg/L	0.0009254	0.496371 mg/L	0.0009254		0.19%
QC value within limits for Zn		206.200	Recovery = 99.27%				

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV V-128234 (2)

Date Collected: 12/12/2011 3:16:24 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICV V-128234 (2)

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1100036.7	94.5 %		7.31			7.74%
Y 371.029	424196.2	93.6 %		7.11			7.60%
Ag 328.068†	26200.5	0.187829 mg/L		0.0162112	0.187829 mg/L	0.0162112	8.63%
QC value within limits for Ag							
Al 308.215†	317316.8	9.51451 mg/L		0.834096	9.51451 mg/L	0.834096	8.77%
QC value within limits for Al							
As 188.979†	1337.4	0.961379 mg/L		0.0547136	0.961379 mg/L	0.0547136	5.69%
QC value within limits for As							
Ba 233.527†	143611.5	0.961305 mg/L		0.0795643	0.961305 mg/L	0.0795643	8.28%
QC value within limits for Ba							
Be 313.107†	3262857.3	0.973633 mg/L		0.0573059	0.973633 mg/L	0.0573059	5.89%
QC value within limits for Be							
Ca 315.887†	12092028.6	97.6490 mg/L		5.72308	97.6490 mg/L	5.72308	5.86%
QC value within limits for Ca							
Cd 228.802†	43430.3	0.952674 mg/L		0.0827284	0.952674 mg/L	0.0827284	8.68%
QC value within limits for Cd							
Co 228.616†	39047.9	0.960450 mg/L		0.0795847	0.960450 mg/L	0.0795847	8.29%
QC value within limits for Co							
Cr 267.716†	78493.8	0.955160 mg/L		0.0803294	0.955160 mg/L	0.0803294	8.41%
QC value within limits for Cr							
Cu 327.393†	126415.8	0.953214 mg/L		0.0827193	0.953214 mg/L	0.0827193	8.68%
QC value within limits for Cu							
Fe 273.955†	86845.2	9.44588 mg/L		0.752655	9.44588 mg/L	0.752655	7.97%
QC value within limits for Fe							
K 404.721†	11575.0	96.3408 mg/L		9.35805	96.3408 mg/L	9.35805	9.71%
QC value within limits for K							
Mg 279.077†	1596733.0	94.2355 mg/L		7.69495	94.2355 mg/L	7.69495	8.17%
QC value within limits for Mg							
Mn 257.610†	462123.1	0.942368 mg/L		0.0784823	0.942368 mg/L	0.0784823	8.33%
QC value within limits for Mn							
Mo 202.031†	14645.8	0.969229 mg/L		0.0614878	0.969229 mg/L	0.0614878	6.34%
QC value within limits for Mo							
Na 330.237†	114180.3	95.8082 mg/L		8.26137	95.8082 mg/L	8.26137	8.62%
QC value within limits for Na							
Ni 231.604†	48394.6	0.950334 mg/L		0.0774670	0.950334 mg/L	0.0774670	8.15%
QC value within limits for Ni							
Pb 220.353†	11894.8	0.966372 mg/L		0.0571061	0.966372 mg/L	0.0571061	5.91%
QC value within limits for Pb							
Sb 206.836†	1162.0	0.960025 mg/L		0.0520781	0.960025 mg/L	0.0520781	5.42%
QC value within limits for Sb							
Se 196.026†	1327.7	0.968010 mg/L		0.0559833	0.968010 mg/L	0.0559833	5.78%
QC value within limits for Se							
Sn 189.927†	1613.4	0.975688 mg/L		0.0617503	0.975688 mg/L	0.0617503	6.33%
QC value within limits for Sn							
Ti 334.940†	745155.2	0.947715 mg/L		0.0813561	0.947715 mg/L	0.0813561	8.58%
QC value within limits for Ti							
Tl 190.801†	1096.9	1.00693 mg/L		0.064303	1.00693 mg/L	0.064303	6.39%
QC value within limits for Tl							
V 290.880†	159911.0	0.948411 mg/L		0.0807913	0.948411 mg/L	0.0807913	8.52%
QC value within limits for V							
Zn 206.200†	41984.5	0.946140 mg/L		0.0772024	0.946140 mg/L	0.0772024	8.16%
QC value within limits for Zn							

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-128658

Date Collected: 12/12/2011 3:21:20 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICB V-128658

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1144896.6	98.4 %		1.70			1.73%
Y 371.029	445670.4	98.3 %		1.50			1.52%
Ag 328.068†	-40.6	0.0000676 mg/L		0.00011338	0.0000676 mg/L	0.00011338	167.74%
QC value within limits for Ag		328.068	Recovery =	Not calculated			
Al 308.215†	-205.2	0.0092577 mg/L		0.00307072	0.0092577 mg/L	0.00307072	33.17%
QC value within limits for Al		308.215	Recovery =	Not calculated			
As 188.979†	3.5	0.0047098 mg/L		0.00134387	0.0047098 mg/L	0.00134387	28.53%
QC value within limits for As		188.979	Recovery =	Not calculated			
Ba 233.527†	-29.4	0.0007616 mg/L		0.00016765	0.0007616 mg/L	0.00016765	22.01%
QC value within limits for Ba		233.527	Recovery =	Not calculated			
Be 313.107†	69.9	0.0002612 mg/L		0.00001784	0.0002612 mg/L	0.00001784	6.83%
QC value within limits for Be		313.107	Recovery =	Not calculated			
Ca 315.887†	-312.7	-0.0997004 mg/L		0.00222265	-0.0997004 mg/L	0.00222265	2.23%
QC value within limits for Ca		315.887	Recovery =	Not calculated			
Cd 228.802†	3.8	0.0021167 mg/L		0.00020857	0.0021167 mg/L	0.00020857	9.85%
QC value within limits for Cd		228.802	Recovery =	Not calculated			
Co 228.616†	8.1	0.0011359 mg/L		0.00005542	0.0011359 mg/L	0.00005542	4.88%
QC value within limits for Co		228.616	Recovery =	Not calculated			
Cr 267.716†	4.6	0.0024366 mg/L		0.00007408	0.0024366 mg/L	0.00007408	3.04%
QC value within limits for Cr		267.716	Recovery =	Not calculated			
Cu 327.393†	-17.0	0.0019698 mg/L		0.00104105	0.0019698 mg/L	0.00104105	52.85%
QC value within limits for Cu		327.393	Recovery =	Not calculated			
Fe 273.955†	-159.5	-0.0038279 mg/L		0.01058266	-0.0038279 mg/L	0.01058266	276.46%
QC value within limits for Fe		273.955	Recovery =	Not calculated			
K 404.721†	-5.2	0.765822 mg/L		0.3523569	0.765822 mg/L	0.3523569	46.01%
QC value within limits for K		404.721	Recovery =	Not calculated			
Mg 279.077†	-304.2	-0.0490848 mg/L		0.00864851	-0.0490848 mg/L	0.00864851	17.62%
QC value within limits for Mg		279.077	Recovery =	Not calculated			
Mn 257.610†	-85.1	0.0011387 mg/L		0.00010865	0.0011387 mg/L	0.00010865	9.54%
QC value within limits for Mn		257.610	Recovery =	Not calculated			
Mo 202.031†	3.1	0.0012111 mg/L		0.00009363	0.0012111 mg/L	0.00009363	7.73%
QC value within limits for Mo		202.031	Recovery =	Not calculated			
Na 330.237†	184.8	0.883071 mg/L		0.0449721	0.883071 mg/L	0.0449721	5.09%
QC value within limits for Na		330.237	Recovery =	Not calculated			
Ni 231.604†	-11.4	0.0008884 mg/L		0.00056122	0.0008884 mg/L	0.00056122	63.17%
QC value within limits for Ni		231.604	Recovery =	Not calculated			
Pb 220.353†	5.8	0.0006501 mg/L		0.00126610	0.0006501 mg/L	0.00126610	194.74%
QC value within limits for Pb		220.353	Recovery =	Not calculated			
Sb 206.836†	-1.2	-0.0019447 mg/L		0.00215853	-0.0019447 mg/L	0.00215853	110.99%
QC value within limits for Sb		206.836	Recovery =	Not calculated			
Se 196.026†	8.8	0.0101372 mg/L		0.00435553	0.0101372 mg/L	0.00435553	42.97%
QC value within limits for Se		196.026	Recovery =	Not calculated			
Sn 189.927†	2.9	0.0037159 mg/L		0.00371232	0.0037159 mg/L	0.00371232	99.90%
QC value within limits for Sn		189.927	Recovery =	Not calculated			
Ti 334.940†	13.1	0.0002898 mg/L		0.00001211	0.0002898 mg/L	0.00001211	4.18%
QC value within limits for Ti		334.940	Recovery =	Not calculated			
Tl 190.801†	5.2	0.0059018 mg/L		0.00198588	0.0059018 mg/L	0.00198588	33.65%
QC value within limits for Tl		190.801	Recovery =	Not calculated			
V 290.880†	50.3	0.0015616 mg/L		0.00000332	0.0015616 mg/L	0.00000332	0.21%
QC value within limits for V		290.880	Recovery =	Not calculated			
Zn 206.200†	25.6	0.0020010 mg/L		0.00023450	0.0020010 mg/L	0.00023450	11.72%
QC value within limits for Zn		206.200	Recovery =	Not calculated			

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICESA V-127386

Date Collected: 12/12/2011 3:24:50 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICESA V-127386

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	979316.2	84.1 %		1.25			1.49%
Y 371.029	375564.9	82.8 %		1.21			1.46%
Ag 328.068†	-1244.4	0.0037138 mg/L		0.00020084	0.0037138 mg/L	0.00020084	5.41%
Al 308.215†	16548250.3	496.394 mg/L		6.4186	496.394 mg/L	6.4186	1.29%
QC value within limits for Al 308.215 Recovery = 99.28%							
As 188.979†	-31.4	0.0034013 mg/L		0.00276242	0.0034013 mg/L	0.00276242	81.22%
Ba 233.527†	267.9	0.0027495 mg/L		0.00019292	0.0027495 mg/L	0.00019292	7.02%
Be 313.107†	-2617.7	-0.0005424 mg/L		0.00001219	-0.0005424 mg/L	0.00001219	2.25%
Ca 315.887†	59997750.4	484.896 mg/L		5.9175	484.896 mg/L	5.9175	1.22%
QC value within limits for Ca 315.887 Recovery = 96.98%							
Cd 228.802†	173.5	0.0027663 mg/L		0.00011757	0.0027663 mg/L	0.00011757	4.25%
Co 228.616†	-133.9	0.0047374 mg/L		0.00048601	0.0047374 mg/L	0.00048601	10.26%
Cr 267.716†	544.6	0.0153596 mg/L		0.00007029	0.0153596 mg/L	0.00007029	0.46%
Cu 327.393†	796.1	-0.0102801 mg/L		0.00101287	-0.0102801 mg/L	0.00101287	9.85%
Fe 273.955†	1727915.6	187.134 mg/L		0.8423	187.134 mg/L	0.8423	0.45%
QC value within limits for Fe 273.955 Recovery = 93.57%							
K 404.721†	-924.3	-6.81977 mg/L		0.017356	-6.81977 mg/L	0.017356	0.25%
Mg 279.077†	8401902.1	495.993 mg/L		5.6714	495.993 mg/L	5.6714	1.14%
QC value within limits for Mg 279.077 Recovery = 99.20%							
Mn 257.610†	-5182.3	-0.0007683 mg/L		0.00009724	-0.0007683 mg/L	0.00009724	12.66%
Mo 202.031†	120.4	0.0044347 mg/L		0.00036318	0.0044347 mg/L	0.00036318	8.19%
Na 330.237†	15.3	0.741961 mg/L		0.0424699	0.741961 mg/L	0.0424699	5.72%
Ni 231.604†	-39.5	0.0003439 mg/L		0.00034882	0.0003439 mg/L	0.00034882	101.42%
Pb 220.353†	-934.0	0.0048784 mg/L		0.00205085	0.0048784 mg/L	0.00205085	42.04%
Sb 206.836†	-138.7	-0.0076580 mg/L		0.00273048	-0.0076580 mg/L	0.00273048	35.66%
Se 196.026†	28.6	0.0142633 mg/L		0.01330694	0.0142633 mg/L	0.01330694	93.30%
Sn 189.927†	42.5	0.0142640 mg/L		0.00109056	0.0142640 mg/L	0.00109056	7.65%
Ti 334.940†	1367.5	0.0020119 mg/L		0.00003792	0.0020119 mg/L	0.00003792	1.88%
Tl 190.801†	-16.1	-0.0003008 mg/L		0.00024226	-0.0003008 mg/L	0.00024226	80.55%
V 290.880†	6640.5	0.0049248 mg/L		0.00087501	0.0049248 mg/L	0.00087501	17.77%
Zn 206.200†	257.0	-0.0083110 mg/L		0.00037594	-0.0083110 mg/L	0.00037594	4.52%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-127387

Date Collected: 12/12/2011 3:30:13 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-127387

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	987630.5	84.9 %		1.85			2.18%
Y 371.029	376972.9	83.1 %		1.23			1.48%
Ag 328.068†	145884.1	1.05510 mg/L	0.000910		1.05510 mg/L	0.000910	0.09%
QC value within limits for Ag		328.068	Recovery = 105.51%				
Al 308.215†	16503896.9	495.064 mg/L	2.0309		495.064 mg/L	2.0309	0.41%
QC value within limits for Al		308.215	Recovery = 99.01%				
As 188.979†	1374.7	1.01214 mg/L	0.004467		1.01214 mg/L	0.004467	0.44%
QC value within limits for As		188.979	Recovery = 101.21%				
Ba 233.527†	76529.5	0.512720 mg/L	0.0012108		0.512720 mg/L	0.0012108	0.24%
QC value within limits for Ba		233.527	Recovery = 102.54%				
Be 313.107†	1694578.6	0.506126 mg/L	0.0038321		0.506126 mg/L	0.0038321	0.76%
QC value within limits for Be		313.107	Recovery = 101.23%				
Ca 315.887†	59743469.7	482.840 mg/L	1.7918		482.840 mg/L	1.7918	0.37%
QC value within limits for Ca		315.887	Recovery = 96.57%				
Cd 228.802†	47039.4	1.02877 mg/L	0.002955		1.02877 mg/L	0.002955	0.29%
QC value within limits for Cd		228.802	Recovery = 102.88%				
Co 228.616†	18944.6	0.472910 mg/L	0.0004726		0.472910 mg/L	0.0004726	0.10%
QC value within limits for Co		228.616	Recovery = 94.58%				
Cr 267.716†	41481.2	0.508932 mg/L	0.0007908		0.508932 mg/L	0.0007908	0.16%
QC value within limits for Cr		267.716	Recovery = 101.79%				
Cu 327.393†	70507.5	0.515728 mg/L	0.0004550		0.515728 mg/L	0.0004550	0.09%
QC value within limits for Cu		327.393	Recovery = 103.15%				
Fe 273.955†	1731447.0	187.519 mg/L	1.3777		187.519 mg/L	1.3777	0.73%
QC value within limits for Fe		273.955	Recovery = 93.76%				
K 404.721†	-944.8	-6.98836 mg/L	0.994860		-6.98836 mg/L	0.994860	14.24%
Mg 279.077†	8514103.4	502.617 mg/L	6.0575		502.617 mg/L	6.0575	1.21%
QC value within limits for Mg		279.077	Recovery = 100.52%				
Mn 257.610†	234693.9	0.487377 mg/L	0.0004138		0.487377 mg/L	0.0004138	0.08%
QC value within limits for Mn		257.610	Recovery = 97.48%				
Mo 202.031†	117.6	0.0042772 mg/L	0.00033104		0.0042772 mg/L	0.00033104	7.74%
Na 330.237†	364.6	1.03283 mg/L	0.062875		1.03283 mg/L	0.062875	6.09%
Ni 231.604†	47531.8	0.932569 mg/L	0.0021798		0.932569 mg/L	0.0021798	0.23%
QC value within limits for Ni		231.604	Recovery = 93.26%				
Pb 220.353†	10790.0	0.956169 mg/L	0.0009432		0.956169 mg/L	0.0009432	0.10%
QC value within limits for Pb		220.353	Recovery = 95.62%				
Sb 206.836†	1049.7	0.971108 mg/L	0.0041993		0.971108 mg/L	0.0041993	0.43%
QC value within limits for Sb		206.836	Recovery = 97.11%				
Se 196.026†	1394.7	1.00548 mg/L	0.012986		1.00548 mg/L	0.012986	1.29%
QC value within limits for Se		196.026	Recovery = 100.55%				
Sn 189.927†	28.7	0.0059541 mg/L	0.00194255		0.0059541 mg/L	0.00194255	32.63%
Ti 334.940†	1636.7	0.0023542 mg/L	0.00006258		0.0023542 mg/L	0.00006258	2.66%
Tl 190.801†	1056.1	0.978902 mg/L	0.0044923		0.978902 mg/L	0.0044923	0.46%
QC value within limits for Tl		190.801	Recovery = 97.89%				
V 290.880†	87419.4	0.484988 mg/L	0.0012892		0.484988 mg/L	0.0012892	0.27%
QC value within limits for V		290.880	Recovery = 97.00%				
Zn 206.200†	43719.2	0.972505 mg/L	0.0061632		0.972505 mg/L	0.0061632	0.63%
QC value within limits for Zn		206.200	Recovery = 97.25%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 11681 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 12/12/2011 3:35:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: MB 11681 (1)

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1159894.5	99.7 %		1.08			1.08%
Y 371.029	451761.4	99.6 %		0.89			0.90%
Ag 328.068†	53.9	0.0007523 mg/L		0.00025669	0.0007523 mg/L	0.00025669	34.12%
Al 308.215†	731.6	0.0373606 mg/L		0.00203588	0.0373606 mg/L	0.00203588	5.45%
As 188.979†	2.8	0.0042476 mg/L		0.00027548	0.0042476 mg/L	0.00027548	6.49%
Ba 233.527†	68.2	0.0014142 mg/L		0.00015019	0.0014142 mg/L	0.00015019	10.62%
Be 313.107†	-7.0	0.0002381 mg/L		0.00001919	0.0002381 mg/L	0.00001919	8.06%
Ca 315.887†	117832.8	0.855331 mg/L		0.0117124	0.855331 mg/L	0.0117124	1.37%
Cd 228.802†	15.4	0.0023692 mg/L		0.00017818	0.0023692 mg/L	0.00017818	7.52%
Co 228.616†	5.4	0.0010684 mg/L		0.00001180	0.0010684 mg/L	0.00001180	1.10%
Cr 267.716†	-0.2	0.0023797 mg/L		0.00006510	0.0023797 mg/L	0.00006510	2.74%
Cu 327.393†	302.1	0.0043661 mg/L		0.00013099	0.0043661 mg/L	0.00013099	3.00%
Fe 273.955†	316.0	0.0476244 mg/L		0.00706013	0.0476244 mg/L	0.00706013	14.82%
K 404.721†	-69.2	0.238070 mg/L		0.5627656	0.238070 mg/L	0.5627656	236.39%
Mg 279.077†	460.9	-0.0039198 mg/L		0.00923810	-0.0039198 mg/L	0.00923810	235.68%
Mn 257.610†	127.7	0.0015739 mg/L		0.00001166	0.0015739 mg/L	0.00001166	0.74%
Mo 202.031†	-0.3	0.0009706 mg/L		0.00008774	0.0009706 mg/L	0.00008774	9.04%
Na 330.237†	179.3	0.878540 mg/L		0.0877286	0.878540 mg/L	0.0877286	9.99%
Ni 231.604†	16.7	0.0014392 mg/L		0.00021092	0.0014392 mg/L	0.00021092	14.66%
Pb 220.353†	2.7	0.0003932 mg/L		0.00050111	0.0003932 mg/L	0.00050111	127.45%
Sb 206.836†	1.1	-0.0000222 mg/L		0.00019485	-0.0000222 mg/L	0.00019485	876.27%
Se 196.026†	3.4	0.0062208 mg/L		0.00504438	0.0062208 mg/L	0.00504438	81.09%
Sn 189.927†	0.1	0.0019857 mg/L		0.00010122	0.0019857 mg/L	0.00010122	5.10%
Ti 334.940†	65.0	0.0003559 mg/L		0.00001440	0.0003559 mg/L	0.00001440	4.05%
Tl 190.801†	3.0	0.0038444 mg/L		0.00120382	0.0038444 mg/L	0.00120382	31.31%
V 290.880†	43.0	0.0015137 mg/L		0.00024196	0.0015137 mg/L	0.00024196	15.98%
Zn 206.200†	232.3	0.0066663 mg/L		0.00039071	0.0066663 mg/L	0.00039071	5.86%

Sequence No.: 12  
 Sample ID: LCSW 11681  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 39  
 Date Collected: 12/12/2011 3:39:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSW 11681

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1110679.9	95.4 %		0.90				0.95%
Y 371.029	426230.7	94.0 %		0.77				0.82%
Ag 328.068†	12467.5	0.0895820 mg/L		0.00076830	0.0895820 mg/L		0.00076830	0.86%
Al 308.215†	155096.4	4.65845 mg/L		0.016708	4.65845 mg/L		0.016708	0.36%
As 188.979†	643.4	0.463670 mg/L		0.0014554	0.463670 mg/L		0.0014554	0.31%
Ba 233.527†	70913.9	0.475168 mg/L		0.0024825	0.475168 mg/L		0.0024825	0.52%
Be 313.107†	1571934.0	0.469180 mg/L		0.0031028	0.469180 mg/L		0.0031028	0.66%
Ca 315.887†	6057019.7	48.8649 mg/L		0.28151	48.8649 mg/L		0.28151	0.58%
Cd 228.802†	21042.0	0.462618 mg/L		0.0020891	0.462618 mg/L		0.0020891	0.45%
Co 228.616†	19545.3	0.481182 mg/L		0.0031013	0.481182 mg/L		0.0031013	0.64%
Cr 267.716†	38587.6	0.470726 mg/L		0.0024849	0.470726 mg/L		0.0024849	0.53%
Cu 327.393†	62291.8	0.470743 mg/L		0.0020917	0.470743 mg/L		0.0020917	0.44%
Fe 273.955†	43113.6	4.69631 mg/L		0.022460	4.69631 mg/L		0.022460	0.48%
K 404.721†	5287.5	44.4484 mg/L		0.17686	44.4484 mg/L		0.17686	0.40%
Mg 279.077†	801928.1	47.3124 mg/L		0.21890	47.3124 mg/L		0.21890	0.46%
Mn 257.610†	229033.0	0.467707 mg/L		0.0021734	0.467707 mg/L		0.0021734	0.46%
Mo 202.031†	7091.3	0.469772 mg/L		0.0008623	0.469772 mg/L		0.0008623	0.18%
Na 330.237†	52041.8	44.0649 mg/L		0.27593	44.0649 mg/L		0.27593	0.63%
Ni 231.604†	24255.3	0.476846 mg/L		0.0027518	0.476846 mg/L		0.0027518	0.58%
Pb 220.353†	5845.1	0.474927 mg/L		0.0012332	0.474927 mg/L		0.0012332	0.26%
Sb 206.836†	554.0	0.457246 mg/L		0.0027193	0.457246 mg/L		0.0027193	0.59%
Se 196.026†	636.8	0.466275 mg/L		0.0045591	0.466275 mg/L		0.0045591	0.98%
Sn 189.927†	794.2	0.481303 mg/L		0.0000563	0.481303 mg/L		0.0000563	0.01%
Ti 334.940†	367822.4	0.467948 mg/L		0.0038829	0.467948 mg/L		0.0038829	0.83%
Tl 190.801†	542.9	0.498956 mg/L		0.0008418	0.498956 mg/L		0.0008418	0.17%
V 290.880†	78799.0	0.467918 mg/L		0.0019674	0.467918 mg/L		0.0019674	0.42%
Zn 206.200†	21007.9	0.474127 mg/L		0.0040527	0.474127 mg/L		0.0040527	0.85%

Sequence No.: 13

Autosampler Location: 40

Sample ID: LCSW MR 11681

Date Collected: 12/12/2011 3:42:59 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: LCSW MR 11681

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1106365.0		95.1 %	0.11				0.12%
Y 371.029	424298.3		93.6 %	0.10				0.10%
Ag 328.068†	12696.6	0.0912195	mg/L	0.00130801	0.0912195	mg/L	0.00130801	1.43%
Al 308.215†	157071.1	4.71740	mg/L	0.072466	4.71740	mg/L	0.072466	1.54%
As 188.979†	664.0	0.478403	mg/L	0.0024772	0.478403	mg/L	0.0024772	0.52%
Ba 233.527†	72000.0	0.482431	mg/L	0.0083687	0.482431	mg/L	0.0083687	1.73%
Be 313.107†	1610161.5	0.480584	mg/L	0.0007226	0.480584	mg/L	0.0007226	0.15%
Ca 315.887†	6205019.3	50.0612	mg/L	0.09824	50.0612	mg/L	0.09824	0.20%
Cd 228.802†	21418.3	0.470854	mg/L	0.0074146	0.470854	mg/L	0.0074146	1.57%
Co 228.616†	19852.6	0.488744	mg/L	0.0086581	0.488744	mg/L	0.0086581	1.77%
Cr 267.716†	39183.5	0.478001	mg/L	0.0080481	0.478001	mg/L	0.0080481	1.68%
Cu 327.393†	63199.2	0.477555	mg/L	0.0060028	0.477555	mg/L	0.0060028	1.26%
Fe 273.955†	43720.8	4.76249	mg/L	0.079834	4.76249	mg/L	0.079834	1.68%
K 404.721†	5338.3	44.8675	mg/L	0.10987	44.8675	mg/L	0.10987	0.24%
Mg 279.077†	822713.9	48.5396	mg/L	0.08757	48.5396	mg/L	0.08757	0.18%
Mn 257.610†	232600.1	0.474972	mg/L	0.0083655	0.474972	mg/L	0.0083655	1.76%
Mo 202.031†	7302.4	0.483731	mg/L	0.0058970	0.483731	mg/L	0.0058970	1.22%
Na 330.237†	52981.5	44.8474	mg/L	0.67000	44.8474	mg/L	0.67000	1.49%
Ni 231.604†	24623.5	0.484073	mg/L	0.0080049	0.484073	mg/L	0.0080049	1.65%
Pb 220.353†	6028.1	0.489786	mg/L	0.0074908	0.489786	mg/L	0.0074908	1.53%
Sb 206.836†	576.2	0.475566	mg/L	0.0049096	0.475566	mg/L	0.0049096	1.03%
Se 196.026†	657.9	0.481554	mg/L	0.0092765	0.481554	mg/L	0.0092765	1.93%
Sn 189.927†	819.0	0.496223	mg/L	0.0137632	0.496223	mg/L	0.0137632	2.77%
Ti 334.940†	376380.9	0.478830	mg/L	0.0006924	0.478830	mg/L	0.0006924	0.14%
Tl 190.801†	564.7	0.518914	mg/L	0.0036147	0.518914	mg/L	0.0036147	0.70%
V 290.880†	80196.7	0.476182	mg/L	0.0077424	0.476182	mg/L	0.0077424	1.63%
Zn 206.200†	21341.7	0.481624	mg/L	0.0095038	0.481624	mg/L	0.0095038	1.97%

Sequence No.: 14  
 Sample ID: 63081-011  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 12/12/2011 3:46:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1208461.6	104	%	0.9				0.83%
Y 371.029	781177.5	172	%	0.3				0.19%
Ag 328.068†	-2548.3	0.0065396	mg/L	0.00037157	0.0065396	mg/L	0.00037157	5.68%
Al 308.215†	6500439.3	195.013	mg/L	3.1953	195.013	mg/L	3.1953	1.64%
As 188.979†	400.3	0.360213	mg/L	0.0021113	0.360213	mg/L	0.0021113	0.59%
Ba 233.527†	899457.1	6.01573	mg/L	0.088786	6.01573	mg/L	0.088786	1.48%
Be 313.107†	57520.8	0.0144758	mg/L	0.00021422	0.0144758	mg/L	0.00021422	1.48%
Ca 315.887†	43670603.9	352.915	mg/L	3.6854	352.915	mg/L	3.6854	1.04%
Cd 228.802†	1021.6	0.0163256	mg/L	0.00022581	0.0163256	mg/L	0.00022581	1.38%
Co 228.616†	8344.6	0.200826	mg/L	0.0004256	0.200826	mg/L	0.0004256	0.21%
Cr 267.716†	39117.2	0.495139	mg/L	0.0041819	0.495139	mg/L	0.0041819	0.84%
Cu 327.393†	430973.9	3.24541	mg/L	0.023380	3.24541	mg/L	0.023380	0.72%
Fe 273.955†	4551744.4	492.434	mg/L	7.1280	492.434	mg/L	7.1280	1.45%
K 404.721†	5129.6	43.1446	mg/L	0.38402	43.1446	mg/L	0.38402	0.89%
Mg 279.077†	945674.0	55.7988	mg/L	0.83237	55.7988	mg/L	0.83237	1.49%
Mn 257.610†	3233627.2	6.60379	mg/L	0.099676	6.60379	mg/L	0.099676	1.51%
Mo 202.031†	1277.9	0.0803248	mg/L	0.00039564	0.0803248	mg/L	0.00039564	0.49%
Na 330.237†	47634.3	40.3947	mg/L	0.30561	40.3947	mg/L	0.30561	0.76%
Ni 231.604†	21869.7	0.429753	mg/L	0.0014276	0.429753	mg/L	0.0014276	0.33%
Pb 220.353†	216671.9	17.5971	mg/L	0.19158	17.5971	mg/L	0.19158	1.09%
Sb 206.836†	-86.1	0.0366531	mg/L	0.00554824	0.0366531	mg/L	0.00554824	15.14%
Se 196.026†	-49.0	0.0230643	mg/L	0.00678465	0.0230643	mg/L	0.00678465	29.42%
Sn 189.927†	7496.5	4.50307	mg/L	0.014478	4.50307	mg/L	0.014478	0.32%
Ti 334.940†	3230274.3	4.10747	mg/L	0.070896	4.10747	mg/L	0.070896	1.73%
Tl 190.801†	-43.0	-0.0133751	mg/L	0.00110798	-0.0133751	mg/L	0.00110798	8.28%
V 290.880†	126063.0	0.737264	mg/L	0.0063702	0.737264	mg/L	0.0063702	0.86%
Zn 206.200†	258486.9	5.83421	mg/L	0.074586	5.83421	mg/L	0.074586	1.28%

Sequence No.: 15

Autosampler Location: 42

Sample ID: 63081-011 MR

Date Collected: 12/12/2011 3:51:05 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63081-011 MR

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1188398.2		102 %	0.2			0.22%	
Y 371.029	753640.8		166 %	0.4			0.23%	
Ag 328.068†	-2261.6	0.0065481	mg/L	0.00008028	0.0065481	mg/L	0.00008028	1.23%
Al 308.215†	5857515.9	175.726	mg/L	0.0705	175.726	mg/L	0.0705	0.04%
As 188.979†	375.8	0.335988	mg/L	0.0022841	0.335988	mg/L	0.0022841	0.68%
Ba 233.527†	829088.2	5.54517	mg/L	0.009648	5.54517	mg/L	0.009648	0.17%
Be 313.107†	52978.7	0.0134514	mg/L	0.00020068	0.0134514	mg/L	0.00020068	1.49%
Ca 315.887†	43491235.8	351.465	mg/L	2.9771	351.465	mg/L	2.9771	0.85%
Cd 228.802†	933.5	0.0151266	mg/L	0.00020471	0.0151266	mg/L	0.00020471	1.35%
Co 228.616†	7525.3	0.181330	mg/L	0.0009575	0.181330	mg/L	0.0009575	0.53%
Cr 267.716†	35702.6	0.452158	mg/L	0.0058031	0.452158	mg/L	0.0058031	1.28%
Cu 327.393†	374279.2	2.81807	mg/L	0.034181	2.81807	mg/L	0.034181	1.21%
Fe 273.955†	4140455.3	447.940	mg/L	1.1480	447.940	mg/L	1.1480	0.26%
K 404.721†	4968.8	41.8175	mg/L	0.08059	41.8175	mg/L	0.08059	0.19%
Mg 279.077†	895010.2	52.8077	mg/L	0.19637	52.8077	mg/L	0.19637	0.37%
Mn 257.610†	3001130.4	6.12866	mg/L	0.012629	6.12866	mg/L	0.012629	0.21%
Mo 202.031†	1216.7	0.0760697	mg/L	0.00028917	0.0760697	mg/L	0.00028917	0.38%
Na 330.237†	47003.3	39.8693	mg/L	0.59095	39.8693	mg/L	0.59095	1.48%
Ni 231.604†	19321.5	0.379814	mg/L	0.0030098	0.379814	mg/L	0.0030098	0.79%
Pb 220.353†	199425.8	16.1958	mg/L	0.23926	16.1958	mg/L	0.23926	1.48%
Sb 206.836†	-72.8	0.0377419	mg/L	0.00185193	0.0377419	mg/L	0.00185193	4.91%
Se 196.026†	-43.1	0.0224420	mg/L	0.00070795	0.0224420	mg/L	0.00070795	3.15%
Sn 189.927†	6403.8	3.84604	mg/L	0.025392	3.84604	mg/L	0.025392	0.66%
Ti 334.940†	2865447.3	3.64360	mg/L	0.002055	3.64360	mg/L	0.002055	0.06%
Tl 190.801†	-41.1	-0.0141848	mg/L	0.00666591	-0.0141848	mg/L	0.00666591	46.99%
V 290.880†	116979.6	0.684297	mg/L	0.0090640	0.684297	mg/L	0.0090640	1.32%
Zn 206.200†	240221.7	5.42203	mg/L	0.091739	5.42203	mg/L	0.091739	1.69%

Sequence No.: 16

Sample ID: 63081-011 MS 1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 43

Date Collected: 12/12/2011 3:55:24 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: 63081-011 MS 1

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1170722.1	101	%	0.0				0.03%
Y 371.029	747227.5	165	%	0.0				0.03%
Ag 328.068†	9786.1	0.0922436	mg/L	0.00036780	0.0922436	mg/L	0.00036780	0.40%
Al 308.215†	6599694.2	197.981	mg/L	0.3410	197.981	mg/L	0.3410	0.17%
As 188.979†	975.7	0.764669	mg/L	0.0000546	0.764669	mg/L	0.0000546	0.01%
Ba 233.527†	872230.1	5.83366	mg/L	0.007695	5.83366	mg/L	0.007695	0.13%
Be 313.107†	1526684.1	0.453038	mg/L	0.0006376	0.453038	mg/L	0.0006376	0.14%
Ca 315.887†	48252514.8	389.953	mg/L	1.6750	389.953	mg/L	1.6750	0.43%
Cd 228.802†	21184.1	0.458564	mg/L	0.0021106	0.458564	mg/L	0.0021106	0.46%
Co 228.616†	25300.5	0.618089	mg/L	0.0019450	0.618089	mg/L	0.0019450	0.31%
Cr 267.716†	72143.8	0.893751	mg/L	0.0022485	0.893751	mg/L	0.0022485	0.25%
Cu 327.393†	411831.1	3.09996	mg/L	0.001946	3.09996	mg/L	0.001946	0.06%
Fe 273.955†	4081914.2	441.624	mg/L	0.4786	441.624	mg/L	0.4786	0.11%
K 404.721†	11537.3	96.0293	mg/L	0.37019	96.0293	mg/L	0.37019	0.39%
Mg 279.077†	1622293.7	95.7445	mg/L	0.09973	95.7445	mg/L	0.09973	0.10%
Mn 257.610†	3175954.3	6.48423	mg/L	0.006900	6.48423	mg/L	0.006900	0.11%
Mo 202.031†	7232.1	0.474002	mg/L	0.0018247	0.474002	mg/L	0.0018247	0.38%
Na 330.237†	103628.3	87.0215	mg/L	0.04038	87.0215	mg/L	0.04038	0.05%
Ni 231.604†	41665.4	0.818028	mg/L	0.0009685	0.818028	mg/L	0.0009685	0.12%
Pb 220.353†	194697.1	15.8165	mg/L	0.02455	15.8165	mg/L	0.02455	0.16%
Sb 206.836†	275.5	0.327298	mg/L	0.0035469	0.327298	mg/L	0.0035469	1.08%
Se 196.026†	491.7	0.407725	mg/L	0.0023236	0.407725	mg/L	0.0023236	0.57%
Sn 189.927†	6736.4	4.04663	mg/L	0.016410	4.04663	mg/L	0.016410	0.41%
Ti 334.940†	3265274.0	4.15197	mg/L	0.006611	4.15197	mg/L	0.006611	0.16%
Tl 190.801†	430.1	0.418614	mg/L	0.0052130	0.418614	mg/L	0.0052130	1.25%
V 290.880†	189238.4	1.11255	mg/L	0.001453	1.11255	mg/L	0.001453	0.13%
Zn 206.200†	249740.9	5.63555	mg/L	0.011044	5.63555	mg/L	0.011044	0.20%

Sequence No.: 17

Sample ID: 63081-011 MS 2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 44

Date Collected: 12/12/2011 3:59:43 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: 63081-011 MS 2

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1184837.7	102	%	0.7				0.71%
Y 371.029	752905.5	166	%	1.1				0.64%
Ag 328.068†	9546.3	0.0904706	mg/L	0.00022032	0.0904706	mg/L	0.00022032	0.24%
Al 308.215†	6576277.1	197.279	mg/L	0.0663	197.279	mg/L	0.0663	0.03%
As 188.979†	961.9	0.754598	mg/L	0.0046458	0.754598	mg/L	0.0046458	0.62%
Ba 233.527†	855194.5	5.71975	mg/L	0.002149	5.71975	mg/L	0.002149	0.04%
Be 313.107†	1511002.8	0.448367	mg/L	0.0004833	0.448367	mg/L	0.0004833	0.11%
Ca 315.887†	48096626.4	388.693	mg/L	2.4606	388.693	mg/L	2.4606	0.63%
Cd 228.802†	20759.2	0.449284	mg/L	0.0027729	0.449284	mg/L	0.0027729	0.62%
Co 228.616†	24931.3	0.609039	mg/L	0.0047233	0.609039	mg/L	0.0047233	0.78%
Cr 267.716†	71913.2	0.890892	mg/L	0.0042720	0.890892	mg/L	0.0042720	0.48%
Cu 327.393†	397345.5	2.99068	mg/L	0.007960	2.99068	mg/L	0.007960	0.27%
Fe 273.955†	4070585.9	440.399	mg/L	0.1614	440.399	mg/L	0.1614	0.04%
K 404.721†	11375.7	94.6955	mg/L	0.25049	94.6955	mg/L	0.25049	0.26%
Mg 279.077†	1617355.8	95.4530	mg/L	0.17248	95.4530	mg/L	0.17248	0.18%
Mn 257.610†	3164352.2	6.46056	mg/L	0.002795	6.46056	mg/L	0.002795	0.04%
Mo 202.031†	7175.5	0.470267	mg/L	0.0031887	0.470267	mg/L	0.0031887	0.68%
Na 330.237†	102994.9	86.4940	mg/L	0.34114	86.4940	mg/L	0.34114	0.39%
Ni 231.604†	41850.6	0.821654	mg/L	0.0048764	0.821654	mg/L	0.0048764	0.59%
Pb 220.353†	190551.4	15.4799	mg/L	0.10898	15.4799	mg/L	0.10898	0.70%
Sb 206.836†	285.4	0.335147	mg/L	0.0018839	0.335147	mg/L	0.0018839	0.56%
Se 196.026†	490.8	0.406903	mg/L	0.0007226	0.406903	mg/L	0.0007226	0.18%
Sn 189.927†	6522.5	3.91755	mg/L	0.020171	3.91755	mg/L	0.020171	0.51%
Ti 334.940†	3252931.0	4.13628	mg/L	0.003654	4.13628	mg/L	0.003654	0.09%
Tl 190.801†	420.8	0.409977	mg/L	0.0065203	0.409977	mg/L	0.0065203	1.59%
V 290.880†	188172.2	1.10624	mg/L	0.004983	1.10624	mg/L	0.004983	0.45%
Zn 206.200†	247043.0	5.57466	mg/L	0.054529	5.57466	mg/L	0.054529	0.98%

Sequence No.: 18  
 Sample ID: 63081-011 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 12/12/2011 4:04:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 PS

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	1188685.7	102	%	0.4			0.43%	
Y 371.029	761249.6	168	%	0.7			0.40%	
Ag 328.068†	9240.3	0.0901209	mg/L	0.00111975	0.0901209	mg/L	0.00111975	1.24%
Al 308.215†	6448521.5	193.447	mg/L	0.1076	193.447	mg/L	0.1076	0.06%
As 188.979†	991.4	0.782023	mg/L	0.0044810	0.782023	mg/L	0.0044810	0.57%
Ba 233.527†	930727.9	6.22485	mg/L	0.001458	6.22485	mg/L	0.001458	0.02%
Be 313.107†	1494234.2	0.443177	mg/L	0.0004466	0.443177	mg/L	0.0004466	0.10%
Ca 315.887†	47250347.9	381.852	mg/L	0.2371	381.852	mg/L	0.2371	0.06%
Cd 228.802†	20827.5	0.450106	mg/L	0.0012820	0.450106	mg/L	0.0012820	0.28%
Co 228.616†	25326.2	0.618246	mg/L	0.0013722	0.618246	mg/L	0.0013722	0.22%
Cr 267.716†	72596.6	0.900882	mg/L	0.0078418	0.900882	mg/L	0.0078418	0.87%
Cu 327.393†	478768.8	3.60514	mg/L	0.034836	3.60514	mg/L	0.034836	0.97%
Fe 273.955†	4449046.0	481.340	mg/L	0.1635	481.340	mg/L	0.1635	0.03%
K 404.721†	10926.9	90.9919	mg/L	0.86678	90.9919	mg/L	0.86678	0.95%
Mg 279.077†	1618651.9	95.5295	mg/L	0.09429	95.5295	mg/L	0.09429	0.10%
Mn 257.610†	3332697.2	6.80499	mg/L	0.002561	6.80499	mg/L	0.002561	0.04%
Mo 202.031†	7524.0	0.493459	mg/L	0.0013335	0.493459	mg/L	0.0013335	0.27%
Na 330.237†	101457.7	85.2139	mg/L	0.73422	85.2139	mg/L	0.73422	0.86%
Ni 231.604†	42335.7	0.831181	mg/L	0.0061824	0.831181	mg/L	0.0061824	0.74%
Pb 220.353†	213945.4	17.3759	mg/L	0.15477	17.3759	mg/L	0.15477	0.89%
Sb 206.836†	438.0	0.466719	mg/L	0.0073960	0.466719	mg/L	0.0073960	1.58%
Se 196.026†	544.2	0.452147	mg/L	0.0036432	0.452147	mg/L	0.0036432	0.81%
Sn 189.927†	8052.4	4.83928	mg/L	0.010241	4.83928	mg/L	0.010241	0.21%
Ti 334.940†	3456128.7	4.39463	mg/L	0.003986	4.39463	mg/L	0.003986	0.09%
Tl 190.801†	427.6	0.417388	mg/L	0.0047778	0.417388	mg/L	0.0047778	1.14%
V 290.880†	192213.4	1.12938	mg/L	0.009732	1.12938	mg/L	0.009732	0.86%
Zn 206.200†	266153.2	6.00601	mg/L	0.054935	6.00601	mg/L	0.054935	0.91%

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Sequence No.: 19                               Autosampler Location: 6
Sample ID: CCV V-128233                       Date Collected: 12/12/2011 4:08:24 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                            Initial Sample Vol:
Dilution:                                    Sample Prep Vol:
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Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1099309.6	94.4 %		0.55			0.58%
Y 371.029	421643.6	93.0 %		0.41			0.44%
Ag 328.068†	13817.5	0.0992229 mg/L		0.00018544	0.0992229 mg/L	0.00018544	0.19%
QC value within limits for Ag	328.068	Recovery = 99.22%					
Al 308.215†	167891.8	5.04126 mg/L		0.027264	5.04126 mg/L	0.027264	0.54%
QC value within limits for Al	308.215	Recovery = 100.83%					
As 188.979†	706.8	0.509152 mg/L		0.0019530	0.509152 mg/L	0.0019530	0.38%
QC value within limits for As	188.979	Recovery = 101.83%					
Ba 233.527†	76756.7	0.514239 mg/L		0.0037103	0.514239 mg/L	0.0037103	0.72%
QC value within limits for Ba	233.527	Recovery = 102.85%					
Be 313.107†	1700560.1	0.507550 mg/L		0.0054899	0.507550 mg/L	0.0054899	1.08%
QC value within limits for Be	313.107	Recovery = 101.51%					
Ca 315.887†	6391294.6	51.5670 mg/L		0.54664	51.5670 mg/L	0.54664	1.06%
QC value within limits for Ca	315.887	Recovery = 103.13%					
Cd 228.802†	23069.2	0.506992 mg/L		0.0030480	0.506992 mg/L	0.0030480	0.60%
QC value within limits for Cd	228.802	Recovery = 101.40%					
Co 228.616†	21161.7	0.520926 mg/L		0.0040540	0.520926 mg/L	0.0040540	0.78%
QC value within limits for Co	228.616	Recovery = 104.19%					
Cr 267.716†	41843.9	0.510311 mg/L		0.0031123	0.510311 mg/L	0.0031123	0.61%
QC value within limits for Cr	267.716	Recovery = 102.06%					
Cu 327.393†	66680.5	0.503757 mg/L		0.0026759	0.503757 mg/L	0.0026759	0.53%
QC value within limits for Cu	327.393	Recovery = 100.75%					
Fe 273.955†	46576.0	5.07249 mg/L		0.022629	5.07249 mg/L	0.022629	0.45%
QC value within limits for Fe	273.955	Recovery = 101.45%					
K 404.721†	5654.8	47.4796 mg/L		1.24826	47.4796 mg/L	1.24826	2.63%
QC value within limits for K	404.721	Recovery = 94.96%					
Mg 279.077†	870508.0	51.3612 mg/L		0.58661	51.3612 mg/L	0.58661	1.14%
QC value within limits for Mg	279.077	Recovery = 102.72%					
Mn 257.610†	249675.7	0.509743 mg/L		0.0038069	0.509743 mg/L	0.0038069	0.75%
QC value within limits for Mn	257.610	Recovery = 101.95%					
Mo 202.031†	7838.5	0.519216 mg/L		0.0004743	0.519216 mg/L	0.0004743	0.09%
QC value within limits for Mo	202.031	Recovery = 103.84%					
Na 330.237†	56698.6	47.9426 mg/L		0.08406	47.9426 mg/L	0.08406	0.18%
QC value within limits for Na	330.237	Recovery = 95.89%					
Ni 231.604†	26347.1	0.517882 mg/L		0.0048503	0.517882 mg/L	0.0048503	0.94%
QC value within limits for Ni	231.604	Recovery = 103.58%					
Pb 220.353†	6689.6	0.543528 mg/L		0.0019647	0.543528 mg/L	0.0019647	0.36%
QC value within limits for Pb	220.353	Recovery = 108.71%					
Sb 206.836†	614.3	0.507057 mg/L		0.0035761	0.507057 mg/L	0.0035761	0.71%
QC value within limits for Sb	206.836	Recovery = 101.41%					
Se 196.026†	711.4	0.520421 mg/L		0.0006483	0.520421 mg/L	0.0006483	0.12%
QC value within limits for Se	196.026	Recovery = 104.08%					
Sn 189.927†	879.5	0.532769 mg/L		0.0017307	0.532769 mg/L	0.0017307	0.32%
QC value within limits for Sn	189.927	Recovery = 106.55%					
Ti 334.940†	399481.9	0.508202 mg/L		0.0060534	0.508202 mg/L	0.0060534	1.19%
QC value within limits for Ti	334.940	Recovery = 101.64%					
Tl 190.801†	590.3	0.542363 mg/L		0.0007815	0.542363 mg/L	0.0007815	0.14%
QC value within limits for Tl	190.801	Recovery = 108.47%					
V 290.880†	85784.8	0.509309 mg/L		0.0051056	0.509309 mg/L	0.0051056	1.00%
QC value within limits for V	290.880	Recovery = 101.86%					
Zn 206.200†	23268.8	0.525034 mg/L		0.0027870	0.525034 mg/L	0.0027870	0.53%
QC value within limits for Zn	206.200	Recovery = 105.01%					

All analyte(s) passed QC.

Sequence No.: 20

Autosampler Location: 2

Sample ID: CCB

Date Collected: 12/12/2011 4:12:10 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1172094.0	101 %	0.6			0.55%
Y 371.029	455549.2	100 %	0.5			0.45%
Ag 328.068†	61.6	0.0007982 mg/L	0.00046040	0.0007982 mg/L	0.00046040	57.68%
QC value within limits for Ag		328.068	Recovery = Not calculated			
Al 308.215†	-64.4	0.0134783 mg/L	0.00206466	0.0134783 mg/L	0.00206466	15.32%
QC value within limits for Al		308.215	Recovery = Not calculated			
As 188.979†	3.1	0.0044034 mg/L	0.00032346	0.0044034 mg/L	0.00032346	7.35%
QC value within limits for As		188.979	Recovery = Not calculated			
Ba 233.527†	-65.2	0.0005223 mg/L	0.00008943	0.0005223 mg/L	0.00008943	17.12%
QC value within limits for Ba		233.527	Recovery = Not calculated			
Be 313.107†	41.3	0.0002525 mg/L	0.00000679	0.0002525 mg/L	0.00000679	2.69%
QC value within limits for Be		313.107	Recovery = Not calculated			
Ca 315.887†	464.0	-0.0934219 mg/L	0.00174970	-0.0934219 mg/L	0.00174970	1.87%
QC value within limits for Ca		315.887	Recovery = Not calculated			
Cd 228.802†	10.0	0.0022519 mg/L	0.00007254	0.0022519 mg/L	0.00007254	3.22%
QC value within limits for Cd		228.802	Recovery = Not calculated			
Co 228.616†	16.2	0.0013348 mg/L	0.00012065	0.0013348 mg/L	0.00012065	9.04%
QC value within limits for Co		228.616	Recovery = Not calculated			
Cr 267.716†	-0.9	0.0023710 mg/L	0.00004801	0.0023710 mg/L	0.00004801	2.03%
QC value within limits for Cr		267.716	Recovery = Not calculated			
Cu 327.393†	128.4	0.0030675 mg/L	0.00074221	0.0030675 mg/L	0.00074221	24.20%
QC value within limits for Cu		327.393	Recovery = Not calculated			
Fe 273.955†	-135.7	-0.0012607 mg/L	0.00302899	-0.0012607 mg/L	0.00302899	240.26%
QC value within limits for Fe		273.955	Recovery = Not calculated			
K 404.721†	-46.0	0.429797 mg/L	0.1903483	0.429797 mg/L	0.1903483	44.29%
QC value within limits for K		404.721	Recovery = Not calculated			
Mg 279.077†	-438.2	-0.0569972 mg/L	0.00379318	-0.0569972 mg/L	0.00379318	6.66%
QC value within limits for Mg		279.077	Recovery = Not calculated			
Mn 257.610†	-1.2	0.0013094 mg/L	0.00004277	0.0013094 mg/L	0.00004277	3.27%
QC value within limits for Mn		257.610	Recovery = Not calculated			
Mo 202.031†	4.2	0.0012861 mg/L	0.00009010	0.0012861 mg/L	0.00009010	7.01%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Na 330.237†	80.4	0.796177 mg/L	0.0579748	0.796177 mg/L	0.0579748	7.28%
QC value within limits for Na		330.237	Recovery = Not calculated			
Ni 231.604†	-3.3	0.0010463 mg/L	0.00016058	0.0010463 mg/L	0.00016058	15.35%
QC value within limits for Ni		231.604	Recovery = Not calculated			
Pb 220.353†	166.7	0.0137118 mg/L	0.00132955	0.0137118 mg/L	0.00132955	9.70%
QC value within limits for Pb		220.353	Recovery = Not calculated			
Sb 206.836†	-0.4	-0.0013146 mg/L	0.00001119	-0.0013146 mg/L	0.00001119	0.85%
QC value within limits for Sb		206.836	Recovery = Not calculated			
Se 196.026†	5.2	0.0075456 mg/L	0.00624203	0.0075456 mg/L	0.00624203	82.72%
QC value within limits for Se		196.026	Recovery = Not calculated			
Sn 189.927†	3.4	0.0040233 mg/L	0.00145415	0.0040233 mg/L	0.00145415	36.14%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940†	122.8	0.0004294 mg/L	0.00019391	0.0004294 mg/L	0.00019391	45.16%
QC value within limits for Ti		334.940	Recovery = Not calculated			
Tl 190.801†	5.0	0.0057180 mg/L	0.00238051	0.0057180 mg/L	0.00238051	41.63%
QC value within limits for Tl		190.801	Recovery = Not calculated			
V 290.880†	-32.7	0.0010682 mg/L	0.00026483	0.0010682 mg/L	0.00026483	24.79%
QC value within limits for V		290.880	Recovery = Not calculated			
Zn 206.200†	231.4	0.0066482 mg/L	0.00016754	0.0066482 mg/L	0.00016754	2.52%
QC value within limits for Zn		206.200	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63081-011 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 12/12/2011 4:15:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 SD

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1144257.2	98.3 %		0.49			0.49%
Y 371.029	506871.3	112 %		0.5			0.43%
Ag 328.068†	-416.8	0.0032613 mg/L		0.00029172	0.0032613 mg/L	0.00029172	8.94%
Al 308.215†	1433780.1	43.0252 mg/L		0.07911	43.0252 mg/L	0.07911	0.18%
As 188.979†	90.4	0.0841673 mg/L		0.00098260	0.0841673 mg/L	0.00098260	1.17%
Ba 233.527†	202961.9	1.35819 mg/L		0.002010	1.35819 mg/L	0.002010	0.15%
Be 313.107†	12696.3	0.0033833 mg/L		0.00003508	0.0033833 mg/L	0.00003508	1.04%
Ca 315.887†	10212810.0	82.4583 mg/L		0.65959	82.4583 mg/L	0.65959	0.80%
Cd 228.802†	225.1	0.0050160 mg/L		0.00009236	0.0050160 mg/L	0.00009236	1.84%
Co 228.616†	1912.4	0.0468039 mg/L		0.00035344	0.0468039 mg/L	0.00035344	0.76%
Cr 267.716†	8742.7	0.112852 mg/L		0.0000407	0.112852 mg/L	0.0000407	0.04%
Cu 327.393†	93161.9	0.703092 mg/L		0.0008665	0.703092 mg/L	0.0008665	0.12%
Fe 273.955†	1096585.3	118.645 mg/L		0.1869	118.645 mg/L	0.1869	0.16%
K 404.721†	1089.2	9.79858 mg/L		0.360560	9.79858 mg/L	0.360560	3.68%
Mg 279.077†	218078.9	12.8436 mg/L		0.02052	12.8436 mg/L	0.02052	0.16%
Mn 257.610†	737141.7	1.50671 mg/L		0.001782	1.50671 mg/L	0.001782	0.12%
Mo 202.031†	357.0	0.0233771 mg/L		0.00051342	0.0233771 mg/L	0.00051342	2.20%
Na 330.237†	9425.1	8.57757 mg/L		0.040483	8.57757 mg/L	0.040483	0.47%
Ni 231.604†	5019.3	0.0994917 mg/L		0.00095688	0.0994917 mg/L	0.00095688	0.96%
Pb 220.353†	50354.3	4.08899 mg/L		0.008759	4.08899 mg/L	0.008759	0.21%
Sb 206.836†	-17.3	0.0103642 mg/L		0.00643309	0.0103642 mg/L	0.00643309	62.07%
Se 196.026†	-9.5	0.0105123 mg/L		0.00706076	0.0105123 mg/L	0.00706076	67.17%
Sn 189.927†	1693.3	1.01837 mg/L		0.008595	1.01837 mg/L	0.008595	0.84%
Ti 334.940†	712100.2	0.905687 mg/L		0.0007751	0.905687 mg/L	0.0007751	0.09%
Tl 190.801†	-10.1	-0.0025620 mg/L		0.00259473	-0.0025620 mg/L	0.00259473	101.28%
V 290.880†	28351.6	0.166548 mg/L		0.0000095	0.166548 mg/L	0.0000095	0.01%
Zn 206.200†	59121.0	1.33549 mg/L		0.003369	1.33549 mg/L	0.003369	0.25%

Sequence No.: 22  
 Sample ID: 63081-012  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 12/12/2011 4:19:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-012

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1140486.1	98.0	%	0.24			0.24%	
Y 371.029	581054.0	128	%	0.2			0.17%	
Ag 328.068†	-744.1	0.0072690	mg/L	0.00032793	0.0072690	mg/L	0.00032793	4.51%
Al 308.215†	3283689.0	98.5185	mg/L	0.43395	98.5185	mg/L	0.43395	0.44%
As 188.979†	425.2	0.335607	mg/L	0.0029857	0.335607	mg/L	0.0029857	0.89%
Ba 233.527†	1072122.0	7.17036	mg/L	0.033297	7.17036	mg/L	0.033297	0.46%
Be 313.107†	28923.9	0.0072131	mg/L	0.00005738	0.0072131	mg/L	0.00005738	0.80%
Ca 315.887†	51752183.7	418.243	mg/L	0.1883	418.243	mg/L	0.1883	0.05%
Cd 228.802†	1405.8	0.0293007	mg/L	0.00015417	0.0293007	mg/L	0.00015417	0.53%
Co 228.616†	4223.6	0.101670	mg/L	0.0001089	0.101670	mg/L	0.0001089	0.11%
Cr 267.716†	41616.2	0.513460	mg/L	0.0017373	0.513460	mg/L	0.0017373	0.34%
Cu 327.393†	187561.5	1.40995	mg/L	0.009068	1.40995	mg/L	0.009068	0.64%
Fe 273.955†	1977873.0	213.992	mg/L	0.8845	213.992	mg/L	0.8845	0.41%
K 404.721†	3836.4	32.4718	mg/L	0.86095	32.4718	mg/L	0.86095	2.65%
Mg 279.077†	702283.6	41.4297	mg/L	0.16044	41.4297	mg/L	0.16044	0.39%
Mn 257.610†	1570709.5	3.20728	mg/L	0.015900	3.20728	mg/L	0.015900	0.50%
Mo 202.031†	832.5	0.0482128	mg/L	0.00019449	0.0482128	mg/L	0.00019449	0.40%
Na 330.237†	32187.0	27.5316	mg/L	0.20081	27.5316	mg/L	0.20081	0.73%
Ni 231.604†	13019.8	0.256301	mg/L	0.0001255	0.256301	mg/L	0.0001255	0.05%
Pb 220.353†	367733.3	29.8545	mg/L	0.12751	29.8545	mg/L	0.12751	0.43%
Sb 206.836†	-23.7	0.0277483	mg/L	0.00161997	0.0277483	mg/L	0.00161997	5.84%
Se 196.026†	37.8	0.0537398	mg/L	0.00404735	0.0537398	mg/L	0.00404735	7.53%
Sn 189.927†	3384.1	2.03621	mg/L	0.007685	2.03621	mg/L	0.007685	0.38%
Ti 334.940†	1828257.6	2.32485	mg/L	0.009526	2.32485	mg/L	0.009526	0.41%
Tl 190.801†	-28.3	-0.0088284	mg/L	0.00132751	-0.0088284	mg/L	0.00132751	15.04%
V 290.880†	65253.2	0.382720	mg/L	0.0025800	0.382720	mg/L	0.0025800	0.67%
Zn 206.200†	743373.0	16.7795	mg/L	0.06351	16.7795	mg/L	0.06351	0.38%

Sequence No.: 23  
 Sample ID: 63077-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 12/12/2011 4:23:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63077-001

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	1063037.5		91.3 %	0.69			0.75%
Y 371.029	407988.0		90.0 %	0.62			0.69%
Ag 328.068†	100.6	0.0019244	mg/L	0.00005207	0.0019244	mg/L	0.00005207 2.71%
Al 308.215†	4723.2	0.156876	mg/L	0.0032186	0.156876	mg/L	0.0032186 2.05%
As 188.979†	15.4	0.0118435	mg/L	0.00196123	0.0118435	mg/L	0.00196123 16.56%
Ba 233.527†	125870.9	0.842672	mg/L	0.0012362	0.842672	mg/L	0.0012362 0.15%
Be 313.107†	-622.4	0.0000531	mg/L	0.00002042	0.0000531	mg/L	0.00002042 38.47%
Ca 315.887†	18640363.3	150.583	mg/L	0.1584	150.583	mg/L	0.1584 0.11%
Cd 228.802†	57.7	0.0032959	mg/L	0.00025880	0.0032959	mg/L	0.00025880 7.85%
Co 228.616†	28.2	0.0016552	mg/L	0.00021158	0.0016552	mg/L	0.00021158 12.78%
Cr 267.716†	318.4	0.0065850	mg/L	0.00017000	0.0065850	mg/L	0.00017000 2.58%
Cu 327.393†	754.6	0.0051469	mg/L	0.00043052	0.0051469	mg/L	0.00043052 8.36%
Fe 273.955†	140.9	0.0567390	mg/L	0.00378350	0.0567390	mg/L	0.00378350 6.67%
K 404.721†	831.0	7.66744	mg/L	1.382923	7.66744	mg/L	1.382923 18.04%
Mg 279.077†	1188092.1	70.1105	mg/L	0.49773	70.1105	mg/L	0.49773 0.71%
Mn 257.610†	241158.6	0.492053	mg/L	0.0012327	0.492053	mg/L	0.0012327 0.25%
Mo 202.031†	147.4	0.0074822	mg/L	0.00041369	0.0074822	mg/L	0.00041369 5.53%
Na 330.237†	76639.7	64.5477	mg/L	0.11433	64.5477	mg/L	0.11433 0.18%
Ni 231.604†	130.2	0.0036716	mg/L	0.00014313	0.0036716	mg/L	0.00014313 3.90%
Pb 220.353†	471.2	0.0364420	mg/L	0.00424666	0.0364420	mg/L	0.00424666 11.65%
Sb 206.836†	-3.8	-0.0031837	mg/L	0.00326430	-0.0031837	mg/L	0.00326430 102.53%
Se 196.026†	9.7	0.0109794	mg/L	0.00168036	0.0109794	mg/L	0.00168036 15.30%
Sn 189.927†	21.2	0.0162205	mg/L	0.00034936	0.0162205	mg/L	0.00034936 2.15%
Ti 334.940†	1562.0	0.0022593	mg/L	0.00001338	0.0022593	mg/L	0.00001338 0.59%
Tl 190.801†	-3.0	-0.0004284	mg/L	0.00417109	-0.0004284	mg/L	0.00417109 973.66%
V 290.880†	3928.6	0.0202920	mg/L	0.00078078	0.0202920	mg/L	0.00078078 3.85%
Zn 206.200†	1291.5	0.0283774	mg/L	0.00149053	0.0283774	mg/L	0.00149053 5.25%

Sequence No.: 24  
 Sample ID: 63077-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 49  
 Date Collected: 12/12/2011 4:27:28 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63077-002

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	1053563.5	90.5 %		0.44			0.49%
Y 371.029	404434.4	89.2 %		0.35			0.39%
Ag 328.068†	58.9	0.0017745 mg/L	0.00029755	0.0017745 mg/L	0.00029755	16.77%	
Al 308.215†	2045.7	0.0765467 mg/L	0.00111937	0.0765467 mg/L	0.00111937	1.46%	
As 188.979†	4.1	0.0037061 mg/L	0.00222237	0.0037061 mg/L	0.00222237	59.97%	
Ba 233.527†	112166.0	0.751025 mg/L	0.0024071	0.751025 mg/L	0.0024071	0.32%	
Be 313.107†	-652.6	0.0000452 mg/L	0.00000123	0.0000452 mg/L	0.00000123	2.71%	
Ca 315.887†	19106084.8	154.347 mg/L	2.9016	154.347 mg/L	2.9016	1.88%	
Cd 228.802†	42.0	0.0029549 mg/L	0.00007985	0.0029549 mg/L	0.00007985	2.70%	
Co 228.616†	14.5	0.0013218 mg/L	0.00012292	0.0013218 mg/L	0.00012292	9.30%	
Cr 267.716†	348.9	0.0066427 mg/L	0.00005437	0.0066427 mg/L	0.00005437	0.82%	
Cu 327.393†	414.0	0.0025213 mg/L	0.00055813	0.0025213 mg/L	0.00055813	22.14%	
Fe 273.955†	-1529.6	-0.123530 mg/L	0.0034972	-0.123530 mg/L	0.0034972	2.83%	
K 404.721†	839.8	7.74035 mg/L	0.302542	7.74035 mg/L	0.302542	3.91%	
Mg 279.077†	1206599.2	71.2031 mg/L	0.02283	71.2031 mg/L	0.02283	0.03%	
Mn 257.610†	229.2	0.0017740 mg/L	0.00002257	0.0017740 mg/L	0.00002257	1.27%	
Mo 202.031†	154.2	0.0078481 mg/L	0.00008656	0.0078481 mg/L	0.00008656	1.10%	
Na 330.237†	91326.1	76.7772 mg/L	0.24072	76.7772 mg/L	0.24072	0.31%	
Ni 231.604†	-29.7	0.0005389 mg/L	0.00082558	0.0005389 mg/L	0.00082558	153.19%	
Pb 220.353†	256.2	0.0189386 mg/L	0.00103288	0.0189386 mg/L	0.00103288	5.45%	
Sb 206.836†	1.4	0.0011312 mg/L	0.00069793	0.0011312 mg/L	0.00069793	61.70%	
Se 196.026†	18.0	0.0174023 mg/L	0.00615077	0.0174023 mg/L	0.00615077	35.34%	
Sn 189.927†	20.9	0.0161234 mg/L	0.00208367	0.0161234 mg/L	0.00208367	12.92%	
Ti 334.940†	286.6	0.0006376 mg/L	0.00010351	0.0006376 mg/L	0.00010351	16.23%	
Tl 190.801†	-1.1	0.0016626 mg/L	0.00188259	0.0016626 mg/L	0.00188259	113.23%	
V 290.880†	3870.1	0.0198809 mg/L	0.00006917	0.0198809 mg/L	0.00006917	0.35%	
Zn 206.200†	820.2	0.0177059 mg/L	0.00043845	0.0177059 mg/L	0.00043845	2.48%	

Sequence No.: 25  
 Sample ID: ICSA V-127386  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/12/2011 4:31:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-127386

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	984893.3		84.6 %	0.06			0.08%
Y 371.029	376779.9		83.1 %	0.01			0.01%
Ag 328.068†	-1266.4	0.0038611 mg/L		0.00025151	0.0038611 mg/L	0.00025151	6.51%
Al 308.215†	16832591.8	504.924 mg/L		1.7998	504.924 mg/L	1.7998	0.36%
QC value within limits for Al 308.215 Recovery = 100.98%							
As 188.979†	-35.9	0.0007414 mg/L		0.00336229	0.0007414 mg/L	0.00336229	453.53%
Ba 233.527†	217.7	0.0024141 mg/L		0.00018711	0.0024141 mg/L	0.00018711	7.75%
Be 313.107†	-2881.1	-0.0006213 mg/L		0.00001175	-0.0006213 mg/L	0.00001175	1.89%
Ca 315.887†	61400780.3	496.237 mg/L		0.9434	496.237 mg/L	0.9434	0.19%
QC value within limits for Ca 315.887 Recovery = 99.25%							
Cd 228.802†	179.2	0.0028141 mg/L		0.00007550	0.0028141 mg/L	0.00007550	2.68%
Co 228.616†	-138.0	0.0047557 mg/L		0.00030312	0.0047557 mg/L	0.00030312	6.37%
Cr 267.716†	491.7	0.0148818 mg/L		0.00009199	0.0148818 mg/L	0.00009199	0.62%
Cu 327.393†	863.8	-0.0101874 mg/L		0.00061326	-0.0101874 mg/L	0.00061326	6.02%
Fe 273.955†	1771614.3	191.867 mg/L		0.1804	191.867 mg/L	0.1804	0.09%
QC value within limits for Fe 273.955 Recovery = 95.93%							
K 404.721†	-960.9	-7.12150 mg/L		0.463002	-7.12150 mg/L	0.463002	6.50%
Mg 279.077†	8635119.5	509.762 mg/L		1.1102	509.762 mg/L	1.1102	0.22%
QC value within limits for Mg 279.077 Recovery = 101.95%							
Mn 257.610†	-5254.5	-0.0007011 mg/L		0.00005883	-0.0007011 mg/L	0.00005883	8.39%
Mo 202.031†	117.0	0.0040632 mg/L		0.00015247	0.0040632 mg/L	0.00015247	3.75%
Na 330.237†	1.9	0.730839 mg/L		0.1087597	0.730839 mg/L	0.1087597	14.88%
Ni 231.604†	-28.9	0.0005517 mg/L		0.00009336	0.0005517 mg/L	0.00009336	16.92%
Pb 220.353†	-845.9	0.0132364 mg/L		0.00053861	0.0132364 mg/L	0.00053861	4.07%
Sb 206.836†	-149.5	-0.0145100 mg/L		0.00151036	-0.0145100 mg/L	0.00151036	10.41%
Se 196.026†	26.4	0.0127677 mg/L		0.00833467	0.0127677 mg/L	0.00833467	65.28%
Sn 189.927†	33.1	0.0083434 mg/L		0.01030301	0.0083434 mg/L	0.01030301	123.49%
Ti 334.940†	1635.4	0.0023525 mg/L		0.00020582	0.0023525 mg/L	0.00020582	8.75%
Tl 190.801†	-18.9	-0.0026140 mg/L		0.00568916	-0.0026140 mg/L	0.00568916	217.64%
V 290.880†	6620.6	0.0038237 mg/L		0.00044650	0.0038237 mg/L	0.00044650	11.68%
Zn 206.200†	484.8	-0.0035996 mg/L		0.00018818	-0.0035996 mg/L	0.00018818	5.23%

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: ICSAB V-127387  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 4:36:43 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB V-127387

Analyte	Mean Corrected Intensity	Conc. Units	Calib Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	984850.8	84.6 %	0.17			0.20%
Y 371.029	377080.0	83.2 %	0.28			0.33%
Ag 328.068†	147925.9	1.06987 mg/L	0.001895	1.06987 mg/L	0.001895	0.18%
QC value within limits for Ag	328.068	Recovery = 106.99%				
Al 308.215†	16752463.3	502.520 mg/L	4.4621	502.520 mg/L	4.4621	0.89%
QC value within limits for Al	308.215	Recovery = 100.50%				
As 188.979†	1401.9	1.03193 mg/L	0.002840	1.03193 mg/L	0.002840	0.28%
QC value within limits for As	188.979	Recovery = 103.19%				
Ba 233.527†	76840.1	0.514797 mg/L	0.0009993	0.514797 mg/L	0.0009993	0.19%
QC value within limits for Ba	233.527	Recovery = 102.96%				
Be 313.107†	1706818.5	0.509780 mg/L	0.0011344	0.509780 mg/L	0.0011344	0.22%
QC value within limits for Be	313.107	Recovery = 101.96%				
Ca 315.887†	61001800.0	493.012 mg/L	4.9514	493.012 mg/L	4.9514	1.00%
QC value within limits for Ca	315.887	Recovery = 98.60%				
Cd 228.802†	47418.8	1.03704 mg/L	0.001982	1.03704 mg/L	0.001982	0.19%
QC value within limits for Cd	228.802	Recovery = 103.70%				
Co 228.616†	19217.4	0.479712 mg/L	0.0008787	0.479712 mg/L	0.0008787	0.18%
QC value within limits for Co	228.616	Recovery = 95.94%				
Cr 267.716†	41777.8	0.512590 mg/L	0.0007004	0.512590 mg/L	0.0007004	0.14%
QC value within limits for Cr	267.716	Recovery = 102.52%				
Cu 327.393†	70860.8	0.518145 mg/L	0.0004363	0.518145 mg/L	0.0004363	0.08%
QC value within limits for Cu	327.393	Recovery = 103.63%				
Fe 273.955†	1752738.8	189.823 mg/L	0.4818	189.823 mg/L	0.4818	0.25%
QC value within limits for Fe	273.955	Recovery = 94.91%				
K 404.721†	-973.6	-7.22642 mg/L	0.601712	-7.22642 mg/L	0.601712	8.33%
Mg 279.077†	8562538.2	505.477 mg/L	5.8402	505.477 mg/L	5.8402	1.16%
QC value within limits for Mg	279.077	Recovery = 101.10%				
Mn 257.610†	236312.4	0.490775 mg/L	0.0011092	0.490775 mg/L	0.0011092	0.23%
QC value within limits for Mn	257.610	Recovery = 98.15%				
Mo 202.031†	124.9	0.0046279 mg/L	0.00213942	0.0046279 mg/L	0.00213942	46.23%
Na 330.237†	341.0	1.01320 mg/L	0.062069	1.01320 mg/L	0.062069	6.13%
Ni 231.604†	47963.0	0.941020 mg/L	0.0023213	0.941020 mg/L	0.0023213	0.25%
QC value within limits for Ni	231.604	Recovery = 94.10%				
Pb 220.353†	11086.0	0.981472 mg/L	0.0013725	0.981472 mg/L	0.0013725	0.14%
QC value within limits for Pb	220.353	Recovery = 98.15%				
Sb 206.836†	1080.4	0.997976 mg/L	0.0006894	0.997976 mg/L	0.0006894	0.07%
QC value within limits for Sb	206.836	Recovery = 99.80%				
Se 196.026†	1425.4	1.02749 mg/L	0.003739	1.02749 mg/L	0.003739	0.36%
QC value within limits for Se	196.026	Recovery = 102.75%				
Sn 189.927†	41.2	0.0133434 mg/L	0.00518868	0.0133434 mg/L	0.00518868	38.89%
Ti 334.940†	1760.4	0.0025115 mg/L	0.00006153	0.0025115 mg/L	0.00006153	2.45%
Tl 190.801†	1058.1	0.981000 mg/L	0.0027629	0.981000 mg/L	0.0027629	0.28%
QC value within limits for Tl	190.801	Recovery = 98.10%				
V 290.880†	87897.0	0.487590 mg/L	0.0010714	0.487590 mg/L	0.0010714	0.22%
QC value within limits for V	290.880	Recovery = 97.52%				
Zn 206.200†	44526.3	0.990634 mg/L	0.0003186	0.990634 mg/L	0.0003186	0.03%
QC value within limits for Zn	206.200	Recovery = 99.06%				

All analyte(s) passed QC.

Sequence No.: 27  
 Sample ID: CCV V-128233  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 4:42:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1113617.9	95.7 %		0.61			0.64%
Y 371.029	426407.3	94.0 %		0.57			0.61%
Ag 328.068†	13841.2	0.0993912 mg/L	0.00095483	0.0993912 mg/L	0.00095483	0.96%	
QC value within limits for Ag	328.068	Recovery = 99.39%					
Al 308.215†	168561.6	5.06128 mg/L	0.069208	5.06128 mg/L	0.069208	1.37%	
QC value within limits for Al	308.215	Recovery = 101.23%					
As 188.979†	717.6	0.516886 mg/L	0.0041094	0.516886 mg/L	0.0041094	0.80%	
QC value within limits for As	188.979	Recovery = 103.38%					
Ba 233.527†	76871.9	0.515010 mg/L	0.0063482	0.515010 mg/L	0.0063482	1.23%	
QC value within limits for Ba	233.527	Recovery = 103.00%					
Be 313.107†	1703262.2	0.508358 mg/L	0.0042423	0.508358 mg/L	0.0042423	0.83%	
QC value within limits for Be	313.107	Recovery = 101.67%					
Ca 315.887†	6408658.8	51.7074 mg/L	0.39116	51.7074 mg/L	0.39116	0.76%	
QC value within limits for Ca	315.887	Recovery = 103.41%					
Cd 228.802†	23111.4	0.507915 mg/L	0.0063777	0.507915 mg/L	0.0063777	1.26%	
QC value within limits for Cd	228.802	Recovery = 101.58%					
Co 228.616†	21162.9	0.520966 mg/L	0.0074478	0.520966 mg/L	0.0074478	1.43%	
QC value within limits for Co	228.616	Recovery = 104.19%					
Cr 267.716†	42030.9	0.512583 mg/L	0.0075542	0.512583 mg/L	0.0075542	1.47%	
QC value within limits for Cr	267.716	Recovery = 102.52%					
Cu 327.393†	66719.0	0.504044 mg/L	0.0049958	0.504044 mg/L	0.0049958	0.99%	
QC value within limits for Cu	327.393	Recovery = 100.81%					
Fe 273.955†	46523.7	5.06691 mg/L	0.065122	5.06691 mg/L	0.065122	1.29%	
QC value within limits for Fe	273.955	Recovery = 101.34%					
K 404.721†	5693.5	47.7990 mg/L	1.75145	47.7990 mg/L	1.75145	3.66%	
QC value within limits for K	404.721	Recovery = 95.60%					
Mg 279.077†	873868.2	51.5596 mg/L	0.42061	51.5596 mg/L	0.42061	0.82%	
QC value within limits for Mg	279.077	Recovery = 103.12%					
Mn 257.610†	249785.6	0.509967 mg/L	0.0068368	0.509967 mg/L	0.0068368	1.34%	
QC value within limits for Mn	257.610	Recovery = 101.99%					
Mo 202.031†	7881.3	0.522053 mg/L	0.0078708	0.522053 mg/L	0.0078708	1.51%	
QC value within limits for Mo	202.031	Recovery = 104.41%					
Na 330.237†	56992.9	48.1877 mg/L	0.65132	48.1877 mg/L	0.65132	1.35%	
QC value within limits for Na	330.237	Recovery = 96.38%					
Ni 231.604†	26398.1	0.518883 mg/L	0.0077607	0.518883 mg/L	0.0077607	1.50%	
QC value within limits for Ni	231.604	Recovery = 103.78%					
Pb 220.353†	6508.7	0.528846 mg/L	0.0078818	0.528846 mg/L	0.0078818	1.49%	
QC value within limits for Pb	220.353	Recovery = 105.77%					
Sb 206.836†	621.4	0.512967 mg/L	0.0065024	0.512967 mg/L	0.0065024	1.27%	
QC value within limits for Sb	206.836	Recovery = 102.59%					
Se 196.026†	717.9	0.525116 mg/L	0.0078444	0.525116 mg/L	0.0078444	1.49%	
QC value within limits for Se	196.026	Recovery = 105.02%					
Sn 189.927†	889.5	0.538768 mg/L	0.0081628	0.538768 mg/L	0.0081628	1.52%	
QC value within limits for Sn	189.927	Recovery = 107.75%					
Ti 334.940†	398505.5	0.506961 mg/L	0.0045172	0.506961 mg/L	0.0045172	0.89%	
QC value within limits for Ti	334.940	Recovery = 101.39%					
Tl 190.801†	592.4	0.544304 mg/L	0.0120441	0.544304 mg/L	0.0120441	2.21%	
QC value within limits for Tl	190.801	Recovery = 108.86%					
V 290.880†	85766.1	0.509189 mg/L	0.0069864	0.509189 mg/L	0.0069864	1.37%	
QC value within limits for V	290.880	Recovery = 101.84%					
Zn 206.200†	23125.9	0.521802 mg/L	0.0073089	0.521802 mg/L	0.0073089	1.40%	
QC value within limits for Zn	206.200	Recovery = 104.36%					

All analyte(s) passed QC.

Sequence No.: 28  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/12/2011 4:45:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1220612.8	105 %	4.2			4.04%
Y 371.029	474243.2	105 %	4.3			4.10%
Ag 328.068†	-46.5	0.0000272 mg/L	0.00043907	0.0000272 mg/L	0.00043907	>999.9%
QC value within limits for Ag		328.068	Recovery =	Not calculated		
Al 308.215†	-218.7	0.0088616 mg/L	0.01114660	0.0088616 mg/L	0.01114660	125.79%
QC value within limits for Al		308.215	Recovery =	Not calculated		
As 188.979†	-0.6	0.0017564 mg/L	0.00037783	0.0017564 mg/L	0.00037783	21.51%
QC value within limits for As		188.979	Recovery =	Not calculated		
Ba 233.527†	-37.0	0.0007105 mg/L	0.00036214	0.0007105 mg/L	0.00036214	50.97%
QC value within limits for Ba		233.527	Recovery =	Not calculated		
Be 313.107†	88.4	0.0002667 mg/L	0.00004549	0.0002667 mg/L	0.00004549	17.05%
QC value within limits for Be		313.107	Recovery =	Not calculated		
Ca 315.887†	1279.5	-0.0868299 mg/L	0.00740980	-0.0868299 mg/L	0.00740980	8.53%
QC value within limits for Ca		315.887	Recovery =	Not calculated		
Cd 228.802†	0.9	0.0020515 mg/L	0.00053897	0.0020515 mg/L	0.00053897	26.27%
QC value within limits for Cd		228.802	Recovery =	Not calculated		
Co 228.616†	4.2	0.0010368 mg/L	0.00016282	0.0010368 mg/L	0.00016282	15.70%
QC value within limits for Co		228.616	Recovery =	Not calculated		
Cr 267.716†	-16.4	0.0021812 mg/L	0.00023464	0.0021812 mg/L	0.00023464	10.76%
QC value within limits for Cr		267.716	Recovery =	Not calculated		
Cu 327.393†	113.1	0.0029518 mg/L	0.00019690	0.0029518 mg/L	0.00019690	6.67%
QC value within limits for Cu		327.393	Recovery =	Not calculated		
Fe 273.955†	13.3	0.0148697 mg/L	0.03058861	0.0148697 mg/L	0.03058861	205.71%
QC value within limits for Fe		273.955	Recovery =	Not calculated		
K 404.721†	-80.1	0.147575 mg/L	0.2751905	0.147575 mg/L	0.2751905	186.48%
QC value within limits for K		404.721	Recovery =	Not calculated		
Mg 279.077†	-62.2	-0.0347998 mg/L	0.03009928	-0.0347998 mg/L	0.03009928	86.49%
QC value within limits for Mg		279.077	Recovery =	Not calculated		
Mn 257.610†	-4.5	0.0013034 mg/L	0.00026417	0.0013034 mg/L	0.00026417	20.27%
QC value within limits for Mn		257.610	Recovery =	Not calculated		
Mo 202.031†	-4.2	0.0007293 mg/L	0.00016520	0.0007293 mg/L	0.00016520	22.65%
QC value within limits for Mo		202.031	Recovery =	Not calculated		
Na 330.237†	91.6	0.805478 mg/L	0.0129214	0.805478 mg/L	0.0129214	1.60%
QC value within limits for Na		330.237	Recovery =	Not calculated		
Ni 231.604†	-25.8	0.0006047 mg/L	0.00045786	0.0006047 mg/L	0.00045786	75.71%
QC value within limits for Ni		231.604	Recovery =	Not calculated		
Pb 220.353†	38.3	0.0032872 mg/L	0.00012781	0.0032872 mg/L	0.00012781	3.89%
QC value within limits for Pb		220.353	Recovery =	Not calculated		
Sb 206.836†	1.7	0.0004508 mg/L	0.00396597	0.0004508 mg/L	0.00396597	879.78%
QC value within limits for Sb		206.836	Recovery =	Not calculated		
Se 196.026†	4.6	0.0071236 mg/L	0.00524843	0.0071236 mg/L	0.00524843	73.68%
QC value within limits for Se		196.026	Recovery =	Not calculated		
Sn 189.927†	2.2	0.0032771 mg/L	0.00326677	0.0032771 mg/L	0.00326677	99.68%
QC value within limits for Sn		189.927	Recovery =	Not calculated		
Ti 334.940†	-40.6	0.0002215 mg/L	0.00016155	0.0002215 mg/L	0.00016155	72.93%
QC value within limits for Ti		334.940	Recovery =	Not calculated		
Tl 190.801†	3.4	0.0041973 mg/L	0.00057485	0.0041973 mg/L	0.00057485	13.70%
QC value within limits for Tl		190.801	Recovery =	Not calculated		
V 290.880†	-99.7	0.0006670 mg/L	0.00089857	0.0006670 mg/L	0.00089857	134.71%
QC value within limits for V		290.880	Recovery =	Not calculated		
Zn 206.200†	112.3	0.0039576 mg/L	0.00005359	0.0039576 mg/L	0.00005359	1.35%
QC value within limits for Zn		206.200	Recovery =	Not calculated		

All analyte(s) passed QC.

File SW13377D2

Patches 13377 SW846+13377

Method: PE2 4300DV AXIAL

Page 1

Date: 12/13/2011 11:23:12 AM

Analyst J Bl 12/13/11

=====  
Analysis Begun

Start Time: 12/13/2011 11:19:45 AM  
Logged In Analyst: shiamala  
Spectrometer Model: Optima 4300 DV, S/N 069N-na

Plasma On Time: 12/13/2011 9:36:41 AM  
Technique: ICP Continuous  
Autosampler Model: AS-93plus

Sample Information File: C:\pe\administrator\Sample Information\12.13.11.sif  
Batch ID: 11227  
Results Data Set: SW13377D2  
Results Library: C:\pe\administrator\Results\Results.mdb

sh 12/14/11

=====  
Method Loaded

Method Name: PE2 4300DV AXIAL  
IEC File: IEC092611B2.iec  
Method Description: 200.76010B

Method Last Saved: 12/3/2011 7:33:06 PM  
MSF File:

Sequence No.: 1  
Sample ID: Calib Blk 1 V-128658  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 1  
Date Collected: 12/13/2011 11:19:45 AM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

-----  
Mean Data: Calib Blk 1 V-128658

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	987384.6	3866.58	0.39%	100 %
Y 371.029	395300.7	1618.08	0.41%	100 %
Ag 328.068†	-117.9	95.68	81.16%	[0.00] mg/L
Al 308.215†	7514.1	83.20	1.11%	[0.00] mg/L
As 188.979†	-12.2	3.12	25.56%	[0.00] mg/L
Ba 233.527†	-1221.1	38.35	3.14%	[0.00] mg/L
Be 313.107†	-2434.9	82.25	3.38%	[0.00] mg/L
Ca 315.887†	-43642.8	59.61	0.14%	[0.00] mg/L
Cd 228.802†	362.3	3.72	1.03%	[0.00] mg/L
Co 228.616†	115.9	6.21	5.35%	[0.00] mg/L
Cr 267.716†	371.7	3.07	0.83%	[0.00] mg/L
Cu 327.393†	-2564.3	137.93	5.38%	[0.00] mg/L
Fe 273.955†	-5696.1	1.81	0.03%	[0.00] mg/L
K 404.721†	1205.6	176.48	14.64%	[0.00] mg/L
Mg 279.077†	-9584.4	60.47	0.63%	[0.00] mg/L
Mn 257.610†	-2769.0	0.36	0.01%	[0.00] mg/L
Mo 202.031†	11.0	4.70	42.77%	[0.00] mg/L
Na 330.237†	-716.9	29.10	4.06%	[0.00] mg/L
Ni 231.604†	60.2	6.82	11.34%	[0.00] mg/L
Pb 220.353†	-22.9	3.53	15.40%	[0.00] mg/L
Sb 206.836†	-64.6	4.52	6.99%	[0.00] mg/L
Se 196.026†	60.5	1.51	2.49%	[0.00] mg/L
Sn 189.927†	9.8	3.62	36.95%	[0.00] mg/L
Ti 334.940†	2845.5	33.45	1.18%	[0.00] mg/L
Tl 190.801†	-15.7	0.02	0.10%	[0.00] mg/L
V 290.880†	3680.2	26.91	0.73%	[0.00] mg/L
Zn 206.200†	-50.6	3.68	7.26%	[0.00] mg/L

13377  
11681

Pb reported

reset

13377  
11691

all elements reported

CS111-048 2D Ag, As, Ca, Cu, Pb, Sb, Tl reported

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Sequence No.: 2

Sample ID: Calib 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 12/13/2011 11:24:24 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:  
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Mean Data: Calib 1 V-128668

Analyte	Mean Corrected		Std.Dev.		RSD		Calib	
	Intensity				Conc.	Units		
Sc 361.383	1011668.6		5993.65	0.59%	102	%		
Y 371.029	400993.8		2194.96	0.55%	101	%		
As 188.979†	5.5		1.48	26.70%	[0.005]	mg/L		
Be 313.107†	7522.1		97.95	1.30%	[0.003]	mg/L		
Cd 228.802†	113.7		12.84	11.29%	[0.003]	mg/L		
Pb 220.353†	66.6		1.20	1.81%	[0.004]	mg/L		
Tl 190.801†	6.7		1.28	19.30%	[0.005]	mg/L		

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-127383

Date Collected: 12/13/2011 11:27:53 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: Calib 2 V-127383

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	990240.2	1780.98	0.18%	100	%
Y 371.029	393747.6	656.35	0.17%	99.6	%
Ag 328.068†	209.3	43.98	21.01%	[0.002]	mg/L
Al 308.215†	2497.8	62.62	2.51%	[0.10]	mg/L
As 188.979†	13.2	0.44	3.33%	[0.010]	mg/L
Ba 233.527†	1169.9	10.28	0.88%	[0.010]	mg/L
Be 313.107†	24315.0	280.74	1.15%	[0.010]	mg/L
Ca 315.887†	100788.3	883.94	0.88%	[1.0]	mg/L
Cd 228.802†	363.9	2.81	0.77%	[0.010]	mg/L
Co 228.616†	334.8	4.66	1.39%	[0.010]	mg/L
Cr 267.716†	593.3	14.95	2.52%	[0.010]	mg/L
Cu 327.393†	1404.1	72.82	5.19%	[0.010]	mg/L
Fe 273.955†	680.3	39.60	5.82%	[0.10]	mg/L
K 404.721†	135.8	253.55	186.77%	[1.0]	mg/L
Mg 279.077†	14078.2	131.82	0.94%	[1.0]	mg/L
Mn 257.610†	4446.1	11.13	0.25%	[0.010]	mg/L
Mo 202.031†	116.0	0.59	0.51%	[0.010]	mg/L
Na 330.237†	872.5	14.88	1.71%	[1.0]	mg/L
Ni 231.604†	427.7	0.29	0.07%	[0.010]	mg/L
Pb 220.353†	95.6	2.14	2.24%	[0.010]	mg/L
Sb 206.836†	12.4	1.54	12.45%	[0.010]	mg/L
Se 196.026†	5.7	0.88	15.51%	[0.010]	mg/L
Sn 189.927†	16.1	2.01	12.53%	[0.010]	mg/L
Ti 334.940†	5715.4	5.99	0.10%	[0.010]	mg/L
Tl 190.801†	9.5	1.00	10.48%	[0.010]	mg/L
V 290.880†	1272.5	73.98	5.81%	[0.010]	mg/L
Zn 206.200†	359.6	10.93	3.04%	[0.010]	mg/L

Sequence No.: 4

Sample ID: Calib 3 V-127384

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/13/2011 11:31:25 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

-----  
Mean Data: Calib 3 V-127384

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	940719.0	1510.89	0.16%	95.3	%
Y 371.029	366862.9	493.99	0.13%	92.8	%
Ag 328.068†	13388.5	55.87	0.42%	[0.10]	mg/L
Al 308.215†	132038.9	321.15	0.24%	[5.0]	mg/L
As 188.979†	574.1	1.31	0.23%	[0.50]	mg/L
Ba 233.527†	60158.6	127.33	0.21%	[0.50]	mg/L
Be 313.107†	1262052.6	5066.25	0.40%	[0.50]	mg/L
Ca 315.887†	5013790.8	16145.07	0.32%	[50]	mg/L
Cd 228.802†	19156.8	50.23	0.26%	[0.50]	mg/L
Co 228.616†	16560.4	32.01	0.19%	[0.50]	mg/L
Cr 267.716†	33806.1	96.16	0.28%	[0.50]	mg/L
Cu 327.393†	60056.6	115.09	0.19%	[0.50]	mg/L
Fe 273.955†	37718.7	70.70	0.19%	[5.0]	mg/L
K 404.721†	4785.2	15.62	0.33%	[50]	mg/L
Mg 279.077†	672711.6	2277.82	0.34%	[50]	mg/L
Mn 257.610†	199099.6	322.85	0.16%	[0.50]	mg/L
Mo 202.031†	6629.6	2.12	0.03%	[0.50]	mg/L
Na 330.237†	51194.9	46.15	0.09%	[50]	mg/L
Ni 231.604†	21246.8	91.21	0.43%	[0.50]	mg/L
Pb 220.353†	5386.1	7.12	0.13%	[0.50]	mg/L
Sb 206.836†	551.6	2.84	0.51%	[0.50]	mg/L
Se 196.026†	550.0	2.18	0.40%	[0.50]	mg/L
Sn 189.927†	888.6	5.06	0.57%	[0.50]	mg/L
Ti 334.940†	296283.9	1381.42	0.47%	[0.50]	mg/L
Tl 190.801†	491.8	3.42	0.70%	[0.50]	mg/L
V 290.880†	67581.2	168.95	0.25%	[0.50]	mg/L
Zn 206.200†	18521.9	41.23	0.22%	[0.50]	mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-128237

Date Collected: 12/13/2011 11:35:13 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 4 V-128237

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	915126.0	6343.30	0.69%	92.7	%
Y 371.029	358303.2	2792.61	0.78%	90.6	%
Ag 328.068†	26821.0	104.90	0.39%	[0.20]	mg/L
Al 308.215†	262723.2	227.16	0.09%	[10]	mg/L
As 188.979†	1164.0	7.51	0.65%	[1.0]	mg/L
Ba 233.527†	119662.6	53.99	0.05%	[1.0]	mg/L
Be 313.107†	2540687.7	12103.78	0.48%	[1.0]	mg/L
Ca 315.887†	9990001.5	51412.80	0.51%	[100]	mg/L
Cd 228.802†	38552.1	42.12	0.11%	[1.0]	mg/L
Co 228.616†	33151.5	139.97	0.42%	[1.0]	mg/L
Cr 267.716†	67471.7	31.45	0.05%	[1.0]	mg/L
Cu 327.393†	120125.0	43.53	0.04%	[1.0]	mg/L
Fe 273.955†	74997.9	54.31	0.07%	[10]	mg/L
K 404.721†	10467.9	92.22	0.88%	[100]	mg/L
Mg 279.077†	1332633.2	839.00	0.06%	[100]	mg/L
Mn 257.610†	396889.7	21.91	0.01%	[1.0]	mg/L
Mo 202.031†	13193.4	60.97	0.46%	[1.0]	mg/L
Na 330.237†	108704.2	306.16	0.28%	[100]	mg/L
Ni 231.604†	42056.5	65.19	0.16%	[1.0]	mg/L
Pb 220.353†	10764.2	38.00	0.35%	[1.0]	mg/L
Sb 206.836†	1091.3	10.52	0.96%	[1.0]	mg/L
Se 196.026†	1133.1	6.48	0.57%	[1.0]	mg/L
Sn 189.927†	1776.2	12.53	0.71%	[1.0]	mg/L
Ti 334.940†	590568.3	506.88	0.09%	[1.0]	mg/L
Tl 190.801†	976.4	8.39	0.86%	[1.0]	mg/L
V 290.880†	133786.3	7.40	0.01%	[1.0]	mg/L
Zn 206.200†	36814.4	9.89	0.03%	[1.0]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-30.7	134200	0.00000	0.999998	
Al 308.215	3	Lin, Calc Int	64.5	26290	0.00000	0.999996	
As 188.979	4	Lin, Calc Int	-0.6	1162	0.00000	0.999976	
Ba 233.527	3	Lin, Calc Int	47.4	119700	0.00000	0.999996	
Be 313.107	4	Lin, Calc Int	-1404.9	2539000	0.00000	0.999995	
Ca 315.887	3	Lin, Calc Int	3823.1	99930	0.00000	0.999998	
Cd 228.802	4	Lin, Calc Int	-22.2	38530	0.00000	0.999996	
Co 228.616	3	Lin, Calc Int	-1.3	33150	0.00000	1.000000	
Cr 267.716	3	Lin, Calc Int	-24.2	67530	0.00000	0.999998	
Cu 327.393	3	Lin, Calc Int	91.0	120000	0.00000	0.999999	
Fe 273.955	3	Lin, Calc Int	8.3	7508	0.00000	0.999994	
K 404.721	3	Lin, Calc Int	-67.6	103.7	0.00000	0.998961	
Mg 279.077	3	Lin, Calc Int	1505.2	13330	0.00000	0.999988	
Mn 257.610	3	Lin, Calc Int	335.8	396700	0.00000	0.999998	
Mo 202.031	3	Lin, Calc Int	-1.2	13210	0.00000	0.999995	
Na 330.237	3	Lin, Calc Int	-672.0	1083	0.00000	0.999559	
Ni 231.604	3	Lin, Calc Int	43.0	42090	0.00000	0.999986	
Pb 220.353	4	Lin, Calc Int	4.2	10760	0.00000	0.999996	
Sb 206.836	3	Lin, Calc Int	1.7	1092	0.00000	0.999985	
Se 196.026	3	Lin, Calc Int	-5.6	1133	0.00000	0.999895	
Sn 189.927	3	Lin, Calc Int	-0.7	1777	0.00000	1.000000	
Ti 334.940	3	Lin, Calc Int	95.6	590900	0.00000	0.999998	
Tl 190.801	4	Lin, Calc Int	0.9	976.7	0.00000	0.999993	
V 290.880	3	Lin, Calc Int	95.6	133900	0.00000	0.999985	
Zn 206.200	3	Lin, Calc Int	17.0	36840	0.00000	0.999995	

Sequence No.: 6

Sample ID: ICS3 V-127384

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/13/2011 11:40:08 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICS3 V-127384

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	956968.8		96.9 %	0.03			0.04%	
Y 371.029	373157.9		94.4 %	0.02			0.02%	
Ag 328.068†	13199.2	0.0986679	mg/L	0.00083139	0.0986679	mg/L	0.00083139	0.84%
QC value within limits for Ag		328.068	Recovery = 98.67%					
Al 308.215†	130131.3	4.93743	mg/L	0.023341	4.93743	mg/L	0.023341	0.47%
QC value within limits for Al		308.215	Recovery = 98.75%					
As 188.979†	566.7	0.488251	mg/L	0.0010626	0.488251	mg/L	0.0010626	0.22%
QC value within limits for As		188.979	Recovery = 97.65%					
Ba 233.527†	59605.4	0.497411	mg/L	0.0021351	0.497411	mg/L	0.0021351	0.43%
QC value within limits for Ba		233.527	Recovery = 99.48%					
Be 313.107†	1254762.8	0.494382	mg/L	0.0025126	0.494382	mg/L	0.0025126	0.51%
QC value within limits for Be		313.107	Recovery = 98.88%					
Ca 315.887†	4990369.7	49.9009	mg/L	0.27560	49.9009	mg/L	0.27560	0.55%
QC value within limits for Ca		315.887	Recovery = 99.80%					
Cd 228.802†	19019.2	0.494102	mg/L	0.0008925	0.494102	mg/L	0.0008925	0.18%
QC value within limits for Cd		228.802	Recovery = 98.82%					
Co 228.616†	16453.7	0.497042	mg/L	0.0018945	0.497042	mg/L	0.0018945	0.38%
QC value within limits for Co		228.616	Recovery = 99.41%					
Cr 267.716†	33551.1	0.500774	mg/L	0.0024141	0.500774	mg/L	0.0024141	0.48%
QC value within limits for Cr		267.716	Recovery = 100.15%					
Cu 327.393†	59304.5	0.491903	mg/L	0.0029175	0.491903	mg/L	0.0029175	0.59%
QC value within limits for Cu		327.393	Recovery = 98.38%					
Fe 273.955†	37328.3	4.99115	mg/L	0.016525	4.99115	mg/L	0.016525	0.33%
QC value within limits for Fe		273.955	Recovery = 99.82%					
K 404.721†	4782.5	46.7684	mg/L	0.70964	46.7684	mg/L	0.70964	1.52%
QC value within limits for K		404.721	Recovery = 93.54%					
Mg 279.077†	672478.6	50.3213	mg/L	0.26842	50.3213	mg/L	0.26842	0.53%
QC value within limits for Mg		279.077	Recovery = 100.64%					
Mn 257.610†	197177.1	0.496486	mg/L	0.0015319	0.496486	mg/L	0.0015319	0.31%
QC value within limits for Mn		257.610	Recovery = 99.30%					
Mo 202.031†	6516.1	0.492412	mg/L	0.0018011	0.492412	mg/L	0.0018011	0.37%
QC value within limits for Mo		202.031	Recovery = 98.48%					
Na 330.237†	50643.9	47.4043	mg/L	0.04148	47.4043	mg/L	0.04148	0.09%
QC value within limits for Na		330.237	Recovery = 94.81%					
Ni 231.604†	21126.9	0.501339	mg/L	0.0012618	0.501339	mg/L	0.0012618	0.25%
QC value within limits for Ni		231.604	Recovery = 100.27%					
Pb 220.353†	5337.4	0.495806	mg/L	0.0026697	0.495806	mg/L	0.0026697	0.54%
QC value within limits for Pb		220.353	Recovery = 99.16%					
Sb 206.836†	537.0	0.492166	mg/L	0.0031919	0.492166	mg/L	0.0031919	0.65%
QC value within limits for Sb		206.836	Recovery = 98.43%					
Se 196.026†	549.7	0.490324	mg/L	0.0060791	0.490324	mg/L	0.0060791	1.24%
QC value within limits for Se		196.026	Recovery = 98.06%					
Sn 189.927†	877.9	0.494191	mg/L	0.0042617	0.494191	mg/L	0.0042617	0.86%
QC value within limits for Sn		189.927	Recovery = 98.84%					
Ti 334.940†	293330.3	0.496292	mg/L	0.0027952	0.496292	mg/L	0.0027952	0.56%
QC value within limits for Ti		334.940	Recovery = 99.26%					
Tl 190.801†	490.2	0.502834	mg/L	0.0052625	0.502834	mg/L	0.0052625	1.05%
QC value within limits for Tl		190.801	Recovery = 100.57%					
V 290.880†	66681.6	0.494923	mg/L	0.0015756	0.494923	mg/L	0.0015756	0.32%
QC value within limits for V		290.880	Recovery = 98.98%					
Zn 206.200†	18542.6	0.501294	mg/L	0.0001997	0.501294	mg/L	0.0001997	0.04%
QC value within limits for Zn		206.200	Recovery = 100.26%					

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV V-128234 (2)

Date Collected: 12/13/2011 11:43:55 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICV V-128234 (2)

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	927477.5	93.9 %	0.78			0.83%
Y 371.029	363087.9	91.9 %	0.71			0.77%
Ag 328.068†	26211.9	0.195710 mg/L	0.0000514	0.195710 mg/L	0.0000514	0.03%
	QC value within limits for Ag	328.068 Recovery = 97.86%				
Al 308.215†	261060.0	9.90756 mg/L	0.011353	9.90756 mg/L	0.011353	0.11%
	QC value within limits for Al	308.215 Recovery = 99.08%				
As 188.979†	1143.8	0.984988 mg/L	0.0090627	0.984988 mg/L	0.0090627	0.92%
	QC value within limits for As	188.979 Recovery = 98.50%				
Ba 233.527†	120590.6	1.00674 mg/L	0.001659	1.00674 mg/L	0.001659	0.16%
	QC value within limits for Ba	233.527 Recovery = 100.67%				
Be 313.107†	2516532.4	0.990968 mg/L	0.0004888	0.990968 mg/L	0.0004888	0.05%
	QC value within limits for Be	313.107 Recovery = 99.10%				
Ca 315.887†	9947746.2	99.5098 mg/L	0.04504	99.5098 mg/L	0.04504	0.05%
	QC value within limits for Ca	315.887 Recovery = 99.51%				
Cd 228.802†	38573.5	1.00152 mg/L	0.001636	1.00152 mg/L	0.001636	0.16%
	QC value within limits for Cd	228.802 Recovery = 100.15%				
Co 228.616†	33191.9	1.00264 mg/L	0.003714	1.00264 mg/L	0.003714	0.37%
	QC value within limits for Co	228.616 Recovery = 100.26%				
Cr 267.716†	67029.3	1.00013 mg/L	0.002218	1.00013 mg/L	0.002218	0.22%
	QC value within limits for Cr	267.716 Recovery = 100.01%				
Cu 327.393†	119679.5	0.993501 mg/L	0.0026404	0.993501 mg/L	0.0026404	0.27%
	QC value within limits for Cu	327.393 Recovery = 99.35%				
Fe 273.955†	73983.2	9.89326 mg/L	0.045186	9.89326 mg/L	0.045186	0.46%
	QC value within limits for Fe	273.955 Recovery = 98.93%				
K 404.721†	10376.8	100.714 mg/L	0.6323	100.714 mg/L	0.6323	0.63%
	QC value within limits for K	404.721 Recovery = 100.71%				
Mg 279.077†	1328538.5	99.5241 mg/L	0.49093	99.5241 mg/L	0.49093	0.49%
	QC value within limits for Mg	279.077 Recovery = 99.52%				
Mn 257.610†	392591.8	0.989374 mg/L	0.0022547	0.989374 mg/L	0.0022547	0.23%
	QC value within limits for Mn	257.610 Recovery = 98.94%				
Mo 202.031†	13092.0	0.989263 mg/L	0.0172744	0.989263 mg/L	0.0172744	1.75%
	QC value within limits for Mo	202.031 Recovery = 98.93%				
Na 330.237†	107577.5	99.9982 mg/L	0.26760	99.9982 mg/L	0.26760	0.27%
	QC value within limits for Na	330.237 Recovery = 100.00%				
Ni 231.604†	42145.0	1.00112 mg/L	0.004000	1.00112 mg/L	0.004000	0.40%
	QC value within limits for Ni	231.604 Recovery = 100.11%				
Pb 220.353†	10667.7	0.991379 mg/L	0.0169970	0.991379 mg/L	0.0169970	1.71%
	QC value within limits for Pb	220.353 Recovery = 99.14%				
Sb 206.836†	1064.5	0.977169 mg/L	0.0142926	0.977169 mg/L	0.0142926	1.46%
	QC value within limits for Sb	206.836 Recovery = 97.72%				
Se 196.026†	1124.0	0.997460 mg/L	0.0120419	0.997460 mg/L	0.0120419	1.21%
	QC value within limits for Se	196.026 Recovery = 99.75%				
Sn 189.927†	1763.3	0.992187 mg/L	0.0178132	0.992187 mg/L	0.0178132	1.80%
	QC value within limits for Sn	189.927 Recovery = 99.22%				
Ti 334.940†	588533.0	0.995915 mg/L	0.0000386	0.995915 mg/L	0.0000386	0.00%
	QC value within limits for Ti	334.940 Recovery = 99.59%				
Tl 190.801†	999.1	1.02577 mg/L	0.018789	1.02577 mg/L	0.018789	1.83%
	QC value within limits for Tl	190.801 Recovery = 102.58%				
V 290.880†	133384.5	0.990800 mg/L	0.0022224	0.990800 mg/L	0.0022224	0.22%
	QC value within limits for V	290.880 Recovery = 99.08%				
Zn 206.200†	36870.9	0.997268 mg/L	0.0068615	0.997268 mg/L	0.0068615	0.69%
	QC value within limits for Zn	206.200 Recovery = 99.73%				

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-128658

Date Collected: 12/13/2011 11:48:51 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICB V-128658

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	994784.0	101 %		0.1			0.13%
Y 371.029	395502.2	100 %		0.2			0.17%
Ag 328.068†	-23.6	0.0000535 mg/L		0.00054724	0.0000535 mg/L	0.00054724	>999.9%
QC value within limits for Ag		328.068	Recovery =	Not calculated			
Al 308.215†	-359.8	-0.0161360 mg/L		0.00032963	-0.0161360 mg/L	0.00032963	2.04%
QC value within limits for Al		308.215	Recovery =	Not calculated			
As 188.979†	4.7	0.0045845 mg/L		0.00270558	0.0045845 mg/L	0.00270558	59.02%
QC value within limits for As		188.979	Recovery =	Not calculated			
Ba 233.527†	18.9	-0.0002382 mg/L		0.00014007	-0.0002382 mg/L	0.00014007	58.81%
QC value within limits for Ba		233.527	Recovery =	Not calculated			
Be 313.107†	84.2	0.0005865 mg/L		0.00001486	0.0005865 mg/L	0.00001486	2.53%
QC value within limits for Be		313.107	Recovery =	Not calculated			
Ca 315.887†	360.3	-0.0346523 mg/L		0.00109381	-0.0346523 mg/L	0.00109381	3.16%
QC value within limits for Ca		315.887	Recovery =	Not calculated			
Cd 228.802†	-0.0	0.0005757 mg/L		0.00032024	0.0005757 mg/L	0.00032024	55.62%
QC value within limits for Cd		228.802	Recovery =	Not calculated			
Co 228.616†	-9.7	-0.0002532 mg/L		0.00010320	-0.0002532 mg/L	0.00010320	40.76%
QC value within limits for Co		228.616	Recovery =	Not calculated			
Cr 267.716†	-52.8	-0.0004248 mg/L		0.00004562	-0.0004248 mg/L	0.00004562	10.74%
QC value within limits for Cr		267.716	Recovery =	Not calculated			
Cu 327.393†	99.8	0.0000751 mg/L		0.00112793	0.0000751 mg/L	0.00112793	>999.9%
QC value within limits for Cu		327.393	Recovery =	Not calculated			
Fe 273.955†	104.8	0.0128059 mg/L		0.00062272	0.0128059 mg/L	0.00062272	4.86%
QC value within limits for Fe		273.955	Recovery =	Not calculated			
K 404.721†	-11.8	0.537396 mg/L		0.3924494	0.537396 mg/L	0.3924494	73.03%
QC value within limits for K		404.721	Recovery =	Not calculated			
Mg 279.077†	138.8	-0.102476 mg/L		0.0017502	-0.102476 mg/L	0.0017502	1.71%
QC value within limits for Mg		279.077	Recovery =	Not calculated			
Mn 257.610†	71.8	-0.0006649 mg/L		0.00003453	-0.0006649 mg/L	0.00003453	5.19%
QC value within limits for Mn		257.610	Recovery =	Not calculated			
Mo 202.031†	-2.6	-0.0001032 mg/L		0.00042315	-0.0001032 mg/L	0.00042315	409.92%
QC value within limits for Mo		202.031	Recovery =	Not calculated			
Na 330.237†	-77.8	0.548923 mg/L		0.0039222	0.548923 mg/L	0.0039222	0.71%
QC value within limits for Na		330.237	Recovery =	Not calculated			
Ni 231.604†	7.0	-0.0008553 mg/L		0.00014347	-0.0008553 mg/L	0.00014347	16.77%
QC value within limits for Ni		231.604	Recovery =	Not calculated			
Pb 220.353†	-7.0	-0.0010370 mg/L		0.00193988	-0.0010370 mg/L	0.00193988	187.06%
QC value within limits for Pb		220.353	Recovery =	Not calculated			
Sb 206.836†	0.5	-0.0011750 mg/L		0.00066037	-0.0011750 mg/L	0.00066037	56.20%
QC value within limits for Sb		206.836	Recovery =	Not calculated			
Se 196.026†	-7.8	-0.0019141 mg/L		0.00038712	-0.0019141 mg/L	0.00038712	20.22%
QC value within limits for Se		196.026	Recovery =	Not calculated			
Sn 189.927†	4.3	0.0027990 mg/L		0.00084085	0.0027990 mg/L	0.00084085	30.04%
QC value within limits for Sn		189.927	Recovery =	Not calculated			
Ti 334.940†	56.5	-0.0000662 mg/L		0.00004464	-0.0000662 mg/L	0.00004464	67.43%
QC value within limits for Ti		334.940	Recovery =	Not calculated			
Tl 190.801†	1.7	0.0007530 mg/L		0.00089166	0.0007530 mg/L	0.00089166	118.42%
QC value within limits for Tl		190.801	Recovery =	Not calculated			
V 290.880†	-10.6	-0.0007867 mg/L		0.00001229	-0.0007867 mg/L	0.00001229	1.56%
QC value within limits for V		290.880	Recovery =	Not calculated			
Zn 206.200†	2.7	-0.0003846 mg/L		0.00028509	-0.0003846 mg/L	0.00028509	74.13%
QC value within limits for Zn		206.200	Recovery =	Not calculated			

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA V-127386

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 12/13/2011 11:52:20 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-127386

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.		
Sc 361.383	900268.3	91.2 %		0.29				0.32%
Y 371.029	353006.8	89.3 %		0.73				0.82%
Ag 328.068†	-1133.4	0.0037405 mg/L		0.00054940	0.0037405 mg/L	0.00054940		14.69%
Al 308.215†	12523565.5	476.332 mg/L		4.8133	476.332 mg/L	4.8133		1.01%
QC value within limits for Al 308.215 Recovery = 95.27%								
As 188.979†	-35.6	-0.0068294 mg/L		0.00422143	-0.0068294 mg/L	0.00422143		61.81%
Ba 233.527†	291.5	0.0020387 mg/L		0.00015908	0.0020387 mg/L	0.00015908		7.80%
Be 313.107†	-2001.7	-0.0002358 mg/L		0.00000724	-0.0002358 mg/L	0.00000724		3.07%
Ca 315.887†	46538687.1	465.679 mg/L		4.8688	465.679 mg/L	4.8688		1.05%
QC value within limits for Ca 315.887 Recovery = 93.14%								
Cd 228.802†	126.9	0.0008616 mg/L		0.00002350	0.0008616 mg/L	0.00002350		2.73%
Co 228.616†	-105.6	0.0036649 mg/L		0.00001884	0.0036649 mg/L	0.00001884		0.51%
Cr 267.716†	152.5	0.0089316 mg/L		0.00016650	0.0089316 mg/L	0.00016650		1.86%
Cu 327.393†	1014.3	-0.0101167 mg/L		0.00007790	-0.0101167 mg/L	0.00007790		0.77%
Fe 273.955†	1377527.4	183.681 mg/L		0.1127	183.681 mg/L	0.1127		0.06%
QC value within limits for Fe 273.955 Recovery = 91.84%								
K 404.721†	-825.3	-7.30631 mg/L		1.555298	-7.30631 mg/L	1.555298		21.29%
Mg 279.077†	6517194.7	488.660 mg/L		0.0634	488.660 mg/L	0.0634		0.01%
QC value within limits for Mg 279.077 Recovery = 97.73%								
Mn 257.610†	-4139.1	-0.0029690 mg/L		0.00007923	-0.0029690 mg/L	0.00007923		2.67%
Mo 202.031†	137.1	0.0060969 mg/L		0.00024991	0.0060969 mg/L	0.00024991		4.10%
Na 330.237†	-68.0	0.558014 mg/L		0.0088974	0.558014 mg/L	0.0088974		1.59%
Ni 231.604†	-33.9	-0.0018187 mg/L		0.00007100	-0.0018187 mg/L	0.00007100		3.90%
Pb 220.353†	-675.4	0.0027889 mg/L		0.00045460	0.0027889 mg/L	0.00045460		16.30%
Sb 206.836†	-98.5	0.0072195 mg/L		0.00411952	0.0072195 mg/L	0.00411952		57.06%
Se 196.026†	8.5	0.0032420 mg/L		0.00991642	0.0032420 mg/L	0.00991642		305.87%
Sn 189.927†	15.9	-0.0036549 mg/L		0.00027915	-0.0036549 mg/L	0.00027915		7.64%
Ti 334.940†	743.3	0.0010963 mg/L		0.00003158	0.0010963 mg/L	0.00003158		2.88%
Tl 190.801†	-13.1	-0.0015793 mg/L		0.00062815	-0.0015793 mg/L	0.00062815		39.77%
V 290.880†	6073.1	0.0093459 mg/L		0.00011502	0.0093459 mg/L	0.00011502		1.23%
Zn 206.200†	224.2	-0.0096792 mg/L		0.00043490	-0.0096792 mg/L	0.00043490		4.49%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-127387

Date Collected: 12/13/2011 11:57:44 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-127387

Analyte	Mean Corrected		Calib	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units					
Sc 361.383	913212.3	92.5 %		2.44			2.64%
Y 371.029	355468.6	89.9 %		2.31			2.57%
Ag 328.068†	129958.9	0.980168 mg/L		0.0328152	0.980168 mg/L	0.0328152	3.35%
QC value within limits for Ag		328.068	Recovery = 98.02%				
Al 308.215†	12448219.0	473.466 mg/L		12.3097	473.466 mg/L	12.3097	2.60%
QC value within limits for Al		308.215	Recovery = 94.69%				
As 188.979†	1087.0	0.959791 mg/L		0.0413894	0.959791 mg/L	0.0413894	4.31%
QC value within limits for As		188.979	Recovery = 95.98%				
Ba 233.527†	58071.8	0.484602 mg/L		0.0145205	0.484602 mg/L	0.0145205	3.00%
QC value within limits for Ba		233.527	Recovery = 96.92%				
Be 313.107†	1233029.0	0.486176 mg/L		0.0167495	0.486176 mg/L	0.0167495	3.45%
QC value within limits for Be		313.107	Recovery = 97.24%				
Ca 315.887†	46300749.5	463.298 mg/L		12.2132	463.298 mg/L	12.2132	2.64%
QC value within limits for Ca		315.887	Recovery = 92.66%				
Cd 228.802†	37487.3	0.970461 mg/L		0.0329574	0.970461 mg/L	0.0329574	3.40%
QC value within limits for Cd		228.802	Recovery = 97.05%				
Co 228.616†	15155.8	0.464037 mg/L		0.0145572	0.464037 mg/L	0.0145572	3.14%
QC value within limits for Co		228.616	Recovery = 92.81%				
Cr 267.716†	31860.4	0.478805 mg/L		0.0164529	0.478805 mg/L	0.0164529	3.44%
QC value within limits for Cr		267.716	Recovery = 95.76%				
Cu 327.393†	60568.4	0.486124 mg/L		0.0162115	0.486124 mg/L	0.0162115	3.33%
QC value within limits for Cu		327.393	Recovery = 97.22%				
Fe 273.955†	1385175.5	184.701 mg/L		6.4339	184.701 mg/L	6.4339	3.48%
QC value within limits for Fe		273.955	Recovery = 92.35%				
K 404.721†	-922.6	-8.24455 mg/L		0.256082	-8.24455 mg/L	0.256082	3.11%
Mg 279.077†	6566502.4	492.358 mg/L		17.7660	492.358 mg/L	17.7660	3.61%
QC value within limits for Mg		279.077	Recovery = 98.47%				
Mn 257.610†	182508.2	0.467518 mg/L		0.0152012	0.467518 mg/L	0.0152012	3.25%
QC value within limits for Mn		257.610	Recovery = 93.50%				
Mo 202.031†	130.5	0.0056187 mg/L		0.00061040	0.0056187 mg/L	0.00061040	10.86%
Na 330.237†	244.2	0.846411 mg/L		0.0832888	0.846411 mg/L	0.0832888	9.84%
Ni 231.604†	38216.1	0.906905 mg/L		0.0297054	0.906905 mg/L	0.0297054	3.28%
QC value within limits for Ni		231.604	Recovery = 90.69%				
Pb 220.353†	9165.3	0.916669 mg/L		0.0285857	0.916669 mg/L	0.0285857	3.12%
QC value within limits for Pb		220.353	Recovery = 91.67%				
Sb 206.836†	939.2	0.957457 mg/L		0.0275977	0.957457 mg/L	0.0275977	2.88%
QC value within limits for Sb		206.836	Recovery = 95.75%				
Se 196.026†	1090.0	0.957684 mg/L		0.0326511	0.957684 mg/L	0.0326511	3.41%
QC value within limits for Se		196.026	Recovery = 95.77%				
Sn 189.927†	20.3	-0.0011718 mg/L		0.00551635	-0.0011718 mg/L	0.00551635	470.77%
Ti 334.940†	989.5	0.0015130 mg/L		0.00008110	0.0015130 mg/L	0.00008110	5.36%
Tl 190.801†	887.7	0.920305 mg/L		0.0276271	0.920305 mg/L	0.0276271	3.00%
QC value within limits for Tl		190.801	Recovery = 92.03%				
V 290.880†	67532.7	0.467928 mg/L		0.0162508	0.467928 mg/L	0.0162508	3.47%
QC value within limits for V		290.880	Recovery = 93.59%				
Zn 206.200†	34678.9	0.925464 mg/L		0.0314156	0.925464 mg/L	0.0314156	3.39%
QC value within limits for Zn		206.200	Recovery = 92.55%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: CCV V-128233  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/13/2011 12:03:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	954940.0	96.7 %		0.56			0.58%
Y 371.029	372739.0	94.3 %		0.58			0.61%
Ag 328.068†	12758.2	0.0953765 mg/L		0.00053145	0.0953765 mg/L	0.00053145	0.56%
QC value within limits for Ag		328.068	Recovery = 95.38%				
Al 308.215†	128486.1	4.87485 mg/L		0.028822	4.87485 mg/L	0.028822	0.59%
QC value within limits for Al		308.215	Recovery = 97.50%				
As 188.979†	555.7	0.478832 mg/L		0.0016308	0.478832 mg/L	0.0016308	0.34%
QC value within limits for As		188.979	Recovery = 95.77%				
Ba 233.527†	59565.5	0.497078 mg/L		0.0023738	0.497078 mg/L	0.0023738	0.48%
QC value within limits for Ba		233.527	Recovery = 99.42%				
Be 313.107†	1238252.3	0.487880 mg/L		0.0005238	0.487880 mg/L	0.0005238	0.11%
QC value within limits for Be		313.107	Recovery = 97.58%				
Ca 315.887†	4941272.6	49.4095 mg/L		0.04963	49.4095 mg/L	0.04963	0.10%
QC value within limits for Ca		315.887	Recovery = 98.82%				
Cd 228.802†	18816.3	0.488839 mg/L		0.0034616	0.488839 mg/L	0.0034616	0.71%
QC value within limits for Cd		228.802	Recovery = 97.77%				
Co 228.616†	16428.6	0.496286 mg/L		0.0008871	0.496286 mg/L	0.0008871	0.18%
QC value within limits for Co		228.616	Recovery = 99.26%				
Cr 267.716†	33032.1	0.493082 mg/L		0.0028088	0.493082 mg/L	0.0028088	0.57%
QC value within limits for Cr		267.716	Recovery = 98.62%				
Cu 327.393†	58974.5	0.489171 mg/L		0.0035323	0.489171 mg/L	0.0035323	0.72%
QC value within limits for Cu		327.393	Recovery = 97.83%				
Fe 273.955†	36508.8	4.88165 mg/L		0.009052	4.88165 mg/L	0.009052	0.19%
QC value within limits for Fe		273.955	Recovery = 97.63%				
K 404.721†	4732.4	46.2855 mg/L		0.95907	46.2855 mg/L	0.95907	2.07%
QC value within limits for K		404.721	Recovery = 92.57%				
Mg 279.077†	661003.6	49.4607 mg/L		0.08052	49.4607 mg/L	0.08052	0.16%
QC value within limits for Mg		279.077	Recovery = 98.92%				
Mn 257.610†	194346.1	0.489346 mg/L		0.0032260	0.489346 mg/L	0.0032260	0.66%
QC value within limits for Mn		257.610	Recovery = 97.87%				
Mo 202.031†	6521.0	0.492787 mg/L		0.0025350	0.492787 mg/L	0.0025350	0.51%
QC value within limits for Mo		202.031	Recovery = 98.56%				
Na 330.237†	49739.8	46.5692 mg/L		0.23796	46.5692 mg/L	0.23796	0.51%
QC value within limits for Na		330.237	Recovery = 93.14%				
Ni 231.604†	20881.7	0.495513 mg/L		0.0034745	0.495513 mg/L	0.0034745	0.70%
QC value within limits for Ni		231.604	Recovery = 99.10%				
Pb 220.353†	5295.3	0.491907 mg/L		0.0000274	0.491907 mg/L	0.0000274	0.01%
QC value within limits for Pb		220.353	Recovery = 98.38%				
Sb 206.836†	523.2	0.479509 mg/L		0.0002436	0.479509 mg/L	0.0002436	0.05%
QC value within limits for Sb		206.836	Recovery = 95.90%				
Se 196.026†	544.0	0.485339 mg/L		0.0076747	0.485339 mg/L	0.0076747	1.58%
QC value within limits for Se		196.026	Recovery = 97.07%				
Sn 189.927†	878.6	0.494584 mg/L		0.0000838	0.494584 mg/L	0.0000838	0.02%
QC value within limits for Sn		189.927	Recovery = 98.92%				
Ti 334.940†	293193.5	0.496060 mg/L		0.0007590	0.496060 mg/L	0.0007590	0.15%
QC value within limits for Ti		334.940	Recovery = 99.21%				
Tl 190.801†	505.6	0.518593 mg/L		0.0001231	0.518593 mg/L	0.0001231	0.02%
QC value within limits for Tl		190.801	Recovery = 103.72%				
V 290.880†	66107.8	0.490697 mg/L		0.0027177	0.490697 mg/L	0.0027177	0.55%
QC value within limits for V		290.880	Recovery = 98.14%				
Zn 206.200†	18188.4	0.491707 mg/L		0.0031284	0.491707 mg/L	0.0031284	0.64%
QC value within limits for Zn		206.200	Recovery = 98.34%				

All analyte(s) passed QC.

Sequence No.: 12

Autosampler Location: 2

Sample ID: CCB

Date Collected: 12/13/2011 12:06:56 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	981254.7	99.4 %		0.21			0.21%
Y 371.029	394928.9	99.9 %		0.22			0.22%
Ag 328.068†	-14.5	0.0001200 mg/L		0.00044140	0.0001200 mg/L	0.00044140	367.70%
QC value within limits for Ag 328.068		Recovery =	Not calculated				
Al 308.215†	-163.7	-0.0086718 mg/L		0.00051905	-0.0086718 mg/L	0.00051905	5.99%
QC value within limits for Al 308.215		Recovery =	Not calculated				
As 188.979†	-2.6	-0.0016893 mg/L		0.00323522	-0.0016893 mg/L	0.00323522	191.51%
QC value within limits for As 188.979		Recovery =	Not calculated				
Ba 233.527†	-25.9	-0.0006126 mg/L		0.00013435	-0.0006126 mg/L	0.00013435	21.93%
QC value within limits for Ba 233.527		Recovery =	Not calculated				
Be 313.107†	54.1	0.0005747 mg/L		0.00002966	0.0005747 mg/L	0.00002966	5.16%
QC value within limits for Be 313.107		Recovery =	Not calculated				
Ca 315.887†	-283.2	-0.0410928 mg/L		0.00088691	-0.0410928 mg/L	0.00088691	2.16%
QC value within limits for Ca 315.887		Recovery =	Not calculated				
Cd 228.802†	11.8	0.0008838 mg/L		0.00013378	0.0008838 mg/L	0.00013378	15.14%
QC value within limits for Cd 228.802		Recovery =	Not calculated				
Co 228.616†	-5.8	-0.0001357 mg/L		0.00030926	-0.0001357 mg/L	0.00030926	227.89%
QC value within limits for Co 228.616		Recovery =	Not calculated				
Cr 267.716†	-62.0	-0.0005637 mg/L		0.00038992	-0.0005637 mg/L	0.00038992	69.17%
QC value within limits for Cr 267.716		Recovery =	Not calculated				
Cu 327.393†	71.4	-0.0001607 mg/L		0.00100636	-0.0001607 mg/L	0.00100636	626.31%
QC value within limits for Cu 327.393		Recovery =	Not calculated				
Fe 273.955†	-113.1	-0.0162347 mg/L		0.00181698	-0.0162347 mg/L	0.00181698	11.19%
QC value within limits for Fe 273.955		Recovery =	Not calculated				
K 404.721†	38.0	1.01818 mg/L		0.385359	1.01818 mg/L	0.385359	37.85%
QC value within limits for K 404.721		Recovery =	Not calculated				
Mg 279.077†	-196.9	-0.127656 mg/L		0.0072314	-0.127656 mg/L	0.0072314	5.66%
QC value within limits for Mg 279.077		Recovery =	Not calculated				
Mn 257.610†	-32.4	-0.0009289 mg/L		0.00000608	-0.0009289 mg/L	0.00000608	0.65%
QC value within limits for Mn 257.610		Recovery =	Not calculated				
Mo 202.031†	-5.3	-0.0003084 mg/L		0.00005525	-0.0003084 mg/L	0.00005525	17.92%
QC value within limits for Mo 202.031		Recovery =	Not calculated				
Na 330.237†	13.8	0.633520 mg/L		0.0239560	0.633520 mg/L	0.0239560	3.78%
QC value within limits for Na 330.237		Recovery =	Not calculated				
Ni 231.604†	-2.9	-0.0010902 mg/L		0.00043169	-0.0010902 mg/L	0.00043169	39.60%
QC value within limits for Ni 231.604		Recovery =	Not calculated				
Pb 220.353†	-4.4	-0.0007916 mg/L		0.00214805	-0.0007916 mg/L	0.00214805	271.36%
QC value within limits for Pb 220.353		Recovery =	Not calculated				
Sb 206.836†	4.3	0.0023296 mg/L		0.00010756	0.0023296 mg/L	0.00010756	4.62%
QC value within limits for Sb 206.836		Recovery =	Not calculated				
Se 196.026†	2.5	0.0070890 mg/L		0.00011860	0.0070890 mg/L	0.00011860	1.67%
QC value within limits for Se 196.026		Recovery =	Not calculated				
Sn 189.927†	2.4	0.0017535 mg/L		0.00252404	0.0017535 mg/L	0.00252404	143.94%
QC value within limits for Sn 189.927		Recovery =	Not calculated				
Ti 334.940†	25.9	-0.0001179 mg/L		0.00001290	-0.0001179 mg/L	0.00001290	10.94%
QC value within limits for Ti 334.940		Recovery =	Not calculated				
Tl 190.801†	1.4	0.0005178 mg/L		0.00063443	0.0005178 mg/L	0.00063443	122.52%
QC value within limits for Tl 190.801		Recovery =	Not calculated				
V 290.880†	49.0	-0.0003401 mg/L		0.00054028	-0.0003401 mg/L	0.00054028	158.85%
QC value within limits for V 290.880		Recovery =	Not calculated				
Zn 206.200†	-14.2	-0.0008421 mg/L		0.00009891	-0.0008421 mg/L	0.00009891	11.75%
QC value within limits for Zn 206.200		Recovery =	Not calculated				

All analyte(s) passed QC.

Sequence No.: 13  
 Sample ID: MB 11691 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 50  
 Date Collected: 12/13/2011 12:10:35 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: MB 11691 (1)

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	994016.5	101 %		3.3			3.32%
Y 371.029	394055.7	99.7 %		3.39			3.40%
Ag 328.068†	39.9	0.0005347 mg/L		0.00046637	0.0005347 mg/L	0.00046637	87.22%
Al 308.215†	-205.1	-0.0102443 mg/L		0.00783990	-0.0102443 mg/L	0.00783990	76.53%
As 188.979†	2.8	0.0029671 mg/L		0.00389752	0.0029671 mg/L	0.00389752	131.36%
Ba 233.527†	17.7	-0.0002483 mg/L		0.00045683	-0.0002483 mg/L	0.00045683	183.96%
Be 313.107†	49.5	0.0005727 mg/L		0.00002764	0.0005727 mg/L	0.00002764	4.83%
Ca 315.887†	33376.9	0.295747 mg/L		0.0081608	0.295747 mg/L	0.0081608	2.76%
Cd 228.802†	-1.4	0.0005384 mg/L		0.00016435	0.0005384 mg/L	0.00016435	30.53%
Co 228.616†	-7.5	-0.0001884 mg/L		0.00015281	-0.0001884 mg/L	0.00015281	81.11%
Cr 267.716†	-44.8	-0.0003037 mg/L		0.00007713	-0.0003037 mg/L	0.00007713	25.40%
Cu 327.393†	184.9	0.0007805 mg/L		0.00090071	0.0007805 mg/L	0.00090071	115.40%
Fe 273.955†	958.6	0.126537 mg/L		0.0193696	0.126537 mg/L	0.0193696	15.31%
K 404.721†	94.3	1.56086 mg/L		0.056330	1.56086 mg/L	0.056330	3.61%
Mg 279.077†	182.9	-0.0991679 mg/L		0.02396742	-0.0991679 mg/L	0.02396742	24.17%
Mn 257.610†	373.1	0.0000996 mg/L		0.00022379	0.0000996 mg/L	0.00022379	224.59%
Mo 202.031†	-6.3	-0.0003917 mg/L		0.00030387	-0.0003917 mg/L	0.00030387	77.58%
Na 330.237†	143.9	0.753753 mg/L		0.0104401	0.753753 mg/L	0.0104401	1.39%
Ni 231.604†	6.3	-0.0008733 mg/L		0.00015818	-0.0008733 mg/L	0.00015818	18.11%
Pb 220.353†	-4.2	-0.0007842 mg/L		0.00183708	-0.0007842 mg/L	0.00183708	234.27%
Sb 206.836†	-0.2	-0.0017401 mg/L		0.00346638	-0.0017401 mg/L	0.00346638	199.21%
Se 196.026†	-0.4	0.0045664 mg/L		0.00612583	0.0045664 mg/L	0.00612583	134.15%
Sn 189.927†	-0.0	0.0003594 mg/L		0.00198745	0.0003594 mg/L	0.00198745	552.99%
Ti 334.940†	161.4	0.0001114 mg/L		0.00003810	0.0001114 mg/L	0.00003810	34.21%
Tl 190.801†	2.6	0.0017179 mg/L		0.00099633	0.0017179 mg/L	0.00099633	58.00%
V 290.880†	4.4	-0.0006784 mg/L		0.00047885	-0.0006784 mg/L	0.00047885	70.59%
Zn 206.200†	150.7	0.0036318 mg/L		0.00010544	0.0036318 mg/L	0.00010544	2.90%

Sequence No.: 14

Autosampler Location: 51

Sample ID: LCSW 11691

Date Collected: 12/13/2011 12:14:16 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: LCSW 11691

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	985327.1		99.8 %	2.07				2.07%
Y 371.029	384522.1		97.3 %	2.05				2.10%
Ag 328.068†	12385.8	0.0926055	mg/L	0.00236113	0.0926055	mg/L	0.00236113	2.55%
Al 308.215†	124931.4	4.74002	mg/L	0.122370	4.74002	mg/L	0.122370	2.58%
As 188.979†	538.4	0.463875	mg/L	0.0082973	0.463875	mg/L	0.0082973	1.79%
Ba 233.527†	58361.8	0.487024	mg/L	0.0131530	0.487024	mg/L	0.0131530	2.70%
Be 313.107†	1203533.2	0.474211	mg/L	0.0172635	0.474211	mg/L	0.0172635	3.64%
Ca 315.887†	4818652.3	48.1825	mg/L	1.75622	48.1825	mg/L	1.75622	3.64%
Cd 228.802†	18389.3	0.477757	mg/L	0.0133781	0.477757	mg/L	0.0133781	2.80%
Co 228.616†	16161.3	0.488183	mg/L	0.0130394	0.488183	mg/L	0.0130394	2.67%
Cr 267.716†	32311.4	0.482288	mg/L	0.0131480	0.482288	mg/L	0.0131480	2.73%
Cu 327.393†	57877.6	0.480069	mg/L	0.0116156	0.480069	mg/L	0.0116156	2.42%
Fe 273.955†	35987.6	4.81164	mg/L	0.113447	4.81164	mg/L	0.113447	2.36%
K 404.721†	4423.7	43.3093	mg/L	1.44225	43.3093	mg/L	1.44225	3.33%
Mg 279.077†	641707.3	48.0135	mg/L	1.81745	48.0135	mg/L	1.81745	3.79%
Mn 257.610†	189771.4	0.477808	mg/L	0.0126077	0.477808	mg/L	0.0126077	2.64%
Mo 202.031†	6286.6	0.475070	mg/L	0.0085956	0.475070	mg/L	0.0085956	1.81%
Na 330.237†	48957.3	45.8463	mg/L	1.16527	45.8463	mg/L	1.16527	2.54%
Ni 231.604†	20478.4	0.485917	mg/L	0.0132033	0.485917	mg/L	0.0132033	2.72%
Pb 220.353†	5159.8	0.479297	mg/L	0.0070985	0.479297	mg/L	0.0070985	1.48%
Sb 206.836†	513.8	0.470785	mg/L	0.0060190	0.470785	mg/L	0.0060190	1.28%
Se 196.026†	530.7	0.473620	mg/L	0.0098891	0.473620	mg/L	0.0098891	2.09%
Sn 189.927†	849.3	0.478106	mg/L	0.0058103	0.478106	mg/L	0.0058103	1.22%
Ti 334.940†	288304.4	0.487786	mg/L	0.0123502	0.487786	mg/L	0.0123502	2.53%
Tl 190.801†	490.5	0.503126	mg/L	0.0018757	0.503126	mg/L	0.0018757	0.37%
V 290.880†	64456.6	0.478429	mg/L	0.0122285	0.478429	mg/L	0.0122285	2.56%
Zn 206.200†	17951.3	0.485316	mg/L	0.0154394	0.485316	mg/L	0.0154394	3.18%

Sequence No.: 15  
 Sample ID: LCSW MR 11691  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 52  
 Date Collected: 12/13/2011 12:18:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSW MR 11691

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	956583.6	96.9	%	2.01				2.07%
Y 371.029	373662.7	94.5	%	1.78				1.89%
Ag 328.068†	12730.7	0.0951765	mg/L	0.00026878	0.0951765	mg/L	0.00026878	0.28%
Al 308.215†	127924.6	4.85350	mg/L	0.051322	4.85350	mg/L	0.051322	1.06%
As 188.979†	559.9	0.482444	mg/L	0.0087633	0.482444	mg/L	0.0087633	1.82%
Ba 233.527†	59665.9	0.497916	mg/L	0.0044684	0.497916	mg/L	0.0044684	0.90%
Be 313.107†	1248463.1	0.491899	mg/L	0.0124572	0.491899	mg/L	0.0124572	2.53%
Ca 315.887†	4995462.9	49.9518	mg/L	1.24093	49.9518	mg/L	1.24093	2.48%
Cd 228.802†	18754.8	0.487240	mg/L	0.0054599	0.487240	mg/L	0.0054599	1.12%
Co 228.616†	16514.3	0.498868	mg/L	0.0053560	0.498868	mg/L	0.0053560	1.07%
Cr 267.716†	33062.2	0.493528	mg/L	0.0047860	0.493528	mg/L	0.0047860	0.97%
Cu 327.393†	59104.7	0.490244	mg/L	0.0049500	0.490244	mg/L	0.0049500	1.01%
Fe 273.955†	36752.1	4.91422	mg/L	0.033535	4.91422	mg/L	0.033535	0.68%
K 404.721†	4676.1	45.7425	mg/L	0.49192	45.7425	mg/L	0.49192	1.08%
Mg 279.077†	666170.7	49.8482	mg/L	1.25826	49.8482	mg/L	1.25826	2.52%
Mn 257.610†	193921.7	0.488278	mg/L	0.0043583	0.488278	mg/L	0.0043583	0.89%
Mo 202.031†	6520.2	0.492714	mg/L	0.0114742	0.492714	mg/L	0.0114742	2.33%
Na 330.237†	49768.1	46.5953	mg/L	0.39135	46.5953	mg/L	0.39135	0.84%
Ni 231.604†	20910.2	0.496191	mg/L	0.0050003	0.496191	mg/L	0.0050003	1.01%
Pb 220.353†	5374.0	0.499202	mg/L	0.0096357	0.499202	mg/L	0.0096357	1.93%
Sb 206.836†	524.0	0.480252	mg/L	0.0139814	0.480252	mg/L	0.0139814	2.91%
Se 196.026†	551.5	0.491920	mg/L	0.0159984	0.491920	mg/L	0.0159984	3.25%
Sn 189.927†	871.9	0.490802	mg/L	0.0108127	0.490802	mg/L	0.0108127	2.20%
Ti 334.940†	294451.3	0.498189	mg/L	0.0131415	0.498189	mg/L	0.0131415	2.64%
Tl 190.801†	506.7	0.519767	mg/L	0.0155466	0.519767	mg/L	0.0155466	2.99%
V 290.880†	66136.1	0.490884	mg/L	0.0046282	0.490884	mg/L	0.0046282	0.94%
Zn 206.200†	18275.0	0.494046	mg/L	0.0050035	0.494046	mg/L	0.0050035	1.01%

Sequence No.: 16  
 Sample ID: 63111-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 53  
 Date Collected: 12/13/2011 12:21:50 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-047

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	998846.3	101	%	0.2				0.23%
Y 371.029	473984.7	120	%	0.4				0.36%
Ag 328.068†	-710.1	0.0076367	mg/L	0.00000905	0.0076367	mg/L	0.00000905	0.12%
Al 308.215†	2028804.2	77.1703	mg/L	0.05023	77.1703	mg/L	0.05023	0.07%
As 188.979†	610.3	0.558322	mg/L	0.0062272	0.558322	mg/L	0.0062272	1.12%
Ba 233.527†	654697.6	5.46745	mg/L	0.007854	5.46745	mg/L	0.007854	0.14%
Be 313.107†	16531.0	0.0052591	mg/L	0.00001268	0.0052591	mg/L	0.00001268	0.24%
Ca 315.887†	30854236.0	308.723	mg/L	0.1226	308.723	mg/L	0.1226	0.04%
Cd 228.802†	917.5	0.0205525	mg/L	0.00036048	0.0205525	mg/L	0.00036048	1.75%
Co 228.616†	2799.4	0.0808345	mg/L	0.00072355	0.0808345	mg/L	0.00072355	0.90%
Cr 267.716†	20150.7	0.308496	mg/L	0.0010340	0.308496	mg/L	0.0010340	0.34%
Cu 327.393†	500309.1	4.16168	mg/L	0.000425	4.16168	mg/L	0.000425	0.01%
Fe 273.955†	1756543.7	233.994	mg/L	0.2219	233.994	mg/L	0.2219	0.09%
K 404.721†	4523.6	44.2723	mg/L	0.03418	44.2723	mg/L	0.03418	0.08%
Mg 279.077†	807088.8	60.4167	mg/L	0.06412	60.4167	mg/L	0.06412	0.11%
Mn 257.610†	972479.9	2.46087	mg/L	0.001550	2.46087	mg/L	0.001550	0.06%
Mo 202.031†	480.5	0.0306644	mg/L	0.00034133	0.0306644	mg/L	0.00034133	1.11%
Na 330.237†	106616.4	99.1103	mg/L	0.26784	99.1103	mg/L	0.26784	0.27%
Ni 231.604†	7624.6	0.180151	mg/L	0.0000452	0.180151	mg/L	0.0000452	0.03%
Pb 220.353†	315240.6	29.2921	mg/L	0.02597	29.2921	mg/L	0.02597	0.09%
Sb 206.836†	148.9	0.183529	mg/L	0.0027378	0.183529	mg/L	0.0027378	1.49%
Se 196.026†	-18.0	0.0172546	mg/L	0.00461420	0.0172546	mg/L	0.00461420	26.74%
Sn 189.927†	17428.4	9.79657	mg/L	0.024002	9.79657	mg/L	0.024002	0.24%
Ti 334.940†	1491696.5	2.52450	mg/L	0.004551	2.52450	mg/L	0.004551	0.18%
Tl 190.801†	-13.0	0.0017902	mg/L	0.00281079	0.0017902	mg/L	0.00281079	157.01%
V 290.880†	35671.6	0.257318	mg/L	0.0004173	0.257318	mg/L	0.0004173	0.16%
Zn 206.200†	206266.5	5.59668	mg/L	0.005276	5.59668	mg/L	0.005276	0.09%

Sequence No.: 17

Autosampler Location: 54

Sample ID: 63111-048

Date Collected: 12/13/2011 12:25:48 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63111-048

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1039087.1	105 %		0.4				0.39%
Y 371.029	637818.8	161 %		0.2				0.12%
Ag 328.068†	-2628.3	0.0000380	mg/L	0.00028667	0.0000380	mg/L	0.00028667	754.34%
Al 308.215†	5248240.8	199.633	mg/L	1.4099	199.633	mg/L	1.4099	0.71%
As 188.979†	328.3	0.349227	mg/L	0.0010776	0.349227	mg/L	0.0010776	0.31%
Ba 233.527†	443568.5	3.70416	mg/L	0.027429	3.70416	mg/L	0.027429	0.74%
Be 313.107†	41298.8	0.0124973	mg/L	0.00020308	0.0124973	mg/L	0.00020308	1.62%
Ca 315.887†	Saturated3							
Cd 228.802†	802.0	0.0141961	mg/L	0.00033975	0.0141961	mg/L	0.00033975	2.39%
Co 228.616†	6237.1	0.179529	mg/L	0.0005937	0.179529	mg/L	0.0005937	0.33%
Cr 267.716†	40717.1	0.622974	mg/L	0.0044477	0.622974	mg/L	0.0044477	0.71%
Cu 327.393†	201242.5	1.67014	mg/L	0.014627	1.67014	mg/L	0.014627	0.88%
Fe 273.955†	3295302.4	438.964	mg/L	3.6272	438.964	mg/L	3.6272	0.83%
K 404.721†	5409.9	52.8184	mg/L	0.16752	52.8184	mg/L	0.16752	0.32%
Mg 279.077†	1035218.1	77.5258	mg/L	0.71529	77.5258	mg/L	0.71529	0.92%
Mn 257.610†	2793654.3	7.06039	mg/L	0.058915	7.06039	mg/L	0.058915	0.83%
Mo 202.031†	618.9	0.0493832	mg/L	0.00017518	0.0493832	mg/L	0.00017518	0.35%
Na 330.237†	66188.6	61.7642	mg/L	0.52333	61.7642	mg/L	0.52333	0.85%
Ni 231.604†	15380.5	0.364421	mg/L	0.0006452	0.364421	mg/L	0.0006452	0.18%
Pb 220.353†	96635.5	8.98895	mg/L	0.044682	8.98895	mg/L	0.044682	0.50%
Sb 206.836†	-77.3	0.0238527	mg/L	0.00165770	0.0238527	mg/L	0.00165770	6.95%
Se 196.026†	-12.4	0.0398476	mg/L	0.01200167	0.0398476	mg/L	0.01200167	30.12%
Sn 189.927†	2783.7	1.53909	mg/L	0.005792	1.53909	mg/L	0.005792	0.38%
Ti 334.940†	3571433.5	6.04440	mg/L	0.042017	6.04440	mg/L	0.042017	0.70%
Tl 190.801†	-40.3	-0.0125195	mg/L	0.00107308	-0.0125195	mg/L	0.00107308	8.57%
V 290.880†	91977.9	0.673535	mg/L	0.0060231	0.673535	mg/L	0.0060231	0.89%
Zn 206.200†	221762.6	6.01678	mg/L	0.030810	6.01678	mg/L	0.030810	0.51%

Sequence No.: 18  
 Sample ID: 63111-048 2D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 55  
 Date Collected: 12/13/2011 12:29:39 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-048 2D

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1007174.7	102 %		0.4			0.38%
Y 371.029	517749.8	131 %		0.4			0.33%
Ag 328.068†	-1280.2	0.0049939 mg/L		0.00038939	0.0049939 mg/L	0.00038939	7.80%
Al 308.215†	2916502.0	110.937 mg/L		0.0735	110.937 mg/L	0.0735	0.07%
As 188.979†	175.1	0.184903 mg/L		0.0021386	0.184903 mg/L	0.0021386	1.16%
Ba 233.527†	248930.9	2.07860 mg/L		0.000817	2.07860 mg/L	0.000817	0.04%
Be 313.107†	22871.0	0.0071662 mg/L		0.00003384	0.0071662 mg/L	0.00003384	0.47%
Ca 315.887†	47647565.8	476.776 mg/L		4.3490	476.776 mg/L	4.3490	0.91%
Cd 228.802†	421.1	0.0073626 mg/L		0.00007283	0.0073626 mg/L	0.00007283	0.99%
Co 228.616†	3488.6	0.100499 mg/L		0.0005897	0.100499 mg/L	0.0005897	0.59%
Cr 267.716†	22833.6	0.349772 mg/L		0.0007879	0.349772 mg/L	0.0007879	0.23%
Cu 327.393†	111191.1	0.916942 mg/L		0.0002480	0.916942 mg/L	0.0002480	0.03%
Fe 273.955†	1897082.3	252.708 mg/L		0.0696	252.708 mg/L	0.0696	0.03%
K 404.721†	2720.1	26.8813 mg/L		0.93421	26.8813 mg/L	0.93421	3.48%
Mg 279.077†	586926.0	43.9051 mg/L		0.04179	43.9051 mg/L	0.04179	0.10%
Mn 257.610†	1568693.0	3.96446 mg/L		0.000535	3.96446 mg/L	0.000535	0.01%
Mo 202.031†	418.2	0.0226814 mg/L		0.00058291	0.0226814 mg/L	0.00058291	2.57%
Na 330.237†	34926.3	32.8848 mg/L		0.11834	32.8848 mg/L	0.11834	0.36%
Ni 231.604†	8562.2	0.202423 mg/L		0.0000732	0.202423 mg/L	0.0000732	0.04%
Pb 220.353†	54841.9	5.09719 mg/L		0.009895	5.09719 mg/L	0.009895	0.19%
Sb 206.836†	-42.2	0.0174561 mg/L		0.00303694	0.0174561 mg/L	0.00303694	17.40%
Se 196.026†	-11.7	0.0214044 mg/L		0.00239954	0.0214044 mg/L	0.00239954	11.21%
Sn 189.927†	1567.2	0.871204 mg/L		0.0024976	0.871204 mg/L	0.0024976	0.29%
Ti 334.940†	1979223.8	3.34962 mg/L		0.004864	3.34962 mg/L	0.004864	0.15%
Tl 190.801†	-21.1	-0.0013311 mg/L		0.00315141	-0.0013311 mg/L	0.00315141	236.75%
V 290.880†	51535.3	0.376838 mg/L		0.0001509	0.376838 mg/L	0.0001509	0.04%
Zn 206.200†	125959.2	3.41728 mg/L		0.003316	3.41728 mg/L	0.003316	0.10%

Sequence No.: 19

Sample ID: 63111-048 4D

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 56

Date Collected: 12/13/2011 12:33:45 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63111-048 4D

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	994481.9		101 %	0.6				0.64%
Y 371.029	452870.8		115 %	0.6				0.55%
Ag 328.068†	-602.1	0.0035413	mg/L	0.00002996	0.0035413	mg/L	0.00002996	0.85%
Al 308.215†	1536643.2	58.4489	mg/L	0.12556	58.4489	mg/L	0.12556	0.21%
As 188.979†	95.1	0.100693	mg/L	0.0018608	0.100693	mg/L	0.0018608	1.85%
Ba 233.527†	132576.5	1.10684	mg/L	0.007260	1.10684	mg/L	0.007260	0.66%
Be 313.107†	11921.1	0.0039894	mg/L	0.00002805	0.0039894	mg/L	0.00002805	0.70%
Ca 315.887†	26159672.7	261.744	mg/L	1.3084	261.744	mg/L	1.3084	0.50%
Cd 228.802†	212.0	0.0038256	mg/L	0.00014266	0.0038256	mg/L	0.00014266	3.73%
Co 228.616†	1857.1	0.0535678	mg/L	0.00014824	0.0535678	mg/L	0.00014824	0.28%
Cr 267.716†	12158.6	0.186550	mg/L	0.0012568	0.186550	mg/L	0.0012568	0.67%
Cu 327.393†	58602.0	0.482779	mg/L	0.0027207	0.482779	mg/L	0.0027207	0.56%
Fe 273.955†	1031316.1	137.380	mg/L	0.0375	137.380	mg/L	0.0375	0.03%
K 404.721†	1158.3	11.8205	mg/L	0.80856	11.8205	mg/L	0.80856	6.84%
Mg 279.077†	318597.9	23.7811	mg/L	0.14412	23.7811	mg/L	0.14412	0.61%
Mn 257.610†	840017.0	2.12263	mg/L	0.001307	2.12263	mg/L	0.001307	0.06%
Mo 202.031†	284.4	0.0166158	mg/L	0.00025876	0.0166158	mg/L	0.00025876	1.56%
Na 330.237†	17769.6	17.0359	mg/L	0.11781	17.0359	mg/L	0.11781	0.69%
Ni 231.604†	4726.0	0.111276	mg/L	0.0007857	0.111276	mg/L	0.0007857	0.71%
Pb 220.353†	29725.5	2.76225	mg/L	0.018829	2.76225	mg/L	0.018829	0.68%
Sb 206.836†	-21.6	0.0097966	mg/L	0.00108999	0.0097966	mg/L	0.00108999	11.13%
Se 196.026†	1.9	0.0214183	mg/L	0.00115111	0.0214183	mg/L	0.00115111	5.37%
Sn 189.927†	846.9	0.471041	mg/L	0.0004065	0.471041	mg/L	0.0004065	0.09%
Ti 334.940†	1040570.5	1.76098	mg/L	0.003523	1.76098	mg/L	0.003523	0.20%
Tl 190.801†	-14.3	-0.0042714	mg/L	0.00072660	-0.0042714	mg/L	0.00072660	17.01%
V 290.880†	27569.7	0.201172	mg/L	0.0011671	0.201172	mg/L	0.0011671	0.58%
Zn 206.200†	68302.1	1.85283	mg/L	0.009886	1.85283	mg/L	0.009886	0.53%

Sequence No.: 20

Sample ID: 28525-001

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 30

Date Collected: 12/13/2011 12:37:49 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 28525-001

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	999703.6		101 %	2.8				2.79%
Y 371.029	403784.8		102 %	2.7				2.67%
Ag 328.068†	135.1	0.0012358	mg/L	0.00061652	0.0012358	mg/L	0.00061652	49.89%
Al 308.215†	-457.4	-0.0198503	mg/L	0.00624404	-0.0198503	mg/L	0.00624404	31.46%
As 188.979†	2.5	0.0026305	mg/L	0.00123580	0.0026305	mg/L	0.00123580	46.98%
Ba 233.527†	6.0	-0.0003457	mg/L	0.00038890	-0.0003457	mg/L	0.00038890	112.50%
Be 313.107†	50.9	0.0005733	mg/L	0.00003221	0.0005733	mg/L	0.00003221	5.62%
Ca 315.887†	667.3	-0.0315808	mg/L	0.01380277	-0.0315808	mg/L	0.01380277	43.71%
Cd 228.802†	-14.0	0.0002133	mg/L	0.00012051	0.0002133	mg/L	0.00012051	56.50%
Co 228.616†	-4.6	-0.0001012	mg/L	0.00007130	-0.0001012	mg/L	0.00007130	70.48%
Cr 267.716†	-72.5	-0.0007159	mg/L	0.00013258	-0.0007159	mg/L	0.00013258	18.52%
Cu 327.393†	167.5	0.0006392	mg/L	0.00027316	0.0006392	mg/L	0.00027316	42.74%
Fe 273.955†	42.0	0.0044385	mg/L	0.02137592	0.0044385	mg/L	0.02137592	481.60%
K 404.721†	-7.8	0.575955	mg/L	0.0067914	0.575955	mg/L	0.0067914	1.18%
Mg 279.077†	-8.5	-0.113529	mg/L	0.0224303	-0.113529	mg/L	0.0224303	19.76%
Mn 257.610†	-66.6	-0.0010141	mg/L	0.00017580	-0.0010141	mg/L	0.00017580	17.34%
Mo 202.031†	-1.4	-0.0000128	mg/L	0.00001835	-0.0000128	mg/L	0.00001835	143.35%
Na 330.237†	1.4	0.622082	mg/L	0.0141775	0.622082	mg/L	0.0141775	2.28%
Ni 231.604†	-6.7	-0.0011813	mg/L	0.00020945	-0.0011813	mg/L	0.00020945	17.73%
Pb 220.353†	34.8	0.0028463	mg/L	0.00035934	0.0028463	mg/L	0.00035934	12.62%
Sb 206.836†	-2.2	-0.0036228	mg/L	0.00628018	-0.0036228	mg/L	0.00628018	173.35%
Se 196.026†	-2.8	0.0024480	mg/L	0.00597334	0.0024480	mg/L	0.00597334	244.01%
Sn 189.927†	2.4	0.0017598	mg/L	0.00293405	0.0017598	mg/L	0.00293405	166.73%
Ti 334.940†	118.7	0.0000392	mg/L	0.00009449	0.0000392	mg/L	0.00009449	241.05%
Tl 190.801†	2.2	0.0013407	mg/L	0.00208341	0.0013407	mg/L	0.00208341	155.39%
V 290.880†	10.7	-0.0006266	mg/L	0.00076669	-0.0006266	mg/L	0.00076669	122.36%
Zn 206.200†	34.7	0.0004852	mg/L	0.00012700	0.0004852	mg/L	0.00012700	26.17%

Sequence No.: 21  
 Sample ID: ICESA V-127386  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/13/2011 12:41:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICESA V-127386

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	897713.6		90.9 %	0.33			0.37%
Y 371.029	347582.7		87.9 %	0.41			0.47%
Ag 328.068†	-998.3	0.0047895	mg/L	0.00014608	0.0047895	mg/L	0.00014608 3.05%
Al 308.215†	12582928.8	478.590	mg/L	0.3257	478.590	mg/L	0.3257 0.07%
QC value within limits for Al 308.215 Recovery = 95.72%							
As 188.979†	-29.2	-0.0012398	mg/L	0.00351665	-0.0012398	mg/L	0.00351665 283.65%
Ba 233.527†	256.4	0.0017454	mg/L	0.00009385	0.0017454	mg/L	0.00009385 5.38%
Be 313.107†	-1866.3	-0.0001825	mg/L	0.00004002	-0.0001825	mg/L	0.00004002 21.93%
Ca 315.887†	46794963.6	468.244	mg/L	0.0702	468.244	mg/L	0.0702 0.01%
QC value within limits for Ca 315.887 Recovery = 93.65%							
Cd 228.802†	136.3	0.0010969	mg/L	0.00025378	0.0010969	mg/L	0.00025378 23.14%
Co 228.616†	-102.1	0.0037979	mg/L	0.00027554	0.0037979	mg/L	0.00027554 7.26%
Cr 267.716†	142.1	0.0087883	mg/L	0.00045875	0.0087883	mg/L	0.00045875 5.22%
Cu 327.393†	1096.4	-0.0095314	mg/L	0.00114802	-0.0095314	mg/L	0.00114802 12.04%
Fe 273.955†	1381469.2	184.207	mg/L	0.1855	184.207	mg/L	0.1855 0.10%
QC value within limits for Fe 273.955 Recovery = 92.10%							
K 404.721†	-938.2	-8.39591	mg/L	1.494752	-8.39591	mg/L	1.494752 17.80%
Mg 279.077†	6558283.9	491.742	mg/L	0.9119	491.742	mg/L	0.9119 0.19%
QC value within limits for Mg 279.077 Recovery = 98.35%							
Mn 257.610†	-4015.1	-0.0026332	mg/L	0.00001751	-0.0026332	mg/L	0.00001751 0.67%
Mo 202.031†	121.1	0.0048620	mg/L	0.00090145	0.0048620	mg/L	0.00090145 18.54%
Na 330.237†	50.5	0.667489	mg/L	0.0345381	0.667489	mg/L	0.0345381 5.17%
Ni 231.604†	-17.2	-0.0014225	mg/L	0.00025357	-0.0014225	mg/L	0.00025357 17.82%
Pb 220.353†	-665.0	0.0040696	mg/L	0.00214774	0.0040696	mg/L	0.00214774 52.78%
Sb 206.836†	-95.7	0.0102185	mg/L	0.00301903	0.0102185	mg/L	0.00301903 29.54%
Se 196.026†	5.8	0.0007827	mg/L	0.00381469	0.0007827	mg/L	0.00381469 487.37%
Sn 189.927†	20.6	-0.0010214	mg/L	0.00265662	-0.0010214	mg/L	0.00265662 260.11%
Ti 334.940†	765.6	0.0011340	mg/L	0.00002036	0.0011340	mg/L	0.00002036 1.80%
Tl 190.801†	-12.2	-0.0006248	mg/L	0.00059030	-0.0006248	mg/L	0.00059030 94.48%
V 290.880†	6082.1	0.0092060	mg/L	0.00001052	0.0092060	mg/L	0.00001052 0.11%
Zn 206.200†	227.9	-0.0096758	mg/L	0.00002106	-0.0096758	mg/L	0.00002106 0.22%

All analyte(s) passed QC.

Sequence No.: 22  
 Sample ID: ICSAB V-127387  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/13/2011 12:46:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-127387

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	898891.1	91.0 %		0.59			0.64%
Y 371.029	349541.6	88.4 %		0.34			0.38%
Ag 328.068†	132498.4	0.999224 mg/L		0.0008194	0.999224 mg/L	0.0008194	0.08%
QC value within limits for Ag		328.068	Recovery = 99.92%				
Al 308.215†	12633423.0	480.511 mg/L		2.6995	480.511 mg/L	2.6995	0.56%
QC value within limits for Al		308.215	Recovery = 96.10%				
As 188.979†	1110.5	0.980232 mg/L		0.0022993	0.980232 mg/L	0.0022993	0.23%
QC value within limits for As		188.979	Recovery = 98.02%				
Ba 233.527†	59809.7	0.499117 mg/L		0.0009104	0.499117 mg/L	0.0009104	0.18%
QC value within limits for Ba		233.527	Recovery = 99.82%				
Be 313.107†	1243635.9	0.490353 mg/L		0.0015460	0.490353 mg/L	0.0015460	0.32%
QC value within limits for Be		313.107	Recovery = 98.07%				
Ca 315.887†	47221243.8	472.509 mg/L		1.8100	472.509 mg/L	1.8100	0.38%
QC value within limits for Ca		315.887	Recovery = 94.50%				
Cd 228.802†	38591.2	0.999084 mg/L		0.0003805	0.999084 mg/L	0.0003805	0.04%
QC value within limits for Cd		228.802	Recovery = 99.91%				
Co 228.616†	15550.3	0.476039 mg/L		0.0006375	0.476039 mg/L	0.0006375	0.13%
QC value within limits for Co		228.616	Recovery = 95.21%				
Cr 267.716†	32781.8	0.492513 mg/L		0.0002825	0.492513 mg/L	0.0002825	0.06%
QC value within limits for Cr		267.716	Recovery = 98.50%				
Cu 327.393†	61894.0	0.496890 mg/L		0.0006381	0.496890 mg/L	0.0006381	0.13%
QC value within limits for Cu		327.393	Recovery = 99.38%				
Fe 273.955†	1397846.6	186.391 mg/L		0.6971	186.391 mg/L	0.6971	0.37%
QC value within limits for Fe		273.955	Recovery = 93.20%				
K 404.721†	-815.0	-7.20695 mg/L		0.126568	-7.20695 mg/L	0.126568	1.76%
Mg 279.077†	6651883.6	498.761 mg/L		2.2574	498.761 mg/L	2.2574	0.45%
QC value within limits for Mg		279.077	Recovery = 99.75%				
Mn 257.610†	187610.3	0.480454 mg/L		0.0003500	0.480454 mg/L	0.0003500	0.07%
QC value within limits for Mn		257.610	Recovery = 96.09%				
Mo 202.031†	125.1	0.0050909 mg/L		0.00032446	0.0050909 mg/L	0.00032446	6.37%
Na 330.237†	215.8	0.820143 mg/L		0.0732020	0.820143 mg/L	0.0732020	8.93%
Ni 231.604†	39427.7	0.935690 mg/L		0.0003826	0.935690 mg/L	0.0003826	0.04%
QC value within limits for Ni		231.604	Recovery = 93.57%				
Pb 220.353†	9382.8	0.937911 mg/L		0.0044429	0.937911 mg/L	0.0044429	0.47%
QC value within limits for Pb		220.353	Recovery = 93.79%				
Sb 206.836†	948.0	0.966795 mg/L		0.0173432	0.966795 mg/L	0.0173432	1.79%
QC value within limits for Sb		206.836	Recovery = 96.68%				
Se 196.026†	1128.9	0.991673 mg/L		0.0004345	0.991673 mg/L	0.0004345	0.04%
QC value within limits for Se		196.026	Recovery = 99.17%				
Sn 189.927†	20.1	-0.0014125 mg/L		0.00184373	-0.0014125 mg/L	0.00184373	130.53%
Ti 334.940†	1025.3	0.0015735 mg/L		0.00008016	0.0015735 mg/L	0.00008016	5.09%
Tl 190.801†	904.9	0.938086 mg/L		0.0009979	0.938086 mg/L	0.0009979	0.11%
QC value within limits for Tl		190.801	Recovery = 93.81%				
V 290.880†	69223.6	0.480109 mg/L		0.0009012	0.480109 mg/L	0.0009012	0.19%
QC value within limits for V		290.880	Recovery = 96.02%				
Zn 206.200†	36004.3	0.961241 mg/L		0.0034705	0.961241 mg/L	0.0034705	0.36%
QC value within limits for Zn		206.200	Recovery = 96.12%				

All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: CCV V-128233  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/13/2011 12:52:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	944186.5	95.6 %		1.63			1.71%
Y 371.029	369415.1	93.5 %		1.60			1.72%
Ag 328.068†	13062.1	0.0976440 mg/L		0.00001674	0.0976440 mg/L	0.00001674	0.02%
QC value within limits for Ag	328.068	Recovery = 97.64%					
Al 308.215†	130146.8	4.93795 mg/L		0.005278	4.93795 mg/L	0.005278	0.11%
QC value within limits for Al	308.215	Recovery = 98.76%					
As 188.979†	564.5	0.486335 mg/L		0.0070949	0.486335 mg/L	0.0070949	1.46%
QC value within limits for As	188.979	Recovery = 97.27%					
Ba 233.527†	60846.2	0.507773 mg/L		0.0006520	0.507773 mg/L	0.0006520	0.13%
QC value within limits for Ba	233.527	Recovery = 101.55%					
Be 313.107†	1259437.0	0.496213 mg/L		0.0048597	0.496213 mg/L	0.0048597	0.98%
QC value within limits for Be	313.107	Recovery = 99.24%					
Ca 315.887†	5037339.9	50.3709 mg/L		0.50947	50.3709 mg/L	0.50947	1.01%
QC value within limits for Ca	315.887	Recovery = 100.74%					
Cd 228.802†	19140.4	0.497248 mg/L		0.0013568	0.497248 mg/L	0.0013568	0.27%
QC value within limits for Cd	228.802	Recovery = 99.45%					
Co 228.616†	16782.7	0.506958 mg/L		0.0007797	0.506958 mg/L	0.0007797	0.15%
QC value within limits for Co	228.616	Recovery = 101.39%					
Cr 267.716†	33688.1	0.502832 mg/L		0.0007012	0.502832 mg/L	0.0007012	0.14%
QC value within limits for Cr	267.716	Recovery = 100.57%					
Cu 327.393†	59728.2	0.495420 mg/L		0.0000577	0.495420 mg/L	0.0000577	0.01%
QC value within limits for Cu	327.393	Recovery = 99.08%					
Fe 273.955†	36970.6	4.94360 mg/L		0.013422	4.94360 mg/L	0.013422	0.27%
QC value within limits for Fe	273.955	Recovery = 98.87%					
K 404.721†	4763.3	46.5842 mg/L		0.50197	46.5842 mg/L	0.50197	1.08%
QC value within limits for K	404.721	Recovery = 93.17%					
Mg 279.077†	675491.4	50.5472 mg/L		0.49227	50.5472 mg/L	0.49227	0.97%
QC value within limits for Mg	279.077	Recovery = 101.09%					
Mn 257.610†	197831.3	0.498134 mg/L		0.0002908	0.498134 mg/L	0.0002908	0.06%
QC value within limits for Mn	257.610	Recovery = 99.63%					
Mo 202.031†	6581.4	0.497346 mg/L		0.0090393	0.497346 mg/L	0.0090393	1.82%
QC value within limits for Mo	202.031	Recovery = 99.47%					
Na 330.237†	50415.9	47.1938 mg/L		0.09190	47.1938 mg/L	0.09190	0.19%
QC value within limits for Na	330.237	Recovery = 94.39%					
Ni 231.604†	21410.6	0.508084 mg/L		0.0009924	0.508084 mg/L	0.0009924	0.20%
QC value within limits for Ni	231.604	Recovery = 101.62%					
Pb 220.353†	5392.2	0.500905 mg/L		0.0078416	0.500905 mg/L	0.0078416	1.57%
QC value within limits for Pb	220.353	Recovery = 100.18%					
Sb 206.836†	529.6	0.485381 mg/L		0.0097758	0.485381 mg/L	0.0097758	2.01%
QC value within limits for Sb	206.836	Recovery = 97.08%					
Se 196.026†	555.2	0.495240 mg/L		0.0111174	0.495240 mg/L	0.0111174	2.24%
QC value within limits for Se	196.026	Recovery = 99.05%					
Sn 189.927†	885.0	0.498163 mg/L		0.0110179	0.498163 mg/L	0.0110179	2.21%
QC value within limits for Sn	189.927	Recovery = 99.63%					
Ti 334.940†	301273.2	0.509735 mg/L		0.0000669	0.509735 mg/L	0.0000669	0.01%
QC value within limits for Ti	334.940	Recovery = 101.95%					
Tl 190.801†	512.9	0.526088 mg/L		0.0087436	0.526088 mg/L	0.0087436	1.66%
QC value within limits for Tl	190.801	Recovery = 105.22%					
V 290.880†	67295.5	0.499510 mg/L		0.0012944	0.499510 mg/L	0.0012944	0.26%
QC value within limits for V	290.880	Recovery = 99.90%					
Zn 206.200†	18664.8	0.504604 mg/L		0.0002125	0.504604 mg/L	0.0002125	0.04%
QC value within limits for Zn	206.200	Recovery = 100.92%					

All analyte(s) passed QC.

Sequence No.: 24  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/13/2011 12:55:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	976630.4	98.9 %		0.13			0.13%
Y 371.029	393621.3	99.6 %		0.11			0.11%
Ag 328.068†	36.2	0.0004985 mg/L		0.00013313	0.0004985 mg/L	0.00013313	26.71%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 308.215†	-266.2	-0.0125606 mg/L		0.00211308	-0.0125606 mg/L	0.00211308	16.82%
QC value within limits for Al 308.215 Recovery = Not calculated							
As 188.979†	-0.6	-0.0000016 mg/L		0.00184492	-0.0000016 mg/L	0.00184492	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated							
Ba 233.527†	-47.2	-0.0007902 mg/L		0.00007505	-0.0007902 mg/L	0.00007505	9.50%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	82.4	0.0005857 mg/L		0.00001490	0.0005857 mg/L	0.00001490	2.54%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 315.887†	888.0	-0.0293716 mg/L		0.00194354	-0.0293716 mg/L	0.00194354	6.62%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Cd 228.802†	5.5	0.0007207 mg/L		0.00021391	0.0007207 mg/L	0.00021391	29.68%
QC value within limits for Cd 228.802 Recovery = Not calculated							
Co 228.616†	4.6	0.0001737 mg/L		0.00022839	0.0001737 mg/L	0.00022839	131.46%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-54.0	-0.0004477 mg/L		0.00014370	-0.0004477 mg/L	0.00014370	32.10%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 327.393†	193.7	0.0008574 mg/L		0.00055661	0.0008574 mg/L	0.00055661	64.92%
QC value within limits for Cu 327.393 Recovery = Not calculated							
Fe 273.955†	-157.0	-0.0220714 mg/L		0.00237247	-0.0220714 mg/L	0.00237247	10.75%
QC value within limits for Fe 273.955 Recovery = Not calculated							
K 404.721†	119.5	1.80350 mg/L		0.479842	1.80350 mg/L	0.479842	26.61%
QC value within limits for K 404.721 Recovery = Not calculated							
Mg 279.077†	-156.6	-0.124631 mg/L		0.0107135	-0.124631 mg/L	0.0107135	8.60%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mn 257.610†	-72.4	-0.0010302 mg/L		0.00002485	-0.0010302 mg/L	0.00002485	2.41%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-10.7	-0.0007189 mg/L		0.00028661	-0.0007189 mg/L	0.00028661	39.87%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 330.237†	17.7	0.637113 mg/L		0.0522721	0.637113 mg/L	0.0522721	8.20%
QC value within limits for Na 330.237 Recovery = Not calculated							
Ni 231.604†	2.6	-0.0009604 mg/L		0.00023852	-0.0009604 mg/L	0.00023852	24.83%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb 220.353†	5.0	0.0000810 mg/L		0.00106137	0.0000810 mg/L	0.00106137	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb 206.836†	1.8	0.0000636 mg/L		0.00444666	0.0000636 mg/L	0.00444666	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-5.0	0.0004747 mg/L		0.00178736	0.0004747 mg/L	0.00178736	376.50%
QC value within limits for Se 196.026 Recovery = Not calculated							
Sn 189.927†	4.9	0.0031487 mg/L		0.00155668	0.0031487 mg/L	0.00155668	49.44%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti 334.940†	146.0	0.0000854 mg/L		0.00003951	0.0000854 mg/L	0.00003951	46.25%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.5	0.0036386 mg/L		0.00103914	0.0036386 mg/L	0.00103914	28.56%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 290.880†	20.2	-0.0005555 mg/L		0.00044029	-0.0005555 mg/L	0.00044029	79.26%
QC value within limits for V 290.880 Recovery = Not calculated							
Zn 206.200†	-9.4	-0.0007117 mg/L		0.00032783	-0.0007117 mg/L	0.00032783	46.06%
QC value within limits for Zn 206.200 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 25  
 Sample ID: MB 11681 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 12/13/2011 12:59:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: MB 11681 (1)

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1012926.3		103 %	1.2				1.13%
Y 371.029	402494.9		102 %	1.0				1.02%
Ag 328.068†	96.0	0.0009533	mg/L	0.00006965	0.0009533	mg/L	0.00006965	7.31%
Al 308.215†	-88.4	-0.0058101	mg/L	0.00138592	-0.0058101	mg/L	0.00138592	23.85%
As 188.979†	2.5	0.0026371	mg/L	0.00083946	0.0026371	mg/L	0.00083946	31.83%
Ba 233.527†	119.3	0.0006005	mg/L	0.00016903	0.0006005	mg/L	0.00016903	28.15%
Be 313.107†	127.7	0.0006036	mg/L	0.00003867	0.0006036	mg/L	0.00003867	6.41%
Ca 315.887†	95917.9	0.921601	mg/L	0.0031742	0.921601	mg/L	0.0031742	0.34%
Cd 228.802†	-5.0	0.0004469	mg/L	0.00008603	0.0004469	mg/L	0.00008603	19.25%
Co 228.616†	-8.6	-0.0002207	mg/L	0.00015597	-0.0002207	mg/L	0.00015597	70.68%
Cr 267.716†	-52.1	-0.0004121	mg/L	0.00010849	-0.0004121	mg/L	0.00010849	26.33%
Cu 327.393†	316.4	0.0018687	mg/L	0.00036113	0.0018687	mg/L	0.00036113	19.32%
Fe 273.955†	432.9	0.0565260	mg/L	0.00321836	0.0565260	mg/L	0.00321836	5.69%
K 404.721†	13.1	0.777945	mg/L	0.4929380	0.777945	mg/L	0.4929380	63.36%
Mg 279.077†	720.1	-0.0588844	mg/L	0.00316292	-0.0588844	mg/L	0.00316292	5.37%
Mn 257.610†	227.0	-0.0002719	mg/L	0.00005852	-0.0002719	mg/L	0.00005852	21.52%
Mo 202.031†	-3.3	-0.0001737	mg/L	0.00021822	-0.0001737	mg/L	0.00021822	125.62%
Na 330.237†	40.6	0.658340	mg/L	0.0432991	0.658340	mg/L	0.0432991	6.58%
Ni 231.604†	24.4	-0.0004430	mg/L	0.00008596	-0.0004430	mg/L	0.00008596	19.40%
Pb 220.353†	5.3	0.0000974	mg/L	0.00057538	0.0000974	mg/L	0.00057538	590.68%
Sb 206.836†	-2.2	-0.0035711	mg/L	0.00116181	-0.0035711	mg/L	0.00116181	32.53%
Se 196.026†	-1.4	0.0037327	mg/L	0.00328666	0.0037327	mg/L	0.00328666	88.05%
Sn 189.927†	1.3	0.0011366	mg/L	0.00069973	0.0011366	mg/L	0.00069973	61.56%
Ti 334.940†	99.4	0.0000065	mg/L	0.00012628	0.0000065	mg/L	0.00012628	>999.9%
Tl 190.801†	2.9	0.0020466	mg/L	0.00088484	0.0020466	mg/L	0.00088484	43.24%
V 290.880†	-94.5	-0.0014172	mg/L	0.00061260	-0.0014172	mg/L	0.00061260	43.23%
Zn 206.200†	152.1	0.0036696	mg/L	0.00030091	0.0036696	mg/L	0.00030091	8.20%

Sequence No.: 26

Sample ID: LCSW 11681

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 12/13/2011 1:02:58 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW 11681

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	976761.0	98.9 %		0.25				0.25%
Y 371.029	381694.3	96.6 %		0.22				0.23%
Ag 328.068†	12032.8	0.0899853	mg/L	0.00013795	0.0899853	mg/L	0.00013795	0.15%
Al 308.215†	122597.8	4.65158	mg/L	0.032607	4.65158	mg/L	0.032607	0.70%
As 188.979†	528.3	0.455226	mg/L	0.0087220	0.455226	mg/L	0.0087220	1.92%
Ba 233.527†	57305.6	0.478203	mg/L	0.0029966	0.478203	mg/L	0.0029966	0.63%
Be 313.107†	1176544.4	0.463590	mg/L	0.0041623	0.463590	mg/L	0.0041623	0.90%
Ca 315.887†	4836876.4	48.3648	mg/L	0.43487	48.3648	mg/L	0.43487	0.90%
Cd 228.802†	17964.0	0.466720	mg/L	0.0032895	0.466720	mg/L	0.0032895	0.70%
Co 228.616†	15817.5	0.477785	mg/L	0.0037820	0.477785	mg/L	0.0037820	0.79%
Cr 267.716†	31668.3	0.472660	mg/L	0.0036434	0.472660	mg/L	0.0036434	0.77%
Cu 327.393†	56793.6	0.471051	mg/L	0.0033849	0.471051	mg/L	0.0033849	0.72%
Fe 273.955†	35387.4	4.73137	mg/L	0.025908	4.73137	mg/L	0.025908	0.55%
K 404.721†	4454.8	43.6085	mg/L	0.01407	43.6085	mg/L	0.01407	0.03%
Mg 279.077†	630744.4	47.1913	mg/L	0.43963	47.1913	mg/L	0.43963	0.93%
Mn 257.610†	185926.1	0.468108	mg/L	0.0028671	0.468108	mg/L	0.0028671	0.61%
Mo 202.031†	6082.6	0.459616	mg/L	0.0062465	0.459616	mg/L	0.0062465	1.36%
Na 330.237†	47305.2	44.3202	mg/L	0.33044	44.3202	mg/L	0.33044	0.75%
Ni 231.604†	20127.7	0.477571	mg/L	0.0024215	0.477571	mg/L	0.0024215	0.51%
Pb 220.353†	5052.0	0.469257	mg/L	0.0081474	0.469257	mg/L	0.0081474	1.74%
Sb 206.836†	491.1	0.449976	mg/L	0.0045549	0.449976	mg/L	0.0045549	1.01%
Se 196.026†	521.0	0.465057	mg/L	0.0077575	0.465057	mg/L	0.0077575	1.67%
Sn 189.927†	822.6	0.463082	mg/L	0.0038003	0.463082	mg/L	0.0038003	0.82%
Ti 334.940†	281309.5	0.475947	mg/L	0.0033336	0.475947	mg/L	0.0033336	0.70%
Tl 190.801†	477.4	0.489629	mg/L	0.0092835	0.489629	mg/L	0.0092835	1.90%
V 290.880†	63285.0	0.469704	mg/L	0.0032791	0.469704	mg/L	0.0032791	0.70%
Zn 206.200†	17655.5	0.477314	mg/L	0.0022848	0.477314	mg/L	0.0022848	0.48%

Sequence No.: 27  
 Sample ID: LCSW MR 11681  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 40  
 Date Collected: 12/13/2011 1:06:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW MR 11681

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.		
Sc 361.383	970625.6	98.3 %	%	0.85				0.87%
Y 371.029	378955.5	95.9 %	%	0.71				0.74%
Ag 328.068†	12242.2	0.0915511	mg/L	0.00066452	0.0915511	mg/L	0.00066452	0.73%
Al 308.215†	125168.1	4.74910	mg/L	0.023086	4.74910	mg/L	0.023086	0.49%
As 188.979†	540.2	0.465432	mg/L	0.0067213	0.465432	mg/L	0.0067213	1.44%
Ba 233.527†	58662.4	0.489535	mg/L	0.0000815	0.489535	mg/L	0.0000815	0.02%
Be 313.107†	1216864.1	0.479464	mg/L	0.0049573	0.479464	mg/L	0.0049573	1.03%
Ca 315.887†	5002313.9	50.0204	mg/L	0.47153	50.0204	mg/L	0.47153	0.94%
Cd 228.802†	18380.0	0.477514	mg/L	0.0011181	0.477514	mg/L	0.0011181	0.23%
Co 228.616†	16242.8	0.490637	mg/L	0.0000839	0.490637	mg/L	0.0000839	0.02%
Cr 267.716†	32458.4	0.484443	mg/L	0.0017266	0.484443	mg/L	0.0017266	0.36%
Cu 327.393†	58008.1	0.481124	mg/L	0.0022670	0.481124	mg/L	0.0022670	0.47%
Fe 273.955†	36141.1	4.83249	mg/L	0.000382	4.83249	mg/L	0.000382	0.01%
K 404.721†	4524.0	44.2763	mg/L	0.30097	44.2763	mg/L	0.30097	0.68%
Mg 279.077†	654836.8	48.9982	mg/L	0.42518	48.9982	mg/L	0.42518	0.87%
Mn 257.610†	190235.5	0.478977	mg/L	0.0005963	0.478977	mg/L	0.0005963	0.12%
Mo 202.031†	6235.0	0.471125	mg/L	0.0069192	0.471125	mg/L	0.0069192	1.47%
Na 330.237†	48513.4	45.4363	mg/L	0.04559	45.4363	mg/L	0.04559	0.10%
Ni 231.604†	20661.6	0.490267	mg/L	0.0000401	0.490267	mg/L	0.0000401	0.01%
Pb 220.353†	5180.5	0.481193	mg/L	0.0064810	0.481193	mg/L	0.0064810	1.35%
Sb 206.836†	502.8	0.460747	mg/L	0.0057268	0.460747	mg/L	0.0057268	1.24%
Se 196.026†	528.2	0.471366	mg/L	0.0007721	0.471366	mg/L	0.0007721	0.16%
Sn 189.927†	839.8	0.472728	mg/L	0.0092311	0.472728	mg/L	0.0092311	1.95%
Ti 334.940†	286124.3	0.484096	mg/L	0.0053538	0.484096	mg/L	0.0053538	1.11%
Tl 190.801†	490.4	0.502976	mg/L	0.0086601	0.502976	mg/L	0.0086601	1.72%
V 290.880†	64721.8	0.480339	mg/L	0.0010886	0.480339	mg/L	0.0010886	0.23%
Zn 206.200†	18145.6	0.490559	mg/L	0.0018986	0.490559	mg/L	0.0018986	0.39%

Sequence No.: 28

Autosampler Location: 6

Sample ID: CCV V-128233

Date Collected: 12/13/2011 1:10:32 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	947505.5	96.0 %		0.05			0.05%
Y 371.029	369923.0	93.6 %		0.02			0.03%
Ag 328.068†	12950.2	0.0968091 mg/L		0.00099016	0.0968091 mg/L	0.00099016	1.02%
QC value within limits for Ag		328.068	Recovery = 96.81%				
Al 308.215†	130010.3	4.93274 mg/L		0.047305	4.93274 mg/L	0.047305	0.96%
QC value within limits for Al		308.215	Recovery = 98.65%				
As 188.979†	565.2	0.486988 mg/L		0.0007362	0.486988 mg/L	0.0007362	0.15%
QC value within limits for As		188.979	Recovery = 97.40%				
Ba 233.527†	60735.9	0.506853 mg/L		0.0050308	0.506853 mg/L	0.0050308	0.99%
QC value within limits for Ba		233.527	Recovery = 101.37%				
Be 313.107†	1251883.2	0.493243 mg/L		0.0005657	0.493243 mg/L	0.0005657	0.11%
QC value within limits for Be		313.107	Recovery = 98.65%				
Ca 315.887†	5013103.2	50.1284 mg/L		0.08494	50.1284 mg/L	0.08494	0.17%
QC value within limits for Ca		315.887	Recovery = 100.26%				
Cd 228.802†	19153.1	0.497577 mg/L		0.0040069	0.497577 mg/L	0.0040069	0.81%
QC value within limits for Cd		228.802	Recovery = 99.52%				
Co 228.616†	16804.7	0.507636 mg/L		0.0050669	0.507636 mg/L	0.0050669	1.00%
QC value within limits for Co		228.616	Recovery = 101.53%				
Cr 267.716†	33628.7	0.501952 mg/L		0.0060135	0.501952 mg/L	0.0060135	1.20%
QC value within limits for Cr		267.716	Recovery = 100.39%				
Cu 327.393†	59661.5	0.494872 mg/L		0.0060214	0.494872 mg/L	0.0060214	1.22%
QC value within limits for Cu		327.393	Recovery = 98.97%				
Fe 273.955†	36947.3	4.94044 mg/L		0.056389	4.94044 mg/L	0.056389	1.14%
QC value within limits for Fe		273.955	Recovery = 98.81%				
K 404.721†	4759.1	46.5433 mg/L		0.32153	46.5433 mg/L	0.32153	0.69%
QC value within limits for K		404.721	Recovery = 93.09%				
Mg 279.077†	673795.9	50.4201 mg/L		0.11334	50.4201 mg/L	0.11334	0.22%
QC value within limits for Mg		279.077	Recovery = 100.84%				
Mn 257.610†	197612.0	0.497581 mg/L		0.0055226	0.497581 mg/L	0.0055226	1.11%
QC value within limits for Mn		257.610	Recovery = 99.52%				
Mo 202.031†	6580.7	0.497297 mg/L		0.0013847	0.497297 mg/L	0.0013847	0.28%
QC value within limits for Mo		202.031	Recovery = 99.46%				
Na 330.237†	50614.7	47.3774 mg/L		0.30933	47.3774 mg/L	0.30933	0.65%
QC value within limits for Na		330.237	Recovery = 94.75%				
Ni 231.604†	21339.3	0.506390 mg/L		0.0057790	0.506390 mg/L	0.0057790	1.14%
QC value within limits for Ni		231.604	Recovery = 101.28%				
Pb 220.353†	5408.4	0.502407 mg/L		0.0018251	0.502407 mg/L	0.0018251	0.36%
QC value within limits for Pb		220.353	Recovery = 100.48%				
Sb 206.836†	533.3	0.488744 mg/L		0.0004429	0.488744 mg/L	0.0004429	0.09%
QC value within limits for Sb		206.836	Recovery = 97.75%				
Se 196.026†	562.1	0.501334 mg/L		0.0069608	0.501334 mg/L	0.0069608	1.39%
QC value within limits for Se		196.026	Recovery = 100.27%				
Sn 189.927†	890.2	0.501100 mg/L		0.0023737	0.501100 mg/L	0.0023737	0.47%
QC value within limits for Sn		189.927	Recovery = 100.22%				
Ti 334.940†	296911.6	0.502353 mg/L		0.0000714	0.502353 mg/L	0.0000714	0.01%
QC value within limits for Ti		334.940	Recovery = 100.47%				
Tl 190.801†	514.0	0.527225 mg/L		0.0030015	0.527225 mg/L	0.0030015	0.57%
QC value within limits for Tl		190.801	Recovery = 105.44%				
V 290.880†	67193.8	0.498754 mg/L		0.0055504	0.498754 mg/L	0.0055504	1.11%
QC value within limits for V		290.880	Recovery = 99.75%				
Zn 206.200†	18661.0	0.504504 mg/L		0.0071693	0.504504 mg/L	0.0071693	1.42%
QC value within limits for Zn		206.200	Recovery = 100.90%				

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/13/2011 1:14:18 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	981402.7	99.4 %		0.91			0.91%
Y 371.029	395686.8	100 %		0.9			0.88%
Ag 328.068†	24.6	0.0004122 mg/L		0.00022033	0.0004122 mg/L	0.00022033	53.46%
QC value within limits for Ag 328.068							Recovery = Not calculated
Al 308.215†	-384.1	-0.0170633 mg/L		0.00308098	-0.0170633 mg/L	0.00308098	18.06%
QC value within limits for Al 308.215							Recovery = Not calculated
As 188.979†	-2.1	-0.0013036 mg/L		0.00071469	-0.0013036 mg/L	0.00071469	54.82%
QC value within limits for As 188.979							Recovery = Not calculated
Ba 233.527†	-17.1	-0.0005390 mg/L		0.00001674	-0.0005390 mg/L	0.00001674	3.11%
QC value within limits for Ba 233.527							Recovery = Not calculated
Be 313.107†	88.1	0.0005879 mg/L		0.00004300	0.0005879 mg/L	0.00004300	7.31%
QC value within limits for Be 313.107							Recovery = Not calculated
Ca 315.887†	742.7	-0.0308259 mg/L		0.00395036	-0.0308259 mg/L	0.00395036	12.82%
QC value within limits for Ca 315.887							Recovery = Not calculated
Cd 228.802†	-5.3	0.0004388 mg/L		0.00020117	0.0004388 mg/L	0.00020117	45.85%
QC value within limits for Cd 228.802							Recovery = Not calculated
Co 228.616†	-5.4	-0.0001257 mg/L		0.00002643	-0.0001257 mg/L	0.00002643	21.02%
QC value within limits for Co 228.616							Recovery = Not calculated
Cr 267.716†	-49.1	-0.0003700 mg/L		0.00003686	-0.0003700 mg/L	0.00003686	9.96%
QC value within limits for Cr 267.716							Recovery = Not calculated
Cu 327.393†	218.1	0.0010612 mg/L		0.00002481	0.0010612 mg/L	0.00002481	2.34%
QC value within limits for Cu 327.393							Recovery = Not calculated
Fe 273.955†	-35.9	-0.0059492 mg/L		0.00407059	-0.0059492 mg/L	0.00407059	68.42%
QC value within limits for Fe 273.955							Recovery = Not calculated
K 404.721†	-48.6	0.182774 mg/L		0.4445016	0.182774 mg/L	0.4445016	243.20%
QC value within limits for K 404.721							Recovery = Not calculated
Mg 279.077†	-118.3	-0.121764 mg/L		0.0075215	-0.121764 mg/L	0.0075215	6.18%
QC value within limits for Mg 279.077							Recovery = Not calculated
Mn 257.610†	-6.3	-0.0008626 mg/L		0.00006642	-0.0008626 mg/L	0.00006642	7.70%
QC value within limits for Mn 257.610							Recovery = Not calculated
Mo 202.031†	-0.7	0.0000403 mg/L		0.00020946	0.0000403 mg/L	0.00020946	519.89%
QC value within limits for Mo 202.031							Recovery = Not calculated
Na 330.237†	-32.2	0.591012 mg/L		0.0146669	0.591012 mg/L	0.0146669	2.48%
QC value within limits for Na 330.237							Recovery = Not calculated
Ni 231.604†	-4.3	-0.0011227 mg/L		0.00020346	-0.0011227 mg/L	0.00020346	18.12%
QC value within limits for Ni 231.604							Recovery = Not calculated
Pb 220.353†	-6.5	-0.0009942 mg/L		0.00078240	-0.0009942 mg/L	0.00078240	78.70%
QC value within limits for Pb 220.353							Recovery = Not calculated
Sb 206.836†	-2.1	-0.0035348 mg/L		0.00342007	-0.0035348 mg/L	0.00342007	96.75%
QC value within limits for Sb 206.836							Recovery = Not calculated
Se 196.026†	1.3	0.0061018 mg/L		0.00276682	0.0061018 mg/L	0.00276682	45.34%
QC value within limits for Se 196.026							Recovery = Not calculated
Sn 189.927†	3.8	0.0025381 mg/L		0.00366215	0.0025381 mg/L	0.00366215	144.29%
QC value within limits for Sn 189.927							Recovery = Not calculated
Ti 334.940†	168.9	0.0001241 mg/L		0.00009794	0.0001241 mg/L	0.00009794	78.95%
QC value within limits for Ti 334.940							Recovery = Not calculated
Tl 190.801†	1.0	0.0001006 mg/L		0.00057535	0.0001006 mg/L	0.00057535	571.91%
QC value within limits for Tl 190.801							Recovery = Not calculated
V 290.880†	-2.1	-0.0007212 mg/L		0.00002679	-0.0007212 mg/L	0.00002679	3.71%
QC value within limits for V 290.880							Recovery = Not calculated
Zn 206.200†	-12.2	-0.0007882 mg/L		0.00011180	-0.0007882 mg/L	0.00011180	14.18%
QC value within limits for Zn 206.200							Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 30  
 Sample ID: 63081-011  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 12/13/2011 1:17:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-011

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1061172.2		107 %	2.6			2.40%	
Y 371.029	685205.6		173 %	3.0			1.72%	
Ag 328.068†	-2328.0	0.0074324	mg/L	0.00056342	0.0074324	mg/L	0.00056342	7.58%
Al 308.215†	4978855.3	189.380	mg/L	5.1995	189.380	mg/L	5.1995	2.75%
As 188.979†	330.1	0.356087	mg/L	0.0103439	0.356087	mg/L	0.0103439	2.90%
Ba 233.527†	713531.3	5.95881	mg/L	0.164840	5.95881	mg/L	0.164840	2.77%
Be 313.107†	44643.7	0.0151971	mg/L	0.00020734	0.0151971	mg/L	0.00020734	1.36%
Ca 315.887†	34928096.9	349.491	mg/L	13.9642	349.491	mg/L	13.9642	4.00%
Cd 228.802†	801.4	0.0132438	mg/L	0.00039443	0.0132438	mg/L	0.00039443	2.98%
Co 228.616†	6641.1	0.195422	mg/L	0.0051027	0.195422	mg/L	0.0051027	2.61%
Cr 267.716†	31576.4	0.489524	mg/L	0.0100689	0.489524	mg/L	0.0100689	2.06%
Cu 327.393†	375487.4	3.11917	mg/L	0.056517	3.11917	mg/L	0.056517	1.81%
Fe 273.955†	3724193.1	496.083	mg/L	13.5942	496.083	mg/L	13.5942	2.74%
K 404.721†	4036.1	39.5718	mg/L	2.77336	39.5718	mg/L	2.77336	7.01%
Mg 279.077†	726967.6	54.4078	mg/L	1.00668	54.4078	mg/L	1.00668	1.85%
Mn 257.610†	2613325.9	6.60847	mg/L	0.180780	6.60847	mg/L	0.180780	2.74%
Mo 202.031†	1136.7	0.0808235	mg/L	0.00155043	0.0808235	mg/L	0.00155043	1.92%
Na 330.237†	41562.3	39.0150	mg/L	0.80572	39.0150	mg/L	0.80572	2.07%
Ni 231.604†	17710.2	0.419803	mg/L	0.0120548	0.419803	mg/L	0.0120548	2.87%
Pb 220.353†	185228.1	17.2145	mg/L	0.32072	17.2145	mg/L	0.32072	1.86%
Sb 206.836†	-69.3	0.0413107	mg/L	0.00234758	0.0413107	mg/L	0.00234758	5.68%
Se 196.026†	-39.5	0.0259585	mg/L	0.00260256	0.0259585	mg/L	0.00260256	10.03%
Sn 189.927†	7025.8	3.92871	mg/L	0.113503	3.92871	mg/L	0.113503	2.89%
Ti 334.940†	2428968.6	4.11080	mg/L	0.127617	4.11080	mg/L	0.127617	3.10%
Tl 190.801†	-31.8	-0.0088202	mg/L	0.00040906	-0.0088202	mg/L	0.00040906	4.64%
V 290.880†	100019.3	0.732159	mg/L	0.0146010	0.732159	mg/L	0.0146010	1.99%
Zn 206.200†	210567.7	5.71362	mg/L	0.107812	5.71362	mg/L	0.107812	1.89%

Sequence No.: 31  
 Sample ID: 63081-011 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 42  
 Date Collected: 12/13/2011 1:21:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-011 MR

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1072778.0	109 %		1.5			1.36%
Y 371.029	668819.0	169 %		0.7			0.39%
Ag 328.068†	-2016.3	0.0071168 mg/L		0.00062404	0.0071168 mg/L	0.00062404	8.77%
Al 308.215†	4394016.5	167.134 mg/L		2.6550	167.134 mg/L	2.6550	1.59%
As 188.979†	302.0	0.323513 mg/L		0.0141049	0.323513 mg/L	0.0141049	4.36%
Ba 233.527†	642846.5	5.36847 mg/L		0.092905	5.36847 mg/L	0.092905	1.73%
Be 313.107†	40132.7	0.0138081 mg/L		0.00025914	0.0138081 mg/L	0.00025914	1.88%
Ca 315.887†	33908085.5	339.283 mg/L		8.0113	339.283 mg/L	8.0113	2.36%
Cd 228.802†	719.6	0.0120454 mg/L		0.00069586	0.0120454 mg/L	0.00069586	5.78%
Co 228.616†	5863.5	0.172670 mg/L		0.0006812	0.172670 mg/L	0.0006812	0.39%
Cr 267.716†	28124.4	0.436055 mg/L		0.0067820	0.436055 mg/L	0.0067820	1.56%
Cu 327.393†	318132.9	2.64194 mg/L		0.047859	2.64194 mg/L	0.047859	1.81%
Fe 273.955†	3300538.6	439.650 mg/L		6.0986	439.650 mg/L	6.0986	1.39%
K 404.721†	3931.8	38.5654 mg/L		0.77579	38.5654 mg/L	0.77579	2.01%
Mg 279.077†	673867.8	50.4255 mg/L		0.83225	50.4255 mg/L	0.83225	1.65%
Mn 257.610†	2369758.3	5.99201 mg/L		0.084979	5.99201 mg/L	0.084979	1.42%
Mo 202.031†	1046.9	0.0739765 mg/L		0.00060485	0.0739765 mg/L	0.00060485	0.82%
Na 330.237†	40226.2	37.7807 mg/L		0.66532	37.7807 mg/L	0.66532	1.76%
Ni 231.604†	15362.9	0.364032 mg/L		0.0026867	0.364032 mg/L	0.0026867	0.74%
Pb 220.353†	166095.4	15.4359 mg/L		0.24989	15.4359 mg/L	0.24989	1.62%
Sb 206.836†	-51.9	0.0452470 mg/L		0.00125097	0.0452470 mg/L	0.00125097	2.76%
Se 196.026†	-36.6	0.0221440 mg/L		0.00965782	0.0221440 mg/L	0.00965782	43.61%
Sn 189.927†	5892.4	3.29419 mg/L		0.023680	3.29419 mg/L	0.023680	0.72%
Ti 334.940†	2108617.5	3.56862 mg/L		0.057044	3.56862 mg/L	0.057044	1.60%
Tl 190.801†	-31.4	-0.0114026 mg/L		0.00311540	-0.0114026 mg/L	0.00311540	27.32%
V 290.880†	90297.2	0.660966 mg/L		0.0111328	0.660966 mg/L	0.0111328	1.68%
Zn 206.200†	190775.7	5.17650 mg/L		0.082446	5.17650 mg/L	0.082446	1.59%

Sequence No.: 32  
 Sample ID: 63081-011 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 43  
 Date Collected: 12/13/2011 1:26:05 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 MS 1

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1041157.1	105 %		0.6			0.60%
Y 371.029	673119.7	170 %		0.2			0.12%
Ag 328.068†	9216.0	0.0907843 mg/L		0.00007042	0.0907843 mg/L	0.00007042	0.08%
Al 308.215†	5052416.9	192.169 mg/L		0.5588	192.169 mg/L	0.5588	0.29%
As 188.979†	794.7	0.747237 mg/L		0.0016865	0.747237 mg/L	0.0016865	0.23%
Ba 233.527†	689360.0	5.75694 mg/L		0.009733	5.75694 mg/L	0.009733	0.17%
Be 313.107†	1135594.7	0.444836 mg/L		0.0007326	0.444836 mg/L	0.0007326	0.16%
Ca 315.887†	38280687.3	383.040 mg/L		1.6100	383.040 mg/L	1.6100	0.42%
Cd 228.802†	17448.1	0.446169 mg/L		0.0002103	0.446169 mg/L	0.0002103	0.05%
Co 228.616†	20136.2	0.603699 mg/L		0.0005988	0.603699 mg/L	0.0005988	0.10%
Cr 267.716†	59093.2	0.897487 mg/L		0.0036005	0.897487 mg/L	0.0036005	0.40%
Cu 327.393†	365024.9	3.03105 mg/L		0.019268	3.03105 mg/L	0.019268	0.64%
Fe 273.955†	3314423.5	441.517 mg/L		0.4496	441.517 mg/L	0.4496	0.10%
K 404.721†	9251.9	89.8667 mg/L		0.51214	89.8667 mg/L	0.51214	0.57%
Mg 279.077†	1250376.9	93.6622 mg/L		0.14745	93.6622 mg/L	0.14745	0.16%
Mn 257.610†	2553797.1	6.45606 mg/L		0.006469	6.45606 mg/L	0.006469	0.10%
Mo 202.031†	6265.1	0.468401 mg/L		0.0003835	0.468401 mg/L	0.0003835	0.08%
Na 330.237†	91678.5	85.3111 mg/L		0.64808	85.3111 mg/L	0.64808	0.76%
Ni 231.604†	34414.8	0.817008 mg/L		0.0039354	0.817008 mg/L	0.0039354	0.48%
Pb 220.353†	169403.7	15.7475 mg/L		0.07380	15.7475 mg/L	0.07380	0.47%
Sb 206.836†	253.3	0.328869 mg/L		0.0005805	0.328869 mg/L	0.0005805	0.18%
Se 196.026†	399.5	0.405005 mg/L		0.0016469	0.405005 mg/L	0.0016469	0.41%
Sn 189.927†	6285.6	3.51485 mg/L		0.009301	3.51485 mg/L	0.009301	0.26%
Ti 334.940†	2452429.0	4.15051 mg/L		0.006389	4.15051 mg/L	0.006389	0.15%
Tl 190.801†	369.7	0.401964 mg/L		0.0028184	0.401964 mg/L	0.0028184	0.70%
V 290.880†	152204.1	1.12140 mg/L		0.006614	1.12140 mg/L	0.006614	0.59%
Zn 206.200†	207568.7	5.63098 mg/L		0.024050	5.63098 mg/L	0.024050	0.43%

Sequence No.: 33

Autosampler Location: 44

Sample ID: 63081-011 MS 2

Date Collected: 12/13/2011 1:30:24 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63081-011 MS 2

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
Sc 361.383	1054053.1	107 %	%	0.0				0.01%
Y 371.029	667678.4	169 %	%	0.1				0.04%
Ag 328.068†	8799.6	0.0874911	mg/L	0.00001143	0.0874911	mg/L	0.00001143	0.01%
Al 308.215†	5007281.4	190.452	mg/L	0.2546	190.452	mg/L	0.2546	0.13%
As 188.979†	768.1	0.723813	mg/L	0.0006340	0.723813	mg/L	0.0006340	0.09%
Ba 233.527†	672982.5	5.62016	mg/L	0.002693	5.62016	mg/L	0.002693	0.05%
Be 313.107†	1116348.7	0.437281	mg/L	0.0004478	0.437281	mg/L	0.0004478	0.10%
Ca 315.887†	37871413.4	378.945	mg/L	0.4495	378.945	mg/L	0.4495	0.12%
Cd 228.802†	17043.4	0.435731	mg/L	0.0001167	0.435731	mg/L	0.0001167	0.03%
Co 228.616†	19798.0	0.593514	mg/L	0.0015969	0.593514	mg/L	0.0015969	0.27%
Cr 267.716†	57510.1	0.873822	mg/L	0.0035834	0.873822	mg/L	0.0035834	0.41%
Cu 327.393†	344884.6	2.86333	mg/L	0.008141	2.86333	mg/L	0.008141	0.28%
Fe 273.955†	3285509.9	437.666	mg/L	0.3974	437.666	mg/L	0.3974	0.09%
K 404.721†	9164.9	89.0277	mg/L	0.30336	89.0277	mg/L	0.30336	0.34%
Mg 279.077†	1240075.7	92.8896	mg/L	0.10855	92.8896	mg/L	0.10855	0.12%
Mn 257.610†	2528412.4	6.39190	mg/L	0.003116	6.39190	mg/L	0.003116	0.05%
Mo 202.031†	6160.4	0.460543	mg/L	0.0005935	0.460543	mg/L	0.0005935	0.13%
Na 330.237†	89209.3	83.0301	mg/L	0.22256	83.0301	mg/L	0.22256	0.27%
Ni 231.604†	33725.6	0.800629	mg/L	0.0048230	0.800629	mg/L	0.0048230	0.60%
Pb 220.353†	161632.2	15.0252	mg/L	0.07530	15.0252	mg/L	0.07530	0.50%
Sb 206.836†	259.8	0.333987	mg/L	0.0000314	0.333987	mg/L	0.0000314	0.01%
Se 196.026†	396.7	0.402135	mg/L	0.0022795	0.402135	mg/L	0.0022795	0.57%
Sn 189.927†	6021.8	3.36661	mg/L	0.002591	3.36661	mg/L	0.002591	0.08%
Ti 334.940†	2431438.5	4.11498	mg/L	0.003228	4.11498	mg/L	0.003228	0.08%
Tl 190.801†	367.6	0.399610	mg/L	0.0002572	0.399610	mg/L	0.0002572	0.06%
V 290.880†	148015.6	1.09024	mg/L	0.004698	1.09024	mg/L	0.004698	0.43%
Zn 206.200†	200228.9	5.43177	mg/L	0.031472	5.43177	mg/L	0.031472	0.58%

Sequence No.: 34  
 Sample ID: 63081-011 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 12/13/2011 1:34:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 PS

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	1046877.4	106 %	%	0.1			0.14%
Y 371.029	669077.2	169 %	%	0.6			0.34%
Ag 328.068†	8667.4	0.0884573	mg/L	0.00122946	0.0884573	0.00122946	1.39%
Al 308.215†	4923113.5	187.251	mg/L	1.0971	187.251	1.0971	0.59%
As 188.979†	816.1	0.771619	mg/L	0.0022492	0.771619	0.0022492	0.29%
Ba 233.527†	735530.2	6.14254	mg/L	0.026449	6.14254	0.026449	0.43%
Be 313.107†	1116009.9	0.436953	mg/L	0.0020401	0.436953	0.0020401	0.47%
Ca 315.887†	37713077.5	377.360	mg/L	0.3105	377.360	0.3105	0.08%
Cd 228.802†	17384.8	0.443889	mg/L	0.0000381	0.443889	0.0000381	0.01%
Co 228.616†	20388.6	0.610862	mg/L	0.0012721	0.610862	0.0012721	0.21%
Cr 267.716†	59802.1	0.909664	mg/L	0.0065556	0.909664	0.0065556	0.72%
Cu 327.393†	424385.1	3.52570	mg/L	0.019827	3.52570	0.019827	0.56%
Fe 273.955†	3607403.4	480.542	mg/L	2.0471	480.542	2.0471	0.43%
K 404.721†	8816.1	85.6649	mg/L	0.04122	85.6649	0.04122	0.05%
Mg 279.077†	1248165.0	93.4963	mg/L	0.42206	93.4963	0.42206	0.45%
Mn 257.610†	2675632.4	6.76492	mg/L	0.029957	6.76492	0.029957	0.44%
Mo 202.031†	6595.6	0.493493	mg/L	0.0004473	0.493493	0.0004473	0.09%
Na 330.237†	90255.9	83.9969	mg/L	0.37953	83.9969	0.37953	0.45%
Ni 231.604†	35042.0	0.831932	mg/L	0.0054193	0.831932	0.0054193	0.65%
Pb 220.353†	186354.8	17.3195	mg/L	0.13432	17.3195	0.13432	0.78%
Sb 206.836†	399.4	0.468090	mg/L	0.0028970	0.468090	0.0028970	0.62%
Se 196.026†	443.0	0.449678	mg/L	0.0052143	0.449678	0.0052143	1.16%
Sn 189.927†	7562.8	4.23167	mg/L	0.011125	4.23167	0.011125	0.26%
Ti 334.940†	2592492.6	4.38756	mg/L	0.027192	4.38756	0.027192	0.62%
Tl 190.801†	371.1	0.404359	mg/L	0.0038090	0.404359	0.0038090	0.94%
V 290.880†	155483.3	1.14503	mg/L	0.007323	1.14503	0.007323	0.64%
Zn 206.200†	221906.2	6.02018	mg/L	0.048892	6.02018	0.048892	0.81%

Sequence No.: 35  
 Sample ID: 63081-011 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 12/13/2011 1:39:05 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 SD

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	997604.5	101 %		0.7			0.69%
Y 371.029	447304.6	113 %		0.5			0.48%
Ag 328.068†	-345.1	0.0035176 mg/L		0.00032274	0.0035176 mg/L	0.00032274	9.18%
Al 308.215†	1103055.3	41.9546 mg/L		0.40248	41.9546 mg/L	0.40248	0.96%
As 188.979†	72.2	0.0797350 mg/L		0.00060188	0.0797350 mg/L	0.00060188	0.75%
Ba 233.527†	160734.4	1.34201 mg/L		0.012287	1.34201 mg/L	0.012287	0.92%
Be 313.107†	9859.2	0.0037917 mg/L		0.00003567	0.0037917 mg/L	0.00003567	0.94%
Ca 315.887†	8045683.0	80.4757 mg/L		1.79714	80.4757 mg/L	1.79714	2.23%
Cd 228.802†	176.0	0.0032019 mg/L		0.00024880	0.0032019 mg/L	0.00024880	7.77%
Co 228.616†	1515.5	0.0446922 mg/L		0.00056890	0.0446922 mg/L	0.00056890	1.27%
Cr 267.716†	7089.3	0.110468 mg/L		0.0009989	0.110468 mg/L	0.0009989	0.90%
Cu 327.393†	82741.6	0.686691 mg/L		0.0054112	0.686691 mg/L	0.0054112	0.79%
Fe 273.955†	889390.8	118.471 mg/L		1.1056	118.471 mg/L	1.1056	0.93%
K 404.721†	783.2	8.20396 mg/L		0.481228	8.20396 mg/L	0.481228	5.87%
Mg 279.077†	171828.9	12.7738 mg/L		0.13363	12.7738 mg/L	0.13363	1.05%
Mn 257.610†	596334.8	1.50757 mg/L		0.014311	1.50757 mg/L	0.014311	0.95%
Mo 202.031†	316.4	0.0228025 mg/L		0.00021820	0.0228025 mg/L	0.00021820	0.96%
Na 330.237†	8491.3	8.46483 mg/L		0.018709	8.46483 mg/L	0.018709	0.22%
Ni 231.604†	4075.0	0.0958113 mg/L		0.00090554	0.0958113 mg/L	0.00090554	0.95%
Pb 220.353†	43224.4	4.01628 mg/L		0.037297	4.01628 mg/L	0.037297	0.93%
Sb 206.836†	-10.9	0.0133871 mg/L		0.00539055	0.0133871 mg/L	0.00539055	40.27%
Se 196.026†	-9.0	0.0106725 mg/L		0.00090839	0.0106725 mg/L	0.00090839	8.51%
Sn 189.927†	1610.5	0.900744 mg/L		0.0106551	0.900744 mg/L	0.0106551	1.18%
Ti 334.940†	532838.6	0.901653 mg/L		0.0066287	0.901653 mg/L	0.0066287	0.74%
Tl 190.801†	-7.7	-0.0033308 mg/L		0.00049101	-0.0033308 mg/L	0.00049101	14.74%
V 290.880†	22484.0	0.163802 mg/L		0.0016114	0.163802 mg/L	0.0016114	0.98%
Zn 206.200†	48623.9	1.31902 mg/L		0.016729	1.31902 mg/L	0.016729	1.27%

Sequence No.: 36  
 Sample ID: 63081-012  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 12/13/2011 1:42:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-012

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1006855.2	102 %		0.2			0.20%
Y 371.029	517187.7	131 %		0.2			0.18%
Ag 328.068†	-638.5	0.0074961 mg/L	0.00015871	0.0074961 mg/L	0.00015871	2.12%	2.12%
Al 308.215†	2500552.1	95.1122 mg/L	0.03146	95.1122 mg/L	0.03146	0.03%	0.03%
As 188.979†	339.3	0.320715 mg/L	0.0031481	0.320715 mg/L	0.0031481	0.98%	0.98%
Ba 233.527†	847680.3	7.07918 mg/L	0.009090	7.07918 mg/L	0.009090	0.13%	0.13%
Be 313.107†	22530.6	0.0077730 mg/L	0.00001407	0.0077730 mg/L	0.00001407	0.18%	0.18%
Ca 315.887†	40426201.9	404.511 mg/L	0.8859	404.511 mg/L	0.8859	0.22%	0.22%
Cd 228.802†	1106.4	0.0258252 mg/L	0.00020475	0.0258252 mg/L	0.00020475	0.79%	0.79%
Co 228.616†	3284.8	0.0961947 mg/L	0.00065763	0.0961947 mg/L	0.00065763	0.68%	0.68%
Cr 267.716†	33282.9	0.502748 mg/L	0.0005566	0.502748 mg/L	0.0005566	0.11%	0.11%
Cu 327.393†	163737.0	1.35626 mg/L	0.000857	1.35626 mg/L	0.000857	0.06%	0.06%
Fe 273.955†	1586877.0	211.387 mg/L	0.3865	211.387 mg/L	0.3865	0.18%	0.18%
K 404.721†	3035.6	29.9238 mg/L	0.64658	29.9238 mg/L	0.64658	2.16%	2.16%
Mg 279.077†	540562.1	40.4279 mg/L	0.10734	40.4279 mg/L	0.10734	0.27%	0.27%
Mn 257.610†	1252461.1	3.16554 mg/L	0.005153	3.16554 mg/L	0.005153	0.16%	0.16%
Mo 202.031†	717.5	0.0467345 mg/L	0.00068943	0.0467345 mg/L	0.00068943	1.48%	1.48%
Na 330.237†	27027.3	25.5879 mg/L	0.02262	25.5879 mg/L	0.02262	0.09%	0.09%
Ni 231.604†	10356.7	0.245075 mg/L	0.0021534	0.245075 mg/L	0.0021534	0.88%	0.88%
Pb 220.353†	312097.3	29.0043 mg/L	0.08615	29.0043 mg/L	0.08615	0.30%	0.30%
Sb 206.836†	-17.1	0.0290916 mg/L	0.00569977	0.0290916 mg/L	0.00569977	19.59%	19.59%
Se 196.026†	15.9	0.0413726 mg/L	0.00601193	0.0413726 mg/L	0.00601193	14.53%	14.53%
Sn 189.927†	3120.8	1.74759 mg/L	0.012322	1.74759 mg/L	0.012322	0.71%	0.71%
Ti 334.940†	1366982.2	2.31342 mg/L	0.000096	2.31342 mg/L	0.000096	0.00%	0.00%
Tl 190.801†	-18.5	-0.0042038 mg/L	0.00205677	-0.0042038 mg/L	0.00205677	48.93%	48.93%
V 290.880†	51281.8	0.375592 mg/L	0.0001381	0.375592 mg/L	0.0001381	0.04%	0.04%
Zn 206.200†	603086.1	16.3688 mg/L	0.05474	16.3688 mg/L	0.05474	0.33%	0.33%

Sequence No.: 37  
 Sample ID: 28525-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 30  
 Date Collected: 12/13/2011 1:46:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 28525-001

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1001267.7	101 %		1.8			1.81%
Y 371.029	403525.9	102 %		1.9			1.90%
Ag 328.068†	188.7	0.0016354 mg/L	0.00027515	0.0016354 mg/L	0.00027515	16.82%	
Al 308.215†	-533.5	-0.0227421 mg/L	0.01141468	-0.0227421 mg/L	0.01141468	50.19%	
As 188.979†	-0.4	0.0001306 mg/L	0.00123400	0.0001306 mg/L	0.00123400	945.06%	
Ba 233.527†	44.1	-0.0000281 mg/L	0.00003267	-0.0000281 mg/L	0.00003267	116.41%	
Be 313.107†	42.2	0.0005699 mg/L	0.00003212	0.0005699 mg/L	0.00003212	5.64%	
Ca 315.887†	2352.2	-0.0147193 mg/L	0.00373843	-0.0147193 mg/L	0.00373843	25.40%	
Cd 228.802†	0.3	0.0005852 mg/L	0.00001740	0.0005852 mg/L	0.00001740	2.97%	
Co 228.616†	-5.4	-0.0001241 mg/L	0.00019435	-0.0001241 mg/L	0.00019435	156.67%	
Cr 267.716†	-58.6	-0.0005107 mg/L	0.00013969	-0.0005107 mg/L	0.00013969	27.35%	
Cu 327.393†	145.7	0.0004573 mg/L	0.00012935	0.0004573 mg/L	0.00012935	28.29%	
Fe 273.955†	71.2	0.0083216 mg/L	0.01030847	0.0083216 mg/L	0.01030847	123.88%	
K 404.721†	50.5	1.13843 mg/L	0.706203	1.13843 mg/L	0.706203	62.03%	
Mg 279.077†	-0.3	-0.112911 mg/L	0.0064988	-0.112911 mg/L	0.0064988	5.76%	
Mn 257.610†	-34.9	-0.0009339 mg/L	0.00005340	-0.0009339 mg/L	0.00005340	5.72%	
Mo 202.031†	-2.0	-0.0000565 mg/L	0.00030278	-0.0000565 mg/L	0.00030278	535.98%	
Na 330.237†	24.1	0.643075 mg/L	0.0709536	0.643075 mg/L	0.0709536	11.03%	
Ni 231.604†	-5.1	-0.0011425 mg/L	0.00029363	-0.0011425 mg/L	0.00029363	25.70%	
Pb 220.353†	58.4	0.0050354 mg/L	0.00021553	0.0050354 mg/L	0.00021553	4.28%	
Sb 206.836†	2.0	0.0002421 mg/L	0.00115272	0.0002421 mg/L	0.00115272	476.18%	
Se 196.026†	-8.1	-0.0022584 mg/L	0.00019960	-0.0022584 mg/L	0.00019960	8.84%	
Sn 189.927†	5.9	0.0037104 mg/L	0.00300541	0.0037104 mg/L	0.00300541	81.00%	
Ti 334.940†	117.9	0.0000377 mg/L	0.00012317	0.0000377 mg/L	0.00012317	326.29%	
Tl 190.801†	-0.8	-0.0017300 mg/L	0.00348242	-0.0017300 mg/L	0.00348242	201.29%	
V 290.880†	-60.1	-0.0011554 mg/L	0.00081553	-0.0011554 mg/L	0.00081553	70.58%	
Zn 206.200†	112.5	0.0025961 mg/L	0.00033297	0.0025961 mg/L	0.00033297	12.83%	

Sequence No.: 38  
 Sample ID: ICESA V-127386  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/13/2011 1:50:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: ICESA V-127386

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	893029.0		90.4 %	0.38			0.42%
Y 371.029	348062.2		88.0 %	0.27			0.31%
Ag 328.068†	-1043.7	0.0047620	mg/L	0.00037679	0.0047620	mg/L	7.91%
Al 308.215†	12696027.4	482.892	mg/L	9.0174	482.892	mg/L	1.87%
QC value within limits for Al 308.215 Recovery = 96.58%							
As 188.979†	-23.2	0.0047315	mg/L	0.00426938	0.0047315	mg/L	90.23%
Ba 233.527†	297.5	0.0020888	mg/L	0.00004927	0.0020888	mg/L	2.36%
Be 313.107†	-2030.9	-0.0002476	mg/L	0.00000260	-0.0002476	mg/L	1.05%
Ca 315.887†	47509132.2	475.390	mg/L	8.8074	475.390	mg/L	1.85%
QC value within limits for Ca 315.887 Recovery = 95.08%							
Cd 228.802†	138.5	0.0010661	mg/L	0.00085743	0.0010661	mg/L	80.43%
Co 228.616†	-104.3	0.0037938	mg/L	0.00010692	0.0037938	mg/L	2.82%
Cr 267.716†	170.4	0.0093940	mg/L	0.00003851	0.0093940	mg/L	0.41%
Cu 327.393†	1057.1	-0.0102127	mg/L	0.00054705	-0.0102127	mg/L	5.36%
Fe 273.955†	1422274.7	189.649	mg/L	0.8424	189.649	mg/L	0.44%
QC value within limits for Fe 273.955 Recovery = 94.82%							
K 404.721†	-766.2	-6.73641	mg/L	0.607210	-6.73641	mg/L	9.01%
Mg 279.077†	6780349.4	508.396	mg/L	3.1538	508.396	mg/L	0.62%
QC value within limits for Mg 279.077 Recovery = 101.68%							
Mn 257.610†	-4217.4	-0.0028969	mg/L	0.00015267	-0.0028969	mg/L	5.27%
Mo 202.031†	126.0	0.0051303	mg/L	0.00071148	0.0051303	mg/L	13.87%
Na 330.237†	26.7	0.645498	mg/L	0.0441467	0.645498	mg/L	6.84%
Ni 231.604†	-34.8	-0.0018404	mg/L	0.00010290	-0.0018404	mg/L	5.59%
Pb 220.353†	-657.9	0.0049130	mg/L	0.00131217	0.0049130	mg/L	26.71%
Sb 206.836†	-104.4	0.0037674	mg/L	0.00128413	0.0037674	mg/L	34.09%
Se 196.026†	4.2	-0.0000381	mg/L	0.01274162	-0.0000381	mg/L	>999.9%
Sn 189.927†	16.7	-0.0034974	mg/L	0.00065378	-0.0034974	mg/L	18.69%
Ti 334.940†	978.4	0.0014941	mg/L	0.00005773	0.0014941	mg/L	3.86%
Tl 190.801†	-11.2	0.0005463	mg/L	0.00375439	0.0005463	mg/L	687.20%
V 290.880†	6235.3	0.0091700	mg/L	0.00114446	0.0091700	mg/L	12.48%
Zn 206.200†	248.3	-0.0096442	mg/L	0.00046022	-0.0096442	mg/L	4.77%

All analyte(s) passed QC.

Sequence No.: 39

Autosampler Location: 8

Sample ID: ICSAB V-127387

Date Collected: 12/13/2011 1:55:55 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-127387

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc. Units	Std.Dev.	
Sc 361.383	904341.6	91.6	%	0.77			0.84%
Y 371.029	352561.9	89.2	%	0.76			0.85%
Ag 328.068†	132894.2	1.00213	mg/L	0.000949	1.00213	mg/L	0.000949
QC value within limits for Ag		328.068	Recovery =	100.21%			
Al 308.215†	12556360.0	477.579	mg/L	3.9626	477.579	mg/L	3.9626
QC value within limits for Al		308.215	Recovery =	95.52%			
As 188.979†	1116.1	0.985056	mg/L	0.0159013	0.985056	mg/L	0.0159013
QC value within limits for As		188.979	Recovery =	98.51%			
Ba 233.527†	59972.2	0.500474	mg/L	0.0007120	0.500474	mg/L	0.0007120
QC value within limits for Ba		233.527	Recovery =	100.09%			
Be 313.107†	1239795.0	0.488841	mg/L	0.0064332	0.488841	mg/L	0.0064332
QC value within limits for Be		313.107	Recovery =	97.77%			
Ca 315.887†	46873391.0	469.028	mg/L	3.7567	469.028	mg/L	3.7567
QC value within limits for Ca		315.887	Recovery =	93.81%			
Cd 228.802†	38582.3	0.998859	mg/L	0.0032893	0.998859	mg/L	0.0032893
QC value within limits for Cd		228.802	Recovery =	99.89%			
Co 228.616†	15527.6	0.475312	mg/L	0.0089678	0.475312	mg/L	0.0089678
QC value within limits for Co		228.616	Recovery =	95.06%			
Cr 267.716†	32836.0	0.493306	mg/L	0.0000355	0.493306	mg/L	0.0000355
QC value within limits for Cr		267.716	Recovery =	98.66%			
Cu 327.393†	62049.7	0.498284	mg/L	0.0001195	0.498284	mg/L	0.0001195
QC value within limits for Cu		327.393	Recovery =	99.66%			
Fe 273.955†	1394744.8	185.978	mg/L	2.4143	185.978	mg/L	2.4143
QC value within limits for Fe		273.955	Recovery =	92.99%			
K 404.721†	-809.6	-7.15507	mg/L	0.083175	-7.15507	mg/L	0.083175
Mg 279.077†	6632150.9	497.281	mg/L	6.4088	497.281	mg/L	6.4088
QC value within limits for Mg		279.077	Recovery =	99.46%			
Mn 257.610†	188039.0	0.481516	mg/L	0.0001639	0.481516	mg/L	0.0001639
QC value within limits for Mn		257.610	Recovery =	96.30%			
Mo 202.031†	132.8	0.0057122	mg/L	0.00066170	0.0057122	mg/L	0.00066170
Na 330.237†	311.2	0.908287	mg/L	0.0002477	0.908287	mg/L	0.0002477
Ni 231.604†	39376.7	0.934477	mg/L	0.0009933	0.934477	mg/L	0.0009933
QC value within limits for Ni		231.604	Recovery =	93.45%			
Pb 220.353†	9398.4	0.938892	mg/L	0.0170439	0.938892	mg/L	0.0170439
QC value within limits for Pb		220.353	Recovery =	93.89%			
Sb 206.836†	944.9	0.963512	mg/L	0.0101782	0.963512	mg/L	0.0101782
QC value within limits for Sb		206.836	Recovery =	96.35%			
Se 196.026†	1111.8	0.976761	mg/L	0.0190836	0.976761	mg/L	0.0190836
QC value within limits for Se		196.026	Recovery =	97.68%			
Sn 189.927†	20.5	-0.0011166	mg/L	0.00628715	-0.0011166	mg/L	0.00628715
Ti 334.940†	1007.8	0.0015439	mg/L	0.00003360	0.0015439	mg/L	0.00003360
Tl 190.801†	903.3	0.936453	mg/L	0.0141940	0.936453	mg/L	0.0141940
QC value within limits for Tl		190.801	Recovery =	93.65%			
V 290.880†	69297.0	0.480761	mg/L	0.0002283	0.480761	mg/L	0.0002283
QC value within limits for V		290.880	Recovery =	96.15%			
Zn 206.200†	35911.4	0.958767	mg/L	0.0019672	0.958767	mg/L	0.0019672
QC value within limits for Zn		206.200	Recovery =	95.88%			

All analyte(s) passed QC.

Sequence No.: 40  
 Sample ID: CCV V-128233  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/13/2011 2:01:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	957356.1	97.0 %		0.14			0.14%
Y 371.029	374058.0	94.6 %		0.03			0.03%
Ag 328.068†	12874.1	0.0962456 mg/L	0.00042646	0.00042646	0.0962456 mg/L	0.00042646	0.44%
QC value within limits for Ag 328.068 Recovery = 96.25%							
Al 308.215†	129055.7	4.89647 mg/L	0.026339	0.026339	4.89647 mg/L	0.026339	0.54%
QC value within limits for Al 308.215 Recovery = 97.93%							
As 188.979†	562.1	0.484293 mg/L	0.0031420	0.0031420	0.484293 mg/L	0.0031420	0.65%
QC value within limits for As 188.979 Recovery = 96.86%							
Ba 233.527†	60424.0	0.504247 mg/L	0.0029096	0.0029096	0.504247 mg/L	0.0029096	0.58%
QC value within limits for Ba 233.527 Recovery = 100.85%							
Be 313.107†	1261593.2	0.497066 mg/L	0.0029072	0.0029072	0.497066 mg/L	0.0029072	0.58%
QC value within limits for Be 313.107 Recovery = 99.41%							
Ca 315.887†	5059822.0	50.5959 mg/L	0.27589	0.27589	50.5959 mg/L	0.27589	0.55%
QC value within limits for Ca 315.887 Recovery = 101.19%							
Cd 228.802†	19025.7	0.494271 mg/L	0.0034266	0.0034266	0.494271 mg/L	0.0034266	0.69%
QC value within limits for Cd 228.802 Recovery = 98.85%							
Co 228.616†	16738.2	0.505619 mg/L	0.0044435	0.0044435	0.505619 mg/L	0.0044435	0.88%
QC value within limits for Co 228.616 Recovery = 101.12%							
Cr 267.716†	33478.9	0.499724 mg/L	0.0032935	0.0032935	0.499724 mg/L	0.0032935	0.66%
QC value within limits for Cr 267.716 Recovery = 99.94%							
Cu 327.393†	59283.8	0.491711 mg/L	0.0040124	0.0040124	0.491711 mg/L	0.0040124	0.82%
QC value within limits for Cu 327.393 Recovery = 98.34%							
Fe 273.955†	36819.6	4.92368 mg/L	0.028324	0.028324	4.92368 mg/L	0.028324	0.58%
QC value within limits for Fe 273.955 Recovery = 98.47%							
K 404.721†	4679.6	45.7768 mg/L	0.10203	0.10203	45.7768 mg/L	0.10203	0.22%
QC value within limits for K 404.721 Recovery = 91.55%							
Mg 279.077†	681845.4	51.0238 mg/L	0.28858	0.28858	51.0238 mg/L	0.28858	0.57%
QC value within limits for Mg 279.077 Recovery = 102.05%							
Mn 257.610†	196496.6	0.494769 mg/L	0.0028307	0.0028307	0.494769 mg/L	0.0028307	0.57%
QC value within limits for Mn 257.610 Recovery = 98.95%							
Mo 202.031†	6563.2	0.495963 mg/L	0.0001031	0.0001031	0.495963 mg/L	0.0001031	0.02%
QC value within limits for Mo 202.031 Recovery = 99.19%							
Na 330.237†	50070.6	46.8748 mg/L	0.25604	0.25604	46.8748 mg/L	0.25604	0.55%
QC value within limits for Na 330.237 Recovery = 93.75%							
Ni 231.604†	21273.9	0.504836 mg/L	0.0023210	0.0023210	0.504836 mg/L	0.0023210	0.46%
QC value within limits for Ni 231.604 Recovery = 100.97%							
Pb 220.353†	5432.0	0.504582 mg/L	0.0006175	0.0006175	0.504582 mg/L	0.0006175	0.12%
QC value within limits for Pb 220.353 Recovery = 100.92%							
Sb 206.836†	527.3	0.483247 mg/L	0.0013293	0.0013293	0.483247 mg/L	0.0013293	0.28%
QC value within limits for Sb 206.836 Recovery = 96.65%							
Se 196.026†	564.3	0.503234 mg/L	0.0051491	0.0051491	0.503234 mg/L	0.0051491	1.02%
QC value within limits for Se 196.026 Recovery = 100.65%							
Sn 189.927†	895.0	0.503809 mg/L	0.0018923	0.0018923	0.503809 mg/L	0.0018923	0.38%
QC value within limits for Sn 189.927 Recovery = 100.76%							
Ti 334.940†	298535.3	0.505101 mg/L	0.0032304	0.0032304	0.505101 mg/L	0.0032304	0.64%
QC value within limits for Ti 334.940 Recovery = 101.02%							
Tl 190.801†	510.2	0.523313 mg/L	0.0035550	0.0035550	0.523313 mg/L	0.0035550	0.68%
QC value within limits for Tl 190.801 Recovery = 104.66%							
V 290.880†	66691.2	0.494965 mg/L	0.0023416	0.0023416	0.494965 mg/L	0.0023416	0.47%
QC value within limits for V 290.880 Recovery = 98.99%							
Zn 206.200†	18627.0	0.503563 mg/L	0.0036363	0.0036363	0.503563 mg/L	0.0036363	0.72%
QC value within limits for Zn 206.200 Recovery = 100.71%							

All analyte(s) passed QC.

Sequence No.: 41

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/13/2011 2:05:07 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	979378.5	99.2 %		0.72			0.72%
Y 371.029	392960.7	99.4 %		0.57			0.58%
Ag 328.068†	-15.3	0.0001149 mg/L	0.00031968	0.0001149	mg/L	0.00031968	278.22%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 308.215†	-290.8	-0.0135088 mg/L	0.00023860	-0.0135088	mg/L	0.00023860	1.77%
QC value within limits for Al 308.215 Recovery = Not calculated							
As 188.979†	4.0	0.0039140 mg/L	0.00140326	0.0039140	mg/L	0.00140326	35.85%
QC value within limits for As 188.979 Recovery = Not calculated							
Ba 233.527†	-11.8	-0.0004944 mg/L	0.00014439	-0.0004944	mg/L	0.00014439	29.20%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	137.2	0.0006073 mg/L	0.00002801	0.0006073	mg/L	0.00002801	4.61%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 315.887†	1435.4	-0.0238937 mg/L	0.00425812	-0.0238937	mg/L	0.00425812	17.82%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Cd 228.802†	-3.7	0.0004819 mg/L	0.00018293	0.0004819	mg/L	0.00018293	37.96%
QC value within limits for Cd 228.802 Recovery = Not calculated							
Co 228.616†	-12.0	-0.0003257 mg/L	0.00025863	-0.0003257	mg/L	0.00025863	79.42%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-48.7	-0.0003653 mg/L	0.00024644	-0.0003653	mg/L	0.00024644	67.47%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 327.393†	168.4	0.0006466 mg/L	0.00045653	0.0006466	mg/L	0.00045653	70.60%
QC value within limits for Cu 327.393 Recovery = Not calculated							
Fe 273.955†	-88.6	-0.0129577 mg/L	0.00346101	-0.0129577	mg/L	0.00346101	26.71%
QC value within limits for Fe 273.955 Recovery = Not calculated							
K 404.721†	64.9	1.27778 mg/L	0.425361	1.27778	mg/L	0.425361	33.29%
QC value within limits for K 404.721 Recovery = Not calculated							
Mg 279.077†	-95.6	-0.120057 mg/L	0.0026742	-0.120057	mg/L	0.0026742	2.23%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mn 257.610†	23.6	-0.0007877 mg/L	0.00006187	-0.0007877	mg/L	0.00006187	7.85%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-4.5	-0.0002480 mg/L	0.00013667	-0.0002480	mg/L	0.00013667	55.10%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 330.237†	50.0	0.666980 mg/L	0.0303818	0.666980	mg/L	0.0303818	4.56%
QC value within limits for Na 330.237 Recovery = Not calculated							
Ni 231.604†	15.0	-0.0006656 mg/L	0.00033080	-0.0006656	mg/L	0.00033080	49.70%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb 220.353†	21.1	0.0015745 mg/L	0.00007689	0.0015745	mg/L	0.00007689	4.88%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb 206.836†	-2.9	-0.0043055 mg/L	0.00237153	-0.0043055	mg/L	0.00237153	55.08%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.0	0.0049372 mg/L	0.00194010	0.0049372	mg/L	0.00194010	39.30%
QC value within limits for Se 196.026 Recovery = Not calculated							
Sn 189.927†	2.7	0.0019165 mg/L	0.00134827	0.0019165	mg/L	0.00134827	70.35%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti 334.940†	119.5	0.0000406 mg/L	0.00007640	0.0000406	mg/L	0.00007640	188.32%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.0	0.0010582 mg/L	0.00125233	0.0010582	mg/L	0.00125233	118.35%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 290.880†	11.1	-0.0006234 mg/L	0.00028603	-0.0006234	mg/L	0.00028603	45.88%
QC value within limits for V 290.880 Recovery = Not calculated							
Zn 206.200†	0.9	-0.0004338 mg/L	0.00018891	-0.0004338	mg/L	0.00018891	43.55%
QC value within limits for Zn 206.200 Recovery = Not calculated							

All analyte(s) passed QC.

Method: HGCV2 Soil (7471A)

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Date: 12/8/2011 7:28:16 PM

*1st Review OA 12/09/2011**V-130235*

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS  
Autosampler Model: AS-90*sh 12/13/11*Sample Information File: C:\data-AA\johns\Sample Information\H13373S.sif  
Batch ID: H13373S  
Results Data Set: H13373S  
Results Library: C:\data-AA\johns\Results\Results.mdb

Method Loaded

Method Name: HGCV2 Soil (7471A)  
Method Description: HgCV2 Soil (7471A)

Method Last Saved: 9/19/2011 7:40:08 PM

Sequence No.: 1  
Sample ID: Calibration Blank  
Analyst:Autosampler Location: 1  
Date Collected: 12/8/2011 7:23:32 PM  
Data Type: Original

Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	-0.0000	-0.0028	-0.0000	19:24:18	Yes
2		[0.00]	0.0001	-0.0024	0.0001	19:24:50	Yes
Mean:		[0.00]	0.0000				
SD:		0.00	0.0001				
%RSD:		0.00	329.98				

Auto-zero performed.

Sequence No.: 2  
Sample ID: .2 PPB  
Analyst:Autosampler Location: 2  
Date Collected: 12/8/2011 7:24:51 PM  
Data Type: Original

Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0012	0.0063	0.0012	19:25:37	Yes
2		[0.2]	0.0011	0.0021	0.0011	19:26:09	Yes
Mean:		[0.2]	0.0011				
SD:		0.0	0.0001				
%RSD:		0.0	8.69				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00563 Intercept: 0.00000

Sequence No.: 3  
Sample ID: .5 PPB  
Analyst:Autosampler Location: 3  
Date Collected: 12/8/2011 7:26:10 PM  
Data Type: Original

Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0028	0.0109	0.0028	19:26:56	Yes
2		[0.5]	0.0030	0.0143	0.0030	19:27:28	Yes
Mean:		[0.5]	0.0029				
SD:		0.0	0.0001				
%RSD:		0.0	3.88				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999944 Slope: 0.00577 Intercept: -0.00001

Sequence No.: 4  
Sample ID: 1 PPB  
Analyst:Autosampler Location: 4  
Date Collected: 12/8/2011 7:27:29 PM  
Data Type: Original

Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Method: HGCV2 Soil (7471A)

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Date: 12/8/2011 7:34:04 PM

1 [1] 0.0057 0.0243 0.0057 19:28:15 Yes  
 2 [1] 0.0056 0.0224 0.0057 19:28:47 Yes  
 Mean: [1] 0.0057  
 SD: 0 0.0000  
 %RSD: 0 0.31  
 Standard number 3 applied. [1]  
 Correlation Coef.: 0.999940 Slope: 0.00567 Intercept: 0.00001

Sequence No.: 5 Autosampler Location: 5  
 Sample ID: 2 PPB Date Collected: 12/8/2011 7:28:48 PM  
 Analyst: Data Type: Original

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0111	0.0426	0.0111	19:29:34	Yes
2		[2]	0.0113	0.0428	0.0113	19:30:06	Yes
Mean:		[2]	0.0112				
SD:		0	0.0001				
%RSD:		0	0.87				

Standard number 4 applied. [2]  
 Correlation Coef.: 0.999959 Slope: 0.00559 Intercept: 0.00003

Sequence No.: 6 Autosampler Location: 6  
 Sample ID: 5 PPB Date Collected: 12/8/2011 7:30:07 PM  
 Analyst: Data Type: Original

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0284	0.1085	0.0284	19:30:53	Yes
2		[5]	0.0285	0.1066	0.0285	19:31:25	Yes
Mean:		[5]	0.0284				
SD:		0	0.0001				
%RSD:		0	0.28				

Standard number 5 applied. [5]  
 Correlation Coef.: 0.999973 Slope: 0.00568 Intercept: -0.00002

Sequence No.: 7 Autosampler Location: 7  
 Sample ID: 10 PPB Date Collected: 12/8/2011 7:31:26 PM  
 Analyst: Data Type: Original

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0566	0.2136	0.0566	19:32:12	Yes
2		[10]	0.0569	0.2148	0.0569	19:32:44	Yes
Mean:		[10]	0.0568				
SD:		0	0.0002				
%RSD:		0	0.39				

Standard number 6 applied. [10]  
 Correlation Coef.: 0.999994 Slope: 0.00568 Intercept: -0.00002

Sequence No.: 8 Autosampler Location: 8  
 Sample ID: 25 PPB Date Collected: 12/8/2011 7:32:45 PM  
 Analyst: Data Type: Original

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1405	0.5232	0.1405	19:33:30	Yes
2		[25]	0.1406	0.5222	0.1406	19:34:03	Yes
Mean:		[25]	0.1405				
SD:		0	0.0001				
%RSD:		0	0.05				

Standard number 7 applied. [25]  
 Correlation Coef.: 0.999991 Slope: 0.00563 Intercept: 0.00010

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.017	0.00	330.0
.2 PPB	0.0011	0.2	0.183	0.00	8.7
.5 PPB	0.0029	0.5	0.495	0.00	3.9
1 PPB	0.0057	1.0	0.989	0.00	0.3
2 PPB	0.0112	2.0	1.972	0.00	0.9
5 PPB	0.0284	5.0	5.038	0.00	0.3
10 PPB	0.0568	10.0	10.074	0.00	0.4
25 PPB	0.1405	25.0	24.966	0.00	0.0

Correlation Coef.: 0.999991 Slope: 0.00563 Intercept: 0.00010

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/8/2011 7:34:04 PM

Analyst:

Data Type: Original

## Replicate Data: ICV (2)

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.52	20.52	0.1155	0.4318	0.1156	19:34:53	Yes
2	20.47	20.47	0.1153	0.4267	0.1153	19:35:25	Yes
Mean:	20.50	20.50	0.1154				
SD:	0.033	0.033	0.0002				
%RSD:	0.160	0.160	0.16				

QC value within limits for Hg 253.7 Recovery = 102.48%  
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/8/2011 7:35:26 PM

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0015	0.0120	0.0015	19:36:13	Yes
2	0.034	0.034	0.0003	0.0021	0.0003	19:36:45	Yes
Mean:	0.140	0.140	0.0009				
SD:	0.150	0.150	0.0008				
%RSD:	107.2	107.2	95.57				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11678 (167)

Date Collected: 12/8/2011 7:36:46 PM

Analyst:

Data Type: Original

## Replicate Data: MB 11678 (167)

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.042	0.042	0.0003	0.0035	0.0004	19:37:32	Yes
2	-0.014	-0.014	0.0000	-0.0026	0.0000	19:38:05	Yes
Mean:	0.014	0.014	0.0002				
SD:	0.039	0.039	0.0002				
%RSD:	284.0	284.0	127.28				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCS 11678

Date Collected: 12/8/2011 7:38:06 PM

Analyst:

Data Type: Original

## Replicate Data: LCS 11678

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	23.03	23.03	0.1296	0.4711	0.1297	19:38:51	Yes
2	23.09	23.09	0.1300	0.4725	0.1300	19:39:24	Yes
Mean:	23.06	23.06	0.1298				

Method: HGCV2 Soil (7471A)

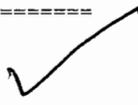
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Date: 12/8/2011 7:45:59 PM

SD: 0.047 0.047 0.0003  
 %RSD: 0.204 0.204 0.20

Sequence No.: 13  
 Sample ID: LCS MR 11678  
 Analyst:

Autosampler Location: 13  
 Date Collected: 12/8/2011 7:39:25 PM  
 Data Type: Original



## Replicate Data: LCS MR 11678

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	23.24	23.24	0.1308	0.4685	0.1308	19:40:11	Yes
2	23.07	23.07	0.1298	0.4654	0.1299	19:40:43	Yes
Mean:	23.15	23.15	0.1303				
SD:	0.121	0.121	0.0007				
%RSD:	0.522	0.522	0.52				

Sequence No.: 14  
 Sample ID: 63081-035  
 Analyst:

Autosampler Location: 14  
 Date Collected: 12/8/2011 7:40:44 PM  
 Data Type: Original

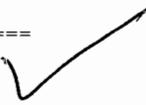


## Replicate Data: 63081-035

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.561	4.561	0.0258	0.0940	0.0258	19:41:30	Yes
2	4.564	4.564	0.0258	0.0945	0.0258	19:42:02	Yes
Mean:	4.563	4.563	0.0258				
SD:	0.002	0.002	0.0000				
%RSD:	0.047	0.047	0.05				

Sequence No.: 15  
 Sample ID: 63081-035 MR  
 Analyst:

Autosampler Location: 15  
 Date Collected: 12/8/2011 7:42:03 PM  
 Data Type: Original



## Replicate Data: 63081-035 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.777	4.777	0.0270	0.0957	0.0270	19:42:48	Yes
2	4.767	4.767	0.0269	0.0940	0.0269	19:43:20	Yes
Mean:	4.772	4.772	0.0269				
SD:	0.007	0.007	0.0000				
%RSD:	0.143	0.143	0.14				

Sequence No.: 16  
 Sample ID: 63081-035 MS1  
 Analyst:

Autosampler Location: 16  
 Date Collected: 12/8/2011 7:43:22 PM  
 Data Type: Original

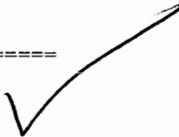


## Replicate Data: 63081-035 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.73	14.73	0.0830	0.2924	0.0830	19:44:07	Yes
2	14.80	14.80	0.0834	0.2949	0.0834	19:44:39	Yes
Mean:	14.77	14.77	0.0832				
SD:	0.053	0.053	0.0003				
%RSD:	0.357	0.357	0.36				

Sequence No.: 17  
 Sample ID: 63081-035 MS2  
 Analyst:

Autosampler Location: 17  
 Date Collected: 12/8/2011 7:44:40 PM  
 Data Type: Original



## Replicate Data: 63081-035 MS2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.80	14.80	0.0834	0.2933	0.0834	19:45:25	Yes
2	14.72	14.72	0.0829	0.2884	0.0829	19:45:58	Yes
Mean:	14.76	14.76	0.0831				
SD:	0.059	0.059	0.0003				

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%RSD: 0.398 0.398 0.40

Sequence No.: 18  
 Sample ID: 63081-001  
 Analyst:

Autosampler Location: 18  
 Date Collected: 12/8/2011 7:45:59 PM  
 Data Type: Original

Replicate Data: 63081-001

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.181	0.181	0.0011	0.0076	0.0011	19:46:44	Yes
2	0.099	0.099	0.0007	0.0032	0.0007	19:47:17	Yes
Mean:	0.140	0.140	0.0009				
SD:	0.058	0.058	0.0003				
%RSD:	41.44	41.44	36.95				

Sequence No.: 19  
 Sample ID: 63081-003  
 Analyst:

Autosampler Location: 19  
 Date Collected: 12/8/2011 7:47:18 PM  
 Data Type: Original

Replicate Data: 63081-003

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.706	1.706	0.0097	0.0349	0.0097	19:48:07	Yes
2	1.755	1.755	0.0100	0.0393	0.0100	19:48:39	Yes
Mean:	1.731	1.731	0.0098				
SD:	0.034	0.034	0.0002				
%RSD:	1.991	1.991	1.97				

Sequence No.: 20  
 Sample ID: 63081-004  
 Analyst:

Autosampler Location: 20  
 Date Collected: 12/8/2011 7:48:40 PM  
 Data Type: Original

Replicate Data: 63081-004

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	24.14	24.14	0.1359	0.4707	0.1359	19:49:26	Yes
2	24.32	24.32	0.1369	0.4776	0.1370	19:49:58	Yes
Mean:	24.23	24.23	0.1364				
SD:	0.131	0.131	0.0007				
%RSD:	0.540	0.540	0.54				

Sequence No.: 21  
 Sample ID: CCV  
 Analyst:

Autosampler Location: 9  
 Date Collected: 12/8/2011 7:49:59 PM  
 Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.56	10.56	0.0595	0.2100	0.0595	19:50:45	Yes
2	10.24	10.24	0.0577	0.2051	0.0577	19:51:17	Yes
Mean:	10.40	10.40	0.0586				
SD:	0.227	0.227	0.0013				
%RSD:	2.178	2.178	2.17				

QC value within limits for Hg 253.7 Recovery = 104.03%  
 All analyte(s) passed QC.

Sequence No.: 22  
 Sample ID: CCB  
 Analyst:

Autosampler Location: 1  
 Date Collected: 12/8/2011 7:51:19 PM  
 Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.068	0.068	0.0005	0.0024	0.0005	19:52:04	Yes
2	-0.006	-0.006	0.0001	-0.0003	0.0001	19:52:37	Yes
Mean:	0.031	0.031	0.0003				

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Date: 12/8/2011 7:59:14 PM

SD: 0.053 0.053 0.0003  
 %RSD: 170.2 170.2 109.85

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 21  
 Sample ID: 63081-006 Date Collected: 12/8/2011 7:52:38 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-006

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.731	1.731	0.0098	0.0372	0.0099	19:53:26	Yes
2	1.682	1.682	0.0096	0.0342	0.0096	19:53:58	Yes
Mean:	1.706	1.706	0.0097				
SD:	0.035	0.035	0.0002				
%RSD:	2.027	2.027	2.01				

Sequence No.: 24 Autosampler Location: 22  
 Sample ID: 63081-008 Date Collected: 12/8/2011 7:53:59 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-008

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.94	19.94	0.1123	0.3864	0.1123	19:54:44	Yes
2	19.83	19.83	0.1117	0.3825	0.1117	19:55:17	Yes
Mean:	19.89	19.89	0.1120				
SD:	0.076	0.076	0.0004				
%RSD:	0.384	0.384	0.38				

Sequence No.: 25 Autosampler Location: 23  
 Sample ID: 63081-009 Date Collected: 12/8/2011 7:55:18 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-009

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.336	2.336	0.0132	0.0475	0.0133	19:56:03	Yes
2	2.333	2.333	0.0132	0.0443	0.0132	19:56:35	Yes
Mean:	2.334	2.334	0.0132				
SD:	0.002	0.002	0.0000				
%RSD:	0.099	0.099	0.10				

Sequence No.: 26 Autosampler Location: 24  
 Sample ID: 63081-013 Date Collected: 12/8/2011 7:56:36 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-013

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	17.67	17.67	0.0995	0.3497	0.0995	19:57:22	Yes
2	17.90	17.90	0.1008	0.3509	0.1008	19:57:54	Yes
Mean:	17.78	17.78	0.1001				
SD:	0.161	0.161	0.0009				
%RSD:	0.906	0.906	0.91				

Sequence No.: 27 Autosampler Location: 25  
 Sample ID: 63081-015 Date Collected: 12/8/2011 7:57:55 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-015

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.946	0.946	0.0054	0.0174	0.0054	19:58:41	Yes
2	0.930	0.930	0.0053	0.0168	0.0054	19:59:13	Yes

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Mean: 0.938 0.938 0.0054  
 SD: 0.011 0.011 0.0001  
 %RSD: 1.175 1.175 1.15

Sequence No.: 28  
 Sample ID: 63081-016  
 Analyst:

Autosampler Location: 26  
 Date Collected: 12/8/2011 7:59:15 PM  
 Data Type: Original

Replicate Data: 63081-016

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.511	7.511	0.0424	0.1447	0.0424	20:00:00	Yes
2	7.475	7.475	0.0421	0.1439	0.0422	20:00:32	Yes
Mean:	7.493	7.493	0.0422				
SD:	0.025	0.025	0.0001				
%RSD:	0.340	0.340	0.34				

Sequence No.: 29  
 Sample ID: 63081-018  
 Analyst:

Autosampler Location: 27  
 Date Collected: 12/8/2011 8:00:33 PM  
 Data Type: Original

Replicate Data: 63081-018

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	17.77	17.77	0.1001	0.3409	0.1001	20:01:19	Yes
2	17.68	17.68	0.0996	0.3391	0.0996	20:01:51	Yes
Mean:	17.73	17.73	0.0998				
SD:	0.065	0.065	0.0004				
%RSD:	0.364	0.364	0.36				

Sequence No.: 30  
 Sample ID: 63081-020  
 Analyst:

Autosampler Location: 28  
 Date Collected: 12/8/2011 8:01:52 PM  
 Data Type: Original

Replicate Data: 63081-020

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	39.17	39.17	0.2204	0.7513	0.2205	20:02:41	Yes
Sample concentration is greater than that of the highest standard.							
2	38.88	38.88	0.2188	0.7451	0.2188	20:03:13	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	39.02	39.02	0.2196				
SD:	0.204	0.204	0.0011				
%RSD:	0.522	0.522	0.52				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 31  
 Sample ID: 63081-021  
 Analyst:

Autosampler Location: 29  
 Date Collected: 12/8/2011 8:03:14 PM  
 Data Type: Original

Replicate Data: 63081-021

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.003	2.003	0.0114	0.0411	0.0114	20:04:00	Yes
2	1.886	1.886	0.0107	0.0340	0.0107	20:04:32	Yes
Mean:	1.944	1.944	0.0110				
SD:	0.082	0.082	0.0005				
%RSD:	4.237	4.237	4.20				

Sequence No.: 32  
 Sample ID: 63081-023  
 Analyst:

Autosampler Location: 30  
 Date Collected: 12/8/2011 8:04:33 PM  
 Data Type: Original

Replicate Data: 63081-023

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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1	1.888	1.888	0.0107	0.0378	0.0107	20:05:19	Yes
2	1.856	1.856	0.0105	0.0358	0.0106	20:05:51	Yes
Mean:	1.872	1.872	0.0106				
SD:	0.023	0.023	0.0001				
%RSD:	1.203	1.203	1.19				

Sequence No.: 33

Autosampler Location: 9

Sample ID: CCV

Date Collected: 12/8/2011 8:05:52 PM

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.38	10.38	0.0585	0.2004	0.0585	20:06:39	Yes
2	10.49	10.49	0.0591	0.2022	0.0591	20:07:11	Yes
Mean:	10.43	10.43	0.0588				
SD:	0.076	0.076	0.0004				
%RSD:	0.733	0.733	0.73				

QC value within limits for Hg 253.7 Recovery = 104.33%  
All analyte(s) passed QC.

Sequence No.: 34

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/8/2011 8:07:13 PM

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0002	0.0008	0.0002	20:07:58	Yes
2	0.013	0.013	0.0002	0.0014	0.0002	20:08:31	Yes
Mean:	0.015	0.015	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	18.43	18.43	8.54				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 35

Autosampler Location: 31

Sample ID: 63081-025

Date Collected: 12/8/2011 8:08:32 PM

Analyst:

Data Type: Original

Replicate Data: 63081-025

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.14	14.14	0.0797	0.2684	0.0797	20:09:20	Yes
2	13.99	13.99	0.0788	0.2665	0.0788	20:09:52	Yes
Mean:	14.07	14.07	0.0792				
SD:	0.107	0.107	0.0006				
%RSD:	0.761	0.761	0.76				

Sequence No.: 36

Autosampler Location: 32

Sample ID: 63081-026

Date Collected: 12/8/2011 8:09:53 PM

Analyst:

Data Type: Original

Replicate Data: 63081-026

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.345	2.345	0.0133	0.0461	0.0133	20:10:39	Yes
2	2.342	2.342	0.0133	0.0457	0.0133	20:11:11	Yes
Mean:	2.344	2.344	0.0133				
SD:	0.002	0.002	0.0000				
%RSD:	0.082	0.082	0.08				

Sequence No.: 37

Autosampler Location: 33

Sample ID: 63081-028

Date Collected: 12/8/2011 8:11:12 PM

Analyst:

Data Type: Original

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## Replicate Data: 63081-028

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	22.72	22.72	0.1279	0.4304	0.1279	20:11:57	Yes
2	22.70	22.70	0.1278	0.4294	0.1278	20:12:30	Yes
Mean:	22.71	22.71	0.1278				
SD:	0.018	0.018	0.0001				
%RSD:	0.078	0.078	0.08				

Sequence No.: 38

Autosampler Location: 34

Sample ID: 63081-030

Date Collected: 12/8/2011 8:12:31 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-030

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	41.34	41.34	0.2327	0.7860	0.2327	20:13:17	Yes
Sample concentration is greater than that of the highest standard.							
2	41.55	41.55	0.2338	0.7902	0.2338	20:13:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	41.44	41.44	0.2332				
SD:	0.145	0.145	0.0008				
%RSD:	0.349	0.349	0.35				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 39

Autosampler Location: 35

Sample ID: 63081-031

Date Collected: 12/8/2011 8:13:50 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-031

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	15.07	15.07	0.0849	0.2841	0.0849	20:14:36	Yes
2	14.91	14.91	0.0840	0.2812	0.0840	20:15:08	Yes
Mean:	14.99	14.99	0.0844				
SD:	0.112	0.112	0.0006				
%RSD:	0.749	0.749	0.75				

Sequence No.: 40

Autosampler Location: 36

Sample ID: 63081-033

Date Collected: 12/8/2011 8:15:09 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-033

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	21.08	21.08	0.1187	0.3990	0.1187	20:15:55	Yes
2	21.23	21.23	0.1195	0.4008	0.1196	20:16:27	Yes
Mean:	21.15	21.15	0.1191				
SD:	0.109	0.109	0.0006				
%RSD:	0.517	0.517	0.52				

Sequence No.: 41

Autosampler Location: 37

Sample ID: 63081-020 2D

Date Collected: 12/8/2011 8:16:28 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-020 2D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.16	19.16	0.1079	0.3640	0.1079	20:17:17	Yes
2	19.35	19.35	0.1090	0.3625	0.1090	20:17:49	Yes
Mean:	19.26	19.26	0.1084				
SD:	0.133	0.133	0.0007				
%RSD:	0.691	0.691	0.69				

Sequence No.: 42

Autosampler Location: 38

Sample ID: 63081-030 2D

Date Collected: 12/8/2011 8:17:50 PM

Analyst:

Data Type: Original

-----  
Replicate Data: 63081-030 2D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	21.04	21.04	0.1185	0.3926	0.1185	20:18:36	Yes
2	20.90	20.90	0.1176	0.3929	0.1177	20:19:08	Yes
Mean:	20.97	20.97	0.1181				
SD:	0.102	0.102	0.0006				
%RSD:	0.486	0.486	0.49				

=====

Sequence No.: 43

Autosampler Location: 9

Sample ID: CCV

Date Collected: 12/8/2011 8:19:10 PM

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.44	10.44	0.0588	0.1970	0.0589	20:19:57	Yes
2	10.32	10.32	0.0581	0.1923	0.0581	20:20:29	Yes
Mean:	10.38	10.38	0.0585				
SD:	0.089	0.089	0.0005				
%RSD:	0.861	0.861	0.86				

QC value within limits for Hg 253.7 Recovery = 103.78%  
All analyte(s) passed QC.

=====

Sequence No.: 44

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/8/2011 8:20:30 PM

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0003	0.0013	0.0003	20:21:16	Yes
2	-0.009	-0.009	0.0000	0.0000	0.0001	20:21:49	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.026	0.026	0.0001				
%RSD:	282.2	282.2	98.65				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

*1st Review OA 12/20/2011* *V-131048*

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100, S/N B050-9550

Technique: AA FIMS-MHS  
Autosampler Model: AS-91

*John 12/22/11*

Sample Information File: C:\data-AA\johns\Sample Information\H13406S.sif  
Batch ID: H13406S  
Results Data Set: H13406S  
Results Library: C:\data-AA\johns\Results\Results.mdb

Method Loaded  
Method Name: HgCV1 SOIL (7471A) Method Last Saved: 12/13/2011 3:48:17 PM  
Method Description: HgCV1 SOIL (7471A)

Sequence No.: 1 Autosampler Location: 1  
Sample ID: Calibration Blank Date Collected: 12/16/2011 3:17:46 PM  
Analyst: Data Type: Original

Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.00]	[0.00]	0.0003	0.0028	0.0003	15:18:45	No
2	[0.00]	[0.00]	0.0002	0.0025	0.0002	15:19:18	No
Mean:	[0.00]	[0.00]	0.0003				
SD:	0.00	0.00	0.0000				
%RSD:	0.00	0.00	12.61				

Auto-zero performed.

Sequence No.: 2 Autosampler Location: 2  
Sample ID: .2 PPB Date Collected: 12/16/2011 3:19:19 PM  
Analyst: Data Type: Original

Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.2]	[0.2]	0.0008	0.0043	0.0010	15:20:16	No
2	[0.2]	[0.2]	0.0008	0.0041	0.0011	15:20:49	No
Mean:	[0.2]	[0.2]	0.0008				
SD:	0.0	0.0	0.0000				
%RSD:	0.0	0.0	1.57				

Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000 Slope: 0.00385 Intercept: 0.00000

Sequence No.: 3 Autosampler Location: 3  
Sample ID: .5 PPB Date Collected: 12/16/2011 3:20:51 PM  
Analyst: Data Type: Original

Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.5]	[0.5]	0.0020	0.0030	0.0022	15:21:47	No
2	[0.5]	[0.5]	0.0022	0.0067	0.0025	15:22:20	No
Mean:	[0.5]	[0.5]	0.0021				
SD:	0.0	0.0	0.0002				
%RSD:	0.0	0.0	9.41				

Standard number 2 applied. [0.5]  
Correlation Coef.: 0.999349 Slope: 0.00420 Intercept: -0.00003

Sequence No.: 4 Autosampler Location: 4  
Sample ID: 1 PPB Date Collected: 12/16/2011 3:22:22 PM  
Analyst: Data Type: Original

Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Method: HgCV1 SOIL (7471A)

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Date: 12/16/2011 3:30:00 PM

1	[1]	0.0047	0.0154	0.0050	15:23:18	No
2	[1]	0.0047	0.0153	0.0050	15:23:52	No
Mean:	[1]	0.0047				
SD:	0	0.0000				
%RSD:	0	0.03				

Standard number 3 applied. [1]  
Correlation Coef.: 0.998165 Slope: 0.00472 Intercept: -0.00012

```
=====
Sequence No.: 5                               Autosampler Location: 5
Sample ID: 2 PPB                             Date Collected: 12/16/2011 3:23:53 PM
Analyst:                                     Data Type: Original
=====
```

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0101	0.0368	0.0104	15:24:50	No
2		[2]	0.0100	0.0375	0.0102	15:25:23	No
Mean:		[2]	0.0100				
SD:	0		0.0001				
%RSD:	0		0.86				

Standard number 4 applied. [2]  
Correlation Coef.: 0.998974 Slope: 0.00507 Intercept: -0.00023

```
=====
Sequence No.: 6                               Autosampler Location: 6
Sample ID: 5 PPB                             Date Collected: 12/16/2011 3:25:25 PM
Analyst:                                     Data Type: Original
=====
```

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0260	0.1026	0.0263	15:26:21	No
2		[5]	0.0262	0.1015	0.0265	15:26:54	No
Mean:		[5]	0.0261				
SD:	0		0.0001				
%RSD:	0		0.50				

Standard number 5 applied. [5]  
Correlation Coef.: 0.999742 Slope: 0.00526 Intercept: -0.00036

```
=====
Sequence No.: 7                               Autosampler Location: 7
Sample ID: 10 PPB                            Date Collected: 12/16/2011 3:26:56 PM
Analyst:                                     Data Type: Original
=====
```

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0523	0.1971	0.0525	15:27:52	No
2		[10]	0.0530	0.1973	0.0533	15:28:26	No
Mean:		[10]	0.0526				
SD:	0		0.0005				
%RSD:	0		0.98				

Standard number 6 applied. [10]  
Correlation Coef.: 0.999939 Slope: 0.00530 Intercept: -0.00039

```
=====
Sequence No.: 8                               Autosampler Location: 8
Sample ID: 25 PPB                            Date Collected: 12/16/2011 3:28:27 PM
Analyst:                                     Data Type: Original
=====
```

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1273	0.4762	0.1275	15:29:25	No
2		[25]	0.1272	0.4764	0.1275	15:29:58	No
Mean:		[25]	0.1272				
SD:	0		0.0000				
%RSD:	0		0.00				

Standard number 7 applied. [25]  
Correlation Coef.: 0.999876 Slope: 0.00512 Intercept: -0.00000

Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	0.001	0.00	12.6
.2 PPB	0.0008	0.2	0.151	0.00	1.6
.5 PPB	0.0021	0.5	0.410	0.00	9.4
1 PPB	0.0047	1.0	0.917	0.00	0.0
2 PPB	0.0100	2.0	1.960	0.00	0.9
5 PPB	0.0261	5.0	5.100	0.00	0.5
10 PPB	0.0526	10.0	10.288	0.00	1.0
25 PPB	0.1272	25.0	24.873	0.00	0.0

Correlation Coef.: 0.999876 Slope: 0.00512 Intercept: -0.00000

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/16/2011 3:30:00 PM

Analyst:

Data Type: Original

Replicate Data: ICV (2)

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.03	20.03	0.1025	0.3850	0.1027	15:31:00	No
2	20.10	20.10	0.1028	0.3869	0.1031	15:31:33	No
Mean:	20.06	20.06	0.1026				
SD:	0.049	0.049	0.0003				
%RSD:	0.244	0.244	0.24				

QC value within limits for Hg 253.7 Recovery = 100.31%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/16/2011 3:31:35 PM

Analyst:

Data Type: Original

Replicate Data: ICB

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.063	-0.063	-0.0003	-0.0022	-0.0001	15:32:32	No
2	-0.064	-0.064	-0.0003	-0.0024	-0.0001	15:33:05	No
Mean:	-0.064	-0.064	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	1.119	1.119	1.10				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11715 (167)

Date Collected: 12/16/2011 3:33:07 PM

Analyst:

Data Type: Original



Replicate Data: MB 11715 (167)

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.062	-0.062	-0.0003	-0.0030	-0.0000	15:34:04	No
2	-0.036	-0.036	-0.0002	-0.0000	0.0001	15:34:38	No
Mean:	-0.049	-0.049	-0.0003				
SD:	0.018	0.018	0.0001				
%RSD:	37.30	37.30	36.67				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCS ~~11716~~ 11715

Date Collected: 12/16/2011 3:34:39 PM

Analyst:

Data Type: Original

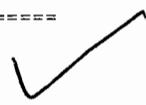


Replicate Data: LCS ~~11716~~ 11715

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.44	19.44	0.0995	0.3847	0.0997	15:35:36	No
2	19.44	19.44	0.0994	0.3777	0.0997	15:36:09	No
Mean:	19.44	19.44	0.0994				

SD: 0.003 0.003 0.0000  
 %RSD: 0.016 0.016 0.02

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCS MR-~~11716~~ 11715 Date Collected: 12/16/2011 3:36:10 PM  
 Analyst: Data Type: Original



Replicate Data: LCS MR-~~11716~~ 11715  
 Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak  
 # ug/L ug/L Signal Area Height Stored  
 1 20.36 20.36 0.1041 0.3933 0.1044 15:37:07 No  
 2 20.33 20.33 0.1040 0.3909 0.1043 15:37:40 No  
 Mean: 20.34 20.34 0.1041  
 SD: 0.018 0.018 0.0001  
 %RSD: 0.088 0.088 0.09

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63081-032 Date Collected: 12/16/2011 3:37:42 PM  
 Analyst: Data Type: Original



Replicate Data: 63081-032  
 Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak  
 # ug/L ug/L Signal Area Height Stored  
 1 64.81 64.81 0.3316 1.2731 0.3318 15:38:38 No  
 Sample concentration is greater than that of the highest standard.  
 2 64.12 64.12 0.3280 1.2612 0.3283 15:39:11 No  
 Sample concentration is greater than that of the highest standard.  
 Mean: 64.46 64.46 0.3298  
 SD: 0.491 0.491 0.0025  
 %RSD: 0.762 0.762 0.76  
 Sample concentration is greater than that of the highest standard.

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63081-032 MR Date Collected: 12/16/2011 3:39:37 PM  
 Analyst: Data Type: Original



Replicate Data: 63081-032 MR  
 Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak  
 # ug/L ug/L Signal Area Height Stored  
 1 16.28 16.28 0.0833 0.3092 0.0835 15:40:37 No  
 2 16.03 16.03 0.0820 0.3048 0.0823 15:41:10 No  
 Mean: 16.15 16.15 0.0826  
 SD: 0.175 0.175 0.0009  
 %RSD: 1.080 1.080 1.08

Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63081-032 MS1 Date Collected: 12/16/2011 3:41:12 PM  
 Analyst: Data Type: Original



Replicate Data: 63081-032 MS1  
 Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak  
 # ug/L ug/L Signal Area Height Stored  
 1 28.28 28.28 0.1447 0.5440 0.1449 15:42:09 No  
 Sample concentration is greater than that of the highest standard.  
 2 27.69 27.69 0.1416 0.5271 0.1419 15:42:42 No  
 Sample concentration is greater than that of the highest standard.  
 Mean: 27.98 27.98 0.1432  
 SD: 0.418 0.418 0.0021  
 %RSD: 1.494 1.494 1.49  
 Sample concentration is greater than that of the highest standard.

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63081-032 MS2 Date Collected: 12/16/2011 3:42:44 PM  
 Analyst: Data Type: Original



Replicate Data: 63081-032 MS2



Sequence No.: 22

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/16/2011 3:50:48 PM

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.275	0.275	0.0014	0.0133	0.0017	15:51:45	No
2	0.236	0.236	0.0012	0.0114	0.0015	15:52:18	No
Mean:	0.256	0.256	0.0013				
SD:	0.027	0.027	0.0001				
%RSD:	10.72	10.72	10.76				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.



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1	[1]	0.0051	0.0187	0.0052	18:25:44	Yes
2	[1]	0.0049	0.0167	0.0050	18:26:17	Yes
Mean:	[1]	0.0050				
SD:	0	0.0002				
%RSD:	0	3.37				

Standard number 3 applied. [1]

Correlation Coef.: 0.997954 Slope: 0.00503 Intercept: -0.00013

```
=====
Sequence No.: 5                               Autosampler Location: 5
Sample ID: 2 PPB                             Date Collected: 12/9/2011 6:26:19 PM
Analyst:                                     Data Type: Original
=====
```

Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0108	0.0423	0.0109	18:27:06	Yes
2		[2]	0.0108	0.0415	0.0109	18:27:39	Yes
Mean:		[2]	0.0108				
SD:	0	0.0000					
%RSD:	0	0.10					

Standard number 4 applied. [2]

Correlation Coef.: 0.998745 Slope: 0.00546 Intercept: -0.00027

```
=====
Sequence No.: 6                               Autosampler Location: 6
Sample ID: 5 PPB                             Date Collected: 12/9/2011 6:27:41 PM
Analyst:                                     Data Type: Original
=====
```

Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0268	0.0935	0.0269	18:28:27	Yes
2		[5]	0.0270	0.0934	0.0272	18:29:00	Yes
Mean:		[5]	0.0269				
SD:	0	0.0002					
%RSD:	0	0.72					

Standard number 5 applied. [5]

Correlation Coef.: 0.999816 Slope: 0.00544 Intercept: -0.00026

```
=====
Sequence No.: 7                               Autosampler Location: 7
Sample ID: 10 PPB                            Date Collected: 12/9/2011 6:29:01 PM
Analyst:                                     Data Type: Original
=====
```

Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0532	0.1819	0.0533	18:29:49	Yes
2		[10]	0.0534	0.1824	0.0535	18:30:23	Yes
Mean:		[10]	0.0533				
SD:	0	0.0002					
%RSD:	0	0.29					

Standard number 6 applied. [10]

Correlation Coef.: 0.999932 Slope: 0.00536 Intercept: -0.00018

```
=====
Sequence No.: 8                               Autosampler Location: 8
Sample ID: 25 PPB                            Date Collected: 12/9/2011 6:30:24 PM
Analyst:                                     Data Type: Original
=====
```

Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1304	0.4439	0.1305	18:31:11	Yes
2		[25]	0.1310	0.4440	0.1311	18:31:45	Yes
Mean:		[25]	0.1307				
SD:	0	0.0004					
%RSD:	0	0.32					

Standard number 7 applied. [25]

Correlation Coef.: 0.999940 Slope: 0.00524 Intercept: 0.00008

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.015	0.00	8.8
.2 PPB	0.0008	0.2	0.140	0.00	36.1
.5 PPB	0.0022	0.5	0.407	0.00	0.9
1 PPB	0.0050	1.0	0.938	0.00	3.4
2 PPB	0.0108	2.0	2.043	0.00	0.1
5 PPB	0.0269	5.0	5.118	0.00	0.7
10 PPB	0.0533	10.0	10.151	0.00	0.3
25 PPB	0.1307	25.0	24.917	0.00	0.3

Correlation Coef.: 0.999940 Slope: 0.00524 Intercept: 0.00008

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/9/2011 6:31:46 PM

Analyst:

Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.73	20.73	0.1088	0.3615	0.1089	18:32:36	Yes
2	20.66	20.66	0.1084	0.3637	0.1085	18:33:09	Yes
Mean:	20.70	20.70	0.1086				
SD:	0.048	0.048	0.0003				
%RSD:	0.234	0.234	0.23				

QC value within limits for Hg 253.7 Recovery = 103.49%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/9/2011 6:33:11 PM

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0000	-0.0002	0.0001	18:33:58	Yes
2	-0.043	-0.043	-0.0001	-0.0021	-0.0000	18:34:31	Yes
Mean:	-0.029	-0.029	-0.0001				
SD:	0.020	0.020	0.0001				
%RSD:	67.90	67.90	140.40				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11681 (1)

Date Collected: 12/9/2011 6:34:33 PM

Analyst:

Data Type: Original

## Replicate Data: MB 11681 (1)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0000	0.0010	0.0001	18:35:20	Yes
2	0.098	0.098	0.0006	0.0065	0.0007	18:35:54	Yes
Mean:	0.040	0.040	0.0003				
SD:	0.082	0.082	0.0004				
%RSD:	207.3	207.3	150.37				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCSW 11681

Date Collected: 12/9/2011 6:35:55 PM

Analyst:

Data Type: Original

## Replicate Data: LCSW 11681

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.46	10.46	0.0549	0.1893	0.0550	18:36:41	Yes
2	10.49	10.49	0.0550	0.1880	0.0552	18:37:15	Yes
Mean:	10.47	10.47	0.0550				

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SD: 0.019 0.019 0.0001  
 %RSD: 0.180 0.180 0.18

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCSW MR 11681 Date Collected: 12/9/2011 6:37:16 PM  
 Analyst: Data Type: Original

Replicate Data: LCSW MR 11681

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.55	10.55	0.0554	0.1882	0.0555	18:38:03	Yes
2	10.57	10.57	0.0555	0.1884	0.0556	18:38:36	Yes
Mean:	10.56	10.56	0.0554				
SD:	0.019	0.019	0.0001				
%RSD:	0.181	0.181	0.18				

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63077-001 Date Collected: 12/9/2011 6:38:38 PM  
 Analyst: Data Type: Original

Replicate Data: 63077-001

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0001	0.0010	0.0002	18:39:24	Yes
2	-0.021	-0.021	-0.0000	0.0001	0.0001	18:39:58	Yes
Mean:	-0.011	-0.011	0.0000				
SD:	0.014	0.014	0.0001				
%RSD:	132.5	132.5	316.44				

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63077-001 MR Date Collected: 12/9/2011 6:39:59 PM  
 Analyst: Data Type: Original

Replicate Data: 63077-001 MR

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.030	-0.030	-0.0001	-0.0000	0.0001	18:40:46	Yes
2	-0.037	-0.037	-0.0001	-0.0005	0.0000	18:41:19	Yes
Mean:	-0.034	-0.034	-0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	14.36	14.36	25.83				

Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63077-001 MS1 Date Collected: 12/9/2011 6:41:21 PM  
 Analyst: Data Type: Original

Replicate Data: 63077-001 MS1

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.31	10.31	0.0541	0.1770	0.0542	18:42:07	Yes
2	10.22	10.22	0.0536	0.1803	0.0538	18:42:41	Yes
Mean:	10.26	10.26	0.0539				
SD:	0.064	0.064	0.0003				
%RSD:	0.623	0.623	0.62				

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63077-001 MS2 Date Collected: 12/9/2011 6:42:42 PM  
 Analyst: Data Type: Original

Replicate Data: 63077-001 MS2

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.944	9.944	0.0522	0.1753	0.0523	18:43:29	Yes
2	9.895	9.895	0.0519	0.1739	0.0521	18:44:02	Yes
Mean:	9.920	9.920	0.0521				
SD:	0.035	0.035	0.0002				

%RSD: 0.351 0.351 0.35

Sequence No.: 18 Autosampler Location: 18  
 Sample ID: 63081-011 Date Collected: 12/9/2011 6:44:04 PM  
 Analyst: Data Type: Original



Replicate Data: 63081-011

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	56.19	56.19	0.2946	1.0328	0.2947	18:44:50	Yes
Sample concentration is greater than that of the highest standard.							
2	57.23	57.23	0.3001	1.0454	0.3002	18:45:24	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	56.71	56.71	0.2973				
SD:	0.740	0.740	0.0039				
%RSD:	1.305	1.305	1.30				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 19 Autosampler Location: 19  
 Sample ID: 63081-012 Date Collected: 12/9/2011 6:45:25 PM  
 Analyst: Data Type: Original



Replicate Data: 63081-012

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	107.9	107.9	0.5655	2.0611	0.5657	18:46:16	Yes
Sample concentration is greater than that of the highest standard.							
2	108.0	108.0	0.5664	2.0610	0.5665	18:46:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	108.0	108.0	0.5659				
SD:	0.113	0.113	0.0006				
%RSD:	0.105	0.105	0.11				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 20 Autosampler Location: 20  
 Sample ID: 63081-011 5D Date Collected: 12/9/2011 6:46:51 PM  
 Analyst: Data Type: Original



Replicate Data: 63081-011 5D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.60	13.60	0.0714	0.2419	0.0715	18:47:37	Yes
2	13.71	13.71	0.0719	0.2435	0.0721	18:48:11	Yes
Mean:	13.65	13.65	0.0717				
SD:	0.076	0.076	0.0004				
%RSD:	0.559	0.559	0.56				

Sequence No.: 21 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/9/2011 6:48:12 PM  
 Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.62	10.62	0.0557	0.1894	0.0559	18:48:59	Yes
2	10.59	10.59	0.0556	0.1886	0.0557	18:49:33	Yes
Mean:	10.60	10.60	0.0556				
SD:	0.021	0.021	0.0001				
%RSD:	0.199	0.199	0.20				

QC value within limits for Hg 253.7 Recovery = 106.00%  
 All analyte(s) passed QC.

Sequence No.: 22 Autosampler Location: 1  
 Sample ID: CCB Date Collected: 12/9/2011 6:49:34 PM  
 Analyst: Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0000	-0.0002	0.0001	18:50:21	Yes
2	-0.026	-0.026	-0.0001	-0.0013	0.0001	18:50:55	Yes
Mean:	-0.021	-0.021	-0.0000				
SD:	0.007	0.007	0.0000				
%RSD:	35.02	35.02	124.98				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 23

Sample ID: 63081-012 10D

Analyst:

Autosampler Location: 21

Date Collected: 12/9/2011 6:50:56 PM

Data Type: Original

## Replicate Data: 63081-012 10D

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.23	14.23	0.0747	0.2497	0.0748	18:51:44	Yes
2	14.21	14.21	0.0746	0.2463	0.0747	18:52:18	Yes
Mean:	14.22	14.22	0.0746				
SD:	0.015	0.015	0.0001				
%RSD:	0.102	0.102	0.10				

Sequence No.: 24

Sample ID: CCV

Analyst:

Autosampler Location: 9

Date Collected: 12/9/2011 6:52:19 PM

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.41	10.41	0.0546	0.1836	0.0548	18:53:07	Yes
2	10.33	10.33	0.0542	0.1826	0.0544	18:53:40	Yes
Mean:	10.37	10.37	0.0544				
SD:	0.055	0.055	0.0003				
%RSD:	0.532	0.532	0.53				

QC value within limits for Hg 253.7 Recovery = 103.71%  
All analyte(s) passed QC.

Sequence No.: 25

Sample ID: CCB

Analyst:

Autosampler Location: 1

Date Collected: 12/9/2011 6:53:41 PM

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0016	0.0002	18:54:28	Yes
2	0.096	0.096	0.0006	0.0068	0.0007	18:55:01	Yes
Mean:	0.051	0.051	0.0003				
SD:	0.063	0.063	0.0003				
%RSD:	124.8	124.8	96.33				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.



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1	[1]	0.0061	0.0276	0.0061	19:24:00	No
2	[1]	0.0059	0.0250	0.0059	19:24:33	No
Mean:	[1]	0.0060				
SD:	0	0.0001				
%RSD:	0	2.09				

Standard number 3 applied. [1]

Correlation Coef.: 0.994504 Slope: 0.00621 Intercept: -0.00032

```

=====
Sequence No.: 5                               Autosampler Location: 5
Sample ID: 2 PPB                             Date Collected: 12/9/2011 7:24:35 PM
Analyst:                                     Data Type: Original
=====

```

Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0112	0.0404	0.0112	19:25:31	No
2		[2]	0.0109	0.0388	0.0109	19:26:05	No
Mean:		[2]	0.0110				
SD:		0	0.0002				
%RSD:		0	1.52				

Standard number 4 applied. [2]

Correlation Coef.: 0.997334 Slope: 0.00569 Intercept: -0.00015

```

=====
Sequence No.: 6                               Autosampler Location: 6
Sample ID: 5 PPB                             Date Collected: 12/9/2011 7:26:06 PM
Analyst:                                     Data Type: Original
=====

```

Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0291	0.0994	0.0291	19:27:03	No
2		[5]	0.0293	0.0994	0.0294	19:27:36	No
Mean:		[5]	0.0292				
SD:		0	0.0001				
%RSD:		0	0.50				

Standard number 5 applied. [5]

Correlation Coef.: 0.999551 Slope: 0.00588 Intercept: -0.00027

```

=====
Sequence No.: 7                               Autosampler Location: 7
Sample ID: 10 PPB                            Date Collected: 12/9/2011 7:27:38 PM
Analyst:                                     Data Type: Original
=====

```

Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0583	0.1968	0.0583	19:28:34	No
2		[10]	0.0582	0.1954	0.0582	19:29:07	No
Mean:		[10]	0.0583				
SD:		0	0.0001				
%RSD:		0	0.13				

Standard number 6 applied. [10]

Correlation Coef.: 0.999898 Slope: 0.00585 Intercept: -0.00024

```

=====
Sequence No.: 8                               Autosampler Location: 8
Sample ID: 25 PPB                            Date Collected: 12/9/2011 7:29:09 PM
Analyst:                                     Data Type: Original
=====

```

Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1420	0.4798	0.1420	19:30:06	No
2		[25]	0.1387	0.4667	0.1387	19:30:39	No
Mean:		[25]	0.1404				
SD:		0	0.0023				
%RSD:		0	1.67				

Standard number 7 applied. [25]

Correlation Coef.: 0.999844 Slope: 0.00564 Intercept: 0.00023

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.041	0.00	667.1
.2 PPB	0.0006	0.2	0.065	0.00	26.1
.5 PPB	0.0026	0.5	0.428	0.00	3.2
1 PPB	0.0060	1.0	1.027	0.00	2.1
2 PPB	0.0110	2.0	1.918	0.00	1.5
5 PPB	0.0292	5.0	5.148	0.00	0.5
10 PPB	0.0583	10.0	10.295	0.00	0.1
25 PPB	0.1404	25.0	24.860	0.00	1.7

Correlation Coef.: 0.999844 Slope: 0.00564 Intercept: 0.00023

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/9/2011 7:30:41 PM

Analyst:

Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.88	19.88	0.1123	0.3852	0.1123	19:31:40	No
2	20.05	20.05	0.1132	0.3875	0.1132	19:32:13	No
Mean:	19.97	19.97	0.1128				
SD:	0.118	0.118	0.0007				
%RSD:	0.591	0.591	0.59				

QC value within limits for Hg 253.7 Recovery = 99.84%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/9/2011 7:32:15 PM

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0001	0.0008	0.0001	19:33:12	No
2	0.021	0.021	0.0004	0.0021	0.0004	19:33:46	No
Mean:	0.001	0.001	0.0002				
SD:	0.029	0.029	0.0002				
%RSD:	>999.9%	>999.9%	69.56				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11679 (167)

Date Collected: 12/9/2011 7:33:47 PM

Analyst:

Data Type: Original

## Replicate Data: MB 11679 (167)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.059	0.059	0.0006	0.0051	0.0006	19:34:45	No
2	0.043	0.043	0.0005	0.0043	0.0005	19:35:18	No
Mean:	0.051	0.051	0.0005				
SD:	0.011	0.011	0.0001				
%RSD:	22.62	22.62	12.46				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCS 11679

Date Collected: 12/9/2011 7:35:20 PM

Analyst:

Data Type: Original

## Replicate Data: LCS 11679

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	22.72	22.72	0.1283	0.4412	0.1283	19:36:16	No
2	22.57	22.57	0.1275	0.4376	0.1275	19:36:50	No
Mean:	22.64	22.64	0.1279				

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Date: 12/9/2011 7:43:55 PM

SD: 0.103 0.103 0.0006  
 %RSD: 0.453 0.453 0.45

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCS MR 11679 Date Collected: 12/9/2011 7:36:52 PM  
 Analyst: Data Type: Original

Replicate Data: LCS MR 11679

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.76	20.76	0.1172	0.4017	0.1172	19:37:48	No
2	20.52	20.52	0.1159	0.3965	0.1159	19:38:21	No
Mean:	20.64	20.64	0.1166				
SD:	0.165	0.165	0.0009				
%RSD:	0.802	0.802	0.80				

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63081-038 Date Collected: 12/9/2011 7:38:23 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-038

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	12.69	12.69	0.0717	0.2472	0.0717	19:39:19	No
2	12.46	12.46	0.0705	0.2424	0.0705	19:39:52	No
Mean:	12.57	12.57	0.0711				
SD:	0.160	0.160	0.0009				
%RSD:	1.269	1.269	1.26				

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63081-038 MR Date Collected: 12/9/2011 7:39:54 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-038 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.23	10.23	0.0579	0.1967	0.0579	19:40:50	No
2	9.740	9.740	0.0551	0.1867	0.0551	19:41:24	No
Mean:	9.984	9.984	0.0565				
SD:	0.345	0.345	0.0019				
%RSD:	3.454	3.454	3.44				

Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63081-038 MS1 Date Collected: 12/9/2011 7:41:25 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-038 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	31.76	31.76	0.1792	0.6253	0.1792	19:42:22	No
2	31.68	31.68	0.1788	0.6255	0.1788	19:42:56	No
Mean:	31.72	31.72	0.1790				
SD:	0.057	0.057	0.0003				
%RSD:	0.179	0.179	0.18				

Sample concentration is greater than that of the highest standard.

Sample concentration is greater than that of the highest standard.

Sample concentration is greater than that of the highest standard.

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63081-038 MS2 Date Collected: 12/9/2011 7:42:57 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-038 MS2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.23	19.23	0.1086	0.3825	0.1086	19:43:53	No

Method: HgCV1 SOIL (7471A)

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Date: 12/9/2011 7:52:00 PM

2	19.32	19.32	0.1091	0.3870	0.1091	19:44:27	No
Mean:	19.28	19.28	0.1089				
SD:	0.064	0.064	0.0004				
%RSD:	0.334	0.334	0.33				

Sequence No.: 18  
 Sample ID: 63081-036  
 Analyst: Autosampler Location: 18  
 Date Collected: 12/9/2011 7:44:28 PM  
 Data Type: Original

Replicate Data: 63081-036

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.353	4.353	0.0248	0.0912	0.0248	19:45:25	No
2	4.381	4.381	0.0249	0.0904	0.0249	19:45:58	No
Mean:	4.367	4.367	0.0248				
SD:	0.020	0.020	0.0001				
%RSD:	0.461	0.461	0.46				

Sequence No.: 19  
 Sample ID: 63081-040  
 Analyst: Autosampler Location: 19  
 Date Collected: 12/9/2011 7:45:59 PM  
 Data Type: Original

Replicate Data: 63081-040

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	53.76	53.76	0.3033	1.0676	0.3033	19:46:59	No
Sample concentration is greater than that of the highest standard.							
2	54.47	54.47	0.3072	1.0738	0.3072	19:47:33	No
Sample concentration is greater than that of the highest standard.							
Mean:	54.12	54.12	0.3052				
SD:	0.501	0.501	0.0028				
%RSD:	0.925	0.925	0.92				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 20  
 Sample ID: 63081-041  
 Analyst: Autosampler Location: 20  
 Date Collected: 12/9/2011 7:47:57 PM  
 Data Type: Original

Replicate Data: 63081-041

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	12.68	12.68	0.0717	0.2480	0.0717	19:48:55	No
2	12.70	12.70	0.0718	0.2475	0.0718	19:49:28	No
Mean:	12.69	12.69	0.0718				
SD:	0.012	0.012	0.0001				
%RSD:	0.091	0.091	0.09				

Sequence No.: 21  
 Sample ID: CCV  
 Analyst: Autosampler Location: 9  
 Date Collected: 12/9/2011 7:49:30 PM  
 Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.12	10.12	0.0573	0.1974	0.0573	19:50:27	No
2	10.08	10.08	0.0570	0.1964	0.0570	19:51:00	No
Mean:	10.10	10.10	0.0572				
SD:	0.028	0.028	0.0002				
%RSD:	0.274	0.274	0.27				

QC value within limits for Hg 253.7 Recovery = 100.99%  
 All analyte(s) passed QC.

Sequence No.: 22  
 Sample ID: CCB  
 Analyst: Autosampler Location: 1  
 Date Collected: 12/9/2011 7:51:02 PM  
 Data Type: Original

Method: HgCV1 SOIL (7471A)

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Date: 12/9/2011 7:59:44 PM

## Replicate Data: CCB

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0001	-0.0027	-0.0001	19:51:58	No
2	-0.043	-0.043	-0.0000	-0.0017	-0.0000	19:52:32	No
Mean:	-0.047	-0.047	-0.0000				
SD:	0.006	0.006	0.0000				
%RSD:	12.47	12.47	103.92				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 24

Sample ID: 63081-038 2D

Date Collected: 12/9/2011 7:52:33 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-038 2D

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.249	6.249	0.0355	0.1193	0.0355	19:53:32	No
2	6.161	6.161	0.0350	0.1161	0.0350	19:54:06	No
Mean:	6.205	6.205	0.0352				
SD:	0.062	0.062	0.0004				
%RSD:	1.003	1.003	1.00				

Sequence No.: 24

Autosampler Location: 25

Sample ID: 63081-038 MR 2D

Date Collected: 12/9/2011 7:54:07 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-038 MR 2D

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.977	4.977	0.0283	0.0944	0.0283	19:55:04	No
2	5.052	5.052	0.0287	0.1025	0.0287	19:55:37	No
Mean:	5.014	5.014	0.0285				
SD:	0.053	0.053	0.0003				
%RSD:	1.059	1.059	1.05				

Sequence No.: 25

Autosampler Location: 26

Sample ID: 63081-038 MS1 2D

Date Collected: 12/9/2011 7:55:39 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-038 MS1 2D

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	16.91	16.91	0.0956	0.3300	0.0956	19:56:35	No
2	17.02	17.02	0.0962	0.3291	0.0962	19:57:09	No
Mean:	16.97	16.97	0.0959				
SD:	0.078	0.078	0.0004				
%RSD:	0.459	0.459	0.46				

Sequence No.: 26

Autosampler Location: 27

Sample ID: 63081-038 MS2 2D

Date Collected: 12/9/2011 7:57:10 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-038 MS2 2D

Repl #	Sample Conc ug/L	Stnd Conc ug/L	Blnk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.24	10.24	0.0580	0.1983	0.0580	19:58:07	No
2	10.10	10.10	0.0572	0.1953	0.0572	19:58:41	No
Mean:	10.17	10.17	0.0576				
SD:	0.099	0.099	0.0006				
%RSD:	0.972	0.972	0.97				

Sequence No.: 27

Autosampler Location: 28

Sample ID: 63081-040 4D

Date Collected: 12/9/2011 7:58:42 PM

Analyst:

Data Type: Original

Method: HgCV1 SOIL (7471A)

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Date: 12/9/2011 8:07:26 PM

-----  
Replicate Data: 63081-040 4D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.54	14.54	0.0822	0.2799	0.0822	19:59:42	No
2	14.60	14.60	0.0825	0.2809	0.0825	20:00:16	No
Mean:	14.57	14.57	0.0824				
SD:	0.038	0.038	0.0002				
%RSD:	0.260	0.260	0.26				

=====

Sequence No.: 28  
Sample ID: 63081-043  
Analyst:Autosampler Location: 21  
Date Collected: 12/9/2011 8:00:17 PM  
Data Type: Original-----  
Replicate Data: 63081-043

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.226	4.226	0.0241	0.0831	0.0241	20:01:15	No
2	4.183	4.183	0.0238	0.0812	0.0238	20:01:48	No
Mean:	4.205	4.205	0.0239				
SD:	0.030	0.030	0.0002				
%RSD:	0.720	0.720	0.71				

=====

Sequence No.: 29  
Sample ID: 63081-045  
Analyst:Autosampler Location: 22  
Date Collected: 12/9/2011 8:01:50 PM  
Data Type: Original-----  
Replicate Data: 63081-045

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.313	3.313	0.0189	0.0648	0.0189	20:02:47	No
2	3.262	3.262	0.0186	0.0598	0.0186	20:03:20	No
Mean:	3.288	3.288	0.0188				
SD:	0.036	0.036	0.0002				
%RSD:	1.090	1.090	1.08				

=====

Sequence No.: 30  
Sample ID: 63081-046  
Analyst:Autosampler Location: 23  
Date Collected: 12/9/2011 8:03:22 PM  
Data Type: Original-----  
Replicate Data: 63081-046

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	17.31	17.31	0.0978	0.3327	0.0978	20:04:19	No
2	17.33	17.33	0.0979	0.3326	0.0979	20:04:52	No
Mean:	17.32	17.32	0.0979				
SD:	0.011	0.011	0.0001				
%RSD:	0.064	0.064	0.06				

=====

Sequence No.: 31  
Sample ID: 63081-046 4D  
Analyst:Autosampler Location: 29  
Date Collected: 12/9/2011 8:04:53 PM  
Data Type: Original-----  
Replicate Data: 63081-046 4D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.309	4.309	0.0245	0.0808	0.0245	20:05:51	No
2	4.288	4.288	0.0244	0.0832	0.0244	20:06:25	No
Mean:	4.298	4.298	0.0245				
SD:	0.015	0.015	0.0001				
%RSD:	0.337	0.337	0.33				

=====

Sequence No.: 32  
Sample ID: CCV  
Analyst:Autosampler Location: 9  
Date Collected: 12/9/2011 8:06:26 PM  
Data Type: Original

Method: HgCV1 SOIL (7471A)

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Date: 12/9/2011 8:09:38 PM

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.10	10.10	0.0571	0.1964	0.0571	20:07:24	No
2	10.07	10.07	0.0570	0.1999	0.0570	20:07:58	No
Mean:	10.08	10.08	0.0571				
SD:	0.020	0.020	0.0001				
%RSD:	0.199	0.199	0.20				

QC value within limits for Hg 253.7 Recovery = 100.82%  
All analyte(s) passed QC.

Sequence No.: 33

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/9/2011 8:07:59 PM

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.059	0.059	0.0006	0.0054	0.0006	20:08:56	No
2	0.028	0.028	0.0004	0.0037	0.0004	20:09:29	No
Mean:	0.043	0.043	0.0005				
SD:	0.021	0.021	0.0001				
%RSD:	49.44	49.44	25.33				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.



Method: HgCV1 SOIL (7471A)

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1	[1]	0.0056	0.0249	0.0056	19:26:11	No
2	[1]	0.0058	0.0283	0.0059	19:26:44	No
Mean:	[1]	0.0057				
SD:	0	0.0002				
%RSD:	0	2.84				

Standard number 3 applied. [1]  
Correlation Coef.: 0.996484 Slope: 0.00584 Intercept: -0.00024

Sequence No.: 5 Autosampler Location: 5  
Sample ID: 2 PPB Date Collected: 12/20/2011 7:26:46 PM  
Analyst: Data Type: Original

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0114	0.0458	0.0114	19:27:43	No
2		[2]	0.0112	0.0448	0.0113	19:28:16	No
Mean:		[2]	0.0113				
SD:		0	0.0001				
%RSD:		0	0.86				

Standard number 4 applied. [2]  
Correlation Coef.: 0.999168 Slope: 0.00577 Intercept: -0.00022

Sequence No.: 6 Autosampler Location: 6  
Sample ID: 5 PPB Date Collected: 12/20/2011 7:28:18 PM  
Analyst: Data Type: Original

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0272	0.1024	0.0273	19:29:14	No
2		[5]	0.0274	0.1031	0.0274	19:29:47	No
Mean:		[5]	0.0273				
SD:		0	0.0001				
%RSD:		0	0.37				

Standard number 5 applied. [5]  
Correlation Coef.: 0.999676 Slope: 0.00550 Intercept: -0.00005

Sequence No.: 7 Autosampler Location: 7  
Sample ID: 10 PPB Date Collected: 12/20/2011 7:29:49 PM  
Analyst: Data Type: Original

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0547	0.2011	0.0548	19:30:45	No
2		[10]	0.0543	0.2006	0.0544	19:31:19	No
Mean:		[10]	0.0545				
SD:		0	0.0003				
%RSD:		0	0.52				

Standard number 6 applied. [10]  
Correlation Coef.: 0.999920 Slope: 0.00546 Intercept: -0.00001

Sequence No.: 8 Autosampler Location: 8  
Sample ID: 25 PPB Date Collected: 12/20/2011 7:31:20 PM  
Analyst: Data Type: Original

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1334	0.4859	0.1334	19:32:17	No
2		[25]	0.1344	0.4856	0.1344	19:32:50	No
Mean:		[25]	0.1339				
SD:		0	0.0007				
%RSD:		0	0.52				

Standard number 7 applied. [25]  
Correlation Coef.: 0.999955 Slope: 0.00536 Intercept: 0.00021

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.039	0.00	564.9
.2 PPB	0.0007	0.2	0.088	0.00	15.4
.5 PPB	0.0026	0.5	0.444	0.00	6.0
1 PPB	0.0057	1.0	1.023	0.00	2.8
2 PPB	0.0113	2.0	2.066	0.00	0.9
5 PPB	0.0273	5.0	5.054	0.00	0.4
10 PPB	0.0545	10.0	10.132	0.00	0.5
25 PPB	0.1339	25.0	24.932	0.00	0.5

Correlation Coef.: 0.999955 Slope: 0.00536 Intercept: 0.00021

Sequence No.: 9

Sample ID: ICV (2)

Analyst:

Autosampler Location: 10

Date Collected: 12/20/2011 7:32:52 PM

Data Type: Original

## Replicate Data: ICV (2)

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.93	19.93	0.1070	0.3867	0.1071	19:33:52	No
2	19.79	19.79	0.1063	0.3889	0.1063	19:34:25	No
Mean:	19.86	19.86	0.1067				
SD:	0.097	0.097	0.0005				
%RSD:	0.491	0.491	0.49				

QC value within limits for Hg 253.7 Recovery = 99.29%

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: ICB

Analyst:

Autosampler Location: 1

Date Collected: 12/20/2011 7:34:27 PM

Data Type: Original

## Replicate Data: ICB

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0003	0.0020	0.0003	19:35:24	No
2	-0.010	-0.010	0.0002	0.0014	0.0002	19:35:57	No
Mean:	-0.001	-0.001	0.0002				
SD:	0.013	0.013	0.0001				
%RSD:	>999.9%	>999.9%	34.26				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: MB 11715 (167)

Analyst:

Autosampler Location: 11

Date Collected: 12/20/2011 7:35:59 PM

Data Type: Original

## Replicate Data: MB 11715 (167)

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0003	0.0026	0.0004	19:36:56	No
2	0.120	0.120	0.0009	0.0079	0.0009	19:37:30	No
Mean:	0.071	0.071	0.0006				
SD:	0.070	0.070	0.0004				
%RSD:	97.94	97.94	63.34				

Sequence No.: 12

Sample ID: LCS ~~11716~~ 11715

Analyst:

Autosampler Location: 12

Date Collected: 12/20/2011 7:37:31 PM

Data Type: Original

Replicate Data: LCS ~~11716~~ 11715

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1	18.76	18.76	0.1008	0.3653	0.1008	19:38:27	No
2	18.75	18.75	0.1007	0.3649	0.1008	19:39:01	No
Mean:	18.76	18.76	0.1008				

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SD: 0.011 0.011 0.0001  
 %RSD: 0.057 0.057 0.06

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCS MR ~~11716~~ 11715 Date Collected: 12/20/2011 7:39:02 PM  
 Analyst: Data Type: Original

Replicate Data: LCS MR ~~11716~~ 11715

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.60	20.60	0.1107	0.3976	0.1107	19:39:59	No
2	20.97	20.97	0.1126	0.4045	0.1127	19:40:32	No
Mean:	20.78	20.78	0.1116				
SD:	0.257	0.257	0.0014				
%RSD:	1.239	1.239	1.24				

Sequence No.: 14 Autosampler Location: 21  
 Sample ID: 63081-032 4D Date Collected: 12/20/2011 7:40:34 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-032 4D

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	18.02	18.02	0.0968	0.3401	0.0969	19:41:31	No
2	18.07	18.07	0.0971	0.3421	0.0972	19:42:04	No
Mean:	18.05	18.05	0.0970				
SD:	0.039	0.039	0.0002				
%RSD:	0.219	0.219	0.22				

Sequence No.: 15 Autosampler Location: 22  
 Sample ID: 63081-032 MR 4D Date Collected: 12/20/2011 7:42:05 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-032 MR 4D

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.194	4.194	0.0227	0.0801	0.0227	19:43:02	No
2	4.189	4.189	0.0227	0.0800	0.0227	19:43:36	No
Mean:	4.192	4.192	0.0227				
SD:	0.003	0.003	0.0000				
%RSD:	0.075	0.075	0.07				

Sequence No.: 16 Autosampler Location: 23  
 Sample ID: 63081-032 MS1 4D Date Collected: 12/20/2011 7:43:37 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-032 MS1 4D

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.344	7.344	0.0396	0.1390	0.0396	19:44:33	No
2	7.277	7.277	0.0392	0.1319	0.0393	19:45:06	No
Mean:	7.311	7.311	0.0394				
SD:	0.048	0.048	0.0003				
%RSD:	0.654	0.654	0.65				

Sequence No.: 17 Autosampler Location: 24  
 Sample ID: 63081-032 MS2 4D Date Collected: 12/20/2011 7:45:08 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-032 MS2 4D

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.70	10.70	0.0576	0.1987	0.0576	19:46:04	No
2	10.67	10.67	0.0574	0.1974	0.0575	19:46:38	No
Mean:	10.69	10.69	0.0575				
SD:	0.019	0.019	0.0001				

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%RSD: 0.180 0.180 0.18

Sequence No.: 18 Autosampler Location: 25  
 Sample ID: 63081-047 50D Date Collected: 12/20/2011 7:46:39 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-047 50D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	34.16	34.16	0.1833	0.6215	0.1834	19:47:36	No
Sample concentration is greater than that of the highest standard.							
2	33.19	33.19	0.1781	0.5889	0.1782	19:48:09	No
Sample concentration is greater than that of the highest standard.							
Mean:	33.67	33.67	0.1807				
SD:	0.687	0.687	0.0037				
%RSD:	2.040	2.040	2.04				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 19 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/20/2011 7:48:10 PM  
 Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.59	10.59	0.0570	0.2078	0.0570	19:49:09	No
2	10.81	10.81	0.0582	0.2112	0.0582	19:49:43	No
Mean:	10.70	10.70	0.0576				
SD:	0.157	0.157	0.0008				
%RSD:	1.466	1.466	1.46				
QC value within limits for Hg 253.7 Recovery = 107.01%							
All analyte(s) passed QC.							

Sequence No.: 20 Autosampler Location: 1  
 Sample ID: CCB Date Collected: 12/20/2011 7:49:44 PM  
 Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.080	0.080	0.0006	0.0074	0.0007	19:50:41	No
2	0.025	0.025	0.0003	0.0037	0.0004	19:51:14	No
Mean:	0.053	0.053	0.0005				
SD:	0.039	0.039	0.0002				
%RSD:	73.64	73.64	42.42				
QC value within limits for Hg 253.7 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 21 Autosampler Location: 26  
 Sample ID: 63081-047 100D Date Collected: 12/20/2011 7:51:16 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-047 100D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	17.37	17.37	0.0933	0.3115	0.0934	19:52:16	No
2	17.12	17.12	0.0920	0.2997	0.0921	19:52:49	No
Mean:	17.25	17.25	0.0927				
SD:	0.176	0.176	0.0009				
%RSD:	1.019	1.019	1.02				

Sequence No.: 22 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/20/2011 7:52:50 PM  
 Analyst: Data Type: Original

Replicate Data: CCV

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Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.87	10.87	0.0585	0.2061	0.0585	19:53:50	No
2	10.56	10.56	0.0568	0.2009	0.0569	19:54:23	No
Mean:	10.71	10.71	0.0576				
SD:	0.222	0.222	0.0012				
%RSD:	2.074	2.074	2.07				

Sequence No.: 23

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/20/2011 7:54:25 PM

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.046	0.046	0.0005	0.0046	0.0005	19:55:22	No
2	-0.014	-0.014	0.0001	0.0008	0.0002	19:55:55	No
Mean:	0.016	0.016	0.0003				
SD:	0.042	0.042	0.0002				
%RSD:	260.7	260.7	76.22				



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1	[1]	0.0051	0.0187	0.0052	18:25:44	Yes
2	[1]	0.0049	0.0167	0.0050	18:26:17	Yes
Mean:	[1]	0.0050				
SD:	0	0.0002				
%RSD:	0	3.37				

Standard number 3 applied. [1]

Correlation Coef.: 0.997954 Slope: 0.00503 Intercept: -0.00013

Sequence No.: 5  
Sample ID: 2 PPB  
Analyst:

Autosampler Location: 5  
Date Collected: 12/9/2011 6:26:19 PM  
Data Type: Original

Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0108	0.0423	0.0109	18:27:06	Yes
2		[2]	0.0108	0.0415	0.0109	18:27:39	Yes
Mean:		[2]	0.0108				
SD:		0	0.0000				
%RSD:		0	0.10				

Standard number 4 applied. [2]

Correlation Coef.: 0.998745 Slope: 0.00546 Intercept: -0.00027

Sequence No.: 6  
Sample ID: 5 PPB  
Analyst:

Autosampler Location: 6  
Date Collected: 12/9/2011 6:27:41 PM  
Data Type: Original

Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0268	0.0935	0.0269	18:28:27	Yes
2		[5]	0.0270	0.0934	0.0272	18:29:00	Yes
Mean:		[5]	0.0269				
SD:		0	0.0002				
%RSD:		0	0.72				

Standard number 5 applied. [5]

Correlation Coef.: 0.999816 Slope: 0.00544 Intercept: -0.00026

Sequence No.: 7  
Sample ID: 10 PPB  
Analyst:

Autosampler Location: 7  
Date Collected: 12/9/2011 6:29:01 PM  
Data Type: Original

Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0532	0.1819	0.0533	18:29:49	Yes
2		[10]	0.0534	0.1824	0.0535	18:30:23	Yes
Mean:		[10]	0.0533				
SD:		0	0.0002				
%RSD:		0	0.29				

Standard number 6 applied. [10]

Correlation Coef.: 0.999932 Slope: 0.00536 Intercept: -0.00018

Sequence No.: 8  
Sample ID: 25 PPB  
Analyst:

Autosampler Location: 8  
Date Collected: 12/9/2011 6:30:24 PM  
Data Type: Original

Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1304	0.4439	0.1305	18:31:11	Yes
2		[25]	0.1310	0.4440	0.1311	18:31:45	Yes
Mean:		[25]	0.1307				
SD:		0	0.0004				
%RSD:		0	0.32				

Standard number 7 applied. [25]

Correlation Coef.: 0.999940 Slope: 0.00524 Intercept: 0.00008

Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.015	0.00	8.8
.2 PPB	0.0008	0.2	0.140	0.00	36.1
.5 PPB	0.0022	0.5	0.407	0.00	0.9
1 PPB	0.0050	1.0	0.938	0.00	3.4
2 PPB	0.0108	2.0	2.043	0.00	0.1
5 PPB	0.0269	5.0	5.118	0.00	0.7
10 PPB	0.0533	10.0	10.151	0.00	0.3
25 PPB	0.1307	25.0	24.917	0.00	0.3

Correlation Coef.: 0.999940 Slope: 0.00524 Intercept: 0.00008

Sequence No.: 9  
 Sample ID: ICV (2)  
 Analyst:

Autosampler Location: 10  
 Date Collected: 12/9/2011 6:31:46 PM  
 Data Type: Original

Replicate Data: ICV (2)

Rep1 #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.73	20.73	0.1088	0.3615	0.1089	18:32:36	Yes
2	20.66	20.66	0.1084	0.3637	0.1085	18:33:09	Yes
Mean:	20.70	20.70	0.1086				
SD:	0.048	0.048	0.0003				
%RSD:	0.234	0.234	0.23				

QC value within limits for Hg 253.7 Recovery = 103.49%  
 All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICB  
 Analyst:

Autosampler Location: 1  
 Date Collected: 12/9/2011 6:33:11 PM  
 Data Type: Original

Replicate Data: ICB

Rep1 #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0000	-0.0002	0.0001	18:33:58	Yes
2	-0.043	-0.043	-0.0001	-0.0021	-0.0000	18:34:31	Yes
Mean:	-0.029	-0.029	-0.0001				
SD:	0.020	0.020	0.0001				
%RSD:	67.90	67.90	140.40				

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 11681 (1)  
 Analyst:

Autosampler Location: 11  
 Date Collected: 12/9/2011 6:34:33 PM  
 Data Type: Original



Replicate Data: MB 11681 (1)

Rep1 #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0000	0.0010	0.0001	18:35:20	Yes
2	0.098	0.098	0.0006	0.0065	0.0007	18:35:54	Yes
Mean:	0.040	0.040	0.0003				
SD:	0.082	0.082	0.0004				
%RSD:	207.3	207.3	150.37				

Sequence No.: 12  
 Sample ID: LCSW 11681  
 Analyst:

Autosampler Location: 12  
 Date Collected: 12/9/2011 6:35:55 PM  
 Data Type: Original



Replicate Data: LCSW 11681

Rep1 #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.46	10.46	0.0549	0.1893	0.0550	18:36:41	Yes
2	10.49	10.49	0.0550	0.1880	0.0552	18:37:15	Yes
Mean:	10.47	10.47	0.0550				

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SD: 0.019 0.019 0.0001  
 %RSD: 0.180 0.180 0.18

Sequence No.: 13  
 Sample ID: LCSW MR 11681  
 Analyst:

Autosampler Location: 13  
 Date Collected: 12/9/2011 6:37:16 PM  
 Data Type: Original

Replicate Data: LCSW MR 11681

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.55	10.55	0.0554	0.1882	0.0555	18:38:03	Yes
2	10.57	10.57	0.0555	0.1884	0.0556	18:38:36	Yes
Mean:	10.56	10.56	0.0554				
SD:	0.019	0.019	0.0001				
%RSD:	0.181	0.181	0.18				

Sequence No.: 14  
 Sample ID: 63077-001  
 Analyst:

Autosampler Location: 14  
 Date Collected: 12/9/2011 6:38:38 PM  
 Data Type: Original

Replicate Data: 63077-001

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0001	0.0010	0.0002	18:39:24	Yes
2	-0.021	-0.021	-0.0000	0.0001	0.0001	18:39:58	Yes
Mean:	-0.011	-0.011	0.0000				
SD:	0.014	0.014	0.0001				
%RSD:	132.5	132.5	316.44				

Sequence No.: 15  
 Sample ID: 63077-001 MR  
 Analyst:

Autosampler Location: 15  
 Date Collected: 12/9/2011 6:39:59 PM  
 Data Type: Original

Replicate Data: 63077-001 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.030	-0.030	-0.0001	-0.0000	0.0001	18:40:46	Yes
2	-0.037	-0.037	-0.0001	-0.0005	0.0000	18:41:19	Yes
Mean:	-0.034	-0.034	-0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	14.36	14.36	25.83				

Sequence No.: 16  
 Sample ID: 63077-001 MS1  
 Analyst:

Autosampler Location: 16  
 Date Collected: 12/9/2011 6:41:21 PM  
 Data Type: Original

Replicate Data: 63077-001 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.31	10.31	0.0541	0.1770	0.0542	18:42:07	Yes
2	10.22	10.22	0.0536	0.1803	0.0538	18:42:41	Yes
Mean:	10.26	10.26	0.0539				
SD:	0.064	0.064	0.0003				
%RSD:	0.623	0.623	0.62				

Sequence No.: 17  
 Sample ID: 63077-001 MS2  
 Analyst:

Autosampler Location: 17  
 Date Collected: 12/9/2011 6:42:42 PM  
 Data Type: Original

Replicate Data: 63077-001 MS2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.944	9.944	0.0522	0.1753	0.0523	18:43:29	Yes
2	9.895	9.895	0.0519	0.1739	0.0521	18:44:02	Yes
Mean:	9.920	9.920	0.0521				
SD:	0.035	0.035	0.0002				

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%RSD: 0.351 0.351 0.35

Sequence No.: 18 Autosampler Location: 18  
 Sample ID: 63081-011 Date Collected: 12/9/2011 6:44:04 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-011

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	56.19	56.19	0.2946	1.0328	0.2947	18:44:50	Yes
Sample concentration is greater than that of the highest standard.							
2	57.23	57.23	0.3001	1.0454	0.3002	18:45:24	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	56.71	56.71	0.2973				
SD:	0.740	0.740	0.0039				
%RSD:	1.305	1.305	1.30				

Sample concentration is greater than that of the highest standard.

Sequence No.: 19 Autosampler Location: 19  
 Sample ID: 63081-012 Date Collected: 12/9/2011 6:45:25 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-012

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	107.9	107.9	0.5655	2.0611	0.5657	18:46:16	Yes
Sample concentration is greater than that of the highest standard.							
2	108.0	108.0	0.5664	2.0610	0.5665	18:46:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	108.0	108.0	0.5659				
SD:	0.113	0.113	0.0006				
%RSD:	0.105	0.105	0.11				

Sample concentration is greater than that of the highest standard.

Sequence No.: 20 Autosampler Location: 20  
 Sample ID: 63081-011 5D Date Collected: 12/9/2011 6:46:51 PM  
 Analyst: Data Type: Original

Replicate Data: 63081-011 5D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.60	13.60	0.0714	0.2419	0.0715	18:47:37	Yes
2	13.71	13.71	0.0719	0.2435	0.0721	18:48:11	Yes
Mean:	13.65	13.65	0.0717				
SD:	0.076	0.076	0.0004				
%RSD:	0.559	0.559	0.56				

Sequence No.: 21 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/9/2011 6:48:12 PM  
 Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.62	10.62	0.0557	0.1894	0.0559	18:48:59	Yes
2	10.59	10.59	0.0556	0.1886	0.0557	18:49:33	Yes
Mean:	10.60	10.60	0.0556				
SD:	0.021	0.021	0.0001				
%RSD:	0.199	0.199	0.20				

QC value within limits for Hg 253.7 Recovery = 106.00%  
 All analyte(s) passed QC.

Sequence No.: 22 Autosampler Location: 1  
 Sample ID: CCB Date Collected: 12/9/2011 6:49:34 PM  
 Analyst: Data Type: Original

Method: HgCV1 SWH2O (7470A)

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Date: 12/9/2011 6:55:10 PM

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0000	-0.0002	0.0001	18:50:21	Yes
2	-0.026	-0.026	-0.0001	-0.0013	0.0001	18:50:55	Yes
Mean:	-0.021	-0.021	-0.0000				
SD:	0.007	0.007	0.0000				
%RSD:	35.02	35.02	124.98				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 21

Sample ID: 63081-012 10D

Date Collected: 12/9/2011 6:50:56 PM

Analyst:

Data Type: Original

## Replicate Data: 63081-012 10D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.23	14.23	0.0747	0.2497	0.0748	18:51:44	Yes
2	14.21	14.21	0.0746	0.2463	0.0747	18:52:18	Yes
Mean:	14.22	14.22	0.0746				
SD:	0.015	0.015	0.0001				
%RSD:	0.102	0.102	0.10				

Sequence No.: 24

Autosampler Location: 9

Sample ID: CCV

Date Collected: 12/9/2011 6:52:19 PM

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.41	10.41	0.0546	0.1836	0.0548	18:53:07	Yes
2	10.33	10.33	0.0542	0.1826	0.0544	18:53:40	Yes
Mean:	10.37	10.37	0.0544				
SD:	0.055	0.055	0.0003				
%RSD:	0.532	0.532	0.53				

QC value within limits for Hg 253.7 Recovery = 103.71%  
All analyte(s) passed QC.

Sequence No.: 25

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/9/2011 6:53:41 PM

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0016	0.0002	18:54:28	Yes
2	0.096	0.096	0.0006	0.0068	0.0007	18:55:01	Yes
Mean:	0.051	0.051	0.0003				
SD:	0.063	0.063	0.0003				
%RSD:	124.8	124.8	96.33				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126648



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Persulfate		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5202	Potassium Persulfate	500 g	neat neat	

## Veritech Lot Number: V-126650



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: Hydroxylamine Hydrochloride		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6130	di H2O			
5586	Sodium Chloride	1200 g	neat neat	
5925	HYDROXYLAMINE HYDROCHLORIDE	1200 g	NEAT neat	

## Veritech Lot Number: V-127383



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6334	Nitric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Lot Number: V-127384



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	50 ml	neat neat	
6334	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126650



Prepared By: Aliano, Carmela	Department: Metals	ApprovedBy: shiamala
Description: Hydroxylamine Hydrochloride	BatchNumber:	ApproveDate: 10/21/11
Prep Date: 10/17/2011	Concentration: reagent	Checked: Yes
Expiration Date: 1/16/2012	Final Volume: 10 l	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6130	di H2O			
5586	Sodium Chloride	1200 g	neat neat	
5925	HYDROXYLAMINE HYDROCHLORIDE	1200 g	NEAT neat	

## Veritech Lot Number: V-128167



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: 5% Potassium Permanganate	BatchNumber:	ApproveDate: 11/22/11
Prep Date: 11/4/2011	Concentration: reagent	Checked: Yes
Expiration Date: 2/3/2012	Final Volume: 10 l	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
4429	POTASSIUM PERMANGANATE	500 g	NEAT neat	

## Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICV	BatchNumber:	ApproveDate: 12/05/11
Prep Date: 11/7/2011	Concentration: MULTI multi	Checked: Yes
Expiration Date: 2/6/2012	Final Volume: 500 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6334	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

## Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICS 1 INTERMEDIATE	BatchNumber:	ApproveDate: 11/15/11
Prep Date: 11/14/2011	Concentration: various mg/l	Checked: Yes
Expiration Date: 2/13/2012	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-127386



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6334	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

Veritech Lot Number: V-127387



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5821	ICSAB	10 ml	NEAT ug/ml	
6334	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128167



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Permanganate		BatchNumber:	ApproveDate: 11/22/11	
Prep Date: 11/4/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 2/3/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
4429	POTASSIUM PERMANGANATE	500 g	NEAT neat	

Veritech Lot Number: V-128233



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: melissa	
Description: CCV		BatchNumber:	ApproveDate: 11/29/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6334	Nitric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128234



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6334	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6334	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-128237



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6334	Nitric Acid	25 ml	neat neat	
6244	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-128658



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128659



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Lot Number: V-128660



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-128664



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	25 ml	neat neat	
6433	Nitric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Lot Number: V-128666



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128661

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6433	Hydrochloric Acid	50 ml	neat neat	
5403	Nitric Acid	50 ml	neat neat	
5404	ICSA	5 ml	NEAT neat	
5405	ICSB	5 ml	10000 mg/l	
	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-128664

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6433	Hydrochloric Acid	25 ml	neat neat	
5403	Nitric Acid	25 ml	neat neat	
5404	ICSA	.05 ml	NEAT neat	
5405	ICSB	.05 ml	10000 mg/l	
	ICSC	.05 ml	100 mg/l	

## Veritech Lot Number: V-128667

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5821	DI Water			
6433	ICSA	10 ml	NEAT ug/ml	
6244	Nitric Acid	50 ml	neat neat	
6144	Hydrochloric Acid	50 ml	neat neat	
	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-128669

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6433	Hydrochloric Acid	50 ml	neat neat	
v-128657	Nitric Acid	50 ml	neat neat	
	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5821	DI Water			
6433	ICSAB	10 ml	NEAT ug/ml	
6244	Nitric Acid	50 ml	neat neat	
6144	Hydrochloric Acid	50 ml	neat neat	
	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-129415



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/23/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 5/25/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6335	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130234



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5821	DI Water			
6433	ICSAB	10 ml	NEAT ug/ml	
6244	Nitric Acid	50 ml	neat neat	
6144	Hydrochloric Acid	50 ml	neat neat	
	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-128668



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130365



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HNO3		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/9/2011		Concentration: Reagent reag	Checked: Yes	
Expiration Date: 5/27/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	1000 ml	neat neat	
6373	Di H2O	1000 ml		

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5821	DI Water			
6433	ICSAB	10 ml	NEAT ug/ml	
6244	Nitric Acid	50 ml	neat neat	
6144	Hydrochloric Acid	50 ml	neat neat	
	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-128668



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Lot Number: V-129521



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HNO3		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 11/28/2011		Concentration: Reagent reag	Checked: Yes	
Expiration Date: 5/27/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	1000 ml	neat neat	
6373	Di H2O	1000 ml		

## Veritech Lot Number: V-129583



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/05/12	
Prep Date: 11/29/2011		Concentration: reagent l	Checked: Yes	
Expiration Date: 12/20/2011		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6335	Hydrochloric Acid	900	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129808



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Lot Number: V-129812



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130234



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6373	Di H2O			

## Veritech Lot Number: V-130235



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-129583	3% HCL		reagent I	1000 ml

## Veritech Internally Prepared Standard Log

**Veritech Lot Number: V-130233**

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5675	Mercury	.125 ml	1000 mg/l	
6444	Nitric Acid	12.5 ml	neat neat	
6373	Di H2O			

**Veritech Lot Number: V-130234**

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

**Veritech Lot Number: V-130312**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ ICV 20 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130234	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

**Veritech Lot Number: V-130313**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ CCV 10 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130234	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

**Veritech Lot Number: V-130314**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard blk		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 0 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130233

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5675	Mercury	.125 ml	1000 mg/l	
6444	Nitric Acid	12.5 ml	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130234

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-130279

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Aquaregia		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: 0 neat	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 48 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	10 ml	neat neat	
6335	Hydrochloric Acid	30 ml	neat neat	

## Veritech Lot Number: V-130280

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg Soil ICV Soil		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130234	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130281

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil CCV 10ppb		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130234	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130282 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard blk		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: 0 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

Veritech Lot Number: V-130283 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .2 ppb		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130284 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .5 ppb		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.05 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130285 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 1 ppb		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130286 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 2 ppb		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130287 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 5 ppb		BatchNumber: B-11549	ApproveDate: 01/05/12	
Prep Date: 12/8/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130288



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard 10 ppb	BatchNumber: B-11549	ApproveDate: 01/05/12		
Prep Date: 12/8/2011	Concentration: 10 ppb	Checked: Yes		
Expiration Date: 12/8/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233 6373	Hg Intermediate Standard Di H2O	1 ml	.25 ppm	

Veritech Lot Number: V-130289



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard 25 ppb	BatchNumber: B-11549	ApproveDate: 01/05/12		
Prep Date: 12/8/2011	Concentration: 25 ppb	Checked: Yes		
Expiration Date: 12/8/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

**Veritech Lot Number: V-130315**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .2 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

**Veritech Lot Number: V-130316**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .5 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
V-130233	Hg Intermediate Standard	.05 ml	.25 ppm	

**Veritech Lot Number: V-130317**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 1 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

**Veritech Lot Number: V-130318**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 2 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

**Veritech Lot Number: V-130319**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 5 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

**Veritech Lot Number: V-130320**

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 10 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	1 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130321



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 25 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130353



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11554	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6373	Di H2O			

## Veritech Lot Number: V-130365



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HNO3		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/9/2011		Concentration: Reagent reag	Checked: Yes	
Expiration Date: 5/27/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	1000 ml	neat neat	
6373	Di H2O	1000 ml		

## Veritech Lot Number: V-130395



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	900	neat neat	

## Veritech Lot Number: V-130396



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130395	3% HCL		reagent I	1000 ml
6140	Stannous Chloride		NEAT neat	13.2 g

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130352

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11554	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5675	Mercury	.125 ml	1000 mg/l	
6445	Nitric Acid	12.5 ml	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130353

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11554	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-130432

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Aquaregia		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 0 neat	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 48 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	10 ml	neat neat	
6507	Hydrochloric Acid	30 ml	neat neat	

## Veritech Lot Number: V-130433

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg Soil ICV Soil		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130353	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130434

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil CCV 10ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130353	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130395



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6507	Hydrochloric Acid	900	neat neat	
6373	Di H2O			

Veritech Lot Number: V-130396



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-130395	3% HCL		reagent I	1000 ml

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130395



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6507	Hydrochloric Acid	900	neat neat	

## Veritech Lot Number: V-130906



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11606	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6528	DI H2O			

## Veritech Lot Number: V-131048



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/06/12	
Prep Date: 12/16/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130395	3% HCL		reagent I	1000 ml
6140	Stannous Chloride		NEAT neat	13.2 g

## Veritech Lot Number: V-131215



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/06/12	
Prep Date: 12/19/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/18/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6507	Hydrochloric Acid	900	neat neat	
6528	DI H2O			

## Veritech Lot Number: V-131302



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/06/12	
Prep Date: 12/20/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/20/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-131215	3% HCL		reagent I	1000 ml

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130435



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard blk		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 0 ppm	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

## Veritech Lot Number: V-130436



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .2 ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130352	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130437



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .5 ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130352	Hg Intermediate Standard	.05 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130438



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 1 ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130352	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130439



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 2 ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130352	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130440



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 5 ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130352	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130441



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 10 ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130352 6373	Hg Intermediate Standard Di H2O	1 ml	.25 ppm	

Veritech Lot Number: V-130442



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 25 ppb		BatchNumber: B-11560	ApproveDate: 01/05/12	
Prep Date: 12/9/2011		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130352 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130905



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11606	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	12.5 ml	neat neat	
5675	Mercury	.125 ml	1000 mg/l	
6528	DI H2O			

Veritech Lot Number: V-130906



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11606	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

Veritech Lot Number: V-130973



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Aquaregia		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 0 neat	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 48 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	10 ml	neat neat	
6507	Hydrochloric Acid	30 ml	neat neat	

Veritech Lot Number: V-130974



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg Soil ICV Soil		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130906	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

Veritech Lot Number: V-130975



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil CCV 10ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130906	Hg intermediate Control	.25 ml	1.0 ppm	
6373	DI H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130976 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard blk		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 0 ppm	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

Veritech Lot Number: V-130977 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .2 ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130905	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130978 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .5 ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130905	Hg Intermediate Standard	.05 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130979 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 1 ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130905	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130980 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 2 ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130905	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

Veritech Lot Number: V-130981 

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 5 ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130905	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130982



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 10 ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130905 6373	Hg Intermediate Standard Di H2O	1 ml	.25 ppm	

Veritech Lot Number: V-130983



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 25 ppb		BatchNumber: B-11611	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 12/15/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130905 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 4429									
Description POTASSIUM PERMANGANATE							ApprovedBy: gael ApproveDate: 09/13/10 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
FISHER	P279-212	091544	09/29/09	09/30/12	Miller, Gael E.	1	2.5K	NEAT	NEAT
Veritech Control/Receipt Number: 5403									
Description ICSA							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT
Veritech Control/Receipt Number: 5404									
Description ICSB							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MG/L
Veritech Control/Receipt Number: 5405									
Description ICSC							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MG/L
Veritech Control/Receipt Number: 5586									
Description Sodium Chloride							ApprovedBy: richq ApproveDate: 02/01/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	S271-10	103356	01/31/11	01/30/15	Quimby, Richard	3	10Kg	neat	neat
Veritech Control/Receipt Number: 5700									
Description Arsenic							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5703									
Description Beryllium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5675									
Description Mercury							 ApprovedBy: shiamala ApproveDate: 11/10/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L
Veritech Control/Receipt Number: 5715									
Description Mercury							 ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 6335									
Description Hydrochloric Acid							 ApprovedBy: shiamala ApproveDate: 10/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K33031	09/27/11	09/26/12	Lopez, Jose	12	4L	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							 ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6444									
Description Nitric Acid							 ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K44023	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5675



Description

Mercury

ApprovedBy: shiamala  
ApproveDate: 11/10/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L

## Veritech Control/Receipt Number: 5715



Description

Mercury

ApprovedBy: shiamala  
ApproveDate: 05/04/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 6373



Description

DI H2O

ApprovedBy: shiamala  
ApproveDate: 10/18/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		

## Veritech Control/Receipt Number: 6445



Description

Nitric Acid

ApprovedBy: jean  
ApproveDate: 11/16/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

## Veritech Control/Receipt Number: 6507



Description

Hydrochloric Acid

ApprovedBy: shiamala  
ApproveDate: 12/05/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Control/Receipt Number: 6528



Description

DI H2O

ApprovedBy: shiamala  
ApproveDate: 01/06/12  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5675									
Description Mercury							ApprovedBy: shiamala ApproveDate: 11/10/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L
Veritech Control/Receipt Number: 5715									
Description Mercury							ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6444									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K44023	11/16/11	11/16/12	Okomeng, Maxwell	4	2.5LT	neat	neat

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5704



Description
Cadmium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL

## Veritech Control/Receipt Number: 5715



Description
Mercury

ApprovedBy: shiamala
ApproveDate: 05/04/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5716



Description
Lead

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5728



Description
Thallium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5821



Description
ICSAB

ApprovedBy: SHIAMALA
ApproveDate: 08/11/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL

## Veritech Control/Receipt Number: 5925



Description
HYDROXYLAMINE HYDROCHLORIDE

ApprovedBy: shiamala
ApproveDate: 08/25/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
LabChem Inc	LC15515-1	A124-12	05/11/11	05/10/12	Kalin, Gabrielle	1	500g	NEAT	NEAT

## Veritech Control/Receipt Number: 6047



Description
ICV1

ApprovedBy: shiamala
ApproveDate: 06/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5798									
Description Hydrogen Peroxide							ApprovedBy: shiamala ApproveDate: 09/07/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
fisher	h325-4	111136	03/28/11	03/27/12	Aliano, Carmela	4	4L	NEAT	NEAT
Veritech Control/Receipt Number: 6047									
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6387									
Description LCS-SOIL							ApprovedBy: shiamala ApproveDate: 11/22/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
ERA	540	D074-540	10/20/11	10/19/12	Kalin, Gabrielle	4	40g	NEAT	NEAT
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5798									
Description Hydrogen Peroxide							ApprovedBy: shiamala ApproveDate: 09/07/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
fisher	h325-4	111136	03/28/11	03/27/12	Aliano, Carmela	4	4L	NEAT	NEAT
Veritech Control/Receipt Number: 6387									
Description LCS-SOIL							ApprovedBy: shiamala ApproveDate: 11/22/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
ERA	540	D074-540	10/20/11	10/19/12	Kalin, Gabrielle	4	40g	NEAT	NEAT
Veritech Control/Receipt Number: 6445									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6495									
Description ICV 1							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6496									
Description ICV 2							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/MI
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

<b>Veritech Control/Receipt Number: 5821</b>										
Description ICSAB							ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL	
<b>Veritech Control/Receipt Number: 5925</b>										
Description HYDROXYLAMINE HYDROCHLORIDE							ApprovedBy: shiamala ApproveDate: 08/25/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
LabChem Inc	LC15515-1	A124-12	05/11/11	05/10/12	Kalin, Gabrielle	1	500g	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6047</b>										
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6048</b>										
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6130</b>										
Description di H2O							ApprovedBy: shiamala ApproveDate: 07/15/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1				
<b>Veritech Control/Receipt Number: 6140</b>										
Description Stannous Chloride							ApprovedBy: shiamala ApproveDate: 07/13/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6144</b>										
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6047									
Description ICV1							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6048									
Description ICV2							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6386									
Description Sulfuric Acid							 ApprovedBy: shiamala ApproveDate: 10/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A510SK-212	3110100	10/19/11	12/30/13	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6130									
Description di H2O							ApprovedBy: shiamala ApproveDate: 07/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1			
Veritech Control/Receipt Number: 6140									
Description Stannous Chloride							ApprovedBy: shiamala ApproveDate: 07/13/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT
Veritech Control/Receipt Number: 6144									
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat
Veritech Control/Receipt Number: 6335									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 10/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K33031	09/27/11	09/26/12	Lopez, Jose	12	4L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6130									
Description di H2O							ApprovedBy: shiamala ApproveDate: 07/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1			
Veritech Control/Receipt Number: 6140									
Description Stannous Chloride							ApprovedBy: shiamala ApproveDate: 07/13/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT
Veritech Control/Receipt Number: 6144									
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat
Veritech Control/Receipt Number: 6335									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 10/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K33031	09/27/11	09/26/12	Lopez, Jose	12	4L	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6444									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K44023	11/16/11	11/16/12	Okomeng, Maxwell	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6373										
Description							ApprovedBy: shiamala			
Di H2O							ApproveDate: 10/18/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml			
Veritech Control/Receipt Number: 6433										
Description							ApprovedBy: shiamala			
Nitric Acid							ApproveDate: 11/15/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat	
Veritech Control/Receipt Number: 6444										
Description							ApprovedBy: jean			
Nitric Acid							ApproveDate: 11/16/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J T Baker	9598-34	K44023	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat	
Veritech Control/Receipt Number: 6454										
Description							ApprovedBy: shiamala			
Nitric Acid							ApproveDate: 12/05/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat	
Veritech Control/Receipt Number: 6507										
Description							ApprovedBy: shiamala			
Hydrochloric Acid							ApproveDate: 12/05/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6445									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwell	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6528									
Description DI H2O							ApprovedBy: shiamala ApproveDate: 01/06/12 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6507



Description
Hydrochloric Acid

ApprovedBy: shiamala
ApproveDate: 12/05/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

**Metal Data**  
**Digestion Logbook Data**

Hampton-Clarke/Veritech

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13377 Analyst: SB  
 QC Number: 50 148 SW84 11681 Prep Date: 12/8/11  
 Matrix: SW846 Reviewed By: RS

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50 ml	50 ml				--	
LCS	↓	↓				--	
LCS D	↓	↓				--	
1. 63081 oil							
MR 63081 oil							
MS 63081 oil							
MSD 63081 oil							
2. 63081 oil	↓	↓					
3. 63077 oil	100 ml	25 ml					
4. 63077 oil	↓	↓					
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 92.8 C (90-95° C)

	Volume mL	Lot #
LCS, LCS D	0.5, 0.5	V- 6047, 6048
LCS, LLCS D		V-
MS, MSD	0.5, 0.5	V- 6047, 6048
MS, LLMS D		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3	V- 0457
HCl		V- 0813/24
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5	V- 129415

Relinquished By: [Signature] Date: 12/8/11  
 Received By: [Signature] Date: 12/8/11

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A 7471A OTHER \_\_\_\_\_

Batch No.:\* 13377

Analyst: 12/08/2011 OA

QC Number: 11681

Prep Date: 12/08/2011

Matrix: SW846 H<sub>2</sub>O

Review By: SB

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	2.5ml	2.5ml	
LCS			
LCS D			
1 Ac63077-001			
MR Ac63077-001			
MS Ac63077-001			
MSD Ac63077-001			
2 Ac63081-011			
3 Ac63081-012			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
HNO <sub>3</sub> : V- 128167	HNO <sub>3</sub>	0.625ml	V- 6433
HCl: V- 126648	HCl		V-
H <sub>2</sub> SO <sub>4</sub> : V- 126650	H <sub>2</sub> SO <sub>4</sub>	1.25ml	V- 6386
	Aqua Regia		V-

\*\*Block Temp: 92.2°  
 Time In Block: 13:50  
 Time Out of Block: 15:50  
 \*\* Required range = 90-95°

Standards/Control Batch B- 11552  
 v. 130234 0.15g (0.25 ml)  
 v. 130234 0.250 ml

Relinquished By: OA

mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriprogram using the standard batch number and the corresponding V #s.

Hampton-Clarke/Veritech

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13373 Analyst: JS  
 QC Number: 11678 Prep Date: 12/08/11  
 Matrix: SOIL Reviewed By: JS

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50mL	50mL				--	
LCS	0.5g					--	
LCS D						--	
1. AC 63081-035							
MR 63081-035							
MS 63081-035							
MSD 63081-035							
2. 63081-001							
3. 63081-003							
4. 63081-004							
5. 63081-006							
6. 63081-008							
7. 63081-009							
8. 63081-013							
9. 63081-015							
10. 63081-016							
11. 63081-018							
12. 63081-020							
13. 63081-021							
14. 63081-023							
15. 63081-025							
16. 63081-026							
17. 63081-028							
18. 63081-030							
19. 63081-031							
20. 63081-033	✓	✓					

Hot Plate Temperature: 93° C (90-95° C)

	Volume mL	Lot #
LCS D	0.5g	V- 6387
LCS, LLLCSD		V-
MSD	0.5mL	V- 6047, 6048
MS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	2.5	V- 6454
HCl	5	V- 6507
H <sub>2</sub> O <sub>2</sub>	1.5	V- 5198

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>	5	V- 12952
1:1 HCl		V-

Relinquished By: JS Date: 12/08/2011  
 Received By: JS Date: 12/8/11

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A 7471A OTHER \_\_\_\_\_

Batch No.:\* 13373

Analyst: JY

QC Number: 11678

Prep Date: 12/08/11

Matrix: SOIL

Review By: QA

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25ml	
LCS	0.15g		
LCSD			
1 AC 63081-035			
MR 63081-035			
MS 63081-035			
MSD 63081-035			
2 63081-001			
3 63081-003			
4 63081-004			
5 63081-006			
6 63081-008			
7 63081-009			
8 63081-013			
9 63081-015			
10 63081-016			
11 63081-018			
12 63081-020			
13 63081-021			
14 63081-023			
15 63081-025			
16 63081-026			
17 63081-028			
18 63081-030			
19 63081-031			
20 63081-033	↓	↓	

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>		V-
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V-	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>		V-
	Aqua Regia	1.25ml	V- 130279

**Block Temp.:	92 °C
Time In Block:	11:30
Time Out of Block:	12:00
** Required range =	90-95°

Spike Volume & Lot #

LCS v. 6387 (0.15g) 0.25 ml

MS v. 130234 0.250 ml

Standards/Control Batch B- 11549

Relinquished By: JY

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veripro using the standard batch number and the corresponding V #s.

Hampton-Clarke/Veritech

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13406 Analyst: JY  
 QC Number: 11715 Prep Date: 12/15/11  
 Matrix: SOIL Reviewed By: JB

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ul	50ul				--	
LCS	0.5g					--	
LCSD						--	
1. AC 63081-032							
MR 63081-032							
MS 63081-032							
MSD 63081-032							
2. 63207-003							
3. 63207-004							
4. 63207-005							
5. 63207-009							
6. 63223-001							
7. 63223-002							
8. 63223-003							
9. 63223-004							
10. 63223-005							
11. 63245-001							
12. 63245-002							
13. 63081-005							
14. 63081-037							
15. 63081-047							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 92° C (90-95° C)

	Volume mL	Lot #
LCS, LCSD	0.5g	V- 6387
LLCS, LLLCSD		V-
MS, MSD	0.5mL	V- 6495, 6496
LLMS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	2.5	V- 6445
HCl	5	V- 6507
H <sub>2</sub> O <sub>2</sub>	1.5	V- 6698, 5798

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>	5	V- 13036g
1:1 HCl		V-

Relinquished By: JY Date: 12/15/11  
 Received By: JB Date: 12/15/11

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A (7471A) OTHER \_\_\_\_\_

Batch No.:\* 13406

Analyst: ju

QC Number: 11715

Prep Date: 12/15/11

Matrix: soil

Review By: OK

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25ml	
LCS	0.15g		
LCS D			
1 AE 63081-032			
MR 63081-032			
MS 63081-032			
MSD 63081-032			
2 63081-005			
3 63081-037			
4 63081-047	✓	✓	
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 126167	HNO <sub>3</sub>		V-
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V-	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>		V-
	Aqua Regia	1.25ml	V- 130973

**Block Temp. 92 °C
Time In Block: 22:30
Time Out of Block: 23:00
** Required range = 90-95°

Spike Volume & Lot #

LCS v- 63081 (0.15g / 0.25 ml)

MS v- 130906 (0.250 ml)

Standards/Control Batch B- 11611

Relinquished By: ju

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

Hampton-Clarke/Veritech

ICP SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13374 (RESET) Analyst: PH  
 QC Number: 11679 Prep Date: 12/12/11  
 Matrix: SOIL Reviewed By: [Signature]

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50mL	50mL				--	
LCS	0.5g					--	
LCSD						--	
1. AC63081-038							
MRAC63081-038							
MS AC63081-038							
MSDAC63081-038							
2. AC63081-036							
3. AC63081-040							
4. AC63081-041							
5. AC63081-043							
6. AC63081-045							
7. AC63081-046	↓	↓					
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 92.5 C (90-95° C)

	Volume mL	Lot #
LCS, LCSD	0.5g	V- 6387
LLCS, LLCSD		V-
MS, MSD	0.5mL	V- 6495, 6496
LLMS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	2.5	V- 6445
HCl	5	V- 6507
H <sub>2</sub> O <sub>2</sub>	1.5	V- 5798

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>	5	V- 130365
1:1 HCl		V-

Relinquished By: [Signature] Date: 12/12/11  
 Received By: [Signature] Date: 12/12/11

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A (7471A) OTHER \_\_\_\_\_

Batch No.:\* 13374 (Reset)  
 QC Number: 11679  
 Matrix: 2011

Analyst: OA  
 Prep Date: 12/09/2011  
 Review By: SB

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25ml	
LCS	0.15g		
LCS D			
1 AC63081-038			
MR AC63081-038			
MS AC63081-038			
MSD AC63081-038			
2 AC63081-036			
3 AC63081-040			
4 AC63081-041			
5 AC63081-043			
6 AC63081-045			
7 AC63081-046			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>		V-
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V-	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>		V-
	Aqua Regia	1.25ml	V- 130432

\*\*Block Temp.: 93.3 °C  
 Time In Block: 17:00  
 Time Out of Block: 17:40  
 \*\* Required range = 90-95°

Spike Volume & Lot #  
 LCS v- 6387 0.15g / 0.25 ml  
 MS v- 130353 0.250 ml  
 Standards/Control Batch B- 11560

Relinquished By: OA

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

## **Wet Chemistry Data**

**VERITECH Wet Chem Form1 Analysis Summary**  
**% Solids**

TestGroupName: % Solids SM2540G

Project #: 1120730

TestGroup: %SOLIDS

Lab#	Client SampleID	Matrix	Dilution:	Result	Units:	RL	Prep Date	Analysis Date	Received Date	Collect Date
AC63081-001	B-3 4-6	Soil	1	84	Percent			12/10/11	12/07/11	12/07/11
AC63081-003	B-3 8-10	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-004	B-3 10-12	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-005	B-3 12-14	Soil	1	70	Percent			12/16/11	12/07/11	12/07/11
AC63081-006	B-4 4-6	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-008	B-4 8-10	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-009	B-4 10-12	Soil	1	79	Percent			12/10/11	12/07/11	12/07/11
AC63081-013	B-5 4-6	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-014	B-5 6-8	Soil	1	86	Percent			12/10/11	12/07/11	12/07/11
AC63081-015	B-5 8-10	Soil	1	83	Percent			12/10/11	12/07/11	12/07/11
AC63081-016	B-5 10-12	Soil	1	74	Percent			12/10/11	12/07/11	12/07/11
AC63081-018	B-6 4-6	Soil	1	66	Percent			12/10/11	12/07/11	12/07/11
AC63081-020	B-6 8-10	Soil	1	74	Percent			12/10/11	12/07/11	12/07/11
AC63081-021	B-6 10-12	Soil	1	84	Percent			12/10/11	12/07/11	12/07/11
AC63081-023	B-7 4-6	Soil	1	83	Percent			12/10/11	12/07/11	12/07/11
AC63081-025	B-7 8-10	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-026	B-7 10-12	Soil	1	81	Percent			12/10/11	12/07/11	12/07/11
AC63081-028	B-14 4-6	Soil	1	76	Percent			12/10/11	12/07/11	12/07/11
AC63081-030	B-14 8-10	Soil	1	63	Percent			12/10/11	12/07/11	12/07/11
AC63081-031	B-14 10-12	Soil	1	62	Percent			12/10/11	12/07/11	12/07/11
AC63081-032	B-14 12-14	Soil	1	67	Percent			12/16/11	12/07/11	12/07/11
AC63081-033	B-19 4-6	Soil	1	82	Percent			12/10/11	12/07/11	12/07/11
AC63081-035	B-19 8-10	Soil	1	79	Percent			12/10/11	12/07/11	12/07/11
AC63081-036	B-19 10-12	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-037	B-19 12-14	Soil	1	73	Percent			12/16/11	12/07/11	12/07/11
AC63081-038	B-20 4-6	Soil	1	80	Percent			12/10/11	12/07/11	12/07/11
AC63081-040	B-20 8-10	Soil	1	63	Percent			12/10/11	12/07/11	12/07/11
AC63081-041	B-20 10-12	Soil	1	77	Percent			12/10/11	12/07/11	12/07/11
AC63081-043	B-16 4-6	Soil	1	68	Percent			12/10/11	12/07/11	12/07/11
AC63081-045	B-16 8-10	Soil	1	81	Percent			12/10/11	12/07/11	12/07/11
AC63081-046	B-16 10-12	Soil	1	80	Percent			12/10/11	12/07/11	12/07/11
AC63081-047	B-16 12-14	Soil	1	74	Percent			12/16/11	12/07/11	12/07/11

## % Solids Report

Analysis Type: SOLIDS-SS  
BatchID: SOLIDS-SS-268

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AC63080-029	57	57.45763	Percent	1.05	12.85	7.84	12/10/11	simon	4.7	5
Sample	AC63080-026	51	51.02240	Percent	1.05	11.32	6.30	12/10/11	simon		
Sample	AC63080-027	66	65.57864	Percent	1.05	11.16	7.68	12/10/11	simon		
Sample	AC63080-028	29	28.77960	Percent	1.05	12.03	4.21	12/10/11	simon		
Sample	AC63080-029	60	60.21505	Percent	1.04	12.20	7.77	12/10/11	simon		
Sample	AC63080-030	69	68.85246	Percent	1.04	12.63	9.02	12/10/11	simon		
Sample	AC63080-031	85	84.72998	Percent	1.05	11.79	10.15	12/10/11	simon		
Sample	AC63080-032	58	58.03842	Percent	1.04	10.93	6.78	12/10/11	simon		
Sample	AC63081-001	84	83.91137	Percent	1.06	11.44	9.77	12/10/11	simon		
Sample	AC63081-003	77	77.16682	Percent	1.05	11.78	9.34	12/10/11	simon		
Sample	AC63081-004	76	76.39925	Percent	1.05	11.77	9.25	12/10/11	simon		
Sample	AC63081-006	77	77.40512	Percent	1.05	12.38	9.82	12/10/11	simon		
Sample	AC63081-008	77	76.65474	Percent	1.05	12.23	9.62	12/10/11	simon		
Sample	AC63081-009	79	79.10448	Percent	1.06	11.11	9.00	12/10/11	simon		
Sample	AC63081-013	76	75.79042	Percent	1.05	12.12	9.43	12/10/11	simon		
Sample	AC63081-014	86	85.89494	Percent	1.05	11.33	9.88	12/10/11	simon		
Sample	AC63081-015	83	82.50219	Percent	1.05	12.48	10.49	12/10/11	simon		
Sample	AC63081-016	74	74.19056	Percent	1.05	11.86	9.06	12/10/11	simon		
Sample	AC63081-018	66	66.45833	Percent	1.06	10.66	7.44	12/10/11	simon		
Sample	AC63081-020	74	73.96336	Percent	1.06	11.43	8.73	12/10/11	simon		
Sample	AC63081-021	84	83.96552	Percent	1.04	12.64	10.77	12/10/11	simon		

\* - Indicates Failed Rpd Criteria

## % Solids Report

Analysis Type: SOLIDS-SS  
BatchID: SOLIDS-SS-270

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AC63081-023	83	83.28358	Percent	1.06	11.11	9.43	12/10/11	simon	0.68	5
Sample	AC63081-023	83	82.71719	Percent	1.05	11.87	10.00	12/10/11	simon		
Sample	AC63081-025	76	75.74215	Percent	1.05	12.84	9.97	12/10/11	simon		
Sample	AC63081-026	81	80.97561	Percent	1.05	13.35	11.01	12/10/11	simon		
Sample	AC63081-028	76	75.61437	Percent	1.06	11.64	9.06	12/10/11	simon		
Sample	AC63081-030	63	62.87594	Percent	1.06	11.70	7.75	12/10/11	simon		
Sample	AC63081-031	62	61.98347	Percent	1.06	10.74	7.06	12/10/11	simon		
Sample	AC63081-033	82	81.65049	Percent	1.05	11.35	9.46	12/10/11	simon		
Sample	AC63081-035	79	78.95247	Percent	1.04	11.35	9.18	12/10/11	simon		
Sample	AC63081-036	77	77.21402	Percent	1.06	11.90	9.42	12/10/11	simon		
Sample	AC63081-038	80	80.00000	Percent	1.07	11.42	9.35	12/10/11	simon		
Sample	AC63081-040	63	63.34586	Percent	1.07	11.71	7.82	12/10/11	simon		
Sample	AC63081-041	77	77.14026	Percent	1.06	12.04	9.53	12/10/11	simon		
Sample	AC63081-043	68	67.93422	Percent	1.07	10.80	7.68	12/10/11	simon		
Sample	AC63081-045	81	80.74866	Percent	1.07	12.29	10.13	12/10/11	simon		
Sample	AC63081-046	80	79.72028	Percent	1.06	12.50	10.17	12/10/11	simon		
Sample	AC63082-001	53	53.39321	Percent	1.06	11.08	6.41	12/10/11	simon		
Sample	AC63115-001	97	97.41379	Percent	1.06	12.66	12.36	12/10/11	simon		
Sample	AC63115-002	98	98.08743	Percent	1.06	12.04	11.82	12/10/11	simon		
Sample	AC63115-003	98	97.77968	Percent	1.05	12.76	12.51	12/10/11	simon		
Sample	AC63115-004	98	97.56522	Percent	1.06	12.56	12.28	12/10/11	simon		

\* - Indicates Failed Rpd Criteria

## % Solids Report

Analysis Type: SOLIDS-SS  
BatchID: SOLIDS-SS-302

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AC63210-026	90	89.62264	Percent	1.07	12.73	11.52	12/16/11	simon	0.19	5
Sample	AC62752-010	77	77.07948	Percent	1.05	11.87	9.39	12/16/11	simon		
Sample	AC63081-005	70	69.96872	Percent	1.07	10.66	7.78	12/16/11	simon		
Sample	AC63081-032	67	67.00201	Percent	1.08	11.02	7.75	12/16/11	simon		
Sample	AC63210-004	81	80.83407	Percent	1.08	12.35	10.20	12/16/11	simon		
Sample	AC63210-005	56	55.53539	Percent	1.08	12.10	7.46	12/16/11	simon		
Sample	AC63210-006	85	84.59507	Percent	1.08	12.44	10.68	12/16/11	simon		
Sample	AC63210-007	85	84.88271	Percent	1.08	12.59	10.86	12/16/11	simon		
Sample	AC63210-008	86	85.68920	Percent	1.08	12.47	10.85	12/16/11	simon		
Sample	AC63210-009	91	90.69767	Percent	1.07	12.68	11.60	12/16/11	simon		
Sample	AC63210-010	85	84.61538	Percent	1.07	12.51	10.75	12/16/11	simon		
Sample	AC63210-011	85	84.79428	Percent	1.07	12.25	10.55	12/16/11	simon		
Sample	AC63210-013	71	70.97345	Percent	1.08	12.38	9.18	12/16/11	simon		
Sample	AC63210-014	84	84.48276	Percent	1.07	12.67	10.88	12/16/11	simon		
Sample	AC63210-015	87	86.52291	Percent	1.07	12.20	10.70	12/16/11	simon		
Sample	AC63210-016	87	87.46643	Percent	1.08	12.25	10.85	12/16/11	simon		
Sample	AC63210-017	87	86.94494	Percent	1.09	12.35	10.89	12/16/11	simon		
Sample	AC63210-018	89	88.79082	Percent	1.07	12.40	11.13	12/16/11	simon		
Sample	AC63210-020	87	86.76337	Percent	1.08	12.11	10.65	12/16/11	simon		
Sample	AC63210-026	90	89.79592	Percent	1.07	12.34	11.20	12/16/11	simon		
Sample	AC63210-027	89	89.39257	Percent	1.07	12.10	10.92	12/16/11	simon		

\* - Indicates Failed Rpd Criteria

## % Solids Report

Analysis Type: SOLIDS-SS  
BatchID: SOLIDS-SS-304

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AC63213-001	87	87.05441	Percent	1.07	11.73	10.35	12/16/11	simon	0.77	5
Sample	AC63081-037	73	73.36207	Percent	1.07	12.67	9.59	12/16/11	simon		
Sample	AC63081-047	74	74.21442	Percent	1.06	11.88	9.09	12/16/11	simon		
Sample	AC63111-004	72	71.89672	Percent	1.07	11.14	8.32	12/16/11	simon		
Sample	AC63111-008	79	78.75000	Percent	1.07	11.47	9.27	12/16/11	simon		
Sample	AC63111-012	77	77.24329	Percent	1.06	11.87	9.42	12/16/11	simon		
Sample	AC63111-021	65	64.95984	Percent	1.06	11.02	7.54	12/16/11	simon		
Sample	AC63111-037	82	81.59938	Percent	1.06	13.94	11.56	12/16/11	simon		
Sample	AC63213-001	88	87.73006	Percent	1.06	10.84	9.65	12/16/11	simon		
Sample	AC63214-001	89	89.06917	Percent	1.06	12.77	11.50	12/16/11	simon		
Sample	AC63215-001	86	86.26482	Percent	1.06	11.18	9.78	12/16/11	simon		
Sample	AC63217-001	68	68.43718	Percent	1.06	10.85	7.75	12/16/11	simon		
Sample	AC63217-002	78	77.74594	Percent	1.06	11.53	9.20	12/16/11	simon		
Sample	AC63217-003	85	84.74886	Percent	1.06	12.01	10.33	12/16/11	simon		
Sample	AC63217-004	84	84.41128	Percent	1.06	13.12	11.24	12/16/11	simon		
Sample	AC63217-005	87	86.68012	Percent	1.05	10.96	9.63	12/16/11	simon		
Sample	AC63217-006	89	88.82303	Percent	1.06	12.87	11.56	12/16/11	simon		
Sample	AC63217-007	75	75.12742	Percent	1.06	10.87	8.42	12/16/11	simon		
Sample	AC63217-008	73	72.50726	Percent	1.07	11.40	8.56	12/16/11	simon		
Sample	AC63218-001	82	82.04668	Percent	1.06	12.20	10.21	12/16/11	simon		
Sample	AC63223-001	86	86.18290	Percent	1.06	11.12	9.72	12/16/11	simon		

\* - Indicates Failed Rpd Criteria

**TCLP  
Metal Data**

**TCLP  
Metal Data  
Sample Data**

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63081-014      % Solid: 0      Lab Name: Veritech      Nras No:  
 Client Id: B-5 6-8      Units: MG/L      Lab Code:      Sdg No:  
 Matrix: TCLP      Date Rec: 12/8/2011      Contract:      Case No:  
 Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	ND	1	50	50	12/12/11	11680	T13375A	22	P	PEICP1A...

Comments: \_\_\_\_\_  
 \_\_\_\_\_

Flag Codes:

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV -ColdVapor
- MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63081-015  
 Client Id: B-5 8-10  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	2.4	1	50	50	12/12/11	11680	T13375A	23	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63081-016  
Client Id: B-5 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	ND	1	50	50	12/12/11	11680	T13375A	24	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-024	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B-7 6-8	Units: MG/L	Lab Code:	Sdg No:
Matrix: TCLP	Date Rec: 12/8/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	14	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV -ColdVapor
- MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-025  
Client Id: B-7 8-10  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr.
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	45	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63081-026  
Client Id: B-7 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	46	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

**Form1  
Inorganic Analysis Data Sheet**

Sample ID: AC63081-028  
 Client Id: B-14 4-6  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/8/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	1.5	160	10	50	50	01/17/12	12491	T13480C2	14	P	PEICP2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV - ColdVapor
- MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-039  
Client Id: B-20 6-8  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/12/11	11680	T13375A	25	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63081-040  
Client Id: B-20 8-10  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/12/11	11680	T13375A	26	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63081-041  
Client Id: B-20 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/8/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	12/12/11	11680	T13375A	27	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63081-047  
Client Id: B-16 12-14  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/14/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	0.21	1	50	50	01/16/12	12491	T13480B2	20	P	PEICP2A
7439-92-1	Lead	0.15	15	1	50	50	01/17/12	12491	T13480C2	20	P	PEICP2A
7439-97-6	Mercury	0.00070	ND	1	25	25	01/13/12	12491	H13480T	14	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

**TCLP  
Metal Data  
QC Data**

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/22/11  
 Data File: T13414A  
 Prep Batch: 11724  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV V-128235 (2)-7		CCV V-128659-19		CCV V-128659-29		CCV V-128659-35		CCV V-128659-43		CCV V-128659-51		CCV V-128659-57		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Arsenic	1/5	0.96801	97	0.50593	101	0.46814	94	0.47743	95	0.47856	96	0.46193	92	0.46463	93		
Barium	1/5	1.00470	100	0.52616	105	0.51046	102	0.51727	103	0.50778	102	0.49135	98	0.49774	100		
Cadmium	1/5	0.99069	99	0.51607	103	0.50036	100	0.50644	101	0.50285	101	0.48199	96	0.49142	98		
Chromium	1/5	0.99300	99	0.51567	103	0.49739	99	0.49697	99	0.48993	98	0.47228	94	0.47325	95		
Copper	1/5	0.99502	100	0.51594	103	0.49986	100	0.51110	102	0.50080	100	0.48321	97	0.49052	98		
Lead	1/5	0.97238	97	0.51255	103	0.49347	99	0.49854	100	0.48675	97	0.47969	96	0.48454	97		
Nickel	1/5	0.99564	100	0.50767	102	0.50094	100	0.50223	100	0.50731	101	0.48116	96	0.48552	97		
Selenium	1/5	1.00040	100	0.53181	106	0.50654	101	0.50769	102	0.50050	100	0.47683	95	0.47860	96		
Silver	0.2/0.1	0.19849	99	0.10126	101	0.09820	98	0.10093	101	0.09876	99	0.09548	95	0.09522	95		
Zinc	1/5	0.96477	96	0.50656	101	0.48584	97	0.48982	98	0.48847	98	0.46791	94	0.47085	94		

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: T13375A  
 Prep Batch: 11680  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 128235 (2)-7	Rec	CCV V- 128659- 19	Rec	CCV V- 128659- 30	Rec	CCV V- 128659- 39	Rec	CCV V- 128659- 49	Rec	Rec	Rec	Rec
Arsenic	1/5	0.99598	100	0.49006	98	0.49065	98	0.47887	96	0.47523	95			
Barium	1/5	0.99089	99	0.49644	99	0.48639	97	0.49642	99	0.49086	98			
Cadmium	1/5	0.98724	99	0.49414	99	0.49225	98	0.49732	99	0.48817	98			
Chromium	1/5	1.02967	103	0.50332	101	0.49092	98	0.50356	101	0.48762	98			
Copper	1/5	0.99335	99	0.48170	96	0.47795	96	0.48813	98	0.48555	97			
Lead	1/5	1.00137	100	0.50533	101	0.49748	99	0.49287	99	0.48629	97			
Nickel	1/5	0.99642	100	0.49041	98	0.48662	97	0.48225	96	0.47768	96			
Selenium	1/5	1.01662	102	0.50718	101	0.49969	100	0.49620	99	0.49049	98			
Silver	0.2/0.1	0.20055	100	0.09658	97	0.09535	95	0.09714	97	0.09730	97			
Zinc	1/5	0.99226	99	0.49210	98	0.48821	98	0.48326	97	0.47845	96			

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV - 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 01/16/12  
 Data File: T13480B2  
 Prep Batch: 12491  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 129811 (2)-7 Rec	CCV V- 130872- 18 Rec	CCV V- 130872- 27 Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	
Arsenic	1/.5	1.01037	101	0.50522	101	0.49681	99						

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

Re

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 01/17/12  
 Data File: T13480C2  
 Prep Batch: 12491  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 129811 (2)-7 Rec	CCV V- 130872- 18 Rec	CCV V- 130872- 27 Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec
Lead	1/5	0.97135	97	0.51582	103	0.48772	98								

Re

Re

Re

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 01/13/12  
 Data File: H13480T  
 Prep Batch: 12491  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-18													
	ICV/CC V Amt	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	
Mercury	20/10	21.64878	108	11.03333	110											

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120



### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11  
 Data File: T13375A  
 Prep Batch: 11680  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-129815-8	CCB-20	CCB-31	CCB-40	CCB-50	MB 11680 (1)-11	EF-V-130089-45	EF-V-129043-46
Arsenic	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Barium	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U
Cadmium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Chromium	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Copper	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Lead	.15 U	.15 U	.15 U	.15 U	.15 U	.15 U	.15 U	.15 U
Nickel	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Selenium	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Silver	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Zinc	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U

EF-V-129043-46  
 .2 U  
 .25 U  
 .05 U  
 .2 U  
 .2 U  
 .15 U  
 .2 U  
 .2 U  
 .15 U  
 .2 U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

EF-V-129043-46  
 .2 U

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 01/16/12  
 Data File: T13480B2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-130860-8	CCB-19	CCB-28	MB 12491 (1)-11	EF-V-132485-24		
Arsenic	.2 U	.2 U	.2 U	.2 U	.2 U		

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 01/17/12  
 Data File: T13480C2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-130860- 8	CCB-19	CCB-28	MB 12491 (1)- 11	EF-V-132485- 24			
<b>Lead</b>	.15 U	.15 U	.15 U	.15 U	.15 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 01/13/12  
 Data File: H13480T  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-19	MB 12491 (1)- 11	EF-V-132485- 17				
Mercury	.7 U	.7 U	.7 U	.7 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

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## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/22/11  
 Data File: T13414A  
 Prep Batch: 11724  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-128666-9		ICSA B V-128667-10		ICSA V-128666-41		ICSA B V-128667-42		ICSA V-128666-55		ICSA B V-128667-56		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Aluminum	500	453.274	91	455.88500	91	458.437	92	468.13100	94	456.593	91	453.90800	91		
Arsenic	1	U		0.96307	96	U		0.94969	95	U		0.92376	92		
Barium	.5	U		0.47865	96	U		0.48381	97	U		0.47635	95		
Cadmium	1	U		0.89867	90	U		0.90965	91	U		0.89076	89		
Calcium	500	444.197	89	452.97500	91	454.843	91	454.72300	91	443.632	89	446.84000	89		
Chromium	.5	U		0.47596	95	U		0.45709	91	U		0.44234	88		
Copper	.5	U		0.49416	99	U		0.50609	101	U		0.49531	99		
Iron	200	168.909	84	169.88100	85	171.26	86	174.29900	87	170.118	85	169.62200	85		
Lead	1	U		0.91193	91	U		0.89621	90	U		0.87230	87		
Magnesium	500	478.864	96	486.14000	97	490.279	98	490.05800	98	475.641	95	479.16900	96		
Nickel	1	U		0.88695	89	U		0.88819	89	U		0.87340	87		
Selenium	1	U		0.86757	87	U		0.85654	86	U		0.83363	83		
Silver	1	U		1.02764	103	U		1.02838	103	U		1.01854	102		
Zinc	1	U		0.89842	90	U		0.87010	87	U		0.84442	84		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits in the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

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## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 01/16/12  
 Data File: T13480B2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-130873-9		ICSAB V-130874-10		ICSA V-130873-25		ICSAB V-130874-26		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	494.435	99	498.94600	100	495.024	99	508.37400	102				
Arsenic	1	U		0.98981	99	U		1.03770	104				
Calcium	500	477.255	95	483.05900	97	478.208	96	494.70100	99				
Iron	200	181.869	91	184.24500	92	184.764	92	187.89100	94				
Magnesium	500	492.315	98	498.68100	100	499.234	100	507.61000	102				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 01/17/12  
 Data File: T13480C2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120730

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-130873-9		ICSAB V-130874-10		ICSA V-130873-25		ICSAB V-130874-26		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	504.672	101	503.78300	101	505.081	101	511.64800	102				
Calcium	500	481.174	96	472.97300	95	482.535	97	485.72000	97				
Iron	200	179.993	90	178.28700	89	175.09	88	175.26400	88				
Lead	1	U		0.91030	91	U		0.91923	92				
Magnesium	500	496.028	99	491.16800	98	505.663	101	507.16300	101				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

FORM5/FORM7  
 SPIKE RECOVERY DATA  
 PREP BATCH: 11724

1120730 0580

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR Matrix: TCLP SampleID: LCSW MR 11724												
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:			Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11724	1	T13414A	13	0.4919			0.500	98	75	125	

TxtQcType: LCS Matrix: TCLP SampleID: LCSW 11724												
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:			Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11724	1	T13414A	12	0.4880			0.500	98	75	125	

TxtQcType: MS Matrix: TCLP SampleID: AC63081-024													
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11724	1	T13414A	16	T13414A	14	0.5087	.2U	0.5	102	50		

TxtQcType: MS Matrix: TCLP SampleID: AC63290-001													
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11724	4	T13414A	26	T13414A	25	0.1173	.2U	0.5	0	a	50	

N/A  
 CB 1/10/12

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11680

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 11680							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11680	1	T13375A	13	0.4963	0.500	99	75	125		
Lead	11680	1	T13375A	13	0.5083	.5	102	75	125		

TxtQcType: LCS		Matrix: TCLP		SampleID: LCSW 11680							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11680	1	T13375A	12	0.5026	0.500	101	75	125		
Lead	11680	1	T13375A	12	0.5110	.5	102	75	125		

TxtQcType: MS		Matrix: TCLP		SampleID: AC63022-023									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11680	1	T13375A	16	T13375A	14	0.4801	.2U	0.5	96	a	50	
Lead	11680	1	T13375A	16	T13375A	14	4.7577	.15U	5.0	95		50	

TxtQcType: MS		Matrix: TCLP		SampleID: AC63057-010									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11680	4	T13375B	14	T13375B	13	0.1314	.2U	0.5	0	a	50	
Lead	11680	4	T13375B	14	T13375B	13	1.5829	0.3303	5.0	100		50	

N/A  
 CS 12/28/11

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**

1120730 0582

PREP BATCH: 12491

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 12491						
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12491	1	T13480B2	13	0.4868	0.500	97	75	125	
Lead	12491	1	T13480C2	13	0.4805	.5	96	75	125	
Mercury	12491	1	H13480T	13	10.8556	10	109	75	125	

TxtQcType: LCS		Matrix: TCLP		SampleID: LCSW 12491						
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12491	1	T13480B2	12	0.4954	0.500	99	75	125	
Lead	12491	1	T13480C2	12	0.4985	.5	100	75	125	
Mercury	12491	1	H13480T	12	10.7827	10	108	75	125	

TxtQcType: MS		Matrix: TCLP		SampleID: AC63081-028									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12491	1	T13480B2	16	T13480B2	14	0.5130	.2U	0.5	103	50		
Lead	12491	10	T13480C2	16	T13480C2	14	16.7443	16.0498	5	139	50		

TxtQcType: MS		Matrix: TCLP		SampleID: AC63081-047									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	12491	1	H13480T	16	H13480T	14	11.0745	.70U	10	111	50		

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM6/FORM9  
 RPD/%Difference Data  
 PREP BATCH: 11724

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 11724					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11724	T13414A	13	T13414A	12	0.4919	0.4880	.8	20

TxtQcType: MR		Matrix: TCLP		SampleID: AC63081-024					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11724	T13414A	15	T13414A	14	.2U	.2U	---	20

TxtQcType: SD		Matrix: TCLP		SampleID: AC63081-024						
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	11724	T13414A	18	T13414A	14	5	0.0002	-0.0040	---	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations &lt; 5\*RL

c-Serial dilution Out but conc &lt; 10 \* IDL

FORM6/FORM9  
 RPD/%Difference Data  
 PREP BATCH: 11680

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP	SampleID: LCSW MR 11680						
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Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11680	T13375A	13	T13375A	12	0.4963	0.5026	1.3	20
Lead	11680	T13375A	13	T13375A	12	0.5083	0.5110	.52	20

TxtQcType: MR		Matrix: TCLP	SampleID: AC63022-023						
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Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11680	T13375A	15	T13375A	14	.2U	.2U	---	20
Lead	11680	T13375A	15	T13375A	14	.15U	.15U	---	20

TxtQcType: SD		Matrix: TCLP	SampleID: AC63022-023						
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Analyte	BatchId	Data Fil	Seq#:	NS File	Seq# DF	Result 1	Result 2	%Diff	Limit
Arsenic	11680	T13375A	18	T13375A	14 5	-0.0104	-0.0095	---	10
Lead	11680	T13375A	18	T13375A	14 5	0.0017	-0.0010	---	10

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 12491

1120730 0585

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 12491					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	12491	T13480B2	13	T13480B2	12	0.4868	0.4954	1.7	20
Lead	12491	T13480C2	13	T13480C2	12	0.4805	0.4985	3.7	20
Mercury	12491	H13480T	13	H13480T	12	10.8556	10.7827	.67	20

TxtQcType: MR		Matrix: TCLP		SampleID: AC63081-028					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	12491	T13480B2	15	T13480B2	14	.2U	.2U	---	20
Lead	12491	T13480C2	15	T13480C2	14	17.1706	16.0498	6.7	20

TxtQcType: MR		Matrix: TCLP		SampleID: AC63081-047					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	12491	H13480T	15	H13480T	14	.70U	.70U	---	20

TxtQcType: SD		Matrix: TCLP		SampleID: AC63081-047						
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	12491	T13480B2	21	T13480B2	20	5	0.0410	0.2084	1.7	10
Lead	12491	T13480C2	21	T13480C2	20	5	3.1757	15.1054	5.1	10

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**TCLP  
Metal Data  
Verification of Instrument Parameters**

**INTERELEMENT CORRECTION SUMMARY**  
**PEICP1**

**Interfering Elements**

	Al	Ca	Fe	Mg	Mn	Zn	Ti	Mo
<b>Interfered Elements</b>								
Al	N/A	0	0	0	0	0	0	12.7
Sb	-0.0512	0	-0.0801	-0.0105	0	0	0	-11.8
As	-0.00832	-0.0166	-0.136	0.0104	0	-0.146	2.25	0
Ba	0	0	0.015	0	0	0	0	-0.788
Be	0	0	-0.639	0	0	0	0	0
Cd	0	0	0.0188	0	0	0	0	0
Ca	0	N/A	0	0	0	0	0	0
Cr	0	0	0	0	0	-25.1	0	0
Co	0	0	0.0261	0	0	0	1.83	-0.34
Cu	0	0.0253	0	0	0	0	-0.416	0.476
Fe	0	0	N/A	0	0	0	0	0
Pb	-0.158	-0.0172	0.012	0	0	-0.203	-0.842	-1.09
Mg	0	0	0	N/A	0	0	0	0
Mn	0	0	-0.0508	0.0156	N/A	0	0	0
Mo	-0.0366	0	-0.0358	0	0	0	0	N/A
Ni	0	0	0.241	0	0	0	0	-0.431
Se	-0.0117	0.0925	-3.19	0	0.395	-0.205	0.462	0
Ag	0	-0.0187	-0.102	0	0.275	0	0	0.162
Tl	-0.0268	0.00603	-0.0221	0	-0.315	0	-10	0
Sn	0	-0.0936	0	0	0	0	-0.525	0
Ti	0	0	0	0	0	0	N/A	0
V	0	0	0	0.347	0	0	0.458	-8.2
Zn	0	0	0	0.0259	0	NA	0	0

**INTERELEMENT CORRECTION SUMMARY  
PEICP2**

	<b>Interfering Elements</b>							
	<b>Al</b>	<b>Ca</b>	<b>Fe</b>	<b>Mg</b>	<b>Mn</b>	<b>Mo</b>	<b>Ti</b>	<b>Zn</b>
<b>Interfered Elements</b>								
<b>Al</b>	N/A	0	0	0	0	22.7	-3.1	0
<b>Sb</b>	-0.171	0.00598	-0.16	0	0	-0.379	0.152	0.179
<b>As</b>	0	0.00919	-0.151	0	0	0.809	0	0
<b>Ba</b>	0	0	0	0	0	0	0	0
<b>Be</b>	0	0	0	0	0	0	0.715	0
<b>Cd</b>	0	0	0.0164	0	0	0	0	0
<b>Ca</b>	0	N/A	0	0	0	0	0	0
<b>Cr</b>	0	0	-0.0341	0	-0.624	-6.23	0	0
<b>Co</b>	-0.0142	0	0	0	0	-3.05	1.93	0
<b>Cu</b>	0.0128	0.0115	0	0.013	0	0	0.39	0
<b>Fe</b>	0	0	N/A	-0.4	0	0	0	0
<b>Pb</b>	-0.171	0.00105	0.0724	0.0138	0	-1.28	0	0
<b>Mg</b>	0	0	0	N/A	0	0	0	0
<b>Mn</b>	0	0	-0.0453	0	N/A	-0.256	0	0
<b>Mo</b>	-0.0122	0.0219	0	0	0	N/A	0	0
<b>Ni</b>	0	0	0	0	0	-0.89	0	0
<b>Se</b>	0.11	0.0279	-0.216	-0.00818	0.8	0	0.753	0
<b>Ag</b>	0	-0.00654	-0.0486	0	0.271	0.641	0	0
<b>Sr</b>	0	0.0108	0	0.00248	0	0	0	0
<b>Tl</b>	-0.024	-0.01	-0.0327	0	1.92	1.46	-7.68	0
<b>Sn</b>	0.0201	-0.00191	0.0326	-0.0161	0	0	0.753	0
<b>Ti</b>	0	0	0	0	0	0	N/A	0
<b>V</b>	0	0	0.0272	0.077	0	-1.46	-0.699	0
<b>Zn</b>	0	0	0	0.0313	0	0	0	N/A

LINEAR RANGES  
PE ICP 1  
AXIAL

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	450
Sb	45
As	45
Ba	27
Be	9
Cd	27
Ca	630
Cr	45
Co	45
Cu	45
Fe	270
Pb	45
Mg	900
Mn	18
Mo	45
Ni	45
Se	27
Ag	5.4
Tl	45
Sn	45
Ti	45
V	45
Zn	45

LINEAR RANGES  
PE ICP 2  
Axial

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Sb	18
As	45
Ba	45
Be	4.5
Cd	45
Ca	810
Cr	45
Co	45
Cu	45
Fe	540
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	1.8
Tl	45
Sn	45
Ti	36
V	45
Zn	45

41257

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41257

**TCLP  
Metal Data  
Raw Data**

*[Faint, illegible text]*

LEACHATE PREPARATION LOG  
(TCLP, SPLP)

Start Date: 12/19/2011

Finish Date: 12/20/2011

\*\*TCLP Ext. Fluid #1 pH: 4.91 (criteria: 4.93 ± 0.5)  
 \*\*TCLP Ext. Fluid #2 pH: (criteria: 2.88 ± 0.05)  
 \*\*SPLP Ext. Fluid #3 pH: (criteria: 4.20 ± 0.5)

Sample #	pH (units)	pH in HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt./Vol of Sample (g or mL)	Start Time	Finish Time	Analyst (s)	Ext. Type*	Comments
03290-001	8.59	1.11	0.16	EF-1 (131199)	100g/3L	12:30	12:30	ga	P	NOT TUMBLED; OIL SAMPLE
03290-001	11.19	7.46		EF-2 (130604)						59% SOLID 45% LIQUID (SLUDGE)
03290-002	11.30	8.86								41% SOLID 59% LIQUID (SLUDGE)
03299-001	8.45	1.06	5.11	EF-1 (131199)	100g/2L					NETS ONLY
03081-024	7.02	1.08	5.06							
03081-025	7.79	1.21	9.29							
03081-026	8.34	1.18	9.18							
03111-034	8.21	1.13	5.12		50g/L					
03111-035	8.07	1.28	9.10							
03111-036	8.61	1.22	9.38							
03269-001	8.62	5.00		EF-2 (130604)						45% SOLID 55% LIQUID
03268-001	10.96	1.10	5.22							
EF-1-131199	4.91	—	4.93		3L					
03334-0012	10.09	6.51		EF-2 (130604)	100g/2L					NETS ONLY
03334-0021	10.02	6.79								RETURNED 12/20/2011
03334-003	10.11	5.72								
03334-004	10.06	6.42								
EF-2-130604	2.89	—	2.88		3L					

NOT USE  
ga 12/20/11

NOT USE  
ga 12/20/11

NOT USE  
ga 12/20/11

\* Ext. Type: TCLP = T (Method 1311) LAMP=L (Methods 1311 / ANS/NEMA C78.1L 1256-2003)  
 SPLP = P (Method 1312) MEP=M (Method 1320)  
 ZHE = Z (Method 1311/1312)

\*\* The pH of the extraction fluid must be checked prior to use and must be within limits specified above

LEACHATE PREPARATION LOG  
(TCLP, SPLP)

Start Date: 12/08/11

Finish Date: 12/09/2011

\*\*TCLP Ext. Fluid #1 pH: 4.92 (criteria: 4.93 ± 0.5)  
 \*\*TCLP Ext. Fluid #2 pH: 2.94 (criteria: 2.88 ± 0.05)  
 \*\*SPLP Ext. Fluid #3 pH: (criteria: 4.20 ± 0.5)

Sample #	pH (units)	pH in HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt./Vol of Sample (g or mL)	Start Time	Finish Time	Analyst (s)	Ext. Type*	Comments
63022-023	11.10	2.14	6.34	EF-1 130089	1509/3L	19.50	12.05	CA	T	
63022-024	9.88	1.68	5.04		1509/3L					
63081-0134	8.83	1.76	5.01		1009/2L					
63081-016	8.97	3.91	6.32							
63081-039	7.32	1.80	5.20							
63081-040	8.63	1.74	5.03							
63081-041	8.33	1.69	5.28		1509/3L					
63080-001	9.21	2.00	5.18							
63080-008	8.32	1.78	5.12							
63080-013	10.36	4.11	8.18							
63080-017	9.32	2.16	8.90							
63080-023	10.38	4.52	8.75							
63080-024	7.09	1.69	5.04 ← 4.94							
63080-029	8.96	1.76	5.09							
63080-011	-									
63099-001	7.96	1.80	5.36			19.50				SAMPLE HAS NOT BEEN RECEIVED.
63057-010	12.71	12.53	12.44	EF-2 129043						67% SOLID 33% LIQUID.
63057-011	12.79	12.65	12.44	EF-2 129043						70% SOLID 30% LIQUID.
63081-0145	9.35	1.88	4.99	EF-1 130089	1009/2L					
EF-1-130089	4.92		4.93	EF-1 130089	3L					
EF-2-129043	2.94		2.95	EF-2 129043	3L					

\*Ext. Type: TCLP = T (Method 1311) LAMP=L (Methods 1311 / ANSINEMA C78.LL 1256-2003)  
 SPLP = P (Method 1312) MEP=M (Method 1320)  
 ZHE = Z (Method 1311/1312)

\*\* The pH of the extraction fluid must be checked prior to use and must be within limits specified above

Leachate prep log 2010.xls

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LEACHATE PREPARATION LOG  
(TCLP, SPLP)

Start Date: 11/2/2012

Finish Date: 11/3/2012

\*\*TCLP Ext. Fluid #1 pH: 4.93 (criteria: 4.93 ± 0.5)  
 \*\*TCLP Ext. Fluid #2 pH: (criteria: 2.88 ± 0.05)  
 \*\*SPLP Ext. Fluid #3 pH: 4.16 (criteria: 4.20 ± 0.5)

Sample #	pH (units)	pH in HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt./Vol of Sample (g or mL)	Start Time	Finish Time	Analyst (s)	Ext. Type*	Comments
03544-001	0.58	1.89	4.95	EF-132485	150g/3L	8:02	10:50	CPA	T	
03544-002	0.87	1.94	5.13							
03544-003	7.80	2.10	5.12							
03544-004	6.02	1.81	4.95							
03544-005	7.04	1.87	4.98							
03544-006	8.01	1.93	5.56							
03544-007	6.65	1.85	4.93							
03544-008	8.20	1.81	5.04							
03544-009	7.15	1.61	5.01							
03544-010	6.95	1.49	4.89							
03081-028	8.80	1.66	5.29		150g/2L					LIMITED SAMPLE 50g/1L
03081-047	8.64	1.85	5.33							
03111-003	8.76	1.77	5.22							
03111-039	8.77	1.94	5.31							
EF-1-132485	4.93		4.96		3L					
EF-2					3L					
035029-002			8.98	SPLP 132082	100g/2L					
035053-001			9.31							
035053-002			8.02							
035053-003			9.42							
03514-002			9.33							
035410-006			6.93							ORANGE OILS
03524-006			6.26							
SPLP-132082	4.16		4.48		3L					

Ext. Type: TCLP = T (Method 1311) LAMP=M (Methods 1311 / ANSI/NEMA C7.8 LL 1256-2003)  
 SPLP = P (Method 1312) MEP=M (Method 1320)  
 ZHE = Z (Method 1311/1312)

\*\* The pH of the extraction fluid must be checked prior to use and must be within limits specified above

Form1  
Inorganic Analysis Data Sheet

Sample ID: MB 11724 (1)  
Client Id: MB 11724 (1)  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L

Lab Name: Veritech  
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	1.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-36-0	Antimony	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-39-3	Barium	0.25	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-41-7	Beryllium	0.050	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-43-9	Cadmium	0.050	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-70-2	Calcium	5.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-47-3	Chromium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-48-4	Cobalt	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-50-8	Copper	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-89-6	Iron	1.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-92-1	Lead	0.15	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-95-4	Magnesium	5.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-96-5	Manganese	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-97-6	Mercury	0.00070	ND	1	25	25	12/22/11	11724	H13414T	11	CV	HGCV2A
7439-98-7	Molybdenum	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-02-0	Nickel	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7782-49-2	Selenium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-22-4	Silver	0.050	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-28-0	Thallium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-31-5	Tin	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-32-6	Titanium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-62-2	Vanadium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-66-6	Zinc	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: MB 11680 (1)  
Client Id: MB 11680 (1)  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L

Lab Name: Veritech  
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	1.0	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-36-0	Antimony	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-38-2	Arsenic	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-39-3	Barium	0.25	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-41-7	Beryllium	0.050	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-43-9	Cadmium	0.050	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-70-2	Calcium	5.0	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-47-3	Chromium	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-48-4	Cobalt	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-50-8	Copper	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7439-89-6	Iron	1.0	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7439-92-1	Lead	0.15	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7439-95-4	Magnesium	5.0	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7439-96-5	Manganese	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7439-97-6	Mercury	0.00070	ND	1	25	25	12/10/11	11680	H13375T	11	CV	HGCV2A
7439-98-7	Molybdenum	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-02-0	Nickel	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7782-49-2	Selenium	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-22-4	Silver	0.050	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-28-0	Thallium	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-31-5	Tin	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-32-6	Titanium	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-62-2	Vanadium	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A
7440-66-6	Zinc	0.20	ND	1	50	50	12/12/11	11680	T13375A	11	P	PEICP1A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: MB 12491 (1)  
Client Id: MB 12491 (1)  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L

Lab Name: Veritech  
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	1.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-36-0	Antimony	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-38-2	Arsenic	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-39-3	Barium	0.25	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-41-7	Beryllium	0.050	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-43-9	Cadmium	0.050	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-70-2	Calcium	5.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-47-3	Chromium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-48-4	Cobalt	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-50-8	Copper	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-89-6	Iron	1.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-92-1	Lead	0.15	ND	1	50	50	01/17/12	12491	T13480C2	11	P	PEICP2A
7439-95-4	Magnesium	5.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-96-5	Manganese	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-97-6	Mercury	0.00070	ND	1	25	25	01/13/12	12491	H13480T	11	CV	HGCV1A
7439-98-7	Molybdenum	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-02-0	Nickel	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7782-49-2	Selenium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-22-4	Silver	0.050	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-28-0	Thallium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-31-5	Tin	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-32-6	Titanium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-62-2	Vanadium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-66-6	Zinc	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP1A\T13414A.txt

Analysis Date: 12/22/11

Instrument: PEICP1A

Sample Id	Qc DF	Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	12:13	1							V-129815(ICB/CCB)
Calib Std 1 V-128668	1	CAL	12:17	2							V-128668(ICS1 - Lowest std)
Calib Std 2 V-128664	1	CAL	12:20	3							V-128664(ICS2- Low Std)
Calib Std 3 V-128660	1	CAL	12:23	4							V-128660(ICS3 - Middle Std)
Calib Std 4 V-129806	1	CAL	12:26	5							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	12:29	6							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	12:33	7							V-128235(ICV)
ICB V-129815	1	ICB	12:36	8							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	12:39	9							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	12:43	10							V-128667(ICSAB)
MB 11724 (1)	1	MB	12:48	11		TCLP	TCLP	SW846	11724		0
LCSW 11724	1	LCS	12:51	12		TCLP	TCLP	SW846	11724		0
LCSW MR 11724	1	LCS	12:54	13		TCLP	TCLP	SW846	11724		0
AC63081-024	1	SMP	12:58	14	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	1	MR	13:01	15	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	1	MS	13:04	16	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	1	PS	13:08	17	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	5	SD	13:11	18	METALS-TCLP	TCLP	TCLP	SW846	11724		0
CCV V-128659	1	CCV	13:14	19							V-128659(CCV)
CCB	1	CCB	13:17	20							0
AC63269-001	1	SMP	13:21	21	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63290-001	1	SMP	13:25	22	METALS-TCLP	TCLP	TCLP	SW846	11724	Ca sat'n (Ag, As, Pb, Se)	0
AC63290-001	1	MS	13:29	23	METALS-TCLP	TCLP	TCLP	SW846	11724	Ca sat'n (Ag, As, Pb, Se)	0
AC63290-001	2	NA	13:33	24	METALS-TCLP	TCLP	TCLP	SW846	11724	not used (Ca sat'n)	0
AC63290-001	4	SMP	13:37	25	METALS-TCLP	TCLP	TCLP	SW846	11724	Ag, As, Pb, Se	0
AC63290-001	4	MS	13:41	26	METALS-TCLP	TCLP	TCLP	SW846	11724	Ag, As, Pb, Se	0
AC63290-002	1	SMP	13:46	27	METALS-TCLP	TCLP	TCLP	SW846	11724	Ca sat'n (Ag, As, Pb, Se)	0
AC63290-002	2	NA	13:50	28	METALS-TCLP	TCLP	TCLP	SW846	11724	wrong location (really 63290-001 TCLP SPK 4D)	0
CCV V-128659	1	CCV	13:54	29							V-128659(CCV)
CCB	1	CCB	13:57	30							0
AC63334-001	1	SMP	14:00	31	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63290-002	2	NA	14:05	32	METALS-TCLP	TCLP	TCLP	SW846	11724	not used (Ca sat'n)	0
AC63334-002	1	SMP	14:09	33	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63290-002	4	SMP	14:13	34	METALS-TCLP	TCLP	TCLP	SW846	11724	Ag, As, Pb, Se	0
CCV V-128659	1	CCV	14:17	35							V-128659(CCV)
CCB	1	CCB	14:21	36							0
AC63334-003	1	SMP	14:24	37	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63334-004	1	SMP	14:28	38	PB-TCLP	TCLP	TCLP	SW846	11724		0
EF-V-131199	1	EF	14:33	39		TCLP	TCLP	SW846	11724		V-131199(EF-1)
EF-V-130604	1	EF	14:36	40		TCLP	TCLP	SW846	11724		V-130604(EF-2)
ICSA V-128666	1	ICSA	14:39	41							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	14:43	42							V-128667(ICSAB)
CCV V-128659	1	CCV	14:48	43							V-128659(CCV)
CCB	1	CCB	14:51	44							0
AC63081-025	1	SMP	14:54	45	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-026	1	SMP	14:58	46	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63111-034	1	SMP	15:01	47	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63111-035	1	SMP	15:04	48	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63111-036	1	SMP	15:09	49	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63250-001	1	SMP	15:12	50	METALS-TCLP	TCLP	TCLP	SW846	11724		0
CCV V-128659	1	CCV	15:15	51							V-128659(CCV)
CCB	1	CCB	15:18	52							0
AC63279-001	1	SMP	15:22	53	MET-TCLP-XL	TCLP	TCLP	SW846	11724		0
AC63298-001	1	SMP	15:25	54	METALS-TCLP	TCLP	TCLP	SW846	11724		0
ICSA V-128666	1	ICSA	15:29	55							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	15:34	56							V-128667(ICSAB)
CCV V-128659	1	CCV	15:38	57							V-128659(CCV)
CCB	1	CCB	15:41	58							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/22/2011 3:48:58 PM

OK

*sh* 12/22/11

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICPIA\T13375A.txt

Analysis Date: 12/12/11

Instrument: PEICPIA

Sample Id	Qc DF	Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	18:17	1							V-129815(ICB/CCB)
Calib Std 1 V-128668	1	CAL	18:20	2							V-128668(ICS1 - Lowest std)
Calib Std 2 V-128664	1	CAL	18:23	3							V-128664(ICS2- Low Std)
Calib Std 3 V-128660	1	CAL	18:26	4							V-128660(ICS3 - Middle Std)
Calib Std 4 V-129806	1	CAL	18:30	5							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	18:33	6							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	18:36	7							V-128235(ICV)
ICB V-129815	1	ICB	18:40	8							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	18:43	9							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	18:47	10							V-128667(ICSAB)
MB 11680 (1)	1	MB	18:50	11		TCLP	TCLP	SW846	11680		0
LCSW 11680	1	LCS	18:53	12		TCLP	TCLP	SW846	11680		0
LCSW MR 11680	1	LCS	18:57	13		TCLP	TCLP	SW846	11680		0
AC63022-023	1	SMP	19:00	14	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63022-023	1	MR	19:04	15	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63022-023	1	MS	19:08	16	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63022-023	1	PS	19:12	17	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63022-023	5	SD	19:15	18	METALS-TCLP	TCLP	TCLP	SW846	11680		0
CCV V-128659	1	CCV	19:19	19							V-128659(CCV)
CCB	1	CCB	19:22	20							0
AC63022-024	1	SMP	19:25	21	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63081-014	1	SMP	19:28	22	PB-TCLP	TCLP	TCLP	SW846	11680		0
AC63081-015	1	SMP	19:32	23	PB-TCLP	TCLP	TCLP	SW846	11680		0
AC63081-016	1	SMP	19:35	24	PB-TCLP	TCLP	TCLP	SW846	11680		0
AC63081-039	1	SMP	19:39	25	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63081-040	1	SMP	19:43	26	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63081-041	1	SMP	19:46	27	METALS-TCLP	TCLP	TCLP	SW846	11680		0
ICSA V-128666	1	ICSA	19:49	28							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	19:53	29							V-128667(ICSAB)
CCV V-128659	1	CCV	19:57	30							V-128659(CCV)
CCB	1	CCB	20:00	31							0
AC63057-010	1	SMP	20:03	32	METALS-TCLP	TCLP	TCLP	SW846	11680	Ca sat'n (Ag, As, Pb, Se)	0
AC63057-010	1	MS	20:07	33	METALS-TCLP	TCLP	TCLP	SW846	11680	Ca sat'n (Ag, As, Pb, Se)	0
AC63057-011	1	SMP	20:11	34	METALS-TCLP	TCLP	TCLP	SW846	11680	Ca sat'n (Ag, As, Pb, Se)	0
AC63080-001	1	SMP	20:14	35	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63080-008	1	SMP	20:18	36	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63080-013	1	SMP	20:21	37	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63080-017	1	SMP	20:24	38	METALS-TCLP	TCLP	TCLP	SW846	11680		0
CCV V-128659	1	CCV	20:28	39							V-128659(CCV)
CCB	1	CCB	20:31	40							0
AC63080-023	1	SMP	20:34	41	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63080-024	1	SMP	20:38	42	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63080-029	1	SMP	20:41	43	METALS-TCLP	TCLP	TCLP	SW846	11680		0
AC63099-001	1	SMP	20:45	44	METALS-TCLP	TCLP	TCLP	SW846	11680		0
EF-V-130089	1	EF	20:48	45		TCLP	TCLP	SW846	11680		V-130089(EF-1)
EF-V-129043	1	EF	20:51	46		TCLP	TCLP	SW846	11680		V-129043(EF-2)
ICSA V-128666	1	ICSA	20:54	47							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	20:58	48							V-128667(ICSAB)
CCV V-128659	1	CCV	21:02	49							V-128659(CCV)
CCB	1	CCB	21:05	50							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/13/2011 9:55:35 AM

OK

*sh* 12/14/11

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\T13480B2.txt

Analysis Date: 01/16/12

Instrument: PEICP2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-130860	1	CAL	18:49	1							V-130860(ICB/CCB)
Calib 1 V-128669	1	CAL	18:53	2							V-128669(ICS1 - Lowest std)
Calib 2 V-130865	1	CAL	18:57	3							V-130865(ICS2- Low Std)
Calib 3 V-129805	1	CAL	19:01	4							V-129805(ICS3 - Middle Std)
Calib 4 V-130869	1	CAL	19:05	5							V-130869(ICS4 - High std)
ICS3 V-129805	1	ICS	19:09	6							V-129805(ICS3 - Middle Std)
ICV V-129811 (2)	1	ICV	19:13	7							V-129811(ICV)
ICB V-130860	1	ICB	19:18	8							V-130860(ICB/CCB)
ICSA V-130873	1	ICSA	19:22	9							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	19:27	10							V-130874(ICSAB)
MB 12491 (1)	1	MB	19:33	11		TCLP	TCLP	SW846	12491		0
LCSW 12491	1	LCS	19:36	12		TCLP	TCLP	SW846	12491		0
LCSW MR 12491	1	LCS	19:40	13		TCLP	TCLP	SW846	12491		0
AC63081-028	1	SMP	19:44	14	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
AC63081-028	1	MR	19:48	15	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
AC63081-028	1	MS	19:52	16	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
AC63081-028	1	PS	19:56	17	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
CCV V-130872	1	CCV	20:00	18						Pb failed (carryover)	V-130872(CCV)
CCB	1	CCB	20:04	19							0
AC63081-047	1	SMP	20:07	20	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-047	5	SD	20:11	21	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-003	1	SMP	20:15	22	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-039	1	SMP	20:19	23	PB-TCLP	TCLP	TCLP	SW846	12491		0
EF-V-132485	1	EF	20:23	24		TCLP	TCLP	SW846	12491		V-132485(EF-1)
ICSA V-130873	1	ICSA	20:27	25							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	20:32	26							V-130874(ICSAB)
CCV V-130872	1	CCV	20:37	27							V-130872(CCV)
CCB	1	CCB	20:41	28							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 1/17/2012 10:57:43 AM

OK except Pb

*sh* 1/17/12

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\T13480C2.txt

Analysis Date: 01/17/12

Instrument: PEICP2A

Sample Id	Qc DF	Qc Type	Run Time	Test #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-130860	1	CAL	11:08	1							V-130860(ICB/CCB)
Calib 1 V-128669	1	CAL	11:12	2							V-128669(ICS1 - Lowest std)
Calib 2 V-130865	1	CAL	11:16	3							V-130865(ICS2- Low Std)
Calib 3 V-129805	1	CAL	11:20	4							V-129805(ICS3 - Middle Std)
Calib 4 V-130869	1	CAL	11:23	5							V-130869(ICS4 - High std)
ICS3 V-129805	1	ICS	11:28	6							V-129805(ICS3 - Middle Std)
ICV V-129811 (2)	1	ICV	11:32	7							V-129811(ICV)
ICB V-130860	1	ICB	11:37	8							V-130860(ICB/CCB)
ICSA V-130873	1	ICSA	11:41	9							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	11:46	10							V-130874(ICSAB)
MB 12491 (1)	1	MB	11:51	11		TCLP	TCLP	SW846	12491		0
LCSW 12491	1	LCS	11:54	12		TCLP	TCLP	SW846	12491		0
LCSW MR 12491	1	LCS	11:58	13		TCLP	TCLP	SW846	12491		0
AC63081-028	10	SMP	12:02	14	PB-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-028	10	MR	12:06	15	PB-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-028	10	MS	12:09	16	PB-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-028	1	PS	12:13	17	PB-TCLP	TCLP	TCLP	SW846	12491		0
CCV V-130872	1	CCV	12:17	18							V-130872(CCV)
CCB	1	CCB	12:21	19							0
AC63081-047	1	SMP	12:24	20	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-047	5	SD	12:28	21	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-003	1	SMP	12:32	22	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-039	1	SMP	12:36	23	PB-TCLP	TCLP	TCLP	SW846	12491		0
EF-V-132485	1	EF	12:40	24		TCLP	TCLP	SW846	12491		V-132485(EF-1)
ICSA V-130873	1	ICSA	12:43	25							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	12:49	26							V-130874(ICSAB)
CCV V-130872	1	CCV	12:54	27							V-130872(CCV)
CCB	1	CCB	12:57	28							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 1/17/2012 2:24:47 PM

Pb OK

*sh* 1/17/12

## Run Log

Data File: W:\METALS.FRM\ICPDATA\New\HGCV1A\H13480T.txt

Analysis Date: 01/13/12

Instrument: HGCV1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	19:05	1							0
.2 PPB	1	CAL	19:06	2							0
.5 PPB	1	CAL	19:08	3							0
1 PPB	1	CAL	19:09	4							0
2 PPB	1	CAL	19:10	5							0
5 PPB	1	CAL	19:12	6							0
10 PPB	1	CAL	19:13	7							0
25 PPB	1	CAL	19:14	8							0
ICV (2)	1	ICV	19:16	9							0
ICB	1	ICB	19:17	10							0
MB 12491 (1)	1	MB	19:19	11		TCLP	TCLP	SW846	12491		0
LCSW 12491	1	LCS	19:20	12		TCLP	TCLP	SW846	12491		0
LCSW MR 12491	1	LCS	19:21	13		TCLP	TCLP	SW846	12491		0
AC63081-047	1	SMP	19:23	14	HG-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-047	1	MR	19:24	15	HG-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-047	1	MS	19:25	16	HG-TCLP	TCLP	TCLP	SW846	12491		0
EF-V-132485	1	EF	19:27	17		TCLP	TCLP	SW846	12491		V-132485(EF-1)
CCV	1	CCV	19:28	18							0
CCB	1	CCB	19:30	19							0

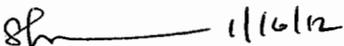
Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 1/13/2012 7:37:44 PM

V-132625

RUN IS OK



file T 13414A

Batch 13414

Method: PE1 3000DV AXIAL

Page 1

Date: 12/22/2011 12:15:51 PM

Analyst S B 12/22/11

=====  
Analysis Begun

Start Time: 12/22/2011 12:12:54 PM                      Plasma On Time: 12/22/2011 9:48:19 AM  
 Logged In Analyst: shiamala                              Technique: ICP Continuous  
 Spectrometer Model: Optima 3300 DV, S/N 069N5072002 Autosampler Model: AS-91

Sample Information File: C:\pe\Administrator\Sample Information\12.22.11.sif  
 Batch ID: 8336  
 Results Data Set: T13414A  
 Results Library: C:\pe\Administrator\Results\Results.mdb

*shiamala* 12/22/11

=====  
Method Loaded

Method Name: PE1 3000DV AXIAL                      Method Last Saved: 12/19/2011 3:31:41 PM  
 IEC File: IEC092311.iec                              MSF File:  
 Method Description: 200.7/6010B

=====  
Sequence No.: 1

Sample ID: Calib Blk 1 V-129815                      Autosampler Location: 1  
 Date Collected: 12/22/2011 12:13:54 PM  
 Analyst:    Data Type: Original  
 Initial Sample Wt:                                      Initial Sample Vol:  
 Dilution:    Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	1698.3	27.17	1.60%	[0.00]	mg/L
Sb 206.836	4.3	0.49	11.39%	[0.00]	mg/L
As 188.979	-5.0	1.73	34.88%	[0.00]	mg/L
Ba 233.527	-66.5	8.11	12.20%	[0.00]	mg/L
Be 234.861	-189.1	6.68	3.53%	[0.00]	mg/L
Cd 226.502	-101.5	0.42	0.42%	[0.00]	mg/L
Ca 315.887	2154.6	134.02	6.22%	[0.00]	mg/L
Cr 206.158	17.0	6.76	39.73%	[0.00]	mg/L
Co 228.616	-146.0	0.41	0.28%	[0.00]	mg/L
Cu 324.752	790.8	11.51	1.46%	[0.00]	mg/L
Fe 273.955	411.9	16.05	3.90%	[0.00]	mg/L
Pb 220.353	71.0	1.57	2.20%	[0.00]	mg/L
Mg 279.077	57.6	64.60	112.21%	[0.00]	mg/L
Mn 257.610	516.1	3.55	0.69%	[0.00]	mg/L
Mo 202.031	-100.0	0.39	0.39%	[0.00]	mg/L
Ni 231.604	-84.4	7.87	9.33%	[0.00]	mg/L
Se 196.026	15.0	1.79	11.91%	[0.00]	mg/L
Ag 328.068	95.2	13.58	14.27%	[0.00]	mg/L
Na 330.237	440.4	37.20	8.45%	[0.00]	mg/L
Tl 190.801	-22.3	0.12	0.56%	[0.00]	mg/L
Sn 189.927	2.9	1.20	40.79%	[0.00]	mg/L
Ti 334.940	112.1	59.62	53.20%	[0.00]	mg/L
V 292.402	-17.6	13.26	75.27%	[0.00]	mg/L
Zn 206.200	81.1	0.31	0.38%	[0.00]	mg/L

13414  
11724

all elements reported  
 63280-001 4D } Ag, As, Pb, Se  
 60240 } reported

Sequence No.: 2

Sample ID: Calib Std 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 158

Date Collected: 12/22/2011 12:17:02 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
As 188.979	0.1	0.73	889.18%	[0.005]	mg/L
Be 234.861	1276.8	22.63	1.77%	[0.003]	mg/L
Cd 226.502	174.9	2.62	1.50%	[0.003]	mg/L
Pb 220.353	26.6	4.58	17.25%	[0.004]	mg/L
Tl 190.801	8.3	3.47	41.68%	[0.005]	mg/L

Sequence No.: 3

Sample ID: Calib Std 2 V-128664

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 160

Date Collected: 12/22/2011 12:20:07 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 2 V-128664

Analyte	Mean Corrected		RSD	Calib	
	Intensity	Std.Dev.		Conc.	Units
Al 308.215	829.4	20.04	2.42%	[0.1]	mg/L
Sb 206.836	10.9	6.56	60.31%	[0.01]	mg/L
As 188.979	3.4	3.50	101.45%	[0.01]	mg/L
Ba 233.527	590.7	4.98	0.84%	[0.01]	mg/L
Be 234.861	4051.8	0.72	0.02%	[0.01]	mg/L
Cd 226.502	541.7	8.43	1.56%	[0.01]	mg/L
Ca 315.887	59243.7	46.64	0.08%	[1]	mg/L
Cr 206.158	95.7	2.32	2.42%	[0.01]	mg/L
Co 228.616	197.8	0.29	0.14%	[0.01]	mg/L
Cu 324.752	1128.3	59.28	5.25%	[0.01]	mg/L
Fe 273.955	1561.6	3.40	0.22%	[0.1]	mg/L
Pb 220.353	64.2	2.68	4.17%	[0.01]	mg/L
Mg 279.077	14182.3	92.94	0.66%	[1]	mg/L
Mn 257.610	5853.7	2.28	0.04%	[0.01]	mg/L
Mo 202.031	78.6	5.21	6.63%	[0.01]	mg/L
Ni 231.604	356.3	4.65	1.30%	[0.01]	mg/L
Se 196.026	15.6	15.50	99.61%	[0.01]	mg/L
Ag 328.068	256.8	55.25	21.51%	[0.002]	mg/L
Na 330.237	237.6	66.06	27.80%	[1]	mg/L
Tl 190.801	16.1	3.08	19.10%	[0.01]	mg/L
Sn 189.927	32.6	1.94	5.94%	[0.01]	mg/L
Ti 334.940	3267.1	50.46	1.54%	[0.01]	mg/L
V 292.402	967.0	37.97	3.93%	[0.01]	mg/L
Zn 206.200	129.4	3.22	2.49%	[0.01]	mg/L

Sequence No.: 4

Sample ID: Calib Std 3 V-128660

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/22/2011 12:23:17 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 3 V-128660

Analyte	Mean Corrected	Std.Dev.	RSD	Calib
	Intensity			Conc. Units
Al 308.215	43972.1	253.79	0.58%	[5] mg/L
Sb 206.836	385.2	6.47	1.68%	[0.5] mg/L
As 188.979	329.3	2.57	0.78%	[0.5] mg/L
Ba 233.527	27905.4	335.10	1.20%	[0.5] mg/L
Be 234.861	211582.5	1599.28	0.76%	[0.5] mg/L
Cd 226.502	26493.7	43.34	0.16%	[0.5] mg/L
Ca 315.887	2944433.2	15687.38	0.53%	[50] mg/L
Cr 206.158	4813.5	11.03	0.23%	[0.5] mg/L
Co 228.616	9280.0	43.42	0.47%	[0.5] mg/L
Cu 324.752	54306.1	586.72	1.08%	[0.5] mg/L
Fe 273.955	81594.5	563.59	0.69%	[5] mg/L
Pb 220.353	2815.4	1.54	0.05%	[0.5] mg/L
Mg 279.077	677755.6	808.66	0.12%	[50] mg/L
Mn 257.610	237419.1	1857.60	0.78%	[0.5] mg/L
Mo 202.031	3958.6	0.32	0.01%	[0.5] mg/L
Ni 231.604	17509.5	51.55	0.29%	[0.5] mg/L
Se 196.026	549.3	5.63	1.02%	[0.5] mg/L
Ag 328.068	11811.1	217.55	1.84%	[0.1] mg/L
Na 330.237	23949.7	275.97	1.15%	[50] mg/L
Tl 190.801	576.0	2.38	0.41%	[0.5] mg/L
Sn 189.927	1660.0	0.08	0.00%	[0.5] mg/L
Ti 334.940	164816.3	1461.05	0.89%	[0.5] mg/L
V 292.402	49254.5	493.09	1.00%	[0.5] mg/L
Zn 206.200	9339.0	17.84	0.19%	[0.5] mg/L

Sequence No.: 5

Sample ID: Calib Std 4 V-129806

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 12/22/2011 12:26:33 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 4 V-129806

Analyte	Mean Corrected			RSD	Conc. Units
	Intensity	Std.Dev.			
Al 308.215	87694.0	1307.14	1.49%	[10]	mg/L
Sb 206.836	764.6	3.40	0.45%	[1.0]	mg/L
As 188.979	657.0	12.87	1.96%	[1.0]	mg/L
Ba 233.527	53988.3	712.68	1.32%	[1.0]	mg/L
Be 234.861	425278.9	4450.77	1.05%	[1.0]	mg/L
Cd 226.502	51572.5	275.40	0.53%	[1.0]	mg/L
Ca 315.887	5737828.2	89604.27	1.56%	[100]	mg/L
Cr 206.158	9348.5	5.23	0.06%	[1.0]	mg/L
Co 228.616	17817.6	4.17	0.02%	[1.0]	mg/L
Cu 324.752	108502.1	1464.24	1.35%	[1.0]	mg/L
Fe 273.955	159285.5	1714.83	1.08%	[10]	mg/L
Pb 220.353	5424.4	0.97	0.02%	[1.0]	mg/L
Mg 279.077	1308203.1	10164.06	0.78%	[100]	mg/L
Mn 257.610	465187.5	5684.76	1.22%	[1.0]	mg/L
Mo 202.031	7723.9	14.92	0.19%	[1.0]	mg/L
Ni 231.604	34487.9	391.38	1.13%	[1.0]	mg/L
Se 196.026	1061.2	6.16	0.58%	[1.0]	mg/L
Ag 328.068	23573.5	348.89	1.48%	[0.2]	mg/L
Na 330.237	50984.5	838.62	1.64%	[100]	mg/L
Tl 190.801	1120.0	0.30	0.03%	[1.0]	mg/L
Sn 189.927	3239.7	24.51	0.76%	[1.0]	mg/L
Ti 334.940	328211.1	3849.96	1.17%	[1.0]	mg/L
V 292.402	97248.8	1321.37	1.36%	[1.0]	mg/L
Zn 206.200	18038.5	0.40	0.00%	[1.0]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	1.2	8774	0.00000	0.999999	
Sb 206.836	3	Lin, Calc Int	2.0	763.4	0.00000	0.999989	
As 188.979	4	Lin, Calc Int	-1.9	659.5	0.00000	0.999986	
Ba 233.527	3	Lin, Calc Int	188.9	54120	0.00000	0.999852	
Be 234.861	4	Lin, Calc Int	-194.1	425100	0.00000	0.999997	
Cd 226.502	4	Lin, Calc Int	102.6	51730	0.00000	0.999913	
Ca 315.887	3	Lin, Calc Int	14591.5	57500	0.00000	0.999909	
Cr 206.158	3	Lin, Calc Int	26.4	9372	0.00000	0.999883	
Co 228.616	3	Lin, Calc Int	76.5	17870	0.00000	0.999775	
Cu 324.752	3	Lin, Calc Int	29.7	108500	0.00000	1.000000	
Fe 273.955	3	Lin, Calc Int	341.0	15970	0.00000	0.999919	
Pb 220.353	4	Lin, Calc Int	17.5	5445	0.00000	0.999837	
Mg 279.077	3	Lin, Calc Int	4804.6	13120	0.00000	0.999830	
Mn 257.610	3	Lin, Calc Int	1423.9	465400	0.00000	0.999947	
Mo 202.031	3	Lin, Calc Int	18.2	7741	0.00000	0.999917	
Ni 231.604	3	Lin, Calc Int	53.5	34530	0.00000	0.999969	
Se 196.026	3	Lin, Calc Int	5.7	1062	0.00000	0.999848	
Ag 328.068	3	Lin, Calc Int	14.0	117800	0.00000	0.999999	
Na 330.237	3	Lin, Calc Int	-404.3	508.5	0.00000	0.999540	
Tl 190.801	4	Lin, Calc Int	4.4	1121	0.00000	0.999912	
Sn 189.927	3	Lin, Calc Int	7.4	3247	0.00000	0.999918	
Ti 334.940	3	Lin, Calc Int	122.5	328300	0.00000	0.999997	
V 292.402	3	Lin, Calc Int	112.2	97370	0.00000	0.999977	
Zn 206.200	3	Lin, Calc Int	35.0	18120	0.00000	0.999817	

Sequence No.: 6  
 Sample ID: ICS3 V-128660  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/22/2011 12:29:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICS3 V-128660

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc.	Units		Conc.	Units	
Al 308.215	44419.6	5.05597	mg/L	0.075439	5.05597	mg/L	0.075439 1.49%
QC value within limits for Al		308.215	Recovery = 101.12%				
Sb 206.836	382.8	0.506055	mg/L	0.0023954	0.506055	mg/L	0.0023954 0.47%
QC value within limits for Sb		206.836	Recovery = 101.21%				
As 188.979	326.5	0.499041	mg/L	0.0043935	0.499041	mg/L	0.0043935 0.88%
QC value within limits for As		188.979	Recovery = 99.81%				
Ba 233.527	28064.0	0.515335	mg/L	0.0060221	0.515335	mg/L	0.0060221 1.17%
QC value within limits for Ba		233.527	Recovery = 103.07%				
Be 234.861	213965.7	0.510217	mg/L	0.0072445	0.510217	mg/L	0.0072445 1.42%
QC value within limits for Be		234.861	Recovery = 102.04%				
Cd 226.502	26738.2	0.514915	mg/L	0.0069190	0.514915	mg/L	0.0069190 1.34%
QC value within limits for Cd		226.502	Recovery = 102.98%				
Ca 315.887	2925470.3	50.6203	mg/L	0.53247	50.6203	mg/L	0.53247 1.05%
QC value within limits for Ca		315.887	Recovery = 101.24%				
Cr 206.158	4803.6	0.522519	mg/L	0.0016435	0.522519	mg/L	0.0016435 0.31%
QC value within limits for Cr		206.158	Recovery = 104.50%				
Co 228.616	9228.2	0.511123	mg/L	0.0004766	0.511123	mg/L	0.0004766 0.09%
QC value within limits for Co		228.616	Recovery = 102.22%				
Cu 324.752	55155.6	0.506817	mg/L	0.0091080	0.506817	mg/L	0.0091080 1.80%
QC value within limits for Cu		324.752	Recovery = 101.36%				
Fe 273.955	82025.9	5.11637	mg/L	0.076803	5.11637	mg/L	0.076803 1.50%
QC value within limits for Fe		273.955	Recovery = 102.33%				
Pb 220.353	2798.6	0.513504	mg/L	0.0000069	0.513504	mg/L	0.0000069 0.00%
QC value within limits for Pb		220.353	Recovery = 102.70%				
Mg 279.077	673169.3	50.9475	mg/L	0.54077	50.9475	mg/L	0.54077 1.06%
QC value within limits for Mg		279.077	Recovery = 101.90%				
Mn 257.610	239741.2	0.511528	mg/L	0.0071208	0.511528	mg/L	0.0071208 1.39%
QC value within limits for Mn		257.610	Recovery = 102.31%				
Mo 202.031	3925.7	0.505179	mg/L	0.0021411	0.505179	mg/L	0.0021411 0.42%
QC value within limits for Mo		202.031	Recovery = 101.04%				
Ni 231.604	17459.0	0.504168	mg/L	0.0010106	0.504168	mg/L	0.0010106 0.20%
QC value within limits for Ni		231.604	Recovery = 100.83%				
Se 196.026	556.1	0.527372	mg/L	0.0093704	0.527372	mg/L	0.0093704 1.78%
QC value within limits for Se		196.026	Recovery = 105.47%				
Ag 328.068	11930.8	0.101909	mg/L	0.0014354	0.101909	mg/L	0.0014354 1.41%
QC value within limits for Ag		328.068	Recovery = 101.91%				
Na 330.237	24136.7	48.2580	mg/L	0.60030	48.2580	mg/L	0.60030 1.24%
QC value within limits for Na		330.237	Recovery = 96.52%				
Tl 190.801	573.3	0.512558	mg/L	0.0058743	0.512558	mg/L	0.0058743 1.15%
QC value within limits for Tl		190.801	Recovery = 102.51%				
Sn 189.927	1667.6	0.516349	mg/L	0.0011344	0.516349	mg/L	0.0011344 0.22%
QC value within limits for Sn		189.927	Recovery = 103.27%				
Ti 334.940	166896.1	0.507918	mg/L	0.0073389	0.507918	mg/L	0.0073389 1.44%
QC value within limits for Ti		334.940	Recovery = 101.58%				
V 292.402	49695.2	0.493872	mg/L	0.0081045	0.493872	mg/L	0.0081045 1.64%
QC value within limits for V		292.402	Recovery = 98.77%				
Zn 206.200	9288.2	0.509234	mg/L	0.0016354	0.509234	mg/L	0.0016354 0.32%
QC value within limits for Zn		206.200	Recovery = 101.85%				

All analyte(s) passed QC.

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Sequence No.: 7                               Autosampler Location: 159
Sample ID: ICV V-128235 (2)                   Date Collected: 12/22/2011 12:33:08 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	88933.2	10.1232	mg/L	0.08318	10.1232	mg/L	0.08318 0.82%
	QC value within limits for Al 308.215 Recovery = 101.23%						
Sb 206.836	739.8	0.980334	mg/L	0.0044619	0.980334	mg/L	0.0044619 0.46%
	QC value within limits for Sb 206.836 Recovery = 98.03%						
As 188.979	635.1	0.968005	mg/L	0.0046702	0.968005	mg/L	0.0046702 0.48%
	QC value within limits for As 188.979 Recovery = 96.80%						
Ba 233.527	54535.0	1.00470	mg/L	0.006224	1.00470	mg/L	0.006224 0.62%
	QC value within limits for Ba 233.527 Recovery = 100.47%						
Be 234.861	422485.3	1.00665	mg/L	0.007829	1.00665	mg/L	0.007829 0.78%
	QC value within limits for Be 234.861 Recovery = 100.66%						
Cd 226.502	51349.2	0.990692	mg/L	0.0051279	0.990692	mg/L	0.0051279 0.52%
	QC value within limits for Cd 226.502 Recovery = 99.07%						
Ca 315.887	5573208.3	96.6645	mg/L	1.31212	96.6645	mg/L	1.31212 1.36%
	QC value within limits for Ca 315.887 Recovery = 96.66%						
Cr 206.158	9105.7	0.992995	mg/L	0.0007052	0.992995	mg/L	0.0007052 0.07%
	QC value within limits for Cr 206.158 Recovery = 99.30%						
Co 228.616	17603.3	0.978838	mg/L	0.0007410	0.978838	mg/L	0.0007410 0.08%
	QC value within limits for Co 228.616 Recovery = 97.88%						
Cu 324.752	108248.7	0.995021	mg/L	0.0071007	0.995021	mg/L	0.0071007 0.71%
	QC value within limits for Cu 324.752 Recovery = 99.50%						
Fe 273.955	157121.2	9.82000	mg/L	0.084789	9.82000	mg/L	0.084789 0.86%
	QC value within limits for Fe 273.955 Recovery = 98.20%						
Pb 220.353	5283.1	0.972380	mg/L	0.0008381	0.972380	mg/L	0.0008381 0.09%
	QC value within limits for Pb 220.353 Recovery = 97.24%						
Mg 279.077	1291844.1	98.1073	mg/L	0.58073	98.1073	mg/L	0.58073 0.59%
	QC value within limits for Mg 279.077 Recovery = 98.11%						
Mn 257.610	461723.5	0.987995	mg/L	0.0058606	0.987995	mg/L	0.0058606 0.59%
	QC value within limits for Mn 257.610 Recovery = 98.80%						
Mo 202.031	7560.9	0.975160	mg/L	0.0002436	0.975160	mg/L	0.0002436 0.02%
	QC value within limits for Mo 202.031 Recovery = 97.52%						
Ni 231.604	34426.2	0.995640	mg/L	0.0072894	0.995640	mg/L	0.0072894 0.73%
	QC value within limits for Ni 231.604 Recovery = 99.56%						
Se 196.026	1049.5	1.00040	mg/L	0.010569	1.00040	mg/L	0.010569 1.06%
	QC value within limits for Se 196.026 Recovery = 100.04%						
Ag 328.068	23228.5	0.198489	mg/L	0.0008547	0.198489	mg/L	0.0008547 0.43%
	QC value within limits for Ag 328.068 Recovery = 99.24%						
Na 330.237	50652.2	100.399	mg/L	0.6729	100.399	mg/L	0.6729 0.67%
	QC value within limits for Na 330.237 Recovery = 100.40%						
Tl 190.801	1137.1	1.02046	mg/L	0.003866	1.02046	mg/L	0.003866 0.38%
	QC value within limits for Tl 190.801 Recovery = 102.05%						
Sn 189.927	3223.2	1.00003	mg/L	0.005374	1.00003	mg/L	0.005374 0.54%
	QC value within limits for Sn 189.927 Recovery = 100.00%						
Ti 334.940	326724.6	0.994685	mg/L	0.0038218	0.994685	mg/L	0.0038218 0.38%
	QC value within limits for Ti 334.940 Recovery = 99.47%						
V 292.402	96661.6	0.962023	mg/L	0.0049327	0.962023	mg/L	0.0049327 0.51%
	QC value within limits for V 292.402 Recovery = 96.20%						
Zn 206.200	17566.4	0.964773	mg/L	0.0009207	0.964773	mg/L	0.0009207 0.10%
	QC value within limits for Zn 206.200 Recovery = 96.48%						

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/22/2011 12:36:28 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Al 308.215	-116.4	-0.0133762	mg/L	0.00735676	-0.0133762	mg/L	0.00735676	55.00%
QC value within limits for Al	308.215	Recovery =	Not calculated					
Sb 206.836	1.6	-0.0005980	mg/L	0.00317769	-0.0005980	mg/L	0.00317769	531.35%
QC value within limits for Sb	206.836	Recovery =	Not calculated					
As 188.979	-2.6	-0.0010768	mg/L	0.00716922	-0.0010768	mg/L	0.00716922	665.78%
QC value within limits for As	188.979	Recovery =	Not calculated					
Ba 233.527	29.3	-0.0029497	mg/L	0.00017862	-0.0029497	mg/L	0.00017862	6.06%
QC value within limits for Ba	233.527	Recovery =	Not calculated					
Be 234.861	160.1	0.0008040	mg/L	0.00004237	0.0008040	mg/L	0.00004237	5.27%
QC value within limits for Be	234.861	Recovery =	Not calculated					
Cd 226.502	25.0	-0.0015005	mg/L	0.00015370	-0.0015005	mg/L	0.00015370	10.24%
QC value within limits for Cd	226.502	Recovery =	Not calculated					
Ca 315.887	1204.8	-0.232796	mg/L	0.0005843	-0.232796	mg/L	0.0005843	0.25%
QC value within limits for Ca	315.887	Recovery =	Not calculated					
Cr 206.158	3.3	-0.0025028	mg/L	0.00012981	-0.0025028	mg/L	0.00012981	5.19%
QC value within limits for Cr	206.158	Recovery =	Not calculated					
Co 228.616	9.7	-0.0037345	mg/L	0.00015245	-0.0037345	mg/L	0.00015245	4.08%
QC value within limits for Co	228.616	Recovery =	Not calculated					
Cu 324.752	207.4	0.0016447	mg/L	0.00033854	0.0016447	mg/L	0.00033854	20.58%
QC value within limits for Cu	324.752	Recovery =	Not calculated					
Fe 273.955	-29.6	-0.0232180	mg/L	0.00034626	-0.0232180	mg/L	0.00034626	1.49%
QC value within limits for Fe	273.955	Recovery =	Not calculated					
Pb 220.353	5.5	-0.0022071	mg/L	0.00075404	-0.0022071	mg/L	0.00075404	34.16%
QC value within limits for Pb	220.353	Recovery =	Not calculated					
Mg 279.077	324.6	-0.341493	mg/L	0.0032626	-0.341493	mg/L	0.0032626	0.96%
QC value within limits for Mg	279.077	Recovery =	Not calculated					
Mn 257.610	216.0	-0.0025911	mg/L	0.00002520	-0.0025911	mg/L	0.00002520	0.97%
QC value within limits for Mn	257.610	Recovery =	Not calculated					
Mo 202.031	6.6	-0.0014962	mg/L	0.00022647	-0.0014962	mg/L	0.00022647	15.14%
QC value within limits for Mo	202.031	Recovery =	Not calculated					
Ni 231.604	11.1	-0.0012290	mg/L	0.00018657	-0.0012290	mg/L	0.00018657	15.18%
QC value within limits for Ni	231.604	Recovery =	Not calculated					
Se 196.026	3.6	-0.0020140	mg/L	0.00145053	-0.0020140	mg/L	0.00145053	72.02%
QC value within limits for Se	196.026	Recovery =	Not calculated					
Ag 328.068	36.0	0.0001835	mg/L	0.00018591	0.0001835	mg/L	0.00018591	101.32%
QC value within limits for Ag	328.068	Recovery =	Not calculated					
Na 330.237	-80.5	0.636775	mg/L	0.0001513	0.636775	mg/L	0.0001513	0.02%
QC value within limits for Na	330.237	Recovery =	Not calculated					
Tl 190.801	7.5	0.0027803	mg/L	0.00318620	0.0027803	mg/L	0.00318620	114.60%
QC value within limits for Tl	190.801	Recovery =	Not calculated					
Sn 189.927	16.0	0.0026103	mg/L	0.00025971	0.0026103	mg/L	0.00025971	9.95%
QC value within limits for Sn	189.927	Recovery =	Not calculated					
Ti 334.940	145.4	0.0000696	mg/L	0.00024889	0.0000696	mg/L	0.00024889	357.78%
QC value within limits for Ti	334.940	Recovery =	Not calculated					
V 292.402	13.7	-0.0008945	mg/L	0.00003967	-0.0008945	mg/L	0.00003967	4.43%
QC value within limits for V	292.402	Recovery =	Not calculated					
Zn 206.200	4.4	-0.0016815	mg/L	0.00001131	-0.0016815	mg/L	0.00001131	0.67%
QC value within limits for Zn	206.200	Recovery =	Not calculated					

All analyte(s) passed QC.

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Sequence No.: 9                               Autosampler Location: 5
Sample ID: ICSA V-128666                     Date Collected: 12/22/2011 12:39:36 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3977130.2	453.274	mg/L	9.9184	453.274	mg/L	9.9184	2.19%
QC value within limits for Al 308.215 Recovery = 90.65%								
Sb 206.836	-24.3	0.0070372	mg/L	0.00927403	0.0070372	mg/L	0.00927403	131.78%
As 188.979	-38.8	-0.0228541	mg/L	0.00812650	-0.0228541	mg/L	0.00812650	35.56%
Ba 233.527	148.0	-0.0033081	mg/L	0.00003135	-0.0033081	mg/L	0.00003135	0.95%
Be 234.861	-80697.3	0.0224866	mg/L	0.00375246	0.0224866	mg/L	0.00375246	16.69%
Cd 226.502	149.6	0.0020610	mg/L	0.00018171	0.0020610	mg/L	0.00018171	8.82%
Ca 315.887	25557802.8	444.197	mg/L	0.9709	444.197	mg/L	0.9709	0.22%
QC value within limits for Ca 315.887 Recovery = 88.84%								
Cr 206.158	18.2	-0.0009626	mg/L	0.00019177	-0.0009626	mg/L	0.00019177	19.92%
Co 228.616	58.3	-0.0054288	mg/L	0.00019917	-0.0054288	mg/L	0.00019917	3.67%
Cu 324.752	1841.4	0.0054785	mg/L	0.00004266	0.0054785	mg/L	0.00004266	0.78%
Fe 273.955	2697039.6	168.909	mg/L	3.4891	168.909	mg/L	3.4891	2.07%
QC value within limits for Fe 273.955 Recovery = 84.45%								
Pb 220.353	-364.8	0.0070295	mg/L	0.00098831	0.0070295	mg/L	0.00098831	14.06%
Mg 279.077	6286879.0	478.864	mg/L	2.3836	478.864	mg/L	2.3836	0.50%
QC value within limits for Mg 279.077 Recovery = 95.77%								
Mn 257.610	-2976.7	-0.0083382	mg/L	0.00018864	-0.0083382	mg/L	0.00018864	2.26%
Mo 202.031	-124.3	0.0042354	mg/L	0.00037039	0.0042354	mg/L	0.00037039	8.75%
Ni 231.604	286.4	0.0026652	mg/L	0.00009118	0.0026652	mg/L	0.00009118	3.42%
Se 196.026	-556.4	-0.0541428	mg/L	0.00660393	-0.0541428	mg/L	0.00660393	12.20%
Ag 328.068	-1115.2	0.0004463	mg/L	0.00047871	0.0004463	mg/L	0.00047871	107.25%
Na 330.237	-415.7	-0.0223011	mg/L	0.06828069	-0.0223011	mg/L	0.06828069	306.18%
Tl 190.801	-12.8	-0.0020967	mg/L	0.00128785	-0.0020967	mg/L	0.00128785	61.42%
Sn 189.927	-139.6	-0.0036846	mg/L	0.00146959	-0.0036846	mg/L	0.00146959	39.88%
Ti 334.940	-300.9	-0.0012896	mg/L	0.00017125	-0.0012896	mg/L	0.00017125	13.28%
V 292.402	16906.6	-0.0089176	mg/L	0.00095585	-0.0089176	mg/L	0.00095585	10.72%
Zn 206.200	-29.5	-0.0159746	mg/L	0.00000267	-0.0159746	mg/L	0.00000267	0.02%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/22/2011 12:43:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Al 308.215	4000036.1	455.885	mg/L	1.8391	455.885	mg/L	1.8391	0.40%
QC value within limits for Al	308.215	Recovery = 91.18%						
Sb 206.836	696.1	0.951073	mg/L	0.0004766	0.951073	mg/L	0.0004766	0.05%
QC value within limits for Sb	206.836	Recovery = 95.11%						
As 188.979	611.1	0.963073	mg/L	0.0055857	0.963073	mg/L	0.0055857	0.58%
QC value within limits for As	188.979	Recovery = 96.31%						
Ba 233.527	26234.7	0.478649	mg/L	0.0074273	0.478649	mg/L	0.0074273	1.55%
QC value within limits for Ba	233.527	Recovery = 95.73%						
Be 234.861	130149.4	0.519712	mg/L	0.0023215	0.519712	mg/L	0.0023215	0.45%
QC value within limits for Be	234.861	Recovery = 103.94%						
Cd 226.502	46532.0	0.898665	mg/L	0.0135697	0.898665	mg/L	0.0135697	1.51%
QC value within limits for Cd	226.502	Recovery = 89.87%						
Ca 315.887	26062599.5	452.975	mg/L	1.3459	452.975	mg/L	1.3459	0.30%
QC value within limits for Ca	315.887	Recovery = 90.60%						
Cr 206.158	4273.0	0.475959	mg/L	0.0002057	0.475959	mg/L	0.0002057	0.04%
QC value within limits for Cr	206.158	Recovery = 95.19%						
Co 228.616	8091.0	0.443955	mg/L	0.0012424	0.443955	mg/L	0.0012424	0.28%
QC value within limits for Co	228.616	Recovery = 88.79%						
Cu 324.752	54881.5	0.494156	mg/L	0.0119275	0.494156	mg/L	0.0119275	2.41%
QC value within limits for Cu	324.752	Recovery = 98.83%						
Fe 273.955	2712562.6	169.881	mg/L	0.2933	169.881	mg/L	0.2933	0.17%
QC value within limits for Fe	273.955	Recovery = 84.94%						
Pb 220.353	4557.9	0.911933	mg/L	0.0028583	0.911933	mg/L	0.0028583	0.31%
QC value within limits for Pb	220.353	Recovery = 91.19%						
Mg 279.077	6382322.7	486.140	mg/L	2.2863	486.140	mg/L	2.2863	0.47%
QC value within limits for Mg	279.077	Recovery = 97.23%						
Mn 257.610	212981.8	0.455618	mg/L	0.0073361	0.455618	mg/L	0.0073361	1.61%
QC value within limits for Mn	257.610	Recovery = 91.12%						
Mo 202.031	-124.8	0.0042926	mg/L	0.00088400	0.0042926	mg/L	0.00088400	20.59%
QC value within limits for Mo	202.031	Recovery = Not calculated						
Ni 231.604	30821.2	0.886952	mg/L	0.0127984	0.886952	mg/L	0.0127984	1.44%
QC value within limits for Ni	231.604	Recovery = 88.70%						
Se 196.026	420.3	0.867573	mg/L	0.0054438	0.867573	mg/L	0.0054438	0.63%
QC value within limits for Se	196.026	Recovery = 86.76%						
Ag 328.068	119916.9	1.02764	mg/L	0.019106	1.02764	mg/L	0.019106	1.86%
QC value within limits for Ag	328.068	Recovery = 102.76%						
Na 330.237	-667.4	-0.517368	mg/L	0.0595318	-0.517368	mg/L	0.0595318	11.51%
QC value less than the lower limit for Na	330.237	Recovery = Not calculated						
Tl 190.801	1020.2	0.919371	mg/L	0.0050280	0.919371	mg/L	0.0050280	0.55%
QC value within limits for Tl	190.801	Recovery = 91.94%						
Sn 189.927	-156.8	-0.0081470	mg/L	0.00098245	-0.0081470	mg/L	0.00098245	12.06%
QC value within limits for Sn	189.927	Recovery = Not calculated						
Ti 334.940	-353.4	-0.0014494	mg/L	0.00002674	-0.0014494	mg/L	0.00002674	1.84%
QC value within limits for Ti	334.940	Recovery = Not calculated						
V 292.402	59221.2	0.422925	mg/L	0.0076049	0.422925	mg/L	0.0076049	1.80%
QC value within limits for V	292.402	Recovery = 84.58%						
Zn 206.200	16546.1	0.898419	mg/L	0.0017820	0.898419	mg/L	0.0017820	0.20%
QC value within limits for Zn	206.200	Recovery = 89.84%						

QC Failed. Continue with analysis.

Sequence No.: 11  
 Sample ID: MB 11724 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 64  
 Date Collected: 12/22/2011 12:48:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MB 11724 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1356.1	0.154456	mg/L	0.0152276	0.154456	mg/L	0.0152276	9.86%
Sb 206.836	0.2	-0.0023687	mg/L	0.00733719	-0.0023687	mg/L	0.00733719	309.76%
As 188.979	-1.1	0.0011185	mg/L	0.00526216	0.0011185	mg/L	0.00526216	470.49%
Ba 233.527	2.2	-0.0034524	mg/L	0.00003922	-0.0034524	mg/L	0.00003922	1.14%
Be 234.861	36.4	0.0005990	mg/L	0.00001592	0.0005990	mg/L	0.00001592	2.66%
Cd 226.502	21.4	-0.0015692	mg/L	0.00016177	-0.0015692	mg/L	0.00016177	10.31%
Ca 315.887	9367.1	-0.0908534	mg/L	0.01295096	-0.0908534	mg/L	0.01295096	14.25%
Cr 206.158	2.7	-0.0025904	mg/L	0.00007171	-0.0025904	mg/L	0.00007171	2.77%
Co 228.616	3.1	-0.0041058	mg/L	0.00014307	-0.0041058	mg/L	0.00014307	3.48%
Cu 324.752	198.9	0.0015626	mg/L	0.00000661	0.0015626	mg/L	0.00000661	0.42%
Fe 273.955	1065.4	0.0453722	mg/L	0.00255168	0.0453722	mg/L	0.00255168	5.62%
Pb 220.353	-2.5	-0.0036559	mg/L	0.00066704	-0.0036559	mg/L	0.00066704	18.25%
Mg 279.077	2430.4	-0.180977	mg/L	0.0136810	-0.180977	mg/L	0.0136810	7.56%
Mn 257.610	-35.6	-0.0031308	mg/L	0.00000223	-0.0031308	mg/L	0.00000223	0.07%
Mo 202.031	-0.2	-0.0023692	mg/L	0.00029726	-0.0023692	mg/L	0.00029726	12.55%
Ni 231.604	10.4	-0.0012507	mg/L	0.00002424	-0.0012507	mg/L	0.00002424	1.94%
Se 196.026	9.3	0.0035813	mg/L	0.00525107	0.0035813	mg/L	0.00525107	146.63%
Ag 328.068	5.5	-0.0000719	mg/L	0.00088985	-0.0000719	mg/L	0.00088985	>999.9%
Na 330.237	-174.2	0.452579	mg/L	0.1501120	0.452579	mg/L	0.1501120	33.17%
Tl 190.801	4.4	0.0000169	mg/L	0.00152443	0.0000169	mg/L	0.00152443	>999.9%
Sn 189.927	2.9	-0.0014065	mg/L	0.00022567	-0.0014065	mg/L	0.00022567	16.05%
Ti 334.940	-36.4	-0.0004840	mg/L	0.00000782	-0.0004840	mg/L	0.00000782	1.62%
V 292.402	12.6	-0.0009735	mg/L	0.00030795	-0.0009735	mg/L	0.00030795	31.63%
Zn 206.200	-9.5	-0.0024530	mg/L	0.00016077	-0.0024530	mg/L	0.00016077	6.55%

Sequence No.: 12  
 Sample ID: LCSW 11724  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 65  
 Date Collected: 12/22/2011 12:51:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSW 11724

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	45108.5	5.13454	mg/L	0.006739	5.13454	mg/L	0.13%
Sb 206.836	367.4	0.485732	mg/L	0.0018047	0.485732	mg/L	0.37%
As 188.979	319.1	0.487950	mg/L	0.0036357	0.487950	mg/L	0.75%
Ba 233.527	28378.0	0.521133	mg/L	0.0009105	0.521133	mg/L	0.17%
Be 234.861	212484.8	0.506714	mg/L	0.0001545	0.506714	mg/L	0.03%
Cd 226.502	26774.9	0.515625	mg/L	0.0023641	0.515625	mg/L	0.46%
Ca 315.887	2943642.8	50.9363	mg/L	0.34205	50.9363	mg/L	0.67%
Cr 206.158	4697.2	0.510976	mg/L	0.0034100	0.510976	mg/L	0.67%
Co 228.616	9241.7	0.511885	mg/L	0.0017264	0.511885	mg/L	0.34%
Cu 324.752	55405.7	0.509115	mg/L	0.0020541	0.509115	mg/L	0.40%
Fe 273.955	81784.9	5.10127	mg/L	0.002195	5.10127	mg/L	0.04%
Pb 220.353	2752.1	0.504963	mg/L	0.0009987	0.504963	mg/L	0.20%
Mg 279.077	674135.5	51.0212	mg/L	0.36280	51.0212	mg/L	0.71%
Mn 257.610	237260.8	0.506196	mg/L	0.0005222	0.506196	mg/L	0.10%
Mo 202.031	3901.1	0.501998	mg/L	0.0032291	0.501998	mg/L	0.64%
Ni 231.604	17233.5	0.497638	mg/L	0.0036099	0.497638	mg/L	0.73%
Se 196.026	546.9	0.518684	mg/L	0.0063792	0.518684	mg/L	1.23%
Ag 328.068	11325.6	0.0967802	mg/L	0.00042759	0.0967802	mg/L	0.44%
Na 330.237	24010.0	48.0090	mg/L	0.25208	48.0090	mg/L	0.53%
Tl 190.801	594.2	0.531169	mg/L	0.0052251	0.531169	mg/L	0.98%
Sn 189.927	1625.1	0.503269	mg/L	0.0028083	0.503269	mg/L	0.56%
Ti 334.940	165774.4	0.504502	mg/L	0.0032434	0.504502	mg/L	0.64%
V 292.402	49451.4	0.491315	mg/L	0.0009322	0.491315	mg/L	0.19%
Zn 206.200	9144.9	0.501326	mg/L	0.0011525	0.501326	mg/L	0.23%

Sequence No.: 13  
 Sample ID: LCSW MR 11724  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 66  
 Date Collected: 12/22/2011 12:54:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCSW MR 11724

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	44738.8	5.09227	mg/L	0.151908	5.09227	mg/L	0.151908 2.98%
Sb 206.836	380.9	0.503654	mg/L	0.0089286	0.503654	mg/L	0.0089286 1.77%
As 188.979	321.7	0.491882	mg/L	0.0010853	0.491882	mg/L	0.0010853 0.22%
Ba 233.527	28263.6	0.519027	mg/L	0.0138694	0.519027	mg/L	0.0138694 2.67%
Be 234.861	211653.5	0.504752	mg/L	0.0155672	0.504752	mg/L	0.0155672 3.08%
Cd 226.502	26695.7	0.514094	mg/L	0.0170711	0.514094	mg/L	0.0170711 3.32%
Ca 315.887	2968867.2	51.3749	mg/L	0.51624	51.3749	mg/L	0.51624 1.00%
Cr 206.158	4766.9	0.518621	mg/L	0.0020659	0.518621	mg/L	0.0020659 0.40%
Co 228.616	9409.5	0.521278	mg/L	0.0008688	0.521278	mg/L	0.0008688 0.17%
Cu 324.752	55027.0	0.505608	mg/L	0.0170918	0.505608	mg/L	0.0170918 3.38%
Fe 273.955	81704.5	5.09624	mg/L	0.151928	5.09624	mg/L	0.151928 2.98%
Pb 220.353	2796.0	0.513048	mg/L	0.0000815	0.513048	mg/L	0.0000815 0.02%
Mg 279.077	679764.3	51.4502	mg/L	0.49676	51.4502	mg/L	0.49676 0.97%
Mn 257.610	236489.3	0.504531	mg/L	0.0139577	0.504531	mg/L	0.0139577 2.77%
Mo 202.031	3978.4	0.511983	mg/L	0.0006118	0.511983	mg/L	0.0006118 0.12%
Ni 231.604	17486.3	0.504962	mg/L	0.0024605	0.504962	mg/L	0.0024605 0.49%
Se 196.026	551.5	0.522933	mg/L	0.0061271	0.522933	mg/L	0.0061271 1.17%
Ag 328.068	11125.4	0.0950883	mg/L	0.00180547	0.0950883	mg/L	0.00180547 1.90%
Na 330.237	23869.5	47.7327	mg/L	1.59087	47.7327	mg/L	1.59087 3.33%
Tl 190.801	603.1	0.539146	mg/L	0.0008374	0.539146	mg/L	0.0008374 0.16%
Sn 189.927	1665.5	0.515762	mg/L	0.0007890	0.515762	mg/L	0.0007890 0.15%
Ti 334.940	165510.7	0.503699	mg/L	0.0128649	0.503699	mg/L	0.0128649 2.55%
V 292.402	49192.0	0.488571	mg/L	0.0136112	0.488571	mg/L	0.0136112 2.79%
Zn 206.200	9301.6	0.509963	mg/L	0.0003281	0.509963	mg/L	0.0003281 0.06%

Sequence No.: 14  
 Sample ID: 63081-024  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 67  
 Date Collected: 12/22/2011 12:58:15 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-024

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	5190.7	0.591500	mg/L	0.0109086	0.591500	mg/L	0.0109086	1.84%
Sb 206.836	2.9	0.0018448	mg/L	0.00046120	0.0018448	mg/L	0.00046120	25.00%
As 188.979	-6.2	-0.0040384	mg/L	0.00436991	-0.0040384	mg/L	0.00436991	108.21%
Ba 233.527	31385.6	0.576260	mg/L	0.0008859	0.576260	mg/L	0.0008859	0.15%
Be 234.861	-3272.1	0.0027317	mg/L	0.00022729	0.0027317	mg/L	0.00022729	8.32%
Cd 226.502	72.6	-0.0005246	mg/L	0.00010005	-0.0005246	mg/L	0.00010005	19.07%
Ca 315.887	1931812.0	33.3405	mg/L	0.41927	33.3405	mg/L	0.41927	1.26%
Cr 206.158	16.2	0.0086285	mg/L	0.00009222	0.0086285	mg/L	0.00009222	1.07%
Co 228.616	449.5	0.0206549	mg/L	0.00018446	0.0206549	mg/L	0.00018446	0.89%
Cu 324.752	2716.2	0.0239232	mg/L	0.00077345	0.0239232	mg/L	0.00077345	3.23%
Fe 273.955	127275.5	7.95060	mg/L	0.020853	7.95060	mg/L	0.020853	0.26%
Pb 220.353	3492.0	0.638817	mg/L	0.0057368	0.638817	mg/L	0.0057368	0.90%
Mg 279.077	39468.2	2.64231	mg/L	0.021133	2.64231	mg/L	0.021133	0.80%
Mn 257.610	475296.9	1.01855	mg/L	0.012127	1.01855	mg/L	0.012127	1.19%
Mo 202.031	-7.9	-0.0030684	mg/L	0.00008310	-0.0030684	mg/L	0.00008310	2.71%
Ni 231.604	696.0	0.0184148	mg/L	0.00015833	0.0184148	mg/L	0.00015833	0.86%
Se 196.026	15.5	0.0294404	mg/L	0.00057959	0.0294404	mg/L	0.00057959	1.97%
Ag 328.068	-64.5	-0.0002422	mg/L	0.00006271	-0.0002422	mg/L	0.00006271	25.89%
Na 330.237	804444.3	1582.67	mg/L	14.378	1582.67	mg/L	14.378	0.91%
Tl 190.801	-1.0	-0.0044409	mg/L	0.00009936	-0.0044409	mg/L	0.00009936	2.24%
Sn 189.927	-11.5	-0.0027032	mg/L	0.00156016	-0.0027032	mg/L	0.00156016	57.72%
Ti 334.940	746.4	0.0018999	mg/L	0.00020059	0.0018999	mg/L	0.00020059	10.56%
V 292.402	422.3	0.0021568	mg/L	0.00024221	0.0021568	mg/L	0.00024221	11.23%
Zn 206.200	7053.8	0.387204	mg/L	0.0014133	0.387204	mg/L	0.0014133	0.36%

Sequence No.: 15  
 Sample ID: 63081-024 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 68  
 Date Collected: 12/22/2011 1:01:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-024 MR

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	4654.8	0.530430	mg/L	0.0129059	0.530430	mg/L	0.0129059	2.43%
Sb 206.836	3.7	0.0028863	mg/L	0.00237602	0.0028863	mg/L	0.00237602	82.32%
As 188.979	-6.2	-0.0041896	mg/L	0.00821532	-0.0041896	mg/L	0.00821532	196.09%
Ba 233.527	29629.8	0.543828	mg/L	0.0063553	0.543828	mg/L	0.0063553	1.17%
Be 234.861	-3258.6	0.0020791	mg/L	0.00016304	0.0020791	mg/L	0.00016304	7.84%
Cd 226.502	61.1	-0.0007522	mg/L	0.00006527	-0.0007522	mg/L	0.00006527	8.68%
Ca 315.887	1800444.6	31.0560	mg/L	0.07725	31.0560	mg/L	0.07725	0.25%
Cr 206.158	11.1	0.0075277	mg/L	0.00028651	0.0075277	mg/L	0.00028651	3.81%
Co 228.616	414.1	0.0186893	mg/L	0.00052476	0.0186893	mg/L	0.00052476	2.81%
Cu 324.752	2344.8	0.0205571	mg/L	0.00036666	0.0205571	mg/L	0.00036666	1.78%
Fe 273.955	118564.9	7.40501	mg/L	0.074945	7.40501	mg/L	0.074945	1.01%
Pb 220.353	3301.3	0.603741	mg/L	0.0008028	0.603741	mg/L	0.0008028	0.13%
Mg 279.077	36707.5	2.43187	mg/L	0.028763	2.43187	mg/L	0.028763	1.18%
Mn 257.610	444033.5	0.951354	mg/L	0.0042313	0.951354	mg/L	0.0042313	0.44%
Mo 202.031	-13.9	-0.0038597	mg/L	0.00000177	-0.0038597	mg/L	0.00000177	0.05%
Ni 231.604	646.9	0.0170063	mg/L	0.00008581	0.0170063	mg/L	0.00008581	0.50%
Se 196.026	11.9	0.0246611	mg/L	0.00978481	0.0246611	mg/L	0.00978481	39.68%
Ag 328.068	-93.6	-0.0005186	mg/L	0.00005949	-0.0005186	mg/L	0.00005949	11.47%
Na 330.237	752577.5	1480.68	mg/L	5.827	1480.68	mg/L	5.827	0.39%
Tl 190.801	-1.1	-0.0045566	mg/L	0.00610225	-0.0045566	mg/L	0.00610225	133.92%
Sn 189.927	-13.4	-0.0035015	mg/L	0.00087646	-0.0035015	mg/L	0.00087646	25.03%
Ti 334.940	662.2	0.0016434	mg/L	0.00005369	0.0016434	mg/L	0.00005369	3.27%
V 292.402	379.5	0.0017900	mg/L	0.00018738	0.0017900	mg/L	0.00018738	10.47%
Zn 206.200	6652.5	0.365065	mg/L	0.0003063	0.365065	mg/L	0.0003063	0.08%

Sequence No.: 16  
 Sample ID: 63081-024 TCLP SPK  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 69  
 Date Collected: 12/22/2011 1:04:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-024 TCLP SPK

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Calib. Units		Conc.	Units	Std.Dev.	
Al 308.215	46220.8	5.26162	mg/L	0.134795	5.26162	mg/L	0.134795	2.56%
Sb 206.836	367.1	0.485702	mg/L	0.0017328	0.485702	mg/L	0.0017328	0.36%
As 188.979	331.3	0.508651	mg/L	0.0008404	0.508651	mg/L	0.0008404	0.17%
Ba 233.527	291851.3	5.38888	mg/L	0.125059	5.38888	mg/L	0.125059	2.32%
Be 234.861	201827.2	0.490466	mg/L	0.0117961	0.490466	mg/L	0.0117961	2.41%
Cd 226.502	25032.2	0.481986	mg/L	0.0094037	0.481986	mg/L	0.0094037	1.95%
Ca 315.887	4616663.7	80.0301	mg/L	0.38827	80.0301	mg/L	0.38827	0.49%
Cr 206.158	4444.8	0.492740	mg/L	0.0030328	0.492740	mg/L	0.0030328	0.62%
Co 228.616	9031.8	0.500003	mg/L	0.0004385	0.500003	mg/L	0.0004385	0.09%
Cu 324.752	57332.5	0.526140	mg/L	0.0131006	0.526140	mg/L	0.0131006	2.49%
Fe 273.955	194092.8	12.1357	mg/L	0.23963	12.1357	mg/L	0.23963	1.97%
Pb 220.353	29281.2	5.37801	mg/L	0.088700	5.37801	mg/L	0.088700	1.65%
Mg 279.077	643893.0	48.7159	mg/L	0.83772	48.7159	mg/L	0.83772	1.72%
Mn 257.610	660354.4	1.41567	mg/L	0.036709	1.41567	mg/L	0.036709	2.59%
Mo 202.031	3703.2	0.476697	mg/L	0.0004356	0.476697	mg/L	0.0004356	0.09%
Ni 231.604	16804.7	0.485038	mg/L	0.0018311	0.485038	mg/L	0.0018311	0.38%
Se 196.026	556.9	0.545941	mg/L	0.0031589	0.545941	mg/L	0.0031589	0.58%
Ag 328.068	11162.0	0.0957616	mg/L	0.00312178	0.0957616	mg/L	0.00312178	3.26%
Na 330.237	802377.1	1578.61	mg/L	37.041	1578.61	mg/L	37.041	2.35%
Tl 190.801	526.9	0.471134	mg/L	0.0032767	0.471134	mg/L	0.0032767	0.70%
Sn 189.927	1548.9	0.482516	mg/L	0.0045833	0.482516	mg/L	0.0045833	0.95%
Ti 334.940	156279.4	0.475585	mg/L	0.0114882	0.475585	mg/L	0.0114882	2.42%
V 292.402	48296.3	0.480128	mg/L	0.0100993	0.480128	mg/L	0.0100993	2.10%
Zn 206.200	15428.2	0.848075	mg/L	0.0023530	0.848075	mg/L	0.0023530	0.28%

Sequence No.: 17  
 Sample ID: 63081-024 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 70  
 Date Collected: 12/22/2011 1:08:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-024 PS

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	45655.1	5.19717	mg/L	0.033079	5.19717	mg/L	0.033079	0.64%
Sb 206.836	367.0	0.485526	mg/L	0.0006272	0.485526	mg/L	0.0006272	0.13%
As 188.979	322.9	0.495965	mg/L	0.0142033	0.495965	mg/L	0.0142033	2.86%
Ba 233.527	358273.4	6.61608	mg/L	0.011098	6.61608	mg/L	0.011098	0.17%
Be 234.861	199156.1	0.484210	mg/L	0.0000059	0.484210	mg/L	0.0000059	0.00%
Cd 226.502	24509.0	0.471873	mg/L	0.0022133	0.471873	mg/L	0.0022133	0.47%
Ca 315.887	4550125.7	78.8730	mg/L	0.49118	78.8730	mg/L	0.49118	0.62%
Cr 206.158	4384.3	0.486170	mg/L	0.0026319	0.486170	mg/L	0.0026319	0.54%
Co 228.616	8938.6	0.494784	mg/L	0.0004497	0.494784	mg/L	0.0004497	0.09%
Cu 324.752	56746.6	0.520770	mg/L	0.0011664	0.520770	mg/L	0.0011664	0.22%
Fe 273.955	194438.8	12.1574	mg/L	0.05797	12.1574	mg/L	0.05797	0.48%
Pb 220.353	34380.6	6.31459	mg/L	0.030982	6.31459	mg/L	0.030982	0.49%
Mg 279.077	634318.1	47.9860	mg/L	0.18858	47.9860	mg/L	0.18858	0.39%
Mn 257.610	659633.2	1.41413	mg/L	0.000869	1.41413	mg/L	0.000869	0.06%
Mo 202.031	3693.2	0.475398	mg/L	0.0018456	0.475398	mg/L	0.0018456	0.39%
Ni 231.604	16617.5	0.479616	mg/L	0.0010327	0.479616	mg/L	0.0010327	0.22%
Se 196.026	560.5	0.549521	mg/L	0.0065849	0.549521	mg/L	0.0065849	1.20%
Ag 328.068	10558.3	0.0906175	mg/L	0.00049834	0.0906175	mg/L	0.00049834	0.55%
Na 330.237	804919.6	1583.61	mg/L	5.596	1583.61	mg/L	5.596	0.35%
Tl 190.801	524.3	0.468881	mg/L	0.0053552	0.468881	mg/L	0.0053552	1.14%
Sn 189.927	1547.7	0.482034	mg/L	0.0004963	0.482034	mg/L	0.0004963	0.10%
Ti 334.940	157074.2	0.478005	mg/L	0.0014915	0.478005	mg/L	0.0014915	0.31%
V 292.402	47645.1	0.473704	mg/L	0.0017327	0.473704	mg/L	0.0017327	0.37%
Zn 206.200	15346.2	0.843571	mg/L	0.0001175	0.843571	mg/L	0.0001175	0.01%

Sequence No.: 18  
 Sample ID: 63081-024 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 71  
 Date Collected: 12/22/2011 1:11:30 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-024 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	965.8	0.109966	mg/L	0.0035427	0.109966	mg/L	0.0035427	3.22%
Sb 206.836	0.1	-0.0023350	mg/L	0.00014595	-0.0023350	mg/L	0.00014595	6.25%
As 188.979	-2.1	0.0001762	mg/L	0.00550134	0.0001762	mg/L	0.00550134	>999.9%
Ba 233.527	6821.5	0.122513	mg/L	0.0003198	0.122513	mg/L	0.0003198	0.26%
Be 234.861	-681.8	0.0010448	mg/L	0.00001856	0.0010448	mg/L	0.00001856	1.78%
Cd 226.502	31.2	-0.0013676	mg/L	0.00006508	-0.0013676	mg/L	0.00006508	4.76%
Ca 315.887	419652.3	7.04402	mg/L	0.118215	7.04402	mg/L	0.118215	1.68%
Cr 206.158	9.4	0.0004838	mg/L	0.00010432	0.0004838	mg/L	0.00010432	21.56%
Co 228.616	110.7	0.0018685	mg/L	0.00014651	0.0018685	mg/L	0.00014651	7.84%
Cu 324.752	593.4	0.0050197	mg/L	0.00025907	0.0050197	mg/L	0.00025907	5.16%
Fe 273.955	28243.3	1.74767	mg/L	0.032960	1.74767	mg/L	0.032960	1.89%
Pb 220.353	789.8	0.141992	mg/L	0.0016677	0.141992	mg/L	0.0016677	1.17%
Mg 279.077	8606.8	0.289835	mg/L	0.0134283	0.289835	mg/L	0.0134283	4.63%
Mn 257.610	104628.2	0.221835	mg/L	0.0040273	0.221835	mg/L	0.0040273	1.82%
Mo 202.031	0.8	-0.0021781	mg/L	0.00057895	-0.0021781	mg/L	0.00057895	26.58%
Ni 231.604	154.4	0.0028788	mg/L	0.00015389	0.0028788	mg/L	0.00015389	5.35%
Se 196.026	12.6	0.0109861	mg/L	0.00036952	0.0109861	mg/L	0.00036952	3.36%
Ag 328.068	-40.0	-0.0003692	mg/L	0.00008169	-0.0003692	mg/L	0.00008169	22.13%
Na 330.237	154336.8	304.286	mg/L	4.9589	304.286	mg/L	4.9589	1.63%
Tl 190.801	-0.1	-0.0039512	mg/L	0.00068884	-0.0039512	mg/L	0.00068884	17.43%
Sn 189.927	4.4	-0.0002538	mg/L	0.00006280	-0.0002538	mg/L	0.00006280	24.75%
Ti 334.940	201.2	0.0002394	mg/L	0.00004487	0.0002394	mg/L	0.00004487	18.74%
V 292.402	98.0	-0.0002736	mg/L	0.00038205	-0.0002736	mg/L	0.00038205	139.65%
Zn 206.200	1694.4	0.0915499	mg/L	0.00035362	0.0915499	mg/L	0.00035362	0.39%

Sequence No.: 19  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 1:14:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Al 308.215	45057.4	5.12861	mg/L	0.056888	5.12861	mg/L	0.056888	1.11%
QC value within limits for Al	308.215	Recovery = 102.57%						
Sb 206.836	384.0	0.507594	mg/L	0.0033922	0.507594	mg/L	0.0033922	0.67%
QC value within limits for Sb	206.836	Recovery = 101.52%						
As 188.979	331.0	0.505929	mg/L	0.0089684	0.505929	mg/L	0.0089684	1.77%
QC value within limits for As	188.979	Recovery = 101.19%						
Ba 233.527	28649.5	0.526155	mg/L	0.0066951	0.526155	mg/L	0.0066951	1.27%
QC value within limits for Ba	233.527	Recovery = 105.23%						
Be 234.861	214543.4	0.511601	mg/L	0.0067945	0.511601	mg/L	0.0067945	1.33%
QC value within limits for Be	234.861	Recovery = 102.32%						
Cd 226.502	26797.8	0.516068	mg/L	0.0052180	0.516068	mg/L	0.0052180	1.01%
QC value within limits for Cd	226.502	Recovery = 103.21%						
Ca 315.887	2996522.2	51.8558	mg/L	0.84121	51.8558	mg/L	0.84121	1.62%
QC value within limits for Ca	315.887	Recovery = 103.71%						
Cr 206.158	4740.0	0.515672	mg/L	0.0006223	0.515672	mg/L	0.0006223	0.12%
QC value within limits for Cr	206.158	Recovery = 103.13%						
Co 228.616	9403.0	0.520897	mg/L	0.0007863	0.520897	mg/L	0.0007863	0.15%
QC value within limits for Co	228.616	Recovery = 104.18%						
Cu 324.752	56148.9	0.515942	mg/L	0.0068369	0.515942	mg/L	0.0068369	1.33%
QC value within limits for Cu	324.752	Recovery = 103.19%						
Fe 273.955	82348.4	5.13657	mg/L	0.057364	5.13657	mg/L	0.057364	1.12%
QC value within limits for Fe	273.955	Recovery = 102.73%						
Pb 220.353	2793.2	0.512551	mg/L	0.0002777	0.512551	mg/L	0.0002777	0.05%
QC value within limits for Pb	220.353	Recovery = 102.51%						
Mg 279.077	685122.4	51.8587	mg/L	0.80765	51.8587	mg/L	0.80765	1.56%
QC value within limits for Mg	279.077	Recovery = 103.72%						
Mn 257.610	240171.3	0.512439	mg/L	0.0059076	0.512439	mg/L	0.0059076	1.15%
QC value within limits for Mn	257.610	Recovery = 102.49%						
Mo 202.031	3961.4	0.509796	mg/L	0.0001599	0.509796	mg/L	0.0001599	0.03%
QC value within limits for Mo	202.031	Recovery = 101.96%						
Ni 231.604	17579.8	0.507668	mg/L	0.0007778	0.507668	mg/L	0.0007778	0.15%
QC value within limits for Ni	231.604	Recovery = 101.53%						
Se 196.026	560.9	0.531806	mg/L	0.0038212	0.531806	mg/L	0.0038212	0.72%
QC value within limits for Se	196.026	Recovery = 106.36%						
Ag 328.068	11851.4	0.101257	mg/L	0.0006518	0.101257	mg/L	0.0006518	0.64%
QC value within limits for Ag	328.068	Recovery = 101.26%						
Na 330.237	24692.1	49.3502	mg/L	0.35447	49.3502	mg/L	0.35447	0.72%
QC value within limits for Na	330.237	Recovery = 98.70%						
Tl 190.801	597.5	0.534233	mg/L	0.0009456	0.534233	mg/L	0.0009456	0.18%
QC value within limits for Tl	190.801	Recovery = 106.85%						
Sn 189.927	1656.1	0.512912	mg/L	0.0034261	0.512912	mg/L	0.0034261	0.67%
QC value within limits for Sn	189.927	Recovery = 102.58%						
Ti 334.940	168572.8	0.513025	mg/L	0.0040793	0.513025	mg/L	0.0040793	0.80%
QC value within limits for Ti	334.940	Recovery = 102.60%						
V 292.402	50204.2	0.498789	mg/L	0.0045743	0.498789	mg/L	0.0045743	0.92%
QC value within limits for V	292.402	Recovery = 99.76%						
Zn 206.200	9240.1	0.506559	mg/L	0.0000577	0.506559	mg/L	0.0000577	0.01%
QC value within limits for Zn	206.200	Recovery = 101.31%						

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/22/2011 1:17:53 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	-148.6	0.0170377	mg/L	0.00611983	-0.0170377	mg/L	0.00611983 35.92%
QC value within limits for Al	308.215	Recovery	=	Not calculated			
Sb 206.836	2.8	0.0010327	mg/L	0.00507175	0.0010327	mg/L	0.00507175 491.12%
QC value within limits for Sb	206.836	Recovery	=	Not calculated			
As 188.979	-0.3	0.0023388	mg/L	0.00420544	0.0023388	mg/L	0.00420544 179.81%
QC value within limits for As	188.979	Recovery	=	Not calculated			
Ba 233.527	102.8	-0.0015923	mg/L	0.00008116	-0.0015923	mg/L	0.00008116 5.10%
QC value within limits for Ba	233.527	Recovery	=	Not calculated			
Be 234.861	67.2	0.0005879	mg/L	0.00002103	0.0005879	mg/L	0.00002103 3.58%
QC value within limits for Be	234.861	Recovery	=	Not calculated			
Cd 226.502	12.9	-0.0017332	mg/L	0.00013969	-0.0017332	mg/L	0.00013969 8.06%
QC value within limits for Cd	226.502	Recovery	=	Not calculated			
Ca 315.887	299.7	-0.248535	mg/L	0.0014827	-0.248535	mg/L	0.0014827 0.60%
QC value within limits for Ca	315.887	Recovery	=	Not calculated			
Cr 206.158	5.4	-0.0020401	mg/L	0.00012358	-0.0020401	mg/L	0.00012358 6.06%
QC value within limits for Cr	206.158	Recovery	=	Not calculated			
Co 228.616	2.7	-0.0041299	mg/L	0.00041196	-0.0041299	mg/L	0.00041196 9.98%
QC value within limits for Co	228.616	Recovery	=	Not calculated			
Cu 324.752	129.8	0.0009299	mg/L	0.00042326	0.0009299	mg/L	0.00042326 45.52%
QC value within limits for Cu	324.752	Recovery	=	Not calculated			
Fe 273.955	1.7	-0.0212519	mg/L	0.00005816	-0.0212519	mg/L	0.00005816 0.27%
QC value within limits for Fe	273.955	Recovery	=	Not calculated			
Pb 220.353	7.1	-0.0019210	mg/L	0.00040995	-0.0019210	mg/L	0.00040995 21.34%
QC value within limits for Pb	220.353	Recovery	=	Not calculated			
Mg 279.077	58.2	-0.361806	mg/L	0.0007068	-0.361806	mg/L	0.0007068 0.20%
QC value within limits for Mg	279.077	Recovery	=	Not calculated			
Mn 257.610	188.2	-0.0026504	mg/L	0.00001588	-0.0026504	mg/L	0.00001588 0.60%
QC value within limits for Mn	257.610	Recovery	=	Not calculated			
Mo 202.031	1.8	-0.0021205	mg/L	0.00080064	-0.0021205	mg/L	0.00080064 37.76%
QC value within limits for Mo	202.031	Recovery	=	Not calculated			
Ni 231.604	4.3	-0.0014258	mg/L	0.00024095	-0.0014258	mg/L	0.00024095 16.90%
QC value within limits for Ni	231.604	Recovery	=	Not calculated			
Se 196.026	6.2	0.0005249	mg/L	0.00445802	0.0005249	mg/L	0.00445802 849.30%
QC value within limits for Se	196.026	Recovery	=	Not calculated			
Ag 328.068	3.1	-0.0000967	mg/L	0.00024408	-0.0000967	mg/L	0.00024408 252.42%
QC value within limits for Ag	328.068	Recovery	=	Not calculated			
Na 330.237	-10.9	0.773698	mg/L	0.0684713	0.773698	mg/L	0.0684713 8.85%
QC value within limits for Na	330.237	Recovery	=	Not calculated			
Tl 190.801	3.0	-0.0012687	mg/L	0.00033124	-0.0012687	mg/L	0.00033124 26.11%
QC value within limits for Tl	190.801	Recovery	=	Not calculated			
Sn 189.927	6.9	-0.0001758	mg/L	0.00179612	-0.0001758	mg/L	0.00179612 >999.9%
QC value within limits for Sn	189.927	Recovery	=	Not calculated			
Ti 334.940	74.1	-0.0001474	mg/L	0.00018059	-0.0001474	mg/L	0.00018059 122.48%
QC value within limits for Ti	334.940	Recovery	=	Not calculated			
V 292.402	-15.6	-0.0011920	mg/L	0.00009304	-0.0011920	mg/L	0.00009304 7.80%
QC value within limits for V	292.402	Recovery	=	Not calculated			
Zn 206.200	175.7	0.0077725	mg/L	0.00033098	0.0077725	mg/L	0.00033098 4.26%
QC value within limits for Zn	206.200	Recovery	=	Not calculated			

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63269-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 72  
 Date Collected: 12/22/2011 1:21:07 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63269-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3512.9	0.400134	mg/L	0.0005172	0.400134	mg/L	0.0005172	0.13%
Sb 206.836	-1.1	-0.0013889	mg/L	0.00507782	-0.0013889	mg/L	0.00507782	365.61%
As 188.979	8.1	0.0277891	mg/L	0.00626852	0.0277891	mg/L	0.00626852	22.56%
Ba 233.527	42552.8	0.782301	mg/L	0.0001802	0.782301	mg/L	0.0001802	0.02%
Be 234.861	-12550.3	0.0051051	mg/L	0.00033941	0.0051051	mg/L	0.00033941	6.65%
Cd 226.502	2052.7	0.0378823	mg/L	0.00003191	0.0378823	mg/L	0.00003191	0.08%
Ca 315.887	10235913.6	177.749	mg/L	2.2362	177.749	mg/L	2.2362	1.26%
Cr 206.158	-1011.7	0.184405	mg/L	0.0010472	0.184405	mg/L	0.0010472	0.57%
Co 228.616	614.7	0.0294002	mg/L	0.00018765	0.0294002	mg/L	0.00018765	0.64%
Cu 324.752	5361.0	0.0446455	mg/L	0.00009431	0.0446455	mg/L	0.00009431	0.21%
Fe 273.955	435298.1	27.2437	mg/L	0.03400	27.2437	mg/L	0.03400	0.12%
Pb 220.353	7911.8	1.45513	mg/L	0.000258	1.45513	mg/L	0.000258	0.02%
Mg 279.077	481585.8	36.3437	mg/L	0.22445	36.3437	mg/L	0.22445	0.62%
Mn 257.610	1331091.6	2.85782	mg/L	0.001722	2.85782	mg/L	0.001722	0.06%
Mo 202.031	78.3	0.0087552	mg/L	0.00009951	0.0087552	mg/L	0.00009951	1.14%
Ni 231.604	2916.2	0.0822530	mg/L	0.00012661	0.0822530	mg/L	0.00012661	0.15%
Se 196.026	-5.9	0.0521073	mg/L	0.00722025	0.0521073	mg/L	0.00722025	13.86%
Ag 328.068	-386.1	-0.0005838	mg/L	0.00033079	-0.0005838	mg/L	0.00033079	56.66%
Na 330.237	459124.3	903.628	mg/L	1.2353	903.628	mg/L	1.2353	0.14%
Tl 190.801	-6.6	-0.0093585	mg/L	0.00432296	-0.0093585	mg/L	0.00432296	46.19%
Sn 189.927	-39.9	0.0020847	mg/L	0.00074285	0.0020847	mg/L	0.00074285	35.63%
Ti 334.940	1058.2	0.0028495	mg/L	0.00002319	0.0028495	mg/L	0.00002319	0.81%
V 292.402	3339.9	0.0194564	mg/L	0.00007160	0.0194564	mg/L	0.00007160	0.37%
Zn 206.200	213258.2	11.7640	mg/L	0.01374	11.7640	mg/L	0.01374	0.12%

Sequence No.: 22  
 Sample ID: 63290-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 73  
 Date Collected: 12/22/2011 1:25:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	143.4	-0.0216946	mg/L	0.00096056	-0.0216946	mg/L	0.00096056	4.43%
Sb 206.836	-38.5	-0.0176739	mg/L	0.00156964	-0.0176739	mg/L	0.00156964	8.88%
As 188.979	-20.9	-0.0289362	mg/L	0.00809904	-0.0289362	mg/L	0.00809904	27.99%
Ba 233.527	236606.1	4.37034	mg/L	0.029227	4.37034	mg/L	0.029227	0.67%
Be 234.861	-189.7	-0.0000087	mg/L	0.00000518	-0.0000087	mg/L	0.00000518	59.60%
Cd 226.502	-387.8	-0.0094794	mg/L	0.00017693	-0.0094794	mg/L	0.00017693	1.87%
Ca 315.887	Saturated3							
Cr 206.158	3837.0	0.406764	mg/L	0.0005013	0.406764	mg/L	0.0005013	0.12%
Co 228.616	1587.1	0.0855561	mg/L	0.00046946	0.0855561	mg/L	0.00046946	0.55%
Cu 324.752	8480.8	0.0764690	mg/L	0.00141826	0.0764690	mg/L	0.00141826	1.85%
Fe 273.955	101.3	-0.0150164	mg/L	0.00004385	-0.0150164	mg/L	0.00004385	0.29%
Pb 220.353	-128.5	-0.0235482	mg/L	0.00046861	-0.0235482	mg/L	0.00046861	1.99%
Mg 279.077	219270.6	16.3481	mg/L	0.09138	16.3481	mg/L	0.09138	0.56%
Mn 257.610	926600.1	1.98763	mg/L	0.014572	1.98763	mg/L	0.014572	0.73%
Mo 202.031	23163.7	2.99014	mg/L	0.011699	2.99014	mg/L	0.011699	0.39%
Ni 231.604	527368.6	15.2727	mg/L	0.06937	15.2727	mg/L	0.06937	0.45%
Se 196.026	125.3	0.111818	mg/L	0.0052974	0.111818	mg/L	0.0052974	4.74%
Ag 328.068	-3728.7	-0.0327950	mg/L	0.00040866	-0.0327950	mg/L	0.00040866	1.25%
Na 330.237	82853.2	163.720	mg/L	1.5743	163.720	mg/L	1.5743	0.96%
Tl 190.801	-3.5	-0.0065486	mg/L	0.00101840	-0.0065486	mg/L	0.00101840	15.55%
Sn 189.927	-463.5	-0.145046	mg/L	0.0003801	-0.145046	mg/L	0.0003801	0.26%
Ti 334.940	-4011.2	-0.0125896	mg/L	0.00024821	-0.0125896	mg/L	0.00024821	1.97%
V 292.402	-491.2	0.0121487	mg/L	0.00024285	0.0121487	mg/L	0.00024285	2.00%
Zn 206.200	171.6	0.0071105	mg/L	0.00002191	0.0071105	mg/L	0.00002191	0.31%

Sequence No.: 23

Sample ID: 63290-001 TCLP SPK

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 74

Date Collected: 12/22/2011 1:29:22 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: 63290-001 TCLP SPK

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Al 308.215	39464.0	4.45582	mg/L	0.003152	4.45582	mg/L	0.003152	0.07%
Sb 206.836	303.1	0.434338	mg/L	0.0014720	0.434338	mg/L	0.0014720	0.34%
As 188.979	285.3	0.434496	mg/L	0.0113254	0.434496	mg/L	0.0113254	2.61%
Ba 233.527	454277.8	8.39217	mg/L	0.003014	8.39217	mg/L	0.003014	0.04%
Be 234.861	189370.5	0.450841	mg/L	0.0000013	0.450841	mg/L	0.0000013	0.00%
Cd 226.502	20138.5	0.387331	mg/L	0.0016063	0.387331	mg/L	0.0016063	0.41%
Ca 315.887	Saturated3							
Cr 206.158	7472.0	0.804416	mg/L	0.0036844	0.804416	mg/L	0.0036844	0.46%
Co 228.616	8578.8	0.475940	mg/L	0.0002990	0.475940	mg/L	0.0002990	0.06%
Cu 324.752	56783.8	0.521738	mg/L	0.0022831	0.521738	mg/L	0.0022831	0.44%
Fe 273.955	62721.1	3.90720	mg/L	0.003875	3.90720	mg/L	0.003875	0.10%
Pb 220.353	21452.7	3.94170	mg/L	0.007308	3.94170	mg/L	0.007308	0.19%
Mg 279.077	724510.9	54.8611	mg/L	0.05094	54.8611	mg/L	0.05094	0.09%
Mn 257.610	1094792.8	2.34862	mg/L	0.002516	2.34862	mg/L	0.002516	0.11%
Mo 202.031	25525.6	3.29559	mg/L	0.003240	3.29559	mg/L	0.003240	0.10%
Ni 231.604	528877.9	15.3164	mg/L	0.04605	15.3164	mg/L	0.04605	0.30%
Se 196.026	585.0	0.556784	mg/L	0.0170698	0.556784	mg/L	0.0170698	3.07%
Ag 328.068	7026.0	0.0583672	mg/L	0.00026175	0.0583672	mg/L	0.00026175	0.45%
Na 330.237	107060.4	211.321	mg/L	0.9707	211.321	mg/L	0.9707	0.46%
Tl 190.801	445.4	0.398470	mg/L	0.0019984	0.398470	mg/L	0.0019984	0.50%
Sn 189.927	964.7	0.295077	mg/L	0.0022068	0.295077	mg/L	0.0022068	0.75%
Ti 334.940	137046.6	0.417010	mg/L	0.0007788	0.417010	mg/L	0.0007788	0.19%
V 292.402	41924.4	0.435511	mg/L	0.0020911	0.435511	mg/L	0.0020911	0.48%
Zn 206.200	7258.4	0.397137	mg/L	0.0015217	0.397137	mg/L	0.0015217	0.38%

Sequence No.: 24  
 Sample ID: 63290-001 2D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 90  
 Date Collected: 12/22/2011 1:33:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-001 2D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-36.4	-0.0239157	mg/L	0.00079441	-0.0239157	mg/L	0.00079441	3.32%
Sb 206.836	-12.4	-0.0005171	mg/L	0.00702892	-0.0005171	mg/L	0.00702892	>999.9%
As 188.979	-29.5	-0.0419265	mg/L	0.00324566	-0.0419265	mg/L	0.00324566	7.74%
Ba 233.527	126092.5	2.32739	mg/L	0.008952	2.32739	mg/L	0.008952	0.38%
Be 234.861	-72.1	0.0002527	mg/L	0.00000053	0.0002527	mg/L	0.00000053	0.21%
Cd 226.502	-197.6	-0.0058028	mg/L	0.00027222	-0.0058028	mg/L	0.00027222	4.69%
Ca 315.887	Saturated3							
Cr 206.158	2009.9	0.211870	mg/L	0.0017909	0.211870	mg/L	0.0017909	0.85%
Co 228.616	859.9	0.0443669	mg/L	0.00027410	0.0443669	mg/L	0.00027410	0.62%
Cu 324.752	5252.8	0.0474035	mg/L	0.00028659	0.0474035	mg/L	0.00028659	0.60%
Fe 273.955	-92.3	-0.0271443	mg/L	0.00005464	-0.0271443	mg/L	0.00005464	0.20%
Pb 220.353	-85.7	-0.0172649	mg/L	0.00015696	-0.0172649	mg/L	0.00015696	0.91%
Mg 279.077	118085.7	8.63509	mg/L	0.000587	8.63509	mg/L	0.000587	0.01%
Mn 257.610	494279.5	1.05884	mg/L	0.003717	1.05884	mg/L	0.003717	0.35%
Mo 202.031	12007.8	1.54893	mg/L	0.011529	1.54893	mg/L	0.011529	0.74%
Ni 231.604	284061.4	8.22573	mg/L	0.019266	8.22573	mg/L	0.019266	0.23%
Se 196.026	115.5	0.102962	mg/L	0.0016643	0.102962	mg/L	0.0016643	1.62%
Ag 328.068	-2859.7	-0.0249305	mg/L	0.00021237	-0.0249305	mg/L	0.00021237	0.85%
Na 330.237	39497.4	78.4636	mg/L	0.26532	78.4636	mg/L	0.26532	0.34%
Tl 190.801	-1.0	-0.0045165	mg/L	0.00036211	-0.0045165	mg/L	0.00036211	8.02%
Sn 189.927	-351.5	-0.110533	mg/L	0.0012764	-0.110533	mg/L	0.0012764	1.15%
Ti 334.940	-1923.7	-0.0062318	mg/L	0.00017577	-0.0062318	mg/L	0.00017577	2.82%
V 292.402	-390.5	0.0042780	mg/L	0.00030641	0.0042780	mg/L	0.00030641	7.16%
Zn 206.200	207.7	0.0093024	mg/L	0.00013053	0.0093024	mg/L	0.00013053	1.40%

Sequence No.: 25  
 Sample ID: 63290-001 4D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 91  
 Date Collected: 12/22/2011 1:37:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-001 4D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-130.2	-0.0253376	mg/L	0.00210725	-0.0253376	mg/L	0.00210725	8.32%
Sb 206.836	-9.1	-0.0049188	mg/L	0.00172340	-0.0049188	mg/L	0.00172340	35.04%
As 188.979	-24.6	0.0000717	mg/L	0.00556394	0.0000717	mg/L	0.00556394	>999.9%
Ba 233.527	68561.4	1.26388	mg/L	0.020782	1.26388	mg/L	0.020782	1.64%
Be 234.861	-51.3	0.0002952	mg/L	0.00000573	0.0002952	mg/L	0.00000573	1.94%
Cd 226.502	-90.5	-0.0037331	mg/L	0.00029889	-0.0037331	mg/L	0.00029889	8.01%
Ca 315.887	46573891.4	809.667	mg/L	10.4895	809.667	mg/L	10.4895	1.30%
Cr 206.158	1059.3	0.110451	mg/L	0.0007738	0.110451	mg/L	0.0007738	0.70%
Co 228.616	476.1	0.0226434	mg/L	0.00017855	0.0226434	mg/L	0.00017855	0.79%
Cu 324.752	2998.5	0.0065055	mg/L	0.00004859	0.0065055	mg/L	0.00004859	0.75%
Fe 273.955	-175.8	-0.0323742	mg/L	0.00023372	-0.0323742	mg/L	0.00023372	0.72%
Pb 220.353	-61.6	0.0002653	mg/L	0.00028123	0.0002653	mg/L	0.00028123	105.99%
Mg 279.077	64785.5	4.57217	mg/L	0.082961	4.57217	mg/L	0.082961	1.81%
Mn 257.610	268136.5	0.573001	mg/L	0.0090820	0.573001	mg/L	0.0090820	1.58%
Mo 202.031	6346.3	0.817516	mg/L	0.0039228	0.817516	mg/L	0.0039228	0.48%
Ni 231.604	155423.0	4.49996	mg/L	0.078388	4.49996	mg/L	0.078388	1.74%
Se 196.026	109.2	-0.0101186	mg/L	0.00950182	-0.0101186	mg/L	0.00950182	93.90%
Ag 328.068	-1855.8	-0.0010260	mg/L	0.00033716	-0.0010260	mg/L	0.00033716	32.86%
Na 330.237	19609.1	39.3548	mg/L	0.89890	39.3548	mg/L	0.89890	2.28%
Tl 190.801	0.7	-0.0080413	mg/L	0.00348265	-0.0080413	mg/L	0.00348265	43.31%
Sn 189.927	-244.4	-0.0017563	mg/L	0.00024330	-0.0017563	mg/L	0.00024330	13.85%
Ti 334.940	-1012.0	-0.0034552	mg/L	0.00009407	-0.0034552	mg/L	0.00009407	2.72%
V 292.402	-233.2	0.0014295	mg/L	0.00006521	0.0014295	mg/L	0.00006521	4.56%
Zn 206.200	207.8	0.0094130	mg/L	0.00015788	0.0094130	mg/L	0.00015788	1.68%

Sequence No.: 26

Sample ID: 63290-001 TCLP SPK 4D

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 92

Date Collected: 12/22/2011 1:41:47 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63290-001 TCLP SPK 4D

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	10195.9	1.15012	mg/L	0.005127	1.15012	mg/L	0.005127 0.45%
Sb 206.836	77.2	0.109795	mg/L	0.0000336	0.109795	mg/L	0.0000336 0.03%
As 188.979	52.8	0.117313	mg/L	0.0010348	0.117313	mg/L	0.0010348 0.88%
Ba 233.527	135238.0	2.49585	mg/L	0.015503	2.49585	mg/L	0.015503 0.62%
Be 234.861	50654.5	0.120982	mg/L	0.0004654	0.120982	mg/L	0.0004654 0.38%
Cd 226.502	5935.2	0.112756	mg/L	0.0012031	0.112756	mg/L	0.0012031 1.07%
Ca 315.887	46793649.8	813.489	mg/L	1.6287	813.489	mg/L	1.6287 0.20%
Cr 206.158	2130.2	0.227637	mg/L	0.0013246	0.227637	mg/L	0.0013246 0.58%
Co 228.616	2565.7	0.139336	mg/L	0.0006049	0.139336	mg/L	0.0006049 0.43%
Cu 324.752	15981.4	0.126077	mg/L	0.0001610	0.126077	mg/L	0.0001610 0.13%
Fe 273.955	17688.8	1.08659	mg/L	0.007560	1.08659	mg/L	0.007560 0.70%
Pb 220.353	6214.2	1.15344	mg/L	0.003059	1.15344	mg/L	0.003059 0.27%
Mg 279.077	217855.5	16.2403	mg/L	0.01948	16.2403	mg/L	0.01948 0.12%
Mn 257.610	322494.4	0.689672	mg/L	0.0042095	0.689672	mg/L	0.0042095 0.61%
Mo 202.031	7210.7	0.929278	mg/L	0.0036900	0.929278	mg/L	0.0036900 0.40%
Ni 231.604	159793.3	4.62655	mg/L	0.008243	4.62655	mg/L	0.008243 0.18%
Se 196.026	228.2	0.104895	mg/L	0.0007704	0.104895	mg/L	0.0007704 0.73%
Ag 328.068	1032.1	0.0235156	mg/L	0.00051601	0.0235156	mg/L	0.00051601 2.19%
Na 330.237	26376.6	52.6626	mg/L	0.16606	52.6626	mg/L	0.16606 0.32%
Tl 190.801	134.4	0.112480	mg/L	0.0045577	0.112480	mg/L	0.0045577 4.05%
Sn 189.927	166.7	0.125282	mg/L	0.0004985	0.125282	mg/L	0.0004985 0.40%
Ti 334.940	39438.6	0.119739	mg/L	0.0004393	0.119739	mg/L	0.0004393 0.37%
V 292.402	11411.2	0.117468	mg/L	0.0008725	0.117468	mg/L	0.0008725 0.74%
Zn 206.200	2318.4	0.125564	mg/L	0.0004929	0.125564	mg/L	0.0004929 0.39%

Sequence No.: 27  
 Sample ID: 63290-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 75  
 Date Collected: 12/22/2011 1:46:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-002

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-58.0	-0.0375133	mg/L	0.00118924	-0.0375133	mg/L	0.00118924	3.17%
Sb 206.836	-21.3	-0.0018062	mg/L	0.00310226	-0.0018062	mg/L	0.00310226	171.76%
As 188.979	-35.0	-0.0503505	mg/L	0.00281434	-0.0503505	mg/L	0.00281434	5.59%
Ba 233.527	183186.9	3.38294	mg/L	0.038414	3.38294	mg/L	0.038414	1.14%
Be 234.861	-159.1	0.0000615	mg/L	0.00001057	0.0000615	mg/L	0.00001057	17.18%
Cd 226.502	-258.2	-0.0069749	mg/L	0.00047541	-0.0069749	mg/L	0.00047541	6.82%
Ca 315.887	Saturated3							
Cr 206.158	1863.1	0.196004	mg/L	0.0006979	0.196004	mg/L	0.0006979	0.36%
Co 228.616	958.7	0.0502043	mg/L	0.00014234	0.0502043	mg/L	0.00014234	0.28%
Cu 324.752	8867.0	0.0802979	mg/L	0.00012869	0.0802979	mg/L	0.00012869	0.16%
Fe 273.955	77.1	-0.0165340	mg/L	0.00065632	-0.0165340	mg/L	0.00065632	3.97%
Pb 220.353	-115.9	-0.0218668	mg/L	0.00052695	-0.0218668	mg/L	0.00052695	2.41%
Mg 279.077	161060.0	11.9109	mg/L	0.08584	11.9109	mg/L	0.08584	0.72%
Mn 257.610	603171.3	1.29276	mg/L	0.009781	1.29276	mg/L	0.009781	0.76%
Mo 202.031	18808.1	2.42746	mg/L	0.010202	2.42746	mg/L	0.010202	0.42%
Ni 231.604	350171.2	10.1407	mg/L	0.02943	10.1407	mg/L	0.02943	0.29%
Se 196.026	119.6	0.106795	mg/L	0.0056946	0.106795	mg/L	0.0056946	5.33%
Ag 328.068	-3516.5	-0.0307117	mg/L	0.00031619	-0.0307117	mg/L	0.00031619	1.03%
Na 330.237	107716.4	212.611	mg/L	2.0038	212.611	mg/L	2.0038	0.94%
Tl 190.801	-1.4	-0.0048470	mg/L	0.00023590	-0.0048470	mg/L	0.00023590	4.87%
Sn 189.927	-412.6	-0.129356	mg/L	0.0005391	-0.129356	mg/L	0.0005391	0.42%
Ti 334.940	-3332.2	-0.0105217	mg/L	0.00018682	-0.0105217	mg/L	0.00018682	1.78%
V 292.402	-625.6	0.0078318	mg/L	0.00045827	0.0078318	mg/L	0.00045827	5.85%
Zn 206.200	54.7	0.0007748	mg/L	0.00041386	0.0007748	mg/L	0.00041386	53.42%

Sequence No.: 28

Sample ID: 63290-002 2D

Analyst:

Initial Sample Wt:

Dilution:

*wrong location*

*really 63290.001 sPK 4D*

Autosampler Location: 92

Date Collected: 12/22/2011 1:50:07 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63290-002 2D

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	10253.9	1.15670	mg/L	0.006875	1.15670	mg/L	0.006875	0.59%
Sb 206.836	80.3	0.113838	mg/L	0.0001487	0.113838	mg/L	0.0001487	0.13%
As 188.979	54.4	0.120246	mg/L	0.0160532	0.120246	mg/L	0.0160532	13.35%
Ba 233.527	133764.9	2.46864	mg/L	0.027699	2.46864	mg/L	0.027699	1.12%
Be 234.861	50019.5	0.119496	mg/L	0.0011991	0.119496	mg/L	0.0011991	1.00%
Cd 226.502	5879.6	0.111681	mg/L	0.0009011	0.111681	mg/L	0.0009011	0.81%
Ca 315.887	47425873.9	824.483	mg/L	9.1116	824.483	mg/L	9.1116	1.11%
Cr 206.158	2146.0	0.229313	mg/L	0.0009842	0.229313	mg/L	0.0009842	0.43%
Co 228.616	2588.4	0.140611	mg/L	0.0007511	0.140611	mg/L	0.0007511	0.53%
Cu 324.752	15799.9	0.124125	mg/L	0.0019956	0.124125	mg/L	0.0019956	1.61%
Fe 273.955	17800.9	1.09361	mg/L	0.006341	1.09361	mg/L	0.006341	0.58%
Pb 220.353	6223.0	1.15525	mg/L	0.007749	1.15525	mg/L	0.007749	0.67%
Mg 279.077	215513.9	16.0618	mg/L	0.08025	16.0618	mg/L	0.08025	0.50%
Mn 257.610	318537.5	0.681173	mg/L	0.0073354	0.681173	mg/L	0.0073354	1.08%
Mo 202.031	7226.2	0.931284	mg/L	0.0070429	0.931284	mg/L	0.0070429	0.76%
Ni 231.604	157653.9	4.56459	mg/L	0.027719	4.56459	mg/L	0.027719	0.61%
Se 196.026	235.5	0.110339	mg/L	0.0027651	0.110339	mg/L	0.0027651	2.51%
Ag 328.068	964.5	0.0231492	mg/L	0.00007586	0.0231492	mg/L	0.00007586	0.33%
Na 330.237	26124.8	52.1674	mg/L	0.60059	52.1674	mg/L	0.60059	1.15%
Tl 190.801	139.3	0.116827	mg/L	0.0046198	0.116827	mg/L	0.0046198	3.95%
Sn 189.927	158.5	0.123798	mg/L	0.0003079	0.123798	mg/L	0.0003079	0.25%
Ti 334.940	38842.0	0.117922	mg/L	0.0008266	0.117922	mg/L	0.0008266	0.70%
V 292.402	11460.1	0.118055	mg/L	0.0008103	0.118055	mg/L	0.0008103	0.69%
Zn 206.200	2316.9	0.125488	mg/L	0.0008891	0.125488	mg/L	0.0008891	0.71%

Sequence No.: 29  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 1:54:23 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Al 308.215	43452.8	4.94602	mg/L	0.011499	4.94602	mg/L	0.23%
QC value within limits for Al		308.215	Recovery =	98.92%			
Sb 206.836	363.3	0.480191	mg/L	0.0001797	0.480191	mg/L	0.04%
QC value within limits for Sb		206.836	Recovery =	96.04%			
As 188.979	306.1	0.468139	mg/L	0.0085230	0.468139	mg/L	1.82%
QC value within limits for As		188.979	Recovery =	99.63%			
Ba 233.527	27800.6	0.510455	mg/L	0.0015666	0.510455	mg/L	0.31%
QC value within limits for Ba		233.527	Recovery =	102.09%			
Be 234.861	208279.3	0.496654	mg/L	0.0004207	0.496654	mg/L	0.08%
QC value within limits for Be		234.861	Recovery =	99.33%			
Cd 226.502	25985.1	0.500358	mg/L	0.0003374	0.500358	mg/L	0.07%
QC value within limits for Cd		226.502	Recovery =	100.07%			
Ca 315.887	2946994.7	50.9946	mg/L	0.14999	50.9946	mg/L	0.29%
QC value within limits for Ca		315.887	Recovery =	101.99%			
Cr 206.158	4573.6	0.497392	mg/L	0.0001350	0.497392	mg/L	0.03%
QC value within limits for Cr		206.158	Recovery =	99.48%			
Co 228.616	9056.0	0.501502	mg/L	0.0047997	0.501502	mg/L	0.96%
QC value within limits for Co		228.616	Recovery =	100.30%			
Cu 324.752	54401.3	0.499860	mg/L	0.0003642	0.499860	mg/L	0.07%
QC value within limits for Cu		324.752	Recovery =	99.97%			
Fe 273.955	79658.8	4.96811	mg/L	0.018120	4.96811	mg/L	0.36%
QC value within limits for Fe		273.955	Recovery =	99.36%			
Pb 220.353	2689.8	0.493468	mg/L	0.0026195	0.493468	mg/L	0.53%
QC value within limits for Pb		220.353	Recovery =	98.69%			
Mg 279.077	660505.4	49.9822	mg/L	0.31755	49.9822	mg/L	0.64%
QC value within limits for Mg		279.077	Recovery =	99.96%			
Mn 257.610	234325.5	0.499899	mg/L	0.0003757	0.499899	mg/L	0.08%
QC value within limits for Mn		257.610	Recovery =	99.98%			
Mo 202.031	3788.9	0.487494	mg/L	0.0014135	0.487494	mg/L	0.29%
QC value within limits for Mo		202.031	Recovery =	97.50%			
Ni 231.604	17347.8	0.500944	mg/L	0.0007187	0.500944	mg/L	0.14%
QC value within limits for Ni		231.604	Recovery =	100.19%			
Se 196.026	534.5	0.506535	mg/L	0.0071798	0.506535	mg/L	1.42%
QC value within limits for Se		196.026	Recovery =	101.31%			
Ag 328.068	11492.1	0.0981969	mg/L	0.00008236	0.0981969	mg/L	0.08%
QC value within limits for Ag		328.068	Recovery =	98.20%			
Na 330.237	23646.8	47.2947	mg/L	0.24831	47.2947	mg/L	0.53%
QC value within limits for Na		330.237	Recovery =	94.59%			
Tl 190.801	579.9	0.518396	mg/L	0.0014839	0.518396	mg/L	0.29%
QC value within limits for Tl		190.801	Recovery =	103.68%			
Sn 189.927	1639.3	0.507641	mg/L	0.0002873	0.507641	mg/L	0.06%
QC value within limits for Sn		189.927	Recovery =	101.53%			
Ti 334.940	164236.4	0.499818	mg/L	0.0022141	0.499818	mg/L	0.44%
QC value within limits for Ti		334.940	Recovery =	99.96%			
V 292.402	48910.5	0.486036	mg/L	0.0005346	0.486036	mg/L	0.11%
QC value within limits for V		292.402	Recovery =	97.21%			
Zn 206.200	8863.7	0.485841	mg/L	0.0017444	0.485841	mg/L	0.36%
QC value within limits for Zn		206.200	Recovery =	97.17%			

All analyte(s) passed QC.

Sequence No.: 30  
Sample ID: CCB  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 8  
Date Collected: 12/22/2011 1:57:40 PM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-202.7	-0.0232288 mg/L	0.00647522	-0.0232288 mg/L	0.00647522	27.88%
QC value within limits for Al 308.215		Recovery = Not calculated				
Sb 206.836	-0.8	-0.0037030 mg/L	0.00105543	-0.0037030 mg/L	0.00105543	28.50%
QC value within limits for Sb 206.836		Recovery = Not calculated				
As 188.979	-1.9	-0.0000039 mg/L	0.00344101	-0.0000039 mg/L	0.00344101	>999.9%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527	137.5	-0.0009494 mg/L	0.00002782	-0.0009494 mg/L	0.00002782	2.93%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861	64.4	0.0005640 mg/L	0.00000853	0.0005640 mg/L	0.00000853	1.51%
QC value within limits for Be 234.861		Recovery = Not calculated				
Cd 226.502	10.5	-0.0017798 mg/L	0.00009237	-0.0017798 mg/L	0.00009237	5.19%
QC value within limits for Cd 226.502		Recovery = Not calculated				
Ca 315.887	57618.6	0.748241 mg/L	0.0898267	0.748241 mg/L	0.0898267	12.01%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cr 206.158	6.2	-0.0019876 mg/L	0.00038379	-0.0019876 mg/L	0.00038379	19.31%
QC value within limits for Cr 206.158		Recovery = Not calculated				
Co 228.616	5.7	-0.0039574 mg/L	0.00045141	-0.0039574 mg/L	0.00045141	11.41%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cu 324.752	129.2	0.0008991 mg/L	0.00022617	0.0008991 mg/L	0.00022617	25.16%
QC value within limits for Cu 324.752		Recovery = Not calculated				
Fe 273.955	-217.8	-0.0350064 mg/L	0.00043781	-0.0350064 mg/L	0.00043781	1.25%
QC value within limits for Fe 273.955		Recovery = Not calculated				
Pb 220.353	7.5	-0.0018225 mg/L	0.00087604	-0.0018225 mg/L	0.00087604	48.07%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Mg 279.077	47.4	-0.362624 mg/L	0.0051592	-0.362624 mg/L	0.0051592	1.42%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610	171.4	-0.0026872 mg/L	0.00002116	-0.0026872 mg/L	0.00002116	0.79%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031	13.5	-0.0006122 mg/L	0.00050349	-0.0006122 mg/L	0.00050349	82.24%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604	186.0	0.0038374 mg/L	0.00022714	0.0038374 mg/L	0.00022714	5.92%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Se 196.026	4.2	-0.0016147 mg/L	0.00676565	-0.0016147 mg/L	0.00676565	419.00%
QC value within limits for Se 196.026		Recovery = Not calculated				
Ag 328.068	-29.4	-0.0003534 mg/L	0.00030276	-0.0003534 mg/L	0.00030276	85.66%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Na 330.237	-123.8	0.551703 mg/L	0.1126302	0.551703 mg/L	0.1126302	20.41%
QC value within limits for Na 330.237		Recovery = Not calculated				
Tl 190.801	6.9	0.0022282 mg/L	0.00164735	0.0022282 mg/L	0.00164735	73.93%
QC value within limits for Tl 190.801		Recovery = Not calculated				
Sn 189.927	2.4	-0.0014707 mg/L	0.00084132	-0.0014707 mg/L	0.00084132	57.20%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940	30.4	-0.0002807 mg/L	0.00010529	-0.0002807 mg/L	0.00010529	37.51%
QC value within limits for Ti 334.940		Recovery = Not calculated				
V 292.402	-12.6	-0.0011486 mg/L	0.00064548	-0.0011486 mg/L	0.00064548	56.20%
QC value within limits for V 292.402		Recovery = Not calculated				
Zn 206.200	152.6	0.0064934 mg/L	0.00004519	0.0064934 mg/L	0.00004519	0.70%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 31  
 Sample ID: 63334-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 76  
 Date Collected: 12/22/2011 2:00:54 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63334-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	63798.3	7.27102	mg/L	0.041306	7.27102	mg/L	0.041306	0.57%
Sb 206.836	131.5	0.181727	mg/L	0.0039288	0.181727	mg/L	0.0039288	2.16%
As 188.979	-8.3	0.0116819	mg/L	0.01326684	0.0116819	mg/L	0.01326684	113.57%
Ba 233.527	6954.6	0.124838	mg/L	0.0007473	0.124838	mg/L	0.0007473	0.60%
Be 234.861	-3956.8	0.0045664	mg/L	0.00014483	0.0045664	mg/L	0.00014483	3.17%
Cd 226.502	104.1	0.0001024	mg/L	0.00002988	0.0001024	mg/L	0.00002988	29.17%
Ca 315.887	41403756.4	719.759	mg/L	1.4261	719.759	mg/L	1.4261	0.20%
Cr 206.158	190.3	0.0342855	mg/L	0.00084557	0.0342855	mg/L	0.00084557	2.47%
Co 228.616	437.6	0.0199005	mg/L	0.00023338	0.0199005	mg/L	0.00023338	1.17%
Cu 324.752	205994.3	1.88030	mg/L	0.013906	1.88030	mg/L	0.013906	0.74%
Fe 273.955	171130.4	10.6975	mg/L	0.04752	10.6975	mg/L	0.04752	0.44%
Pb 220.353	870.6	0.170217	mg/L	0.0005329	0.170217	mg/L	0.0005329	0.31%
Mg 279.077	13629275.4	1038.55	mg/L	3.671	1038.55	mg/L	3.671	0.35%
Mn 257.610	477506.4	1.00729	mg/L	0.005720	1.00729	mg/L	0.005720	0.57%
Mo 202.031	-9.7	-0.0029593	mg/L	0.00030545	-0.0029593	mg/L	0.00030545	10.32%
Ni 231.604	1349.1	0.0372609	mg/L	0.00039306	0.0372609	mg/L	0.00039306	1.05%
Se 196.026	90.2	0.0175709	mg/L	0.00740569	0.0175709	mg/L	0.00740569	42.15%
Ag 328.068	-1709.4	-0.0013450	mg/L	0.00025377	-0.0013450	mg/L	0.00025377	18.87%
Na 330.237	4921.5	10.4728	mg/L	0.03879	10.4728	mg/L	0.03879	0.37%
Tl 190.801	-0.6	-0.0079013	mg/L	0.00131397	-0.0079013	mg/L	0.00131397	16.63%
Sn 189.927	-232.1	-0.0063628	mg/L	0.00206867	-0.0063628	mg/L	0.00206867	32.51%
Ti 334.940	3744.9	0.0110322	mg/L	0.00028707	0.0110322	mg/L	0.00028707	2.60%
V 292.402	21309.1	-0.175434	mg/L	0.0010749	-0.175434	mg/L	0.0010749	0.61%
Zn 206.200	12168.3	0.642545	mg/L	0.0073632	0.642545	mg/L	0.0073632	1.15%

Sequence No.: 32  
 Sample ID: 63290-002 2D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 93  
 Date Collected: 12/22/2011 2:05:14 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-002 2D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-80.3	-0.0261897	mg/L	0.00282120	-0.0261897	mg/L	0.00282120	10.77%
Sb 206.836	-15.3	-0.0068861	mg/L	0.00232475	-0.0068861	mg/L	0.00232475	33.76%
As 188.979	-26.1	-0.0368365	mg/L	0.00470558	-0.0368365	mg/L	0.00470558	12.77%
Ba 233.527	101713.3	1.87679	mg/L	0.018136	1.87679	mg/L	0.018136	0.97%
Be 234.861	-99.7	0.0001910	mg/L	0.00001008	0.0001910	mg/L	0.00001008	5.28%
Cd 226.502	-113.8	-0.0041837	mg/L	0.00007439	-0.0041837	mg/L	0.00007439	1.78%
Ca 315.887	Saturated3							
Cr 206.158	1008.6	0.105005	mg/L	0.0008128	0.105005	mg/L	0.0008128	0.77%
Co 228.616	551.2	0.0270226	mg/L	0.00063038	0.0270226	mg/L	0.00063038	2.33%
Cu 324.752	5606.0	0.0507626	mg/L	0.00046900	0.0507626	mg/L	0.00046900	0.92%
Fe 273.955	-53.1	-0.0246870	mg/L	0.00035102	-0.0246870	mg/L	0.00035102	1.42%
Pb 220.353	-89.2	-0.0181453	mg/L	0.00031223	-0.0181453	mg/L	0.00031223	1.72%
Mg 279.077	94606.5	6.84534	mg/L	0.078930	6.84534	mg/L	0.078930	1.15%
Mn 257.610	331880.1	0.709929	mg/L	0.0027546	0.709929	mg/L	0.0027546	0.39%
Mo 202.031	10344.3	1.33402	mg/L	0.005605	1.33402	mg/L	0.005605	0.42%
Ni 231.604	194603.3	5.63487	mg/L	0.006701	5.63487	mg/L	0.006701	0.12%
Se 196.026	127.2	0.114073	mg/L	0.0079828	0.114073	mg/L	0.0079828	7.00%
Ag 328.068	-2613.2	-0.0227081	mg/L	0.00032764	-0.0227081	mg/L	0.00032764	1.44%
Na 330.237	54413.5	107.795	mg/L	0.2097	107.795	mg/L	0.2097	0.19%
Tl 190.801	-1.5	-0.0051109	mg/L	0.00083355	-0.0051109	mg/L	0.00083355	16.31%
Sn 189.927	-314.3	-0.0990857	mg/L	0.00000158	-0.0990857	mg/L	0.00000158	0.00%
Ti 334.940	-1703.0	-0.0055598	mg/L	0.00038047	-0.0055598	mg/L	0.00038047	6.84%
V 292.402	-385.9	0.0032392	mg/L	0.00018655	0.0032392	mg/L	0.00018655	5.76%
Zn 206.200	179.9	0.0078143	mg/L	0.00022034	0.0078143	mg/L	0.00022034	2.82%

Sequence No.: 33  
 Sample ID: 63334-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 77  
 Date Collected: 12/22/2011 2:09:18 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63334-002

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	56622.1	6.45313	mg/L	0.141039	6.45313	mg/L	0.141039	2.19%
Sb 206.836	138.8	0.192676	mg/L	0.0055387	0.192676	mg/L	0.0055387	2.87%
As 188.979	-4.9	0.0096158	mg/L	0.00276918	0.0096158	mg/L	0.00276918	28.80%
Ba 233.527	5645.9	0.100658	mg/L	0.0009528	0.100658	mg/L	0.0009528	0.95%
Be 234.861	-4104.5	0.0042652	mg/L	0.00002799	0.0042652	mg/L	0.00002799	0.66%
Cd 226.502	97.5	-0.0000259	mg/L	0.00021041	-0.0000259	mg/L	0.00021041	812.87%
Ca 315.887	33499975.9	582.312	mg/L	0.5988	582.312	mg/L	0.5988	0.10%
Cr 206.158	178.2	0.0314656	mg/L	0.00060081	0.0314656	mg/L	0.00060081	1.91%
Co 228.616	410.9	0.0184049	mg/L	0.00016107	0.0184049	mg/L	0.00016107	0.88%
Cu 324.752	174040.7	1.58924	mg/L	0.036701	1.58924	mg/L	0.036701	2.31%
Fe 273.955	171718.7	10.7343	mg/L	0.21533	10.7343	mg/L	0.21533	2.01%
Pb 220.353	566.2	0.111802	mg/L	0.0021128	0.111802	mg/L	0.0021128	1.89%
Mg 279.077	15374335.8	1171.57	mg/L	0.148	1171.57	mg/L	0.148	0.01%
Mn 257.610	489447.9	1.03087	mg/L	0.018426	1.03087	mg/L	0.018426	1.79%
Mo 202.031	-2.5	-0.0020526	mg/L	0.00002911	-0.0020526	mg/L	0.00002911	1.42%
Ni 231.604	1270.0	0.0349713	mg/L	0.00031819	0.0349713	mg/L	0.00031819	0.91%
Se 196.026	78.0	0.0243706	mg/L	0.00050045	0.0243706	mg/L	0.00050045	2.05%
Ag 328.068	-1309.8	-0.0005300	mg/L	0.00005247	-0.0005300	mg/L	0.00005247	9.90%
Na 330.237	12797.9	25.9613	mg/L	0.22058	25.9613	mg/L	0.22058	0.85%
Tl 190.801	-4.2	-0.0103279	mg/L	0.00183469	-0.0103279	mg/L	0.00183469	17.76%
Sn 189.927	-203.4	-0.0103958	mg/L	0.00132409	-0.0103958	mg/L	0.00132409	12.74%
Ti 334.940	3986.1	0.0117666	mg/L	0.00028427	0.0117666	mg/L	0.00028427	2.42%
V 292.402	22024.2	-0.218432	mg/L	0.0018960	-0.218432	mg/L	0.0018960	0.87%
Zn 206.200	11060.0	0.577946	mg/L	0.0020003	0.577946	mg/L	0.0020003	0.35%

Sequence No.: 34  
 Sample ID: 63290-002 4D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 94  
 Date Collected: 12/22/2011 2:13:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-002 4D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-122.8	-0.0234441	mg/L	0.00018336	-0.0234441	mg/L	0.00018336	0.78%
Sb 206.836	-8.1	-0.0044752	mg/L	0.00191318	-0.0044752	mg/L	0.00191318	42.75%
As 188.979	-27.7	-0.0084576	mg/L	0.00646658	-0.0084576	mg/L	0.00646658	76.46%
Ba 233.527	56597.4	1.04277	mg/L	0.002087	1.04277	mg/L	0.002087	0.20%
Be 234.861	-70.7	0.0002515	mg/L	0.00000896	0.0002515	mg/L	0.00000896	3.56%
Cd 226.502	-51.1	-0.0029707	mg/L	0.00013228	-0.0029707	mg/L	0.00013228	4.45%
Ca 315.887	41456088.8	720.669	mg/L	2.6914	720.669	mg/L	2.6914	0.37%
Cr 206.158	547.5	0.0556846	mg/L	0.00043726	0.0556846	mg/L	0.00043726	0.79%
Co 228.616	319.0	0.0138257	mg/L	0.00052855	0.0138257	mg/L	0.00052855	3.82%
Cu 324.752	3393.5	0.0124358	mg/L	0.00005093	0.0124358	mg/L	0.00005093	0.41%
Fe 273.955	-150.7	-0.0308016	mg/L	0.00029163	-0.0308016	mg/L	0.00029163	0.95%
Pb 220.353	-73.6	-0.0035559	mg/L	0.00028169	-0.0035559	mg/L	0.00028169	7.92%
Mg 279.077	57606.9	4.02497	mg/L	0.008989	4.02497	mg/L	0.008989	0.22%
Mn 257.610	183356.7	0.390847	mg/L	0.0001550	0.390847	mg/L	0.0001550	0.04%
Mo 202.031	5707.1	0.734945	mg/L	0.0012929	0.734945	mg/L	0.0012929	0.18%
Ni 231.604	109218.3	3.16181	mg/L	0.000487	3.16181	mg/L	0.000487	0.02%
Se 196.026	109.1	0.0017292	mg/L	0.00853702	0.0017292	mg/L	0.00853702	493.70%
Ag 328.068	-1682.5	-0.0011550	mg/L	0.00024624	-0.0011550	mg/L	0.00024624	21.32%
Na 330.237	27930.1	55.7174	mg/L	0.03712	55.7174	mg/L	0.03712	0.07%
Tl 190.801	-0.9	-0.0089789	mg/L	0.00155572	-0.0089789	mg/L	0.00155572	17.33%
Sn 189.927	-222.2	-0.0032280	mg/L	0.00143151	-0.0032280	mg/L	0.00143151	44.35%
Ti 334.940	-956.6	-0.0032867	mg/L	0.00004866	-0.0032867	mg/L	0.00004866	1.48%
V 292.402	-208.1	0.0012180	mg/L	0.00003738	0.0012180	mg/L	0.00003738	3.07%
Zn 206.200	93.8	0.0031382	mg/L	0.00009169	0.0031382	mg/L	0.00009169	2.92%

Sequence No.: 35  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 2:17:54 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	44302.8	5.04286	mg/L	0.050479	5.04286	mg/L	0.050479	1.00%
Sb 206.836	363.8	0.480875	mg/L	0.0172423	0.480875	mg/L	0.0172423	3.59%
As 188.979	312.2	0.477427	mg/L	0.0113986	0.477427	mg/L	0.0113986	2.39%
Ba 233.527	28169.2	0.517267	mg/L	0.0025974	0.517267	mg/L	0.0025974	0.50%
Be 234.861	211378.7	0.504071	mg/L	0.0024541	0.504071	mg/L	0.0024541	0.49%
Cd 226.502	26299.6	0.506437	mg/L	0.0000748	0.506437	mg/L	0.0000748	0.01%
Ca 315.887	2959507.9	51.2122	mg/L	0.34315	51.2122	mg/L	0.34315	0.67%
Cr 206.158	4568.7	0.496968	mg/L	0.0043958	0.496968	mg/L	0.0043958	0.88%
Co 228.616	9227.5	0.511083	mg/L	0.0018276	0.511083	mg/L	0.0018276	0.36%
Cu 324.752	55621.0	0.511099	mg/L	0.0030709	0.511099	mg/L	0.0030709	0.60%
Fe 273.955	81258.3	5.06829	mg/L	0.023180	5.06829	mg/L	0.023180	0.46%
Pb 220.353	2717.2	0.498535	mg/L	0.0015740	0.498535	mg/L	0.0015740	0.32%
Mg 279.077	674727.1	51.0663	mg/L	0.47876	51.0663	mg/L	0.47876	0.94%
Mn 257.610	236959.9	0.505547	mg/L	0.0021763	0.505547	mg/L	0.0021763	0.43%
Mo 202.031	3808.5	0.490030	mg/L	0.0035385	0.490030	mg/L	0.0035385	0.72%
Ni 231.604	17392.3	0.502232	mg/L	0.0039587	0.502232	mg/L	0.0039587	0.79%
Se 196.026	535.4	0.507689	mg/L	0.0009671	0.507689	mg/L	0.0009671	0.19%
Ag 328.068	11813.2	0.100925	mg/L	0.0007218	0.100925	mg/L	0.0007218	0.72%
Na 330.237	23982.6	47.9551	mg/L	0.31928	47.9551	mg/L	0.31928	0.67%
Tl 190.801	583.4	0.521573	mg/L	0.0012748	0.521573	mg/L	0.0012748	0.24%
Sn 189.927	1629.5	0.504670	mg/L	0.0047448	0.504670	mg/L	0.0047448	0.94%
Ti 334.940	166584.4	0.506969	mg/L	0.0023988	0.506969	mg/L	0.0023988	0.47%
V 292.402	49483.5	0.491529	mg/L	0.0040488	0.491529	mg/L	0.0040488	0.82%
Zn 206.200	8936.4	0.489820	mg/L	0.0023071	0.489820	mg/L	0.0023071	0.47%

Sequence No.: 36  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/22/2011 2:21:12 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-110.1	-0.0126590	mg/L	0.00899911	-0.0126590	mg/L	0.00899911	71.09%
Sb 206.836	-4.3	-0.0082686	mg/L	0.00069294	-0.0082686	mg/L	0.00069294	8.38%
As 188.979	-1.5	0.0005555	mg/L	0.00176516	0.0005555	mg/L	0.00176516	317.74%
Ba 233.527	60.7	-0.0023699	mg/L	0.00004682	-0.0023699	mg/L	0.00004682	1.98%
Be 234.861	44.4	0.0005217	mg/L	0.00000613	0.0005217	mg/L	0.00000613	1.17%
Cd 226.502	8.7	-0.0018153	mg/L	0.00013160	-0.0018153	mg/L	0.00013160	7.25%
Ca 315.887	26975.0	0.215348	mg/L	0.0055435	0.215348	mg/L	0.0055435	2.57%
Cr 206.158	1.2	-0.0027302	mg/L	0.00030288	-0.0027302	mg/L	0.00030288	11.09%
Co 228.616	1.0	-0.0042239	mg/L	0.00005157	-0.0042239	mg/L	0.00005157	1.22%
Cu 324.752	257.0	0.0020907	mg/L	0.00013214	0.0020907	mg/L	0.00013214	6.32%
Fe 273.955	-157.1	-0.0311986	mg/L	0.00023949	-0.0311986	mg/L	0.00023949	0.77%
Pb 220.353	-2.5	-0.0036698	mg/L	0.00104053	-0.0036698	mg/L	0.00104053	28.35%
Mg 279.077	3702.5	-0.0840108	mg/L	0.00439739	-0.0840108	mg/L	0.00439739	5.23%
Mn 257.610	98.0	-0.0028490	mg/L	0.00004081	-0.0028490	mg/L	0.00004081	1.43%
Mo 202.031	8.4	-0.0012614	mg/L	0.00016166	-0.0012614	mg/L	0.00016166	12.82%
Ni 231.604	71.5	0.0005209	mg/L	0.00023499	0.0005209	mg/L	0.00023499	45.11%
Se 196.026	2.1	-0.0034953	mg/L	0.00452681	-0.0034953	mg/L	0.00452681	129.51%
Ag 328.068	-3.0	-0.0001398	mg/L	0.00025752	-0.0001398	mg/L	0.00025752	184.25%
Na 330.237	-187.6	0.426092	mg/L	0.2002705	0.426092	mg/L	0.2002705	47.00%
Tl 190.801	5.4	0.0008831	mg/L	0.00252474	0.0008831	mg/L	0.00252474	285.88%
Sn 189.927	4.2	-0.0009646	mg/L	0.00019751	-0.0009646	mg/L	0.00019751	20.48%
Ti 334.940	72.9	-0.0001513	mg/L	0.00012389	-0.0001513	mg/L	0.00012389	81.87%
V 292.402	32.7	-0.0007942	mg/L	0.00014706	-0.0007942	mg/L	0.00014706	18.52%
Zn 206.200	1.6	-0.0018415	mg/L	0.00004145	-0.0018415	mg/L	0.00004145	2.25%

Sequence No.: 37  
 Sample ID: 63334-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 78  
 Date Collected: 12/22/2011 2:24:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63334-003

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	33290.6	3.79403	mg/L	0.060429	3.79403	mg/L	0.060429 1.59%
Sb 206.836	126.5	0.175800	mg/L	0.0094924	0.175800	mg/L	0.0094924 5.40%
As 188.979	-6.6	0.0117455	mg/L	0.00173082	0.0117455	mg/L	0.00173082 14.74%
Ba 233.527	6211.5	0.111153	mg/L	0.0005249	0.111153	mg/L	0.0005249 0.47%
Be 234.861	-2730.2	0.0037530	mg/L	0.00011242	0.0037530	mg/L	0.00011242 3.00%
Cd 226.502	99.2	-0.0000124	mg/L	0.00004375	-0.0000124	mg/L	0.00004375 354.21%
Ca 315.887	40065992.9	696.495	mg/L	3.2657	696.495	mg/L	3.2657 0.47%
Cr 206.158	112.7	0.0256128	mg/L	0.00078615	0.0256128	mg/L	0.00078615 3.07%
Co 228.616	491.6	0.0230046	mg/L	0.00084131	0.0230046	mg/L	0.00084131 3.66%
Cu 324.752	156312.2	1.42294	mg/L	0.020282	1.42294	mg/L	0.020282 1.43%
Fe 273.955	124047.9	7.74844	mg/L	0.129773	7.74844	mg/L	0.129773 1.67%
Pb 220.353	616.9	0.122698	mg/L	0.0003152	0.122698	mg/L	0.0003152 0.26%
Mg 279.077	14995453.8	1142.69	mg/L	8.825	1142.69	mg/L	8.825 0.77%
Mn 257.610	517798.4	1.09209	mg/L	0.015300	1.09209	mg/L	0.015300 1.40%
Mo 202.031	0.2	-0.0019130	mg/L	0.00007510	-0.0019130	mg/L	0.00007510 3.93%
Ni 231.604	1433.3	0.0397716	mg/L	0.00025617	0.0397716	mg/L	0.00025617 0.64%
Se 196.026	111.2	0.0310818	mg/L	0.00070100	0.0310818	mg/L	0.00070100 2.26%
Ag 328.068	-1605.9	-0.0009560	mg/L	0.00029790	-0.0009560	mg/L	0.00029790 31.16%
Na 330.237	12774.7	25.9156	mg/L	0.08873	25.9156	mg/L	0.08873 0.34%
Tl 190.801	-2.1	-0.0092624	mg/L	0.00276941	-0.0092624	mg/L	0.00276941 29.90%
Sn 189.927	-222.0	-0.0054223	mg/L	0.00024253	-0.0054223	mg/L	0.00024253 4.47%
Ti 334.940	3692.5	0.0108726	mg/L	0.00063667	0.0108726	mg/L	0.00063667 5.86%
V 292.402	21345.7	-0.214466	mg/L	0.0017492	-0.214466	mg/L	0.0017492 0.82%
Zn 206.200	11885.3	0.624229	mg/L	0.0013284	0.624229	mg/L	0.0013284 0.21%

Sequence No.: 38  
 Sample ID: 63334-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 79  
 Date Collected: 12/22/2011 2:28:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63334-004

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	74142.5	8.44995	mg/L	0.110089	8.44995	mg/L	0.110089	1.30%
Sb 206.836	139.9	0.192854	mg/L	0.0009150	0.192854	mg/L	0.0009150	0.47%
As 188.979	-10.3	0.0083867	mg/L	0.00047966	0.0083867	mg/L	0.00047966	5.72%
Ba 233.527	7358.8	0.132342	mg/L	0.0006931	0.132342	mg/L	0.0006931	0.52%
Be 234.861	-2619.9	0.0046179	mg/L	0.00023486	0.0046179	mg/L	0.00023486	5.09%
Cd 226.502	98.0	-0.0000321	mg/L	0.00001639	-0.0000321	mg/L	0.00001639	51.10%
Ca 315.887	41901529.8	728.415	mg/L	2.7625	728.415	mg/L	2.7625	0.38%
Cr 206.158	213.2	0.0369976	mg/L	0.00109309	0.0369976	mg/L	0.00109309	2.95%
Co 228.616	432.6	0.0196813	mg/L	0.00044923	0.0196813	mg/L	0.00044923	2.28%
Cu 324.752	217364.2	1.98489	mg/L	0.026143	1.98489	mg/L	0.026143	1.32%
Fe 273.955	131756.3	8.23126	mg/L	0.101700	8.23126	mg/L	0.101700	1.24%
Pb 220.353	1154.0	0.222647	mg/L	0.0019947	0.222647	mg/L	0.0019947	0.90%
Mg 279.077	13902491.0	1059.38	mg/L	6.692	1059.38	mg/L	6.692	0.63%
Mn 257.610	462880.5	0.975413	mg/L	0.0130842	0.975413	mg/L	0.0130842	1.34%
Mo 202.031	-14.7	-0.0036471	mg/L	0.00040424	-0.0036471	mg/L	0.00040424	11.08%
Ni 231.604	1315.5	0.0363473	mg/L	0.00032273	0.0363473	mg/L	0.00032273	0.89%
Se 196.026	87.1	0.0057548	mg/L	0.00508471	0.0057548	mg/L	0.00508471	88.36%
Ag 328.068	-1728.1	-0.0013580	mg/L	0.00030310	-0.0013580	mg/L	0.00030310	22.32%
Na 330.237	11738.6	23.8782	mg/L	0.17865	23.8782	mg/L	0.17865	0.75%
Tl 190.801	-5.8	-0.0125826	mg/L	0.00110571	-0.0125826	mg/L	0.00110571	8.79%
Sn 189.927	-235.3	-0.0065408	mg/L	0.00199741	-0.0065408	mg/L	0.00199741	30.54%
Ti 334.940	5145.9	0.0152988	mg/L	0.00048902	0.0152988	mg/L	0.00048902	3.20%
V 292.402	21006.4	-0.186433	mg/L	0.0023390	-0.186433	mg/L	0.0023390	1.25%
Zn 206.200	12361.5	0.652666	mg/L	0.0046248	0.652666	mg/L	0.0046248	0.71%

Sequence No.: 39  
 Sample ID: EF-V-131199  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 80  
 Date Collected: 12/22/2011 2:33:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: EF-V-131199

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-62.4	-0.0071831	mg/L	0.00514785	-0.0071831	mg/L	0.00514785	71.67%
Sb 206.836	1.4	-0.0008726	mg/L	0.00465332	-0.0008726	mg/L	0.00465332	533.27%
As 188.979	-4.4	-0.0037424	mg/L	0.00527311	-0.0037424	mg/L	0.00527311	140.90%
Ba 233.527	115.6	-0.0013580	mg/L	0.00002628	-0.0013580	mg/L	0.00002628	1.94%
Be 234.861	-15.7	0.0003902	mg/L	0.00003296	0.0003902	mg/L	0.00003296	8.45%
Cd 226.502	2.0	-0.0019449	mg/L	0.00008533	-0.0019449	mg/L	0.00008533	4.39%
Ca 315.887	49536.9	0.607701	mg/L	0.0736078	0.607701	mg/L	0.0736078	12.11%
Cr 206.158	8.8	-0.0017731	mg/L	0.00021841	-0.0017731	mg/L	0.00021841	12.32%
Co 228.616	1.0	-0.0042205	mg/L	0.00014102	-0.0042205	mg/L	0.00014102	3.34%
Cu 324.752	701.5	0.0061789	mg/L	0.00096097	0.0061789	mg/L	0.00096097	15.55%
Fe 273.955	-32.9	-0.0234235	mg/L	0.00114794	-0.0234235	mg/L	0.00114794	4.90%
Pb 220.353	1.5	-0.0029369	mg/L	0.00109128	-0.0029369	mg/L	0.00109128	37.16%
Mg 279.077	11259.9	0.492068	mg/L	0.0916281	0.492068	mg/L	0.0916281	18.62%
Mn 257.610	172.1	-0.0026986	mg/L	0.00004320	-0.0026986	mg/L	0.00004320	1.60%
Mo 202.031	-15.4	-0.0043362	mg/L	0.00036595	-0.0043362	mg/L	0.00036595	8.44%
Ni 231.604	122.6	0.0019992	mg/L	0.00039194	0.0019992	mg/L	0.00039194	19.60%
Se 196.026	-3.2	-0.0084844	mg/L	0.00625478	-0.0084844	mg/L	0.00625478	73.72%
Ag 328.068	-27.1	-0.0003365	mg/L	0.00062410	-0.0003365	mg/L	0.00062410	185.47%
Na 330.237	759535.6	1494.36	mg/L	24.274	1494.36	mg/L	24.274	1.62%
Tl 190.801	0.4	-0.0035572	mg/L	0.00060130	-0.0035572	mg/L	0.00060130	16.90%
Sn 189.927	5.8	-0.0004436	mg/L	0.00117309	-0.0004436	mg/L	0.00117309	264.42%
Ti 334.940	-17.2	-0.0004255	mg/L	0.00006935	-0.0004255	mg/L	0.00006935	16.30%
V 292.402	47.2	-0.0008886	mg/L	0.00018186	-0.0008886	mg/L	0.00018186	20.47%
Zn 206.200	106.8	0.0039478	mg/L	0.00004142	0.0039478	mg/L	0.00004142	1.05%

Sequence No.: 40  
 Sample ID: EF-V-130604  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 81  
 Date Collected: 12/22/2011 2:36:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: EF-V-130604

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	524.2	0.0596707	mg/L	0.00040617	0.0596707	mg/L	0.00040617	0.68%
Sb 206.836	-0.6	-0.0034852	mg/L	0.00459302	-0.0034852	mg/L	0.00459302	131.79%
As 188.979	-0.7	0.0018327	mg/L	0.00152480	0.0018327	mg/L	0.00152480	83.20%
Ba 233.527	663.0	0.0087553	mg/L	0.00010763	0.0087553	mg/L	0.00010763	1.23%
Be 234.861	-25.2	0.0003828	mg/L	0.00000047	0.0003828	mg/L	0.00000047	0.12%
Cd 226.502	-0.6	-0.0019950	mg/L	0.00005692	-0.0019950	mg/L	0.00005692	2.85%
Ca 315.887	140630.6	2.19182	mg/L	0.043369	2.19182	mg/L	0.043369	1.98%
Cr 206.158	17.7	-0.0006246	mg/L	0.00022833	-0.0006246	mg/L	0.00022833	36.55%
Co 228.616	4.1	-0.0040523	mg/L	0.00012408	-0.0040523	mg/L	0.00012408	3.06%
Cu 324.752	539.4	0.0046452	mg/L	0.00000796	0.0046452	mg/L	0.00000796	0.17%
Fe 273.955	158.6	-0.0114257	mg/L	0.00053056	-0.0114257	mg/L	0.00053056	4.64%
Pb 220.353	6.9	-0.0019085	mg/L	0.00113115	-0.0019085	mg/L	0.00113115	59.27%
Mg 279.077	13423.5	0.656999	mg/L	0.0256490	0.656999	mg/L	0.0256490	3.90%
Mn 257.610	482.1	-0.0020344	mg/L	0.00007012	-0.0020344	mg/L	0.00007012	3.45%
Mo 202.031	-16.5	-0.0044794	mg/L	0.00033226	-0.0044794	mg/L	0.00033226	7.42%
Ni 231.604	45.7	-0.0002270	mg/L	0.00011690	-0.0002270	mg/L	0.00011690	51.50%
Se 196.026	6.6	0.0005474	mg/L	0.00440325	0.0005474	mg/L	0.00440325	804.42%
Ag 328.068	-11.9	-0.0001774	mg/L	0.00008216	-0.0001774	mg/L	0.00008216	46.30%
Na 330.237	7523.5	15.5894	mg/L	0.30722	15.5894	mg/L	0.30722	1.97%
Tl 190.801	0.2	-0.0037214	mg/L	0.00012890	-0.0037214	mg/L	0.00012890	3.46%
Sn 189.927	-3.7	-0.0032039	mg/L	0.00014696	-0.0032039	mg/L	0.00014696	4.59%
Ti 334.940	68.8	-0.0001636	mg/L	0.00007972	-0.0001636	mg/L	0.00007972	48.74%
V 292.402	67.7	-0.0007418	mg/L	0.00002177	-0.0007418	mg/L	0.00002177	2.93%
Zn 206.200	251.3	0.0119129	mg/L	0.00005014	0.0119129	mg/L	0.00005014	0.42%

Sequence No.: 41  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/22/2011 2:39:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	4022424.9	458.437 mg/L	5.7133	458.437 mg/L	5.7133	1.25%
QC value within limits for Al 308.215 Recovery = 91.69%						
Sb 206.836	-21.6	0.0111917 mg/L	0.00370311	0.0111917 mg/L	0.00370311	33.09%
As 188.979	-40.8	-0.0252397 mg/L	0.00221981	-0.0252397 mg/L	0.00221981	8.79%
Ba 233.527	136.8	-0.0035499 mg/L	0.00011640	-0.0035499 mg/L	0.00011640	3.28%
Be 234.861	-80738.5	0.0253389 mg/L	0.00142867	0.0253389 mg/L	0.00142867	5.64%
Cd 226.502	150.3	0.0020897 mg/L	0.00002097	0.0020897 mg/L	0.00002097	1.00%
Ca 315.887	26170001.3	454.843 mg/L	2.4030	454.843 mg/L	2.4030	0.53%
QC value within limits for Ca 315.887 Recovery = 90.97%						
Cr 206.158	13.9	-0.0014248 mg/L	0.00034621	-0.0014248 mg/L	0.00034621	24.30%
Co 228.616	64.0	-0.0051711 mg/L	0.00006705	-0.0051711 mg/L	0.00006705	1.30%
Cu 324.752	2114.4	0.0077258 mg/L	0.00048006	0.0077258 mg/L	0.00048006	6.21%
Fe 273.955	2734577.7	171.260 mg/L	2.3670	171.260 mg/L	2.3670	1.38%
QC value within limits for Fe 273.955 Recovery = 85.63%						
Pb 220.353	-361.7	0.0085778 mg/L	0.00011131	0.0085778 mg/L	0.00011131	1.30%
Mg 279.077	6436618.0	490.279 mg/L	1.2629	490.279 mg/L	1.2629	0.26%
QC value within limits for Mg 279.077 Recovery = 98.06%						
Mn 257.610	-2675.1	-0.0077487 mg/L	0.00007900	-0.0077487 mg/L	0.00007900	1.02%
Mo 202.031	-130.7	0.0036819 mg/L	0.00241468	0.0036819 mg/L	0.00241468	65.58%
Ni 231.604	305.9	0.0031727 mg/L	0.00039619	0.0031727 mg/L	0.00039619	12.49%
Se 196.026	-528.2	-0.0215133 mg/L	0.00079653	-0.0215133 mg/L	0.00079653	3.70%
Ag 328.068	-1204.7	-0.0000902 mg/L	0.00015464	-0.0000902 mg/L	0.00015464	171.50%
Na 330.237	-108.6	0.581537 mg/L	0.1042829	0.581537 mg/L	0.1042829	17.93%
Tl 190.801	-9.2	0.0012004 mg/L	0.00089474	0.0012004 mg/L	0.00089474	74.54%
Sn 189.927	-145.9	-0.0046349 mg/L	0.00158191	-0.0046349 mg/L	0.00158191	34.13%
Ti 334.940	-465.7	-0.0017916 mg/L	0.00004777	-0.0017916 mg/L	0.00004777	2.67%
V 292.402	16997.2	-0.0123135 mg/L	0.00027778	-0.0123135 mg/L	0.00027778	2.26%
Zn 206.200	-34.4	-0.0165413 mg/L	0.00004155	-0.0165413 mg/L	0.00004155	0.25%

All analyte(s) passed QC.

Sequence No.: 42  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/22/2011 2:43:50 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	4107489.7	468.131 mg/L	4.5317	468.131 mg/L	4.5317	0.97%
QC value within limits for Al		308.215	Recovery = 93.63%			
Sb 206.836	674.5	0.923784 mg/L	0.0117762	0.923784 mg/L	0.0117762	1.27%
QC value within limits for Sb		206.836	Recovery = 92.38%			
As 188.979	601.9	0.949687 mg/L	0.0143612	0.949687 mg/L	0.0143612	1.51%
QC value within limits for As		188.979	Recovery = 94.97%			
Ba 233.527	26517.6	0.483811 mg/L	0.0101685	0.483811 mg/L	0.0101685	2.10%
QC value within limits for Ba		233.527	Recovery = 96.76%			
Be 234.861	136807.1	0.540915 mg/L	0.0000052	0.540915 mg/L	0.0000052	0.00%
QC value within limits for Be		234.861	Recovery = 108.18%			
Cd 226.502	47098.5	0.909645 mg/L	0.0240878	0.909645 mg/L	0.0240878	2.65%
QC value within limits for Cd		226.502	Recovery = 90.96%			
Ca 315.887	26163077.9	454.723 mg/L	1.9213	454.723 mg/L	1.9213	0.42%
QC value within limits for Ca		315.887	Recovery = 90.94%			
Cr 206.158	4102.8	0.457089 mg/L	0.0030454	0.457089 mg/L	0.0030454	0.67%
QC value within limits for Cr		206.158	Recovery = 91.42%			
Co 228.616	8100.1	0.444352 mg/L	0.0015956	0.444352 mg/L	0.0015956	0.36%
QC value within limits for Co		228.616	Recovery = 88.87%			
Cu 324.752	56180.7	0.506087 mg/L	0.0132830	0.506087 mg/L	0.0132830	2.62%
QC value within limits for Cu		324.752	Recovery = 101.22%			
Fe 273.955	2783094.0	174.299 mg/L	1.7278	174.299 mg/L	1.7278	0.99%
QC value within limits for Fe		273.955	Recovery = 87.15%			
Pb 220.353	4462.0	0.896211 mg/L	0.0037337	0.896211 mg/L	0.0037337	0.42%
QC value within limits for Pb		220.353	Recovery = 89.62%			
Mg 279.077	6433721.2	490.058 mg/L	0.8165	490.058 mg/L	0.8165	0.17%
QC value within limits for Mg		279.077	Recovery = 98.01%			
Mn 257.610	215315.0	0.460795 mg/L	0.0084405	0.460795 mg/L	0.0084405	1.83%
QC value within limits for Mn		257.610	Recovery = 92.16%			
Mo 202.031	-124.6	0.0049245 mg/L	0.00102596	0.0049245 mg/L	0.00102596	20.83%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Ni 231.604	30867.6	0.888188 mg/L	0.0166246	0.888188 mg/L	0.0166246	1.87%
QC value within limits for Ni		231.604	Recovery = 88.82%			
Se 196.026	394.0	0.856543 mg/L	0.0195091	0.856543 mg/L	0.0195091	2.28%
QC value within limits for Se		196.026	Recovery = 85.65%			
Ag 328.068	119994.9	1.02838 mg/L	0.022697	1.02838 mg/L	0.022697	2.21%
QC value within limits for Ag		328.068	Recovery = 102.84%			
Na 330.237	-515.4	-0.218319 mg/L	0.0875436	-0.218319 mg/L	0.0875436	40.10%
QC value within limits for Na		330.237	Recovery = Not calculated			
Tl 190.801	995.4	0.897660 mg/L	0.0029698	0.897660 mg/L	0.0029698	0.33%
QC value within limits for Tl		190.801	Recovery = 89.77%			
Sn 189.927	-156.7	-0.0079809 mg/L	0.00184262	-0.0079809 mg/L	0.00184262	23.09%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940	-457.4	-0.0017662 mg/L	0.00009782	-0.0017662 mg/L	0.00009782	5.54%
QC value within limits for Ti		334.940	Recovery = Not calculated			
V 292.402	59799.6	0.427382 mg/L	0.0116928	0.427382 mg/L	0.0116928	2.74%
QC value within limits for V		292.402	Recovery = 85.48%			
Zn 206.200	16034.7	0.870098 mg/L	0.0045063	0.870098 mg/L	0.0045063	0.52%
QC value within limits for Zn		206.200	Recovery = 87.01%			

All analyte(s) passed QC.

Sequence No.: 43  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 2:48:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	46073.3	5.24475	mg/L	0.045943	5.24475 mg/L	0.045943	0.88%
	QC value within limits for Al 308.215 Recovery = 104.89%						
Sb 206.836	368.6	0.487143	mg/L	0.0006577	0.487143 mg/L	0.0006577	0.14%
	QC value within limits for Sb 206.836 Recovery = 97.43%						
As 188.979	312.9	0.478558	mg/L	0.0092699	0.478558 mg/L	0.0092699	1.94%
	QC value within limits for As 188.979 Recovery = 95.71%						
Ba 233.527	27656.0	0.507778	mg/L	0.0041777	0.507778 mg/L	0.0041777	0.82%
	QC value within limits for Ba 233.527 Recovery = 101.56%						
Be 234.861	207230.8	0.494373	mg/L	0.0021132	0.494373 mg/L	0.0021132	0.43%
	QC value within limits for Be 234.861 Recovery = 98.87%						
Cd 226.502	26113.8	0.502847	mg/L	0.0002914	0.502847 mg/L	0.0002914	0.06%
	QC value within limits for Cd 226.502 Recovery = 100.57%						
Ca 315.887	2943540.4	50.9345	mg/L	0.47172	50.9345 mg/L	0.47172	0.93%
	QC value within limits for Ca 315.887 Recovery = 101.87%						
Cr 206.158	4503.0	0.489926	mg/L	0.0021350	0.489926 mg/L	0.0021350	0.44%
	QC value within limits for Cr 206.158 Recovery = 97.99%						
Co 228.616	9359.4	0.518481	mg/L	0.0016227	0.518481 mg/L	0.0016227	0.31%
	QC value within limits for Co 228.616 Recovery = 103.70%						
Cu 324.752	54502.6	0.500796	mg/L	0.0039256	0.500796 mg/L	0.0039256	0.78%
	QC value within limits for Cu 324.752 Recovery = 100.16%						
Fe 273.955	82015.5	5.11572	mg/L	0.040490	5.11572 mg/L	0.040490	0.79%
	QC value within limits for Fe 273.955 Recovery = 102.31%						
Pb 220.353	2653.0	0.486752	mg/L	0.0037527	0.486752 mg/L	0.0037527	0.77%
	QC value within limits for Pb 220.353 Recovery = 97.35%						
Mg 279.077	677323.3	51.2642	mg/L	0.37042	51.2642 mg/L	0.37042	0.72%
	QC value within limits for Mg 279.077 Recovery = 102.53%						
Mn 257.610	231624.2	0.494082	mg/L	0.0042937	0.494082 mg/L	0.0042937	0.87%
	QC value within limits for Mn 257.610 Recovery = 98.82%						
Mo 202.031	3746.6	0.482048	mg/L	0.0039364	0.482048 mg/L	0.0039364	0.82%
	QC value within limits for Mo 202.031 Recovery = 96.41%						
Ni 231.604	17567.9	0.507313	mg/L	0.0036806	0.507313 mg/L	0.0036806	0.73%
	QC value within limits for Ni 231.604 Recovery = 101.46%						
Se 196.026	527.6	0.500495	mg/L	0.0083116	0.500495 mg/L	0.0083116	1.66%
	QC value within limits for Se 196.026 Recovery = 100.10%						
Ag 328.068	11558.6	0.0987641	mg/L	0.00179248	0.0987641 mg/L	0.00179248	1.81%
	QC value within limits for Ag 328.068 Recovery = 98.76%						
Na 330.237	23544.3	47.0931	mg/L	0.23980	47.0931 mg/L	0.23980	0.51%
	QC value within limits for Na 330.237 Recovery = 94.19%						
Tl 190.801	573.2	0.512342	mg/L	0.0008603	0.512342 mg/L	0.0008603	0.17%
	QC value within limits for Tl 190.801 Recovery = 102.47%						
Sn 189.927	1553.9	0.481349	mg/L	0.0036215	0.481349 mg/L	0.0036215	0.75%
	QC value within limits for Sn 189.927 Recovery = 96.27%						
Ti 334.940	162404.0	0.494237	mg/L	0.0036956	0.494237 mg/L	0.0036956	0.75%
	QC value within limits for Ti 334.940 Recovery = 98.85%						
V 292.402	48861.1	0.485002	mg/L	0.0043915	0.485002 mg/L	0.0043915	0.91%
	QC value within limits for V 292.402 Recovery = 97.00%						
Zn 206.200	8911.9	0.488465	mg/L	0.0013958	0.488465 mg/L	0.0013958	0.29%
	QC value within limits for Zn 206.200 Recovery = 97.69%						

All analyte(s) passed QC.

Sequence No.: 44  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/22/2011 2:51:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	1728.0	0.196826 mg/L		0.0006390	0.196826 mg/L	0.0006390	0.32%
	QC value within limits for Al 308.215	Recovery = Not calculated					
Sb 206.836	-3.1	-0.0066954 mg/L		0.00122575	-0.0066954 mg/L	0.00122575	18.31%
	QC value within limits for Sb 206.836	Recovery = Not calculated					
As 188.979	-2.5	-0.0009708 mg/L		0.00056599	-0.0009708 mg/L	0.00056599	58.30%
	QC value within limits for As 188.979	Recovery = Not calculated					
Ba 233.527	40.3	-0.0027477 mg/L		0.00020450	-0.0027477 mg/L	0.00020450	7.44%
	QC value within limits for Ba 233.527	Recovery = Not calculated					
Be 234.861	84.6	0.0007267 mg/L		0.00000258	0.0007267 mg/L	0.00000258	0.36%
	QC value within limits for Be 234.861	Recovery = Not calculated					
Cd 226.502	18.5	-0.0016256 mg/L		0.00017691	-0.0016256 mg/L	0.00017691	10.88%
	QC value within limits for Cd 226.502	Recovery = Not calculated					
Ca 315.887	21798.5	0.125329 mg/L		0.0034695	0.125329 mg/L	0.0034695	2.77%
	QC value within limits for Ca 315.887	Recovery = Not calculated					
Cr 206.158	8.3	-0.0018115 mg/L		0.00013278	-0.0018115 mg/L	0.00013278	7.33%
	QC value within limits for Cr 206.158	Recovery = Not calculated					
Co 228.616	7.1	-0.0038847 mg/L		0.00035946	-0.0038847 mg/L	0.00035946	9.25%
	QC value within limits for Co 228.616	Recovery = Not calculated					
Cu 324.752	304.9	0.0025346 mg/L		0.00040560	0.0025346 mg/L	0.00040560	16.00%
	QC value within limits for Cu 324.752	Recovery = Not calculated					
Fe 273.955	1245.9	0.0566758 mg/L		0.00122253	0.0566758 mg/L	0.00122253	2.16%
	QC value within limits for Fe 273.955	Recovery = Not calculated					
Pb 220.353	-5.3	-0.0041641 mg/L		0.00210851	-0.0041641 mg/L	0.00210851	50.64%
	QC value within limits for Pb 220.353	Recovery = Not calculated					
Mg 279.077	5408.0	0.0459938 mg/L		0.00896359	0.0459938 mg/L	0.00896359	19.49%
	QC value within limits for Mg 279.077	Recovery = Not calculated					
Mn 257.610	6.3	-0.0030436 mg/L		0.00003571	-0.0030436 mg/L	0.00003571	1.17%
	QC value within limits for Mn 257.610	Recovery = Not calculated					
Mo 202.031	5.8	-0.0015885 mg/L		0.00031858	-0.0015885 mg/L	0.00031858	20.06%
	QC value within limits for Mo 202.031	Recovery = Not calculated					
Ni 231.604	30.1	-0.0006800 mg/L		0.00005166	-0.0006800 mg/L	0.00005166	7.60%
	QC value within limits for Ni 231.604	Recovery = Not calculated					
Se 196.026	9.9	0.0041202 mg/L		0.00177733	0.0041202 mg/L	0.00177733	43.14%
	QC value within limits for Se 196.026	Recovery = Not calculated					
Ag 328.068	87.9	0.0006312 mg/L		0.00017526	0.0006312 mg/L	0.00017526	27.77%
	QC value within limits for Ag 328.068	Recovery = Not calculated					
Na 330.237	-129.6	0.540147 mg/L		0.0873605	0.540147 mg/L	0.0873605	16.17%
	QC value within limits for Na 330.237	Recovery = Not calculated					
Tl 190.801	0.9	-0.0031343 mg/L		0.00060049	-0.0031343 mg/L	0.00060049	19.16%
	QC value within limits for Tl 190.801	Recovery = Not calculated					
Sn 189.927	3.7	-0.0011357 mg/L		0.00003613	-0.0011357 mg/L	0.00003613	3.18%
	QC value within limits for Sn 189.927	Recovery = Not calculated					
Ti 334.940	17.3	-0.0003206 mg/L		0.00009682	-0.0003206 mg/L	0.00009682	30.20%
	QC value within limits for Ti 334.940	Recovery = Not calculated					
V 292.402	33.6	-0.0008368 mg/L		0.00014671	-0.0008368 mg/L	0.00014671	17.53%
	QC value within limits for V 292.402	Recovery = Not calculated					
Zn 206.200	119.4	0.0046553 mg/L		0.00005276	0.0046553 mg/L	0.00005276	1.13%
	QC value within limits for Zn 206.200	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 45  
 Sample ID: 63081-025  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 82  
 Date Collected: 12/22/2011 2:54:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-025

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2394.0	0.272741	mg/L	0.0009851	0.272741	mg/L	0.0009851	0.36%
Sb 206.836	5.5	0.0046554	mg/L	0.00197643	0.0046554	mg/L	0.00197643	42.45%
As 188.979	-10.0	-0.0017648	mg/L	0.00011863	-0.0017648	mg/L	0.00011863	6.72%
Ba 233.527	38266.4	0.703503	mg/L	0.0029722	0.703503	mg/L	0.0029722	0.42%
Be 234.861	-80.0	0.0008444	mg/L	0.00001554	0.0008444	mg/L	0.00001554	1.84%
Cd 226.502	98.6	-0.0000748	mg/L	0.00022214	-0.0000748	mg/L	0.00022214	297.06%
Ca 315.887	14087448.4	244.727	mg/L	4.2717	244.727	mg/L	4.2717	1.75%
Cr 206.158	-106.2	0.0138035	mg/L	0.00044751	0.0138035	mg/L	0.00044751	3.24%
Co 228.616	401.6	0.0181753	mg/L	0.00035747	0.0181753	mg/L	0.00035747	1.97%
Cu 324.752	3085.6	0.0219819	mg/L	0.00011064	0.0219819	mg/L	0.00011064	0.50%
Fe 273.955	7672.7	0.459221	mg/L	0.0000239	0.459221	mg/L	0.0000239	0.01%
Pb 220.353	6695.4	1.23100	mg/L	0.004077	1.23100	mg/L	0.004077	0.33%
Mg 279.077	43377.5	2.94030	mg/L	0.030963	2.94030	mg/L	0.030963	1.05%
Mn 257.610	542530.6	1.16263	mg/L	0.005472	1.16263	mg/L	0.005472	0.47%
Mo 202.031	0.3	-0.0022866	mg/L	0.00009028	-0.0022866	mg/L	0.00009028	3.95%
Ni 231.604	606.1	0.0159906	mg/L	0.00009493	0.0159906	mg/L	0.00009493	0.59%
Se 196.026	77.5	0.0364426	mg/L	0.00130605	0.0364426	mg/L	0.00130605	3.58%
Ag 328.068	-601.5	-0.0009648	mg/L	0.00079769	-0.0009648	mg/L	0.00079769	82.68%
Na 330.237	761800.1	1498.82	mg/L	7.199	1498.82	mg/L	7.199	0.48%
Tl 190.801	-7.6	-0.0117716	mg/L	0.00186655	-0.0117716	mg/L	0.00186655	15.86%
Sn 189.927	-91.7	-0.0076176	mg/L	0.00092084	-0.0076176	mg/L	0.00092084	12.09%
Ti 334.940	-43.5	-0.0005058	mg/L	0.00000053	-0.0005058	mg/L	0.00000053	0.11%
V 292.402	523.1	0.0030891	mg/L	0.00002979	0.0030891	mg/L	0.00002979	0.96%
Zn 206.200	20226.6	1.11402	mg/L	0.000520	1.11402	mg/L	0.000520	0.05%

Sequence No.: 46  
 Sample ID: 63081-026  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 83  
 Date Collected: 12/22/2011 2:58:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-026

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	3840.3	0.437594	mg/L	0.0063070	0.437594	mg/L	0.0063070 1.44%
Sb 206.836	-1.2	-0.0033821	mg/L	0.00763620	-0.0033821	mg/L	0.00763620 225.78%
As 188.979	-14.5	-0.0100727	mg/L	0.00036946	-0.0100727	mg/L	0.00036946 3.67%
Ba 233.527	24720.8	0.453091	mg/L	0.0151860	0.453091	mg/L	0.0151860 3.35%
Be 234.861	-4388.7	0.0028646	mg/L	0.00006814	0.0028646	mg/L	0.00006814 2.38%
Cd 226.502	82.4	-0.0003219	mg/L	0.00007854	-0.0003219	mg/L	0.00007854 24.40%
Ca 315.887	10309170.8	179.023	mg/L	0.0822	179.023	mg/L	0.0822 0.05%
Cr 206.158	21.7	0.0083363	mg/L	0.00035097	0.0083363	mg/L	0.00035097 4.21%
Co 228.616	496.8	0.0232504	mg/L	0.00014928	0.0232504	mg/L	0.00014928 0.64%
Cu 324.752	2807.3	0.0210794	mg/L	0.00020716	0.0210794	mg/L	0.00020716 0.98%
Fe 273.955	162401.1	10.1507	mg/L	0.28105	10.1507	mg/L	0.28105 2.77%
Pb 220.353	4296.8	0.789064	mg/L	0.0030567	0.789064	mg/L	0.0030567 0.39%
Mg 279.077	44196.2	3.00271	mg/L	0.063733	3.00271	mg/L	0.063733 2.12%
Mn 257.610	902297.8	1.93614	mg/L	0.054322	1.93614	mg/L	0.054322 2.81%
Mo 202.031	-7.0	-0.0028787	mg/L	0.00093730	-0.0028787	mg/L	0.00093730 32.56%
Ni 231.604	1344.1	0.0371302	mg/L	0.00001645	0.0371302	mg/L	0.00001645 0.04%
Se 196.026	38.0	0.0378422	mg/L	0.00354809	0.0378422	mg/L	0.00354809 9.38%
Ag 328.068	-371.2	-0.0003518	mg/L	0.00068661	-0.0003518	mg/L	0.00068661 195.17%
Na 330.237	788080.7	1550.50	mg/L	45.298	1550.50	mg/L	45.298 2.92%
Tl 190.801	-2.8	-0.0066666	mg/L	0.00012627	-0.0066666	mg/L	0.00012627 1.89%
Sn 189.927	-67.3	-0.0062419	mg/L	0.00103251	-0.0062419	mg/L	0.00103251 16.54%
Ti 334.940	388.3	0.0008094	mg/L	0.00007523	0.0008094	mg/L	0.00007523 9.30%
V 292.402	347.1	0.0012489	mg/L	0.00001603	0.0012489	mg/L	0.00001603 1.28%
Zn 206.200	6418.3	0.352128	mg/L	0.0000656	0.352128	mg/L	0.0000656 0.02%

Sequence No.: 47  
 Sample ID: 63111-034  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 84  
 Date Collected: 12/22/2011 3:01:34 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-034

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1783.1	0.203122	mg/L	0.0021887	0.203122	mg/L	0.0021887	1.08%
Sb 206.836	-0.6	-0.0033617	mg/L	0.00119157	-0.0033617	mg/L	0.00119157	35.45%
As 188.979	-17.7	-0.0184175	mg/L	0.00324353	-0.0184175	mg/L	0.00324353	17.61%
Ba 233.527	20858.6	0.381885	mg/L	0.0034201	0.381885	mg/L	0.0034201	0.90%
Be 234.861	-29.2	0.0004919	mg/L	0.00001707	0.0004919	mg/L	0.00001707	3.47%
Cd 226.502	148.3	0.0008834	mg/L	0.00004591	0.0008834	mg/L	0.00004591	5.20%
Ca 315.887	7383351.1	128.143	mg/L	1.5832	128.143	mg/L	1.5832	1.24%
Cr 206.158	-110.8	0.0198570	mg/L	0.00008994	0.0198570	mg/L	0.00008994	0.45%
Co 228.616	600.1	0.0292896	mg/L	0.00009748	0.0292896	mg/L	0.00009748	0.33%
Cu 324.752	4724.1	0.0400338	mg/L	0.00040014	0.0400338	mg/L	0.00040014	1.00%
Fe 273.955	1666.3	0.0830106	mg/L	0.00086745	0.0830106	mg/L	0.00086745	1.04%
Pb 220.353	1218.5	0.223091	mg/L	0.0017404	0.223091	mg/L	0.0017404	0.78%
Mg 279.077	102512.6	7.44800	mg/L	0.027876	7.44800	mg/L	0.027876	0.37%
Mn 257.610	1052093.0	2.25741	mg/L	0.001189	2.25741	mg/L	0.001189	0.05%
Mo 202.031	-1.5	-0.0025332	mg/L	0.00081192	-0.0025332	mg/L	0.00081192	32.05%
Ni 231.604	1208.6	0.0334481	mg/L	0.00017695	0.0334481	mg/L	0.00017695	0.53%
Se 196.026	77.2	0.0500925	mg/L	0.00247372	0.0500925	mg/L	0.00247372	4.94%
Ag 328.068	-267.1	-0.0006106	mg/L	0.00010991	-0.0006106	mg/L	0.00010991	18.00%
Na 330.237	791523.9	1557.27	mg/L	3.124	1557.27	mg/L	3.124	0.20%
Tl 190.801	-4.1	-0.0076154	mg/L	0.00279488	-0.0076154	mg/L	0.00279488	36.70%
Sn 189.927	-66.3	-0.0107093	mg/L	0.00060879	-0.0107093	mg/L	0.00060879	5.68%
Ti 334.940	657.5	0.0016293	mg/L	0.00005897	0.0016293	mg/L	0.00005897	3.62%
V 292.402	740.5	0.0036123	mg/L	0.00007063	0.0036123	mg/L	0.00007063	1.96%
Zn 206.200	24951.3	1.37460	mg/L	0.000692	1.37460	mg/L	0.000692	0.05%

Sequence No.: 48  
 Sample ID: 63111-035  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 85  
 Date Collected: 12/22/2011 3:04:53 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-035

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	568.4	0.0647014	mg/L	0.00419113	0.0647014	mg/L	0.00419113	6.48%
Sb 206.836	1.1	-0.0009652	mg/L	0.00747097	-0.0009652	mg/L	0.00747097	774.03%
As 188.979	-26.5	-0.0173500	mg/L	0.00161694	-0.0173500	mg/L	0.00161694	9.32%
Ba 233.527	57545.8	1.05968	mg/L	0.006346	1.05968	mg/L	0.006346	0.60%
Be 234.861	-783.7	0.0008662	mg/L	0.00001522	0.0008662	mg/L	0.00001522	1.76%
Cd 226.502	50.3	-0.0009979	mg/L	0.00000432	-0.0009979	mg/L	0.00000432	0.43%
Ca 315.887	26285504.5	456.852	mg/L	5.1693	456.852	mg/L	5.1693	1.13%
Cr 206.158	-197.5	0.0302072	mg/L	0.00161563	0.0302072	mg/L	0.00161563	5.35%
Co 228.616	643.9	0.0316993	mg/L	0.00000705	0.0316993	mg/L	0.00000705	0.02%
Cu 324.752	1440.6	0.0014572	mg/L	0.00026026	0.0014572	mg/L	0.00026026	17.86%
Fe 273.955	29021.7	1.79643	mg/L	0.010242	1.79643	mg/L	0.010242	0.57%
Pb 220.353	5523.6	1.01957	mg/L	0.002426	1.01957	mg/L	0.002426	0.24%
Mg 279.077	123435.9	9.04292	mg/L	0.079824	9.04292	mg/L	0.079824	0.88%
Mn 257.610	1067867.3	2.29137	mg/L	0.018887	2.29137	mg/L	0.018887	0.82%
Mo 202.031	-11.9	-0.0038182	mg/L	0.00048047	-0.0038182	mg/L	0.00048047	12.58%
Ni 231.604	1569.9	0.0438717	mg/L	0.00064437	0.0438717	mg/L	0.00064437	1.47%
Se 196.026	88.6	0.0227126	mg/L	0.00006003	0.0227126	mg/L	0.00006003	0.26%
Ag 328.068	-1130.7	-0.0017878	mg/L	0.00036530	-0.0017878	mg/L	0.00036530	20.43%
Na 330.237	769428.4	1513.82	mg/L	14.310	1513.82	mg/L	14.310	0.95%
Tl 190.801	-6.8	-0.0120191	mg/L	0.00465671	-0.0120191	mg/L	0.00465671	38.74%
Sn 189.927	-148.7	-0.0052954	mg/L	0.00101705	-0.0052954	mg/L	0.00101705	19.21%
Ti 334.940	-352.6	-0.0014470	mg/L	0.00005992	-0.0014470	mg/L	0.00005992	4.14%
V 292.402	843.0	0.0040524	mg/L	0.00011860	0.0040524	mg/L	0.00011860	2.93%
Zn 206.200	39112.5	2.15592	mg/L	0.016283	2.15592	mg/L	0.016283	0.76%

Sequence No.: 49  
 Sample ID: 63111-036  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 86  
 Date Collected: 12/22/2011 3:09:15 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-036

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1974.0	0.224883	mg/L	0.0023726	0.224883	mg/L	0.0023726	1.06%
Sb 206.836	0.6	-0.0014942	mg/L	0.00456162	-0.0014942	mg/L	0.00456162	305.30%
As 188.979	-23.6	-0.0214013	mg/L	0.00113169	-0.0214013	mg/L	0.00113169	5.29%
Ba 233.527	53151.7	0.978472	mg/L	0.0004110	0.978472	mg/L	0.0004110	0.04%
Be 234.861	-1538.6	0.0013258	mg/L	0.00008763	0.0013258	mg/L	0.00008763	6.61%
Cd 226.502	129.0	0.0005356	mg/L	0.00020363	0.0005356	mg/L	0.00020363	38.02%
Ca 315.887	14717182.4	255.678	mg/L	0.0112	255.678	mg/L	0.0112	0.00%
Cr 206.158	-156.1	0.0317356	mg/L	0.00053007	0.0317356	mg/L	0.00053007	1.67%
Co 228.616	629.9	0.0308713	mg/L	0.00073358	0.0308713	mg/L	0.00073358	2.38%
Cu 324.752	2146.8	0.0130526	mg/L	0.00007218	0.0130526	mg/L	0.00007218	0.55%
Fe 273.955	57475.3	3.57863	mg/L	0.008930	3.57863	mg/L	0.008930	0.25%
Pb 220.353	15988.6	2.93821	mg/L	0.000110	2.93821	mg/L	0.000110	0.00%
Mg 279.077	113817.9	8.30977	mg/L	0.016041	8.30977	mg/L	0.016041	0.19%
Mn 257.610	932127.6	1.99981	mg/L	0.002244	1.99981	mg/L	0.002244	0.11%
Mo 202.031	-7.8	-0.0032253	mg/L	0.00070727	-0.0032253	mg/L	0.00070727	21.93%
Ni 231.604	1799.3	0.0504709	mg/L	0.00046481	0.0504709	mg/L	0.00046481	0.92%
Se 196.026	80.5	0.0474745	mg/L	0.00369085	0.0474745	mg/L	0.00369085	7.77%
Ag 328.068	-628.8	-0.0011904	mg/L	0.00014425	-0.0011904	mg/L	0.00014425	12.12%
Na 330.237	771972.7	1518.82	mg/L	2.900	1518.82	mg/L	2.900	0.19%
Tl 190.801	0.4	-0.0043890	mg/L	0.00321673	-0.0043890	mg/L	0.00321673	73.29%
Sn 189.927	-92.9	-0.0069689	mg/L	0.00050041	-0.0069689	mg/L	0.00050041	7.18%
Ti 334.940	-202.0	-0.0009883	mg/L	0.00002830	-0.0009883	mg/L	0.00002830	2.86%
V 292.402	769.1	0.0035748	mg/L	0.00001280	0.0035748	mg/L	0.00001280	0.36%
Zn 206.200	37021.7	2.04058	mg/L	0.000049	2.04058	mg/L	0.000049	0.00%

Sequence No.: 50  
 Sample ID: 63250-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 87  
 Date Collected: 12/22/2011 3:12:30 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63250-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	729.8	0.0830853	mg/L	0.00126543	0.0830853	mg/L	0.00126543	1.52%
Sb 206.836	-0.6	-0.0033863	mg/L	0.00501405	-0.0033863	mg/L	0.00501405	148.07%
As 188.979	-20.7	-0.0224813	mg/L	0.00417420	-0.0224813	mg/L	0.00417420	18.57%
Ba 233.527	33831.7	0.621574	mg/L	0.0028190	0.621574	mg/L	0.0028190	0.45%
Be 234.861	9.2	0.0004687	mg/L	0.00001070	0.0004687	mg/L	0.00001070	2.28%
Cd 226.502	226.2	0.0023889	mg/L	0.00005345	0.0023889	mg/L	0.00005345	2.24%
Ca 315.887	8007070.7	138.989	mg/L	0.2685	138.989	mg/L	0.2685	0.19%
Cr 206.158	-16.6	0.0232739	mg/L	0.00032747	0.0232739	mg/L	0.00032747	1.41%
Co 228.616	73.7	-0.0001557	mg/L	0.00063235	-0.0001557	mg/L	0.00063235	406.09%
Cu 324.752	18378.6	0.165620	mg/L	0.0005238	0.165620	mg/L	0.0005238	0.32%
Fe 273.955	219.2	-0.0076322	mg/L	0.00103776	-0.0076322	mg/L	0.00103776	13.60%
Pb 220.353	3059.7	0.561391	mg/L	0.0016503	0.561391	mg/L	0.0016503	0.29%
Mg 279.077	51507.3	3.56002	mg/L	0.015144	3.56002	mg/L	0.015144	0.43%
Mn 257.610	157550.6	0.335407	mg/L	0.0019400	0.335407	mg/L	0.0019400	0.58%
Mo 202.031	-8.1	-0.0033964	mg/L	0.00098368	-0.0033964	mg/L	0.00098368	28.96%
Ni 231.604	303.9	0.0072507	mg/L	0.00008585	0.0072507	mg/L	0.00008585	1.18%
Se 196.026	82.5	0.0540305	mg/L	0.00450477	0.0540305	mg/L	0.00450477	8.34%
Ag 328.068	-378.4	-0.0008243	mg/L	0.00021335	-0.0008243	mg/L	0.00021335	25.88%
Na 330.237	790182.5	1554.63	mg/L	6.158	1554.63	mg/L	6.158	0.40%
Tl 190.801	-2.5	-0.0068758	mg/L	0.00157161	-0.0068758	mg/L	0.00157161	22.86%
Sn 189.927	-60.4	-0.0078688	mg/L	0.00228712	-0.0078688	mg/L	0.00228712	29.07%
Ti 334.940	-95.3	-0.0006635	mg/L	0.00022036	-0.0006635	mg/L	0.00022036	33.21%
V 292.402	424.7	0.0018353	mg/L	0.00001962	0.0018353	mg/L	0.00001962	1.07%
Zn 206.200	20162.1	1.11045	mg/L	0.003869	1.11045	mg/L	0.003869	0.35%

Sequence No.: 51  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 3:15:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	42033.3	4.78448	mg/L	0.008367	4.78448	mg/L	0.008367	0.17%
Sb 206.836	351.7	0.464764	mg/L	0.0014404	0.464764	mg/L	0.0014404	0.31%
As 188.979	302.0	0.461930	mg/L	0.0063426	0.461930	mg/L	0.0063426	1.37%
Ba 233.527	26767.0	0.491346	mg/L	0.0028628	0.491346	mg/L	0.0028628	0.58%
Be 234.861	201448.2	0.480418	mg/L	0.0029754	0.480418	mg/L	0.0029754	0.62%
Cd 226.502	25034.9	0.481988	mg/L	0.0045630	0.481988	mg/L	0.0045630	0.95%
Ca 315.887	2833762.5	49.0255	mg/L	0.37812	49.0255	mg/L	0.37812	0.77%
Cr 206.158	4342.4	0.472281	mg/L	0.0003569	0.472281	mg/L	0.0003569	0.08%
Co 228.616	8924.7	0.494184	mg/L	0.0001898	0.494184	mg/L	0.0001898	0.04%
Cu 324.752	52589.6	0.483213	mg/L	0.0026083	0.483213	mg/L	0.0026083	0.54%
Fe 273.955	77546.8	4.83582	mg/L	0.017683	4.83582	mg/L	0.017683	0.37%
Pb 220.353	2615.3	0.479693	mg/L	0.0005969	0.479693	mg/L	0.0005969	0.12%
Mg 279.077	648222.3	49.0459	mg/L	0.34032	49.0459	mg/L	0.34032	0.69%
Mn 257.610	226971.0	0.484104	mg/L	0.0020117	0.484104	mg/L	0.0020117	0.42%
Mo 202.031	3641.9	0.468491	mg/L	0.0018892	0.468491	mg/L	0.0018892	0.40%
Ni 231.604	16664.7	0.481156	mg/L	0.0006927	0.481156	mg/L	0.0006927	0.14%
Se 196.026	503.1	0.476834	mg/L	0.0097691	0.476834	mg/L	0.0097691	2.05%
Ag 328.068	11175.4	0.0954789	mg/L	0.00032346	0.0954789	mg/L	0.00032346	0.34%
Na 330.237	23654.3	47.3094	mg/L	0.28110	47.3094	mg/L	0.28110	0.59%
Tl 190.801	551.7	0.493134	mg/L	0.0028620	0.493134	mg/L	0.0028620	0.58%
Sn 189.927	1544.1	0.478149	mg/L	0.0000968	0.478149	mg/L	0.0000968	0.02%
Ti 334.940	159347.7	0.484929	mg/L	0.0012429	0.484929	mg/L	0.0012429	0.26%
V 292.402	47337.9	0.470090	mg/L	0.0017163	0.470090	mg/L	0.0017163	0.37%
Zn 206.200	8538.3	0.467906	mg/L	0.0010072	0.467906	mg/L	0.0010072	0.22%

Sequence No.: 52  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/22/2011 3:18:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-108.4	-0.0124650	mg/L	0.00202452	-0.0124650	mg/L	0.00202452	16.24%
Sb 206.836	1.8	-0.0002869	mg/L	0.00487437	-0.0002869	mg/L	0.00487437	>999.9%
As 188.979	-1.1	0.0011858	mg/L	0.00471961	0.0011858	mg/L	0.00471961	398.00%
Ba 233.527	63.2	-0.0023228	mg/L	0.00002261	-0.0023228	mg/L	0.00002261	0.97%
Be 234.861	18.2	0.0004652	mg/L	0.00000660	0.0004652	mg/L	0.00000660	1.42%
Cd 226.502	5.3	-0.0018806	mg/L	0.00013724	-0.0018806	mg/L	0.00013724	7.30%
Ca 315.887	8895.3	-0.0990569	mg/L	0.00886963	-0.0990569	mg/L	0.00886963	8.95%
Cr 206.158	4.9	-0.0021560	mg/L	0.00046338	-0.0021560	mg/L	0.00046338	21.49%
Co 228.616	-3.3	-0.0044600	mg/L	0.00003602	-0.0044600	mg/L	0.00003602	0.81%
Cu 324.752	114.9	0.0007883	mg/L	0.00070130	0.0007883	mg/L	0.00070130	88.96%
Fe 273.955	-94.0	-0.0272517	mg/L	0.00022681	-0.0272517	mg/L	0.00022681	0.83%
Pb 220.353	6.0	-0.0021248	mg/L	0.00038448	-0.0021248	mg/L	0.00038448	18.09%
Mg 279.077	62.0	-0.361516	mg/L	0.0010214	-0.361516	mg/L	0.0010214	0.28%
Mn 257.610	456.7	-0.0020739	mg/L	0.00005881	-0.0020739	mg/L	0.00005881	2.84%
Mo 202.031	6.3	-0.0015382	mg/L	0.00059431	-0.0015382	mg/L	0.00059431	38.64%
Ni 231.604	13.1	-0.0011712	mg/L	0.00007450	-0.0011712	mg/L	0.00007450	6.36%
Se 196.026	7.0	0.0012409	mg/L	0.00075161	0.0012409	mg/L	0.00075161	60.57%
Ag 328.068	-15.7	-0.0002531	mg/L	0.00028934	-0.0002531	mg/L	0.00028934	114.32%
Na 330.237	345.8	1.47515	mg/L	0.105287	1.47515	mg/L	0.105287	7.14%
Tl 190.801	5.0	0.0005292	mg/L	0.00379245	0.0005292	mg/L	0.00379245	716.70%
Sn 189.927	2.0	-0.0016667	mg/L	0.00118103	-0.0016667	mg/L	0.00118103	70.86%
Ti 334.940	0.4	-0.0003720	mg/L	0.00011260	-0.0003720	mg/L	0.00011260	30.27%
V 292.402	5.9	-0.0009672	mg/L	0.00002002	-0.0009672	mg/L	0.00002002	2.07%
Zn 206.200	129.8	0.0052381	mg/L	0.00010590	0.0052381	mg/L	0.00010590	2.02%

Sequence No.: 53  
 Sample ID: 63279-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 88  
 Date Collected: 12/22/2011 3:22:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63279-001

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2055.6	0.234184	mg/L	0.0014040	0.234184	mg/L	0.0014040	0.60%
Sb 206.836	0.2	-0.0020312	mg/L	0.00050070	-0.0020312	mg/L	0.00050070	24.65%
As 188.979	-20.3	-0.0234390	mg/L	0.00152698	-0.0234390	mg/L	0.00152698	6.51%
Ba 233.527	13752.0	0.250584	mg/L	0.0013492	0.250584	mg/L	0.0013492	0.54%
Be 234.861	64.6	0.0006657	mg/L	0.00001475	0.0006657	mg/L	0.00001475	2.21%
Cd 226.502	58.3	-0.0008563	mg/L	0.00001368	-0.0008563	mg/L	0.00001368	1.60%
Ca 315.887	6500161.5	112.784	mg/L	0.8800	112.784	mg/L	0.8800	0.78%
Cr 206.158	2.0	-0.0020450	mg/L	0.00027763	-0.0020450	mg/L	0.00027763	13.58%
Co 228.616	104.3	0.0015522	mg/L	0.00014152	0.0015522	mg/L	0.00014152	9.12%
Cu 324.752	964.5	0.0057681	mg/L	0.00004278	0.0057681	mg/L	0.00004278	0.74%
Fe 273.955	1070.4	0.0456813	mg/L	0.00143601	0.0456813	mg/L	0.00143601	3.14%
Pb 220.353	-20.2	-0.0049522	mg/L	0.00121721	-0.0049522	mg/L	0.00121721	24.58%
Mg 279.077	390233.2	29.3801	mg/L	0.44790	29.3801	mg/L	0.44790	1.52%
Mn 257.610	500208.7	1.07126	mg/L	0.016025	1.07126	mg/L	0.016025	1.50%
Mo 202.031	-6.7	-0.0032056	mg/L	0.00079573	-0.0032056	mg/L	0.00079573	24.82%
Ni 231.604	212.4	0.0045981	mg/L	0.00044756	0.0045981	mg/L	0.00044756	9.73%
Se 196.026	76.5	0.0514938	mg/L	0.00525077	0.0514938	mg/L	0.00525077	10.20%
Ag 328.068	-323.4	-0.0010492	mg/L	0.00014238	-0.0010492	mg/L	0.00014238	13.57%
Na 330.237	750378.7	1476.36	mg/L	26.150	1476.36	mg/L	26.150	1.77%
Tl 190.801	-3.6	-0.0074670	mg/L	0.00014533	-0.0074670	mg/L	0.00014533	1.95%
Sn 189.927	-50.8	-0.0073503	mg/L	0.00015716	-0.0073503	mg/L	0.00015716	2.14%
Ti 334.940	894.5	0.0023511	mg/L	0.00002459	0.0023511	mg/L	0.00002459	1.05%
V 292.402	2477.7	0.0131471	mg/L	0.00025957	0.0131471	mg/L	0.00025957	1.97%
Zn 206.200	432.5	0.0211669	mg/L	0.00010495	0.0211669	mg/L	0.00010495	0.50%

Sequence No.: 54  
 Sample ID: 63298-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 89  
 Date Collected: 12/22/2011 3:25:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63298-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	8589.5	0.978856	mg/L	0.0059046	0.978856	mg/L	0.0059046	0.60%
Sb 206.836	1.5	-0.0005333	mg/L	0.00040383	-0.0005333	mg/L	0.00040383	75.73%
As 188.979	-19.7	-0.0180756	mg/L	0.00166502	-0.0180756	mg/L	0.00166502	9.21%
Ba 233.527	22472.3	0.411694	mg/L	0.0013690	0.411694	mg/L	0.0013690	0.33%
Be 234.861	284.5	0.0015263	mg/L	0.00002292	0.0015263	mg/L	0.00002292	1.50%
Cd 226.502	134.1	0.0006116	mg/L	0.00001521	0.0006116	mg/L	0.00001521	2.49%
Ca 315.887	12183717.9	211.621	mg/L	0.6364	211.621	mg/L	0.6364	0.30%
Cr 206.158	46.4	0.0055239	mg/L	0.00015261	0.0055239	mg/L	0.00015261	2.76%
Co 228.616	304.7	0.0127588	mg/L	0.00049139	0.0127588	mg/L	0.00049139	3.85%
Cu 324.752	1563.4	0.0087892	mg/L	0.00002811	0.0087892	mg/L	0.00002811	0.32%
Fe 273.955	5440.3	0.319393	mg/L	0.0009989	0.319393	mg/L	0.0009989	0.31%
Pb 220.353	136.2	0.0256174	mg/L	0.00111516	0.0256174	mg/L	0.00111516	4.35%
Mg 279.077	100231.1	7.27409	mg/L	0.092765	7.27409	mg/L	0.092765	1.28%
Mn 257.610	3052644.6	6.55593	mg/L	0.019183	6.55593	mg/L	0.019183	0.29%
Mo 202.031	-7.0	-0.0032082	mg/L	0.00030875	-0.0032082	mg/L	0.00030875	9.62%
Ni 231.604	609.8	0.0161003	mg/L	0.00001464	0.0161003	mg/L	0.00001464	0.09%
Se 196.026	88.9	0.0487717	mg/L	0.00226275	0.0487717	mg/L	0.00226275	4.64%
Ag 328.068	-401.7	-0.0013743	mg/L	0.00015734	-0.0013743	mg/L	0.00015734	11.45%
Na 330.237	777909.8	1530.50	mg/L	14.643	1530.50	mg/L	14.643	0.96%
Tl 190.801	-2.5	-0.0053356	mg/L	0.00357894	-0.0053356	mg/L	0.00357894	67.08%
Sn 189.927	-84.4	-0.0084635	mg/L	0.00069203	-0.0084635	mg/L	0.00069203	8.18%
Ti 334.940	274.2	0.0004619	mg/L	0.00006124	0.0004619	mg/L	0.00006124	13.26%
V 292.402	668.8	0.0029368	mg/L	0.00007853	0.0029368	mg/L	0.00007853	2.67%
Zn 206.200	2482.8	0.134872	mg/L	0.0005571	0.134872	mg/L	0.0005571	0.41%

Sequence No.: 55  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/22/2011 3:29:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	4006248.1	456.593 mg/L		11.8744	456.593 mg/L		11.8744	2.60%
QC value within limits for Al 308.215 Recovery = 91.32%								
Sb 206.836	-32.9	-0.0039127 mg/L		0.01137748	-0.0039127 mg/L		0.01137748	290.78%
As 188.979	-39.1	-0.0231151 mg/L		0.00763099	-0.0231151 mg/L		0.00763099	33.01%
Ba 233.527	156.6	-0.0031666 mg/L		0.00005087	-0.0031666 mg/L		0.00005087	1.61%
Be 234.861	-79243.6	0.0274227 mg/L		0.00485509	0.0274227 mg/L		0.00485509	17.70%
Cd 226.502	140.0	0.0018824 mg/L		0.00006330	0.0018824 mg/L		0.00006330	3.36%
Ca 315.887	25525317.0	443.632 mg/L		0.7725	443.632 mg/L		0.7725	0.17%
QC value within limits for Ca 315.887 Recovery = 88.73%								
Cr 206.158	28.6	0.0001539 mg/L		0.00053616	0.0001539 mg/L		0.00053616	348.48%
Co 228.616	65.1	-0.0050800 mg/L		0.00006523	-0.0050800 mg/L		0.00006523	1.28%
Cu 324.752	1711.6	0.0042950 mg/L		0.00038228	0.0042950 mg/L		0.00038228	8.90%
Fe 273.955	2716340.3	170.118 mg/L		3.9685	170.118 mg/L		3.9685	2.33%
QC value within limits for Fe 273.955 Recovery = 85.06%								
Pb 220.353	-346.8	0.0108365 mg/L		0.00058863	0.0108365 mg/L		0.00058863	5.43%
Mg 279.077	6244598.3	475.641 mg/L		1.5341	475.641 mg/L		1.5341	0.32%
QC value within limits for Mg 279.077 Recovery = 95.13%								
Mn 257.610	-1510.8	-0.0050768 mg/L		0.00061683	-0.0050768 mg/L		0.00061683	12.15%
Mo 202.031	-113.8	0.0057525 mg/L		0.00006299	0.0057525 mg/L		0.00006299	1.10%
Ni 231.604	288.7	0.0027029 mg/L		0.00007432	0.0027029 mg/L		0.00007432	2.75%
Se 196.026	-512.2	-0.0085804 mg/L		0.02573472	-0.0085804 mg/L		0.02573472	299.92%
Ag 328.068	-1204.1	-0.0003071 mg/L		0.00090986	-0.0003071 mg/L		0.00090986	296.25%
Na 330.237	345.7	1.47483 mg/L		0.013585	1.47483 mg/L		0.013585	0.92%
Tl 190.801	-11.4	-0.0008062 mg/L		0.00363363	-0.0008062 mg/L		0.00363363	450.74%
Sn 189.927	-149.5	-0.0067790 mg/L		0.00027735	-0.0067790 mg/L		0.00027735	4.09%
Ti 334.940	-414.1	-0.0016343 mg/L		0.00004216	-0.0016343 mg/L		0.00004216	2.58%
V 292.402	16688.0	-0.0099311 mg/L		0.00112549	-0.0099311 mg/L		0.00112549	11.33%
Zn 206.200	-29.4	-0.0158874 mg/L		0.00008493	-0.0158874 mg/L		0.00008493	0.53%

All analyte(s) passed QC.

Sequence No.: 56  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/22/2011 3:34:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Al 308.215	3982687.4	453.908 mg/L	4.8143	453.908 mg/L	4.8143	1.06%	
QC value within limits for Al		308.215	Recovery = 90.78%				
Sb 206.836	654.9	0.896994 mg/L	0.0063468	0.896994 mg/L	0.0063468	0.71%	
QC value within limits for Sb		206.836	Recovery = 89.70%				
As 188.979	585.3	0.923762 mg/L	0.0123907	0.923762 mg/L	0.0123907	1.34%	
QC value within limits for As		188.979	Recovery = 92.38%				
Ba 233.527	26110.0	0.476351 mg/L	0.0048179	0.476351 mg/L	0.0048179	1.01%	
QC value within limits for Ba		233.527	Recovery = 95.27%				
Be 234.861	131493.9	0.522549 mg/L	0.0111165	0.522549 mg/L	0.0111165	2.13%	
QC value within limits for Be		234.861	Recovery = 104.51%				
Cd 226.502	46123.1	0.890758 mg/L	0.0065301	0.890758 mg/L	0.0065301	0.73%	
QC value within limits for Cd		226.502	Recovery = 89.08%				
Ca 315.887	25709807.5	446.840 mg/L	0.8941	446.840 mg/L	0.8941	0.20%	
QC value within limits for Ca		315.887	Recovery = 89.37%				
Cr 206.158	3970.6	0.442336 mg/L	0.0006663	0.442336 mg/L	0.0006663	0.15%	
QC value within limits for Cr		206.158	Recovery = 88.47%				
Co 228.616	7969.8	0.437184 mg/L	0.0021674	0.437184 mg/L	0.0021674	0.50%	
QC value within limits for Co		228.616	Recovery = 87.44%				
Cu 324.752	54990.2	0.495313 mg/L	0.0049837	0.495313 mg/L	0.0049837	1.01%	
QC value within limits for Cu		324.752	Recovery = 99.06%				
Fe 273.955	2708415.5	169.622 mg/L	1.5998	169.622 mg/L	1.5998	0.94%	
QC value within limits for Fe		273.955	Recovery = 84.81%				
Pb 220.353	4344.5	0.872297 mg/L	0.0036903	0.872297 mg/L	0.0036903	0.42%	
QC value within limits for Pb		220.353	Recovery = 87.23%				
Mg 279.077	6290880.2	479.169 mg/L	0.4360	479.169 mg/L	0.4360	0.09%	
QC value within limits for Mg		279.077	Recovery = 95.83%				
Mn 257.610	213159.4	0.456095 mg/L	0.0037834	0.456095 mg/L	0.0037834	0.83%	
QC value within limits for Mn		257.610	Recovery = 91.22%				
Mo 202.031	-116.3	0.0053185 mg/L	0.00014511	0.0053185 mg/L	0.00014511	2.73%	
QC value within limits for Mo		202.031	Recovery = Not calculated				
Ni 231.604	30353.0	0.873400 mg/L	0.0068565	0.873400 mg/L	0.0068565	0.79%	
QC value within limits for Ni		231.604	Recovery = 87.34%				
Se 196.026	384.3	0.833625 mg/L	0.0181532	0.833625 mg/L	0.0181532	2.18%	
QC value within limits for Se		196.026	Recovery = 83.36%				
Ag 328.068	118858.1	1.01854 mg/L	0.013585	1.01854 mg/L	0.013585	1.33%	
QC value within limits for Ag		328.068	Recovery = 101.85%				
Na 330.237	-204.3	0.393413 mg/L	0.1131440	0.393413 mg/L	0.1131440	28.76%	
QC value within limits for Na		330.237	Recovery = Not calculated				
Tl 190.801	957.5	0.863479 mg/L	0.0038338	0.863479 mg/L	0.0038338	0.44%	
QC value within limits for Tl		190.801	Recovery = 86.35%				
Sn 189.927	-147.0	-0.0057315 mg/L	0.00155214	-0.0057315 mg/L	0.00155214	27.08%	
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940	-389.1	-0.0015582 mg/L	0.00001313	-0.0015582 mg/L	0.00001313	0.84%	
QC value within limits for Ti		334.940	Recovery = Not calculated				
V 292.402	59065.4	0.423972 mg/L	0.0045640	0.423972 mg/L	0.0045640	1.08%	
QC value within limits for V		292.402	Recovery = 84.79%				
Zn 206.200	15564.1	0.844419 mg/L	0.0039660	0.844419 mg/L	0.0039660	0.47%	
QC value within limits for Zn		206.200	Recovery = 84.44%				

All analyte(s) passed QC.

Sequence No.: 57  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 3:38:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	45432.3	5.17181 mg/L	0.051506	5.17181 mg/L	0.051506	1.00%
QC value within limits for Al 308.215 Recovery = 103.44%						
Sb 206.836	362.2	0.478600 mg/L	0.0004986	0.478600 mg/L	0.0004986	0.10%
QC value within limits for Sb 206.836 Recovery = 95.72%						
As 188.979	303.8	0.464631 mg/L	0.0087923	0.464631 mg/L	0.0087923	1.89%
QC value within limits for As 188.979 Recovery = 92.93%						
Ba 233.527	27113.0	0.497739 mg/L	0.0068320	0.497739 mg/L	0.0068320	1.37%
QC value within limits for Ba 233.527 Recovery = 99.55%						
Be 234.861	204490.3	0.487846 mg/L	0.0053893	0.487846 mg/L	0.0053893	1.10%
QC value within limits for Be 234.861 Recovery = 97.57%						
Cd 226.502	25522.6	0.491418 mg/L	0.0041525	0.491418 mg/L	0.0041525	0.85%
QC value within limits for Cd 226.502 Recovery = 98.28%						
Ca 315.887	2916056.4	50.4565 mg/L	0.10450	50.4565 mg/L	0.10450	0.21%
QC value within limits for Ca 315.887 Recovery = 100.91%						
Cr 206.158	4350.8	0.473252 mg/L	0.0014680	0.473252 mg/L	0.0014680	0.31%
QC value within limits for Cr 206.158 Recovery = 94.65%						
Co 228.616	9047.5	0.501041 mg/L	0.0047820	0.501041 mg/L	0.0047820	0.95%
QC value within limits for Co 228.616 Recovery = 100.21%						
Cu 324.752	53386.3	0.490520 mg/L	0.0064022	0.490520 mg/L	0.0064022	1.31%
QC value within limits for Cu 324.752 Recovery = 98.10%						
Fe 273.955	80996.1	5.05187 mg/L	0.061167	5.05187 mg/L	0.061167	1.21%
QC value within limits for Fe 273.955 Recovery = 101.04%						
Pb 220.353	2641.2	0.484535 mg/L	0.0007856	0.484535 mg/L	0.0007856	0.16%
QC value within limits for Pb 220.353 Recovery = 96.91%						
Mg 279.077	671591.3	50.8272 mg/L	0.06482	50.8272 mg/L	0.06482	0.13%
QC value within limits for Mg 279.077 Recovery = 101.65%						
Mn 257.610	229156.7	0.488784 mg/L	0.0031278	0.488784 mg/L	0.0031278	0.64%
QC value within limits for Mn 257.610 Recovery = 97.76%						
Mo 202.031	3673.8	0.472630 mg/L	0.0049903	0.472630 mg/L	0.0049903	1.06%
QC value within limits for Mo 202.031 Recovery = 94.53%						
Ni 231.604	16815.5	0.485520 mg/L	0.0012140	0.485520 mg/L	0.0012140	0.25%
QC value within limits for Ni 231.604 Recovery = 97.10%						
Se 196.026	504.5	0.478603 mg/L	0.0101848	0.478603 mg/L	0.0101848	2.13%
QC value within limits for Se 196.026 Recovery = 95.72%						
Ag 328.068	11141.8	0.0952207 mg/L	0.00033380	0.0952207 mg/L	0.00033380	0.35%
QC value within limits for Ag 328.068 Recovery = 95.22%						
Na 330.237	23463.1	46.9335 mg/L	0.27343	46.9335 mg/L	0.27343	0.58%
QC value within limits for Na 330.237 Recovery = 93.87%						
Tl 190.801	554.7	0.495843 mg/L	0.0079375	0.495843 mg/L	0.0079375	1.60%
QC value within limits for Tl 190.801 Recovery = 99.17%						
Sn 189.927	1509.8	0.467721 mg/L	0.0000099	0.467721 mg/L	0.0000099	0.00%
QC value within limits for Sn 189.927 Recovery = 93.54%						
Ti 334.940	160072.6	0.487137 mg/L	0.0027448	0.487137 mg/L	0.0027448	0.56%
QC value within limits for Ti 334.940 Recovery = 97.43%						
V 292.402	47593.4	0.472073 mg/L	0.0026630	0.472073 mg/L	0.0026630	0.56%
QC value within limits for V 292.402 Recovery = 94.41%						
Zn 206.200	8592.4	0.470847 mg/L	0.0036164	0.470847 mg/L	0.0036164	0.77%
QC value within limits for Zn 206.200 Recovery = 94.17%						

All analyte(s) passed QC.

Sequence No.: 58  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/22/2011 3:41:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	1711.5	0.194953 mg/L		0.0033607	0.194953 mg/L		0.0033607	1.72%
QC value within limits for Al 308.215 Recovery = Not calculated								
Sb 206.836	1.1	-0.0012467 mg/L		0.00301859	-0.0012467 mg/L		0.00301859	242.13%
QC value within limits for Sb 206.836 Recovery = Not calculated								
As 188.979	-2.5	-0.0009632 mg/L		0.00053908	-0.0009632 mg/L		0.00053908	55.97%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	52.2	-0.0025274 mg/L		0.00013625	-0.0025274 mg/L		0.00013625	5.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 234.861	84.8	0.0007313 mg/L		0.00001791	0.0007313 mg/L		0.00001791	2.45%
QC value within limits for Be 234.861 Recovery = Not calculated								
Cd 226.502	22.9	-0.0015396 mg/L		0.00005187	-0.0015396 mg/L		0.00005187	3.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ca 315.887	17668.7	0.0535127 mg/L		0.00019039	0.0535127 mg/L		0.00019039	0.36%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cr 206.158	3.1	-0.0025170 mg/L		0.00002830	-0.0025170 mg/L		0.00002830	1.12%
QC value within limits for Cr 206.158 Recovery = Not calculated								
Co 228.616	7.2	-0.0038804 mg/L		0.00011858	-0.0038804 mg/L		0.00011858	3.06%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cu 324.752	136.5	0.0009838 mg/L		0.00006929	0.0009838 mg/L		0.00006929	7.04%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	1299.2	0.0600119 mg/L		0.00015610	0.0600119 mg/L		0.00015610	0.26%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Pb 220.353	5.3	-0.0022065 mg/L		0.00011665	-0.0022065 mg/L		0.00011665	5.29%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Mg 279.077	3223.3	-0.120535 mg/L		0.0012070	-0.120535 mg/L		0.0012070	1.00%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	786.9	-0.0013637 mg/L		0.00002032	-0.0013637 mg/L		0.00002032	1.49%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031	5.1	-0.0016803 mg/L		0.00040631	-0.0016803 mg/L		0.00040631	24.18%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604	33.8	-0.0005734 mg/L		0.00016513	-0.0005734 mg/L		0.00016513	28.80%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Se 196.026	7.0	0.0014265 mg/L		0.00148089	0.0014265 mg/L		0.00148089	103.81%
QC value within limits for Se 196.026 Recovery = Not calculated								
Ag 328.068	50.7	0.0003135 mg/L		0.00044276	0.0003135 mg/L		0.00044276	141.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Na 330.237	71.4	0.935396 mg/L		0.0347463	0.935396 mg/L		0.0347463	3.71%
QC value within limits for Na 330.237 Recovery = Not calculated								
Tl 190.801	5.5	0.0009458 mg/L		0.00032758	0.0009458 mg/L		0.00032758	34.63%
QC value within limits for Tl 190.801 Recovery = Not calculated								
Sn 189.927	-0.6	-0.0024716 mg/L		0.00167971	-0.0024716 mg/L		0.00167971	67.96%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 334.940	32.5	-0.0002743 mg/L		0.00002357	-0.0002743 mg/L		0.00002357	8.59%
QC value within limits for Ti 334.940 Recovery = Not calculated								
V 292.402	19.6	-0.0009188 mg/L		0.00084429	-0.0009188 mg/L		0.00084429	91.89%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	13.5	-0.0011856 mg/L		0.00007956	-0.0011856 mg/L		0.00007956	6.71%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

File T13375A

Batch 133

Method: PE1 3000DV AXIAL

Page 1

Date: 12/12/2011 6:19:27 PM

Analyst S Bul 12/13/11

=====  
Analysis Begun

Start Time: 12/12/2011 6:16:30 PM                      Plasma On Time: 12/12/2011 9:32:43 AM  
 Logged In Analyst: shiamala                              Technique: ICP Continuous  
 Spectrometer Model: Optima 3300 DV, S/N 069N5072002 Autosampler Model: AS-91

Sample Information File: C:\pe\Administrator\Sample Information\12.12.11.sif  
 Batch ID: 8336  
 Results Data Set: T13375A  
 Results Library: C:\pe\Administrator\Results\Results.mdb

*sh* 12/14/11

=====  
Method Loaded

Method Name: PE1 3000DV AXIAL                              Method Last Saved: 12/12/2011 1:04:54 PM  
 IEC File: IEC092311.iec                                      MSF File:  
 Method Description: 200.7/6010B

=====  
Sequence No.: 1    Autosampler Location: 1  
 Sample ID: Calib Blk 1 V-129815                              Date Collected: 12/12/2011 6:17:30 PM  
 Analyst:    Data Type: Original  
 Initial Sample Wt:    Initial Sample Vol:  
 Dilution:    Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	2399.2	63.20	2.63%	[0.00]	mg/L
Sb 206.836	7.5	1.59	21.10%	[0.00]	mg/L
As 188.979	-6.3	4.32	68.78%	[0.00]	mg/L
Ba 233.527	-95.4	10.30	10.80%	[0.00]	mg/L
Be 234.861	-268.4	1.27	0.47%	[0.00]	mg/L
Cd 226.502	-135.0	3.29	2.44%	[0.00]	mg/L
Ca 315.887	-145.2	41.37	28.49%	[0.00]	mg/L
Cr 206.158	37.2	3.58	9.63%	[0.00]	mg/L
Co 228.616	-178.3	4.84	2.71%	[0.00]	mg/L
Cu 324.752	967.2	31.33	3.24%	[0.00]	mg/L
Fe 273.955	188.8	7.87	4.17%	[0.00]	mg/L
Pb 220.353	91.0	6.29	6.91%	[0.00]	mg/L
Mg 279.077	-180.4	22.37	12.40%	[0.00]	mg/L
Mn 257.610	114.9	0.15	0.13%	[0.00]	mg/L
Mo 202.031	-164.1	6.46	3.94%	[0.00]	mg/L
Ni 231.604	-59.3	6.58	11.10%	[0.00]	mg/L
Se 196.026	33.9	7.70	22.70%	[0.00]	mg/L
Ag 328.068	143.3	28.35	19.78%	[0.00]	mg/L
Na 330.237	193.4	42.88	22.17%	[0.00]	mg/L
Tl 190.801	-33.7	6.52	19.34%	[0.00]	mg/L
Sn 189.927	2.0	2.79	138.03%	[0.00]	mg/L
Ti 334.940	45.3	2.87	6.35%	[0.00]	mg/L
V 292.402	-33.8	3.40	10.07%	[0.00]	mg/L
Zn 206.200	29.8	2.04	6.84%	[0.00]	mg/L

13375  
11680

all elements reported  
 63057.010 }  
 0103PK } Ag, As, Pb, Se not  
 011 } reported

Sequence No.: 2  
Sample ID: Calib Std 1 V-128668  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 158  
Date Collected: 12/12/2011 6:20:38 PM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Mean Data: Calib Std 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
As 188.979	4.5	3.02	66.80%	[0.005]	mg/L
Be 234.861	1621.6	15.64	0.96%	[0.003]	mg/L
Cd 226.502	219.5	2.42	1.10%	[0.003]	mg/L
Pb 220.353	27.5	0.89	3.22%	[0.004]	mg/L
Tl 190.801	10.4	1.43	13.71%	[0.005]	mg/L

Sequence No.: 3  
 Sample ID: Calib Std 2 V-128664  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 160  
 Date Collected: 12/12/2011 6:23:43 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: Calib Std 2 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units
Al 308.215	747.8	52.27	6.99%	[0.1] mg/L
Sb 206.836	9.5	1.15	12.14%	[0.01] mg/L
As 188.979	10.0	0.21	2.07%	[0.01] mg/L
Ba 233.527	547.7	4.82	0.88%	[0.01] mg/L
Be 234.861	5287.5	176.68	3.34%	[0.01] mg/L
Cd 226.502	718.9	12.26	1.70%	[0.01] mg/L
Ca 315.887	56496.1	1155.20	2.04%	[1] mg/L
Cr 206.158	118.3	2.50	2.11%	[0.01] mg/L
Co 228.616	231.2	0.34	0.15%	[0.01] mg/L
Cu 324.752	1015.1	40.80	4.02%	[0.01] mg/L
Fe 273.955	1656.4	5.07	0.31%	[0.1] mg/L
Pb 220.353	80.2	1.57	1.96%	[0.01] mg/L
Mg 279.077	15417.2	407.73	2.64%	[1] mg/L
Mn 257.610	4629.9	115.41	2.49%	[0.01] mg/L
Mo 202.031	116.8	2.58	2.21%	[0.01] mg/L
Ni 231.604	381.9	0.93	0.24%	[0.01] mg/L
Se 196.026	15.2	7.16	47.10%	[0.01] mg/L
Ag 328.068	192.5	9.19	4.77%	[0.002] mg/L
Na 330.237	447.9	66.66	14.88%	[1] mg/L
Tl 190.801	17.1	4.67	27.35%	[0.01] mg/L
Sn 189.927	45.9	10.27	22.39%	[0.01] mg/L
Ti 334.940	2920.2	38.83	1.33%	[0.01] mg/L
V 292.402	842.3	10.83	1.29%	[0.01] mg/L
Zn 206.200	304.1	3.46	1.14%	[0.01] mg/L

Sequence No.: 4  
 Sample ID: Calib Std 3 V-128660  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/12/2011 6:26:53 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib Std 3 V-128660

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Al 308.215	39872.1	617.85	1.55%	[5] mg/L
Sb 206.836	650.6	13.68	2.10%	[0.5] mg/L
As 188.979	593.2	1.09	0.18%	[0.5] mg/L
Ba 233.527	26275.4	321.88	1.23%	[0.5] mg/L
Be 234.861	265650.8	3953.71	1.49%	[0.5] mg/L
Cd 226.502	35998.3	745.93	2.07%	[0.5] mg/L
Ca 315.887	2735264.4	24888.49	0.91%	[50] mg/L
Cr 206.158	6147.8	12.54	0.20%	[0.5] mg/L
Co 228.616	11502.9	49.97	0.43%	[0.5] mg/L
Cu 324.752	53925.2	862.85	1.60%	[0.5] mg/L
Fe 273.955	80896.8	929.58	1.15%	[5] mg/L
Pb 220.353	3674.3	12.27	0.33%	[0.5] mg/L
Mg 279.077	735097.1	4217.40	0.57%	[50] mg/L
Mn 257.610	218423.4	2683.00	1.23%	[0.5] mg/L
Mo 202.031	5685.9	38.85	0.68%	[0.5] mg/L
Ni 231.604	19683.5	218.37	1.11%	[0.5] mg/L
Se 196.026	892.5	12.21	1.37%	[0.5] mg/L
Ag 328.068	10204.4	3.71	0.04%	[0.1] mg/L
Na 330.237	19507.5	403.53	2.07%	[50] mg/L
Tl 190.801	780.5	13.07	1.67%	[0.5] mg/L
Sn 189.927	2190.2	1.26	0.06%	[0.5] mg/L
Ti 334.940	143557.4	2108.57	1.47%	[0.5] mg/L
V 292.402	42502.1	539.64	1.27%	[0.5] mg/L
Zn 206.200	14968.1	88.58	0.59%	[0.5] mg/L

Sequence No.: 5  
 Sample ID: Calib Std 4 V-129806  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/12/2011 6:30:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: Calib Std 4 V-129806

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units
Al 308.215	78588.6	1087.15	1.38%	[10] mg/L
Sb 206.836	1253.0	5.12	0.41%	[1.0] mg/L
As 188.979	1166.9	0.40	0.03%	[1.0] mg/L
Ba 233.527	50343.1	642.91	1.28%	[1.0] mg/L
Be 234.861	520198.1	4458.62	0.86%	[1.0] mg/L
Cd 226.502	69023.4	859.11	1.24%	[1.0] mg/L
Ca 315.887	5156400.4	62418.43	1.21%	[100] mg/L
Cr 206.158	11943.9	20.90	0.17%	[1.0] mg/L
Co 228.616	22542.9	245.75	1.09%	[1.0] mg/L
Cu 324.752	105139.7	1018.59	0.97%	[1.0] mg/L
Fe 273.955	155956.2	1812.29	1.16%	[10] mg/L
Pb 220.353	7062.6	11.23	0.16%	[1.0] mg/L
Mg 279.077	1408262.4	12522.29	0.89%	[100] mg/L
Mn 257.610	414868.2	2605.05	0.63%	[1.0] mg/L
Mo 202.031	10804.3	18.28	0.17%	[1.0] mg/L
Ni 231.604	37505.9	93.62	0.25%	[1.0] mg/L
Se 196.026	1730.1	3.77	0.22%	[1.0] mg/L
Ag 328.068	20096.5	71.05	0.35%	[0.2] mg/L
Na 330.237	41141.3	359.01	0.87%	[100] mg/L
Tl 190.801	1497.3	2.25	0.15%	[1.0] mg/L
Sn 189.927	4218.7	16.16	0.38%	[1.0] mg/L
Ti 334.940	271084.1	710.52	0.26%	[1.0] mg/L
V 292.402	81649.8	143.64	0.18%	[1.0] mg/L
Zn 206.200	29173.6	131.88	0.45%	[1.0] mg/L

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 Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	87.9	7871	0.00000	0.999970	
Sb 206.836	3	Lin, Calc Int	3.0	1259	0.00000	0.999790	
As 188.979	4	Lin, Calc Int	0.3	1170	0.00000	0.999963	
Ba 233.527	3	Lin, Calc Int	221.0	50520	0.00000	0.999749	
Be 234.861	4	Lin, Calc Int	737.6	521500	0.00000	0.999947	
Cd 226.502	4	Lin, Calc Int	198.1	69380	0.00000	0.999784	
Ca 315.887	3	Lin, Calc Int	30825.1	51820	0.00000	0.999516	
Cr 206.158	3	Lin, Calc Int	31.5	11980	0.00000	0.999884	
Co 228.616	3	Lin, Calc Int	44.8	22580	0.00000	0.999944	
Cu 324.752	3	Lin, Calc Int	230.2	105400	0.00000	0.999910	
Fe 273.955	3	Lin, Calc Int	575.2	15640	0.00000	0.999817	
Pb 220.353	4	Lin, Calc Int	20.6	7095	0.00000	0.999811	
Mg 279.077	3	Lin, Calc Int	6241.8	14130	0.00000	0.999748	
Mn 257.610	3	Lin, Calc Int	2218.5	416600	0.00000	0.999635	
Mo 202.031	3	Lin, Calc Int	55.6	10850	0.00000	0.999640	
Ni 231.604	3	Lin, Calc Int	172.5	37670	0.00000	0.999675	
Se 196.026	3	Lin, Calc Int	4.1	1736	0.00000	0.999860	
Ag 328.068	3	Lin, Calc Int	24.6	100600	0.00000	0.999967	
Na 330.237	3	Lin, Calc Int	-176.9	409.3	0.00000	0.999633	
Tl 190.801	4	Lin, Calc Int	5.5	1503	0.00000	0.999797	
Sn 189.927	3	Lin, Calc Int	16.4	4231	0.00000	0.999809	
Ti 334.940	3	Lin, Calc Int	1553.8	272400	0.00000	0.999543	
V 292.402	3	Lin, Calc Int	317.0	81940	0.00000	0.999778	
Zn 206.200	3	Lin, Calc Int	75.0	29240	0.00000	0.999910	

Sequence No.: 6  
 Sample ID: ICS3 V-128660  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/12/2011 6:33:25 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICS3 V-128660

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	39588.9	5.01182 mg/L	0.033676	5.01182 mg/L	0.033676	0.67%
QC value within limits for Al		308.215	Recovery = 100.24%			
Sb 206.836	640.6	0.513746 mg/L	0.0057054	0.513746 mg/L	0.0057054	1.11%
QC value within limits for Sb		206.836	Recovery = 102.75%			
As 188.979	592.6	0.505959 mg/L	0.0027932	0.505959 mg/L	0.0027932	0.55%
QC value within limits for As		188.979	Recovery = 101.19%			
Ba 233.527	26074.3	0.512093 mg/L	0.0037015	0.512093 mg/L	0.0037015	0.72%
QC value within limits for Ba		233.527	Recovery = 102.42%			
Be 234.861	263163.0	0.506440 mg/L	0.0048243	0.506440 mg/L	0.0048243	0.95%
QC value within limits for Be		234.861	Recovery = 101.29%			
Cd 226.502	35634.5	0.510673 mg/L	0.0055821	0.510673 mg/L	0.0055821	1.09%
QC value within limits for Cd		226.502	Recovery = 102.13%			
Ca 315.887	2691384.2	51.3421 mg/L	0.17945	51.3421 mg/L	0.17945	0.35%
QC value within limits for Ca		315.887	Recovery = 102.68%			
Cr 206.158	6128.5	0.521831 mg/L	0.0018295	0.521831 mg/L	0.0018295	0.35%
QC value within limits for Cr		206.158	Recovery = 104.37%			
Co 228.616	11421.5	0.502909 mg/L	0.0000901	0.502909 mg/L	0.0000901	0.02%
QC value within limits for Co		228.616	Recovery = 100.58%			
Cu 324.752	53214.5	0.501352 mg/L	0.0059780	0.501352 mg/L	0.0059780	1.19%
QC value within limits for Cu		324.752	Recovery = 100.27%			
Fe 273.955	80181.3	5.08894 mg/L	0.038181	5.08894 mg/L	0.038181	0.75%
QC value within limits for Fe		273.955	Recovery = 101.78%			
Pb 220.353	3656.9	0.515233 mg/L	0.0042962	0.515233 mg/L	0.0042962	0.83%
QC value within limits for Pb		220.353	Recovery = 103.05%			
Mg 279.077	724289.4	50.8130 mg/L	0.20091	50.8130 mg/L	0.20091	0.40%
QC value within limits for Mg		279.077	Recovery = 101.63%			
Mn 257.610	216231.9	0.513196 mg/L	0.0049072	0.513196 mg/L	0.0049072	0.96%
QC value within limits for Mn		257.610	Recovery = 102.64%			
Mo 202.031	5643.5	0.515349 mg/L	0.0003871	0.515349 mg/L	0.0003871	0.08%
QC value within limits for Mo		202.031	Recovery = 103.07%			
Ni 231.604	19457.7	0.512055 mg/L	0.0002350	0.512055 mg/L	0.0002350	0.05%
QC value within limits for Ni		231.604	Recovery = 102.41%			
Se 196.026	890.0	0.521518 mg/L	0.0004653	0.521518 mg/L	0.0004653	0.09%
QC value within limits for Se		196.026	Recovery = 104.30%			
Ag 328.068	10062.5	0.100522 mg/L	0.0004661	0.100522 mg/L	0.0004661	0.46%
QC value within limits for Ag		328.068	Recovery = 100.52%			
Na 330.237	19385.2	47.7939 mg/L	0.60628	47.7939 mg/L	0.60628	1.27%
QC value within limits for Na		330.237	Recovery = 95.59%			
Tl 190.801	785.7	0.524191 mg/L	0.0001479	0.524191 mg/L	0.0001479	0.03%
QC value within limits for Tl		190.801	Recovery = 104.84%			
Sn 189.927	2198.7	0.520836 mg/L	0.0019902	0.520836 mg/L	0.0019902	0.38%
QC value within limits for Sn		189.927	Recovery = 104.17%			
Ti 334.940	141737.4	0.514596 mg/L	0.0038334	0.514596 mg/L	0.0038334	0.74%
QC value within limits for Ti		334.940	Recovery = 102.92%			
V 292.402	41974.9	0.494789 mg/L	0.0027094	0.494789 mg/L	0.0027094	0.55%
QC value within limits for V		292.402	Recovery = 98.96%			
Zn 206.200	14920.6	0.506475 mg/L	0.0001621	0.506475 mg/L	0.0001621	0.03%
QC value within limits for Zn		206.200	Recovery = 101.29%			

All analyte(s) passed QC.

Sequence No.: 12  
 Sample ID: LCSW 11680  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 129  
 Date Collected: 12/12/2011 6:53:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCSW 11680

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc. Units	Std.Dev.	
Al 308.215	40919.8	5.18087	mg/L	0.035748	5.18087	mg/L	0.69%
Sb 206.836	648.6	0.520115	mg/L	0.0019986	0.520115	mg/L	0.38%
As 188.979	588.7	0.502643	mg/L	0.0018506	0.502643	mg/L	0.37%
Ba 233.527	25746.8	0.505611	mg/L	0.0056850	0.505611	mg/L	1.12%
Be 234.861	260711.3	0.501793	mg/L	0.0039930	0.501793	mg/L	0.80%
Cd 226.502	35490.5	0.508596	mg/L	0.0040258	0.508596	mg/L	0.79%
Ca 315.887	2677942.8	51.0827	mg/L	0.02112	51.0827	mg/L	0.04%
Cr 206.158	6021.8	0.512805	mg/L	0.0003211	0.512805	mg/L	0.06%
Co 228.616	11446.3	0.504005	mg/L	0.0005220	0.504005	mg/L	0.10%
Cu 324.752	52778.2	0.497218	mg/L	0.0042246	0.497218	mg/L	0.85%
Fe 273.955	81503.5	5.17347	mg/L	0.051975	5.17347	mg/L	1.00%
Pb 220.353	3626.6	0.510993	mg/L	0.0013417	0.510993	mg/L	0.26%
Mg 279.077	721370.8	50.6064	mg/L	0.03324	50.6064	mg/L	0.07%
Mn 257.610	212039.6	0.503140	mg/L	0.0025847	0.503140	mg/L	0.51%
Mo 202.031	5664.8	0.517323	mg/L	0.0006223	0.517323	mg/L	0.12%
Ni 231.604	19084.8	0.502153	mg/L	0.0013669	0.502153	mg/L	0.27%
Se 196.026	877.4	0.514593	mg/L	0.0046773	0.514593	mg/L	0.91%
Ag 328.068	9852.5	0.0984331	mg/L	0.00105244	0.0984331	mg/L	1.07%
Na 330.237	18991.5	46.8320	mg/L	0.36974	46.8320	mg/L	0.79%
Tl 190.801	764.8	0.510282	mg/L	0.0034712	0.510282	mg/L	0.68%
Sn 189.927	2351.7	0.556971	mg/L	0.0008328	0.556971	mg/L	0.15%
Ti 334.940	141865.8	0.515068	mg/L	0.0004564	0.515068	mg/L	0.09%
V 292.402	41342.1	0.487154	mg/L	0.0009579	0.487154	mg/L	0.20%
Zn 206.200	14775.8	0.501527	mg/L	0.0001587	0.501527	mg/L	0.03%

Sequence No.: 13  
 Sample ID: LCSW MR 11680  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 130  
 Date Collected: 12/12/2011 6:57:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW MR 11680

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	40526.2	5.13112	mg/L	0.045296	5.13112	mg/L	0.045296	0.88%
Sb 206.836	625.5	0.501555	mg/L	0.0012789	0.501555	mg/L	0.0012789	0.25%
As 188.979	581.2	0.496267	mg/L	0.0013593	0.496267	mg/L	0.0013593	0.27%
Ba 233.527	25711.0	0.504888	mg/L	0.0033674	0.504888	mg/L	0.0033674	0.67%
Be 234.861	261678.2	0.503620	mg/L	0.0025283	0.503620	mg/L	0.0025283	0.50%
Cd 226.502	35732.9	0.512091	mg/L	0.0036606	0.512091	mg/L	0.0036606	0.71%
Ca 315.887	2717507.6	51.8462	mg/L	0.72185	51.8462	mg/L	0.72185	1.39%
Cr 206.158	5987.0	0.510099	mg/L	0.0012943	0.510099	mg/L	0.0012943	0.25%
Co 228.616	11377.7	0.500979	mg/L	0.0024474	0.500979	mg/L	0.0024474	0.49%
Cu 324.752	53092.8	0.500188	mg/L	0.0023527	0.500188	mg/L	0.0023527	0.47%
Fe 273.955	80847.8	5.13155	mg/L	0.044974	5.13155	mg/L	0.044974	0.88%
Pb 220.353	3608.0	0.508337	mg/L	0.0028799	0.508337	mg/L	0.0028799	0.57%
Mg 279.077	724407.3	50.8213	mg/L	0.80457	50.8213	mg/L	0.80457	1.58%
Mn 257.610	215956.0	0.512536	mg/L	0.0033712	0.512536	mg/L	0.0033712	0.66%
Mo 202.031	5455.3	0.498003	mg/L	0.0025029	0.498003	mg/L	0.0025029	0.50%
Ni 231.604	18648.4	0.490560	mg/L	0.0022537	0.490560	mg/L	0.0022537	0.46%
Se 196.026	883.8	0.518026	mg/L	0.0018454	0.518026	mg/L	0.0018454	0.36%
Ag 328.068	9796.1	0.0978878	mg/L	0.00001058	0.0978878	mg/L	0.00001058	0.01%
Na 330.237	19125.6	47.1597	mg/L	0.39754	47.1597	mg/L	0.39754	0.84%
Tl 190.801	764.9	0.510245	mg/L	0.0014957	0.510245	mg/L	0.0014957	0.29%
Sn 189.927	2187.3	0.518178	mg/L	0.0034727	0.518178	mg/L	0.0034727	0.67%
Ti 334.940	139188.4	0.505239	mg/L	0.0016821	0.505239	mg/L	0.0016821	0.33%
V 292.402	41495.2	0.488794	mg/L	0.0053141	0.488794	mg/L	0.0053141	1.09%
Zn 206.200	15017.8	0.509797	mg/L	0.0024052	0.509797	mg/L	0.0024052	0.47%

Sequence No.: 14  
 Sample ID: 63022-023  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 131  
 Date Collected: 12/12/2011 7:00:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63022-023

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	883.3	0.101089	mg/L	0.0004279	0.101089	mg/L	0.0004279	0.42%
Sb 206.836	2.6	-0.0001719	mg/L	0.00345571	-0.0001719	mg/L	0.00345571	>999.9%
As 188.979	-19.9	-0.0094670	mg/L	0.00570534	-0.0094670	mg/L	0.00570534	60.27%
Ba 233.527	10485.8	0.203187	mg/L	0.0003645	0.203187	mg/L	0.0003645	0.18%
Be 234.861	184.9	-0.0010084	mg/L	0.00001089	-0.0010084	mg/L	0.00001089	1.08%
Cd 226.502	92.4	-0.0015251	mg/L	0.00005062	-0.0015251	mg/L	0.00005062	3.32%
Ca 315.887	24765555.5	477.318	mg/L	1.5816	477.318	mg/L	1.5816	0.33%
Cr 206.158	-6.0	-0.0025049	mg/L	0.00041293	-0.0025049	mg/L	0.00041293	16.48%
Co 228.616	234.8	0.0084232	mg/L	0.00017702	0.0084232	mg/L	0.00017702	2.10%
Cu 324.752	1973.9	0.0044745	mg/L	0.00087757	0.0044745	mg/L	0.00087757	19.61%
Fe 273.955	1832.7	0.0803890	mg/L	0.00085841	0.0803890	mg/L	0.00085841	1.07%
Pb 220.353	-45.1	-0.0010379	mg/L	0.00203634	-0.0010379	mg/L	0.00203634	196.21%
Mg 279.077	248617.9	17.1519	mg/L	0.10868	17.1519	mg/L	0.10868	0.63%
Mn 257.610	352720.6	0.841101	mg/L	0.0032401	0.841101	mg/L	0.0032401	0.39%
Mo 202.031	26.5	-0.0026747	mg/L	0.00022925	-0.0026747	mg/L	0.00022925	8.57%
Ni 231.604	1705.8	0.0407023	mg/L	0.00023936	0.0407023	mg/L	0.00023936	0.59%
Se 196.026	93.8	0.0074850	mg/L	0.00008965	0.0074850	mg/L	0.00008965	1.20%
Ag 328.068	-1082.8	-0.0023114	mg/L	0.00070679	-0.0023114	mg/L	0.00070679	30.58%
Na 330.237	556960.7	1361.19	mg/L	6.573	1361.19	mg/L	6.573	0.48%
Tl 190.801	0.2	-0.0062103	mg/L	0.00139479	-0.0062103	mg/L	0.00139479	22.46%
Sn 189.927	-145.0	0.0065406	mg/L	0.00018300	0.0065406	mg/L	0.00018300	2.80%
Ti 334.940	-249.0	-0.0066180	mg/L	0.00012211	-0.0066180	mg/L	0.00012211	1.85%
V 292.402	1275.7	0.0057388	mg/L	0.00019084	0.0057388	mg/L	0.00019084	3.33%
Zn 206.200	807.1	0.0245960	mg/L	0.00031558	0.0245960	mg/L	0.00031558	1.28%

Sequence No.: 15  
 Sample ID: 63022-023 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 132  
 Date Collected: 12/12/2011 7:04:16 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63022-023 MR

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	560.6	0.0601040	mg/L	0.00697641	0.0601040	mg/L	0.00697641	11.61%
Sb 206.836	-1.2	-0.0032172	mg/L	0.00127170	-0.0032172	mg/L	0.00127170	39.53%
As 188.979	-29.6	-0.0176309	mg/L	0.00131378	-0.0176309	mg/L	0.00131378	7.45%
Ba 233.527	10509.9	0.203665	mg/L	0.0000592	0.203665	mg/L	0.0000592	0.03%
Be 234.861	120.1	-0.0011850	mg/L	0.00002042	-0.0011850	mg/L	0.00002042	1.72%
Cd 226.502	73.9	-0.0017899	mg/L	0.00009935	-0.0017899	mg/L	0.00009935	5.55%
Ca 315.887	25234728.4	486.372	mg/L	1.4541	486.372	mg/L	1.4541	0.30%
Cr 206.158	-0.0	-0.0023058	mg/L	0.00010892	-0.0023058	mg/L	0.00010892	4.72%
Co 228.616	233.9	0.0083853	mg/L	0.00003070	0.0083853	mg/L	0.00003070	0.37%
Cu 324.752	1855.0	0.0031184	mg/L	0.00006596	0.0031184	mg/L	0.00006596	2.12%
Fe 273.955	551.4	-0.0015189	mg/L	0.00041438	-0.0015189	mg/L	0.00041438	27.28%
Pb 220.353	-49.5	-0.0015198	mg/L	0.00052580	-0.0015198	mg/L	0.00052580	34.60%
Mg 279.077	250296.1	17.2706	mg/L	0.15329	17.2706	mg/L	0.15329	0.89%
Mn 257.610	356049.3	0.849085	mg/L	0.0079604	0.849085	mg/L	0.0079604	0.94%
Mo 202.031	15.9	-0.0036619	mg/L	0.00015723	-0.0036619	mg/L	0.00015723	4.29%
Ni 231.604	1697.5	0.0404835	mg/L	0.00012612	0.0404835	mg/L	0.00012612	0.31%
Se 196.026	107.6	0.0143098	mg/L	0.00505919	0.0143098	mg/L	0.00505919	35.35%
Ag 328.068	-936.1	-0.0006881	mg/L	0.00006091	-0.0006881	mg/L	0.00006091	8.85%
Na 330.237	564180.9	1378.83	mg/L	7.634	1378.83	mg/L	7.634	0.55%
Tl 190.801	0.1	-0.0063300	mg/L	0.00047389	-0.0063300	mg/L	0.00047389	7.49%
Sn 189.927	-171.5	0.0011240	mg/L	0.00011653	0.0011240	mg/L	0.00011653	10.37%
Ti 334.940	-263.3	-0.0066705	mg/L	0.00023088	-0.0066705	mg/L	0.00023088	3.46%
V 292.402	1280.5	0.0057484	mg/L	0.00015362	0.0057484	mg/L	0.00015362	2.67%
Zn 206.200	453.8	0.0125081	mg/L	0.00019601	0.0125081	mg/L	0.00019601	1.57%

Sequence No.: 16

Sample ID: 63022-023 TCLP SPK

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 133

Date Collected: 12/12/2011 7:08:08 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63022-023 TCLP SPK

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
Al 308.215	38702.1	4.89983 mg/L	0.015017	4.89983 mg/L	0.015017	0.31%		
Sb 206.836	592.5	0.474898 mg/L	0.0073834	0.474898 mg/L	0.0073834	1.55%		
As 188.979	554.2	0.480125 mg/L	0.0021614	0.480125 mg/L	0.0021614	0.45%		
Ba 233.527	262638.5	5.19483 mg/L	0.010806	5.19483 mg/L	0.010806	0.21%		
Be 234.861	248281.3	0.477605 mg/L	0.0002519	0.477605 mg/L	0.0002519	0.05%		
Cd 226.502	32398.2	0.464035 mg/L	0.0021714	0.464035 mg/L	0.0021714	0.47%		
Ca 315.887	24682178.8	475.709 mg/L	0.6856	475.709 mg/L	0.6856	0.14%		
Cr 206.158	5506.8	0.468963 mg/L	0.0028411	0.468963 mg/L	0.0028411	0.61%		
Co 228.616	10582.1	0.465820 mg/L	0.0004200	0.465820 mg/L	0.0004200	0.09%		
Cu 324.752	55081.5	0.508342 mg/L	0.0001332	0.508342 mg/L	0.0001332	0.03%		
Fe 273.955	72837.2	4.61946 mg/L	0.004237	4.61946 mg/L	0.004237	0.09%		
Pb 220.353	33705.9	4.75766 mg/L	0.029338	4.75766 mg/L	0.029338	0.62%		
Mg 279.077	858534.4	60.3129 mg/L	0.22584	60.3129 mg/L	0.22584	0.37%		
Mn 257.610	512115.1	1.22328 mg/L	0.000208	1.22328 mg/L	0.000208	0.02%		
Mo 202.031	5066.2	0.462118 mg/L	0.0010069	0.462118 mg/L	0.0010069	0.22%		
Ni 231.604	19193.2	0.505022 mg/L	0.0037165	0.505022 mg/L	0.0037165	0.74%		
Se 196.026	927.5	0.502110 mg/L	0.0055343	0.502110 mg/L	0.0055343	1.10%		
Ag 328.068	9088.7	0.0985860 mg/L	0.00068302	0.0985860 mg/L	0.00068302	0.69%		
Na 330.237	530985.1	1297.73 mg/L	1.168	1297.73 mg/L	1.168	0.09%		
Tl 190.801	694.6	0.460759 mg/L	0.0032026	0.460759 mg/L	0.0032026	0.70%		
Sn 189.927	1830.9	0.473626 mg/L	0.0035652	0.473626 mg/L	0.0035652	0.75%		
Ti 334.940	128748.2	0.466914 mg/L	0.0020642	0.466914 mg/L	0.0020642	0.44%		
V 292.402	40396.5	0.471820 mg/L	0.0017935	0.471820 mg/L	0.0017935	0.38%		
Zn 206.200	13798.4	0.467844 mg/L	0.0008512	0.467844 mg/L	0.0008512	0.18%		

Sequence No.: 17  
 Sample ID: 63022-023 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 134  
 Date Collected: 12/12/2011 7:12:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63022-023 PS

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	37653.5	4.76674	mg/L	0.023919	4.76674	mg/L	0.023919	0.50%
Sb 206.836	579.6	0.464521	mg/L	0.0059257	0.464521	mg/L	0.0059257	1.28%
As 188.979	536.4	0.465313	mg/L	0.0062954	0.465313	mg/L	0.0062954	1.35%
Ba 233.527	277639.7	5.49177	mg/L	0.028414	5.49177	mg/L	0.028414	0.52%
Be 234.861	242743.3	0.466946	mg/L	0.0021659	0.466946	mg/L	0.0021659	0.46%
Cd 226.502	31405.0	0.449722	mg/L	0.0026352	0.449722	mg/L	0.0026352	0.59%
Ca 315.887	25832394.9	497.905	mg/L	1.0315	497.905	mg/L	1.0315	0.21%
Cr 206.158	5377.8	0.458223	mg/L	0.0028695	0.458223	mg/L	0.0028695	0.63%
Co 228.616	10316.2	0.454056	mg/L	0.0007628	0.454056	mg/L	0.0007628	0.17%
Cu 324.752	54144.5	0.498892	mg/L	0.0026080	0.498892	mg/L	0.0026080	0.52%
Fe 273.955	71840.5	4.55574	mg/L	0.044739	4.55574	mg/L	0.044739	0.98%
Pb 220.353	39617.7	5.59124	mg/L	0.035366	5.59124	mg/L	0.035366	0.63%
Mg 279.077	853069.4	59.9261	mg/L	0.26886	59.9261	mg/L	0.26886	0.45%
Mn 257.610	527773.1	1.26087	mg/L	0.005977	1.26087	mg/L	0.005977	0.47%
Mo 202.031	4954.0	0.451776	mg/L	0.0001613	0.451776	mg/L	0.0001613	0.04%
Ni 231.604	18747.9	0.493196	mg/L	0.0015255	0.493196	mg/L	0.0015255	0.31%
Se 196.026	899.9	0.483952	mg/L	0.0001593	0.483952	mg/L	0.0001593	0.03%
Ag 328.068	8513.5	0.0932766	mg/L	0.00010762	0.0932766	mg/L	0.00010762	0.12%
Na 330.237	563822.2	1377.96	mg/L	7.126	1377.96	mg/L	7.126	0.52%
Tl 190.801	664.1	0.440311	mg/L	0.0096408	0.440311	mg/L	0.0096408	2.19%
Sn 189.927	1838.0	0.477368	mg/L	0.0052670	0.477368	mg/L	0.0052670	1.10%
Ti 334.940	126531.4	0.458777	mg/L	0.0035145	0.458777	mg/L	0.0035145	0.77%
V 292.402	39594.2	0.462081	mg/L	0.0020498	0.462081	mg/L	0.0020498	0.44%
Zn 206.200	13834.8	0.469099	mg/L	0.0000920	0.469099	mg/L	0.0000920	0.02%

Sequence No.: 18  
 Sample ID: 63022-023 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 135  
 Date Collected: 12/12/2011 7:15:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63022-023 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	205.8	0.0150265	mg/L	0.00534606	0.0150265	mg/L	0.00534606	35.58%
Sb 206.836	1.7	-0.0010260	mg/L	0.00185927	-0.0010260	mg/L	0.00185927	181.21%
As 188.979	-14.0	-0.0104111	mg/L	0.00197451	-0.0104111	mg/L	0.00197451	18.97%
Ba 233.527	2516.5	0.0454380	mg/L	0.00013579	0.0454380	mg/L	0.00013579	0.30%
Be 234.861	234.8	-0.0009706	mg/L	0.00001751	-0.0009706	mg/L	0.00001751	1.80%
Cd 226.502	61.2	-0.0019734	mg/L	0.00007798	-0.0019734	mg/L	0.00007798	3.95%
Ca 315.887	5681261.5	109.039	mg/L	0.1485	109.039	mg/L	0.1485	0.14%
Cr 206.158	0.8	-0.0024221	mg/L	0.00016055	-0.0024221	mg/L	0.00016055	6.63%
Co 228.616	74.0	0.0013023	mg/L	0.00028615	0.0013023	mg/L	0.00028615	21.97%
Cu 324.752	418.8	-0.0009677	mg/L	0.00004595	-0.0009677	mg/L	0.00004595	4.75%
Fe 273.955	414.8	-0.0102516	mg/L	0.00133132	-0.0102516	mg/L	0.00133132	12.99%
Pb 220.353	19.4	0.0017067	mg/L	0.00218040	0.0017067	mg/L	0.00218040	127.76%
Mg 279.077	54680.3	3.42778	mg/L	0.001920	3.42778	mg/L	0.001920	0.06%
Mn 257.610	76000.4	0.177056	mg/L	0.0001308	0.177056	mg/L	0.0001308	0.07%
Mo 202.031	22.1	-0.0030909	mg/L	0.00034695	-0.0030909	mg/L	0.00034695	11.23%
Ni 231.604	366.2	0.0051429	mg/L	0.00001293	0.0051429	mg/L	0.00001293	0.25%
Se 196.026	70.4	0.0280210	mg/L	0.00008593	0.0280210	mg/L	0.00008593	0.31%
Ag 328.068	-264.3	-0.0008804	mg/L	0.00031860	-0.0008804	mg/L	0.00031860	36.19%
Na 330.237	94323.8	230.883	mg/L	0.3686	230.883	mg/L	0.3686	0.16%
Tl 190.801	-2.2	-0.0058338	mg/L	0.00020526	-0.0058338	mg/L	0.00020526	3.52%
Sn 189.927	-35.8	-0.0021396	mg/L	0.00009485	-0.0021396	mg/L	0.00009485	4.43%
Ti 334.940	72.1	-0.0054392	mg/L	0.00004282	-0.0054392	mg/L	0.00004282	0.79%
V 292.402	287.8	-0.0015667	mg/L	0.00001730	-0.0015667	mg/L	0.00001730	1.10%
Zn 206.200	237.6	0.0054712	mg/L	0.00017087	0.0054712	mg/L	0.00017087	3.12%

Sequence No.: 19  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/12/2011 7:19:07 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Std.Dev.	
Al 308.215	38155.4	4.82995	mg/L	0.001901	4.82995	0.001901	0.04%
	QC value within limits for Al 308.215 Recovery = 96.60%						
Sb 206.836	615.4	0.493482	mg/L	0.0059526	0.493482	0.0059526	1.21%
	QC value within limits for Sb 206.836 Recovery = 98.70%						
As 188.979	574.0	0.490060	mg/L	0.0094034	0.490060	0.0094034	1.92%
	QC value within limits for As 188.979 Recovery = 98.01%						
Ba 233.527	25284.3	0.496443	mg/L	0.0007244	0.496443	0.0007244	0.15%
	QC value within limits for Ba 233.527 Recovery = 99.29%						
Be 234.861	254400.4	0.489532	mg/L	0.0012800	0.489532	0.0012800	0.26%
	QC value within limits for Be 234.861 Recovery = 97.91%						
Cd 226.502	34486.9	0.494136	mg/L	0.0047121	0.494136	0.0047121	0.95%
	QC value within limits for Cd 226.502 Recovery = 98.83%						
Ca 315.887	2699033.3	51.4897	mg/L	0.31289	51.4897	0.31289	0.61%
	QC value within limits for Ca 315.887 Recovery = 102.98%						
Cr 206.158	5911.1	0.503317	mg/L	0.0007281	0.503317	0.0007281	0.14%
	QC value within limits for Cr 206.158 Recovery = 100.66%						
Co 228.616	11165.7	0.491616	mg/L	0.0027918	0.491616	0.0027918	0.57%
	QC value within limits for Co 228.616 Recovery = 98.32%						
Cu 324.752	51143.3	0.481698	mg/L	0.0015288	0.481698	0.0015288	0.32%
	QC value within limits for Cu 324.752 Recovery = 96.34%						
Fe 273.955	77580.6	4.92269	mg/L	0.004607	4.92269	0.004607	0.09%
	QC value within limits for Fe 273.955 Recovery = 98.45%						
Pb 220.353	3587.1	0.505325	mg/L	0.0005761	0.505325	0.0005761	0.11%
	QC value within limits for Pb 220.353 Recovery = 101.07%						
Mg 279.077	721667.4	50.6274	mg/L	0.60737	50.6274	0.60737	1.20%
	QC value within limits for Mg 279.077 Recovery = 101.25%						
Mn 257.610	208721.0	0.495161	mg/L	0.0001964	0.495161	0.0001964	0.04%
	QC value within limits for Mn 257.610 Recovery = 99.03%						
Mo 202.031	5434.3	0.496052	mg/L	0.0010129	0.496052	0.0010129	0.20%
	QC value within limits for Mo 202.031 Recovery = 99.21%						
Ni 231.604	18642.3	0.490405	mg/L	0.0033836	0.490405	0.0033836	0.69%
	QC value within limits for Ni 231.604 Recovery = 98.08%						
Se 196.026	866.0	0.507175	mg/L	0.0076330	0.507175	0.0076330	1.51%
	QC value within limits for Se 196.026 Recovery = 101.43%						
Ag 328.068	9664.4	0.0965751	mg/L	0.00079547	0.0965751	0.00079547	0.82%
	QC value within limits for Ag 328.068 Recovery = 96.58%						
Na 330.237	18993.3	46.8366	mg/L	0.37058	46.8366	0.37058	0.79%
	QC value within limits for Na 330.237 Recovery = 93.67%						
Tl 190.801	754.8	0.503431	mg/L	0.0007369	0.503431	0.0007369	0.15%
	QC value within limits for Tl 190.801 Recovery = 100.69%						
Sn 189.927	2135.2	0.505839	mg/L	0.0014594	0.505839	0.0014594	0.29%
	QC value within limits for Sn 189.927 Recovery = 101.17%						
Ti 334.940	136216.1	0.494328	mg/L	0.0010156	0.494328	0.0010156	0.21%
	QC value within limits for Ti 334.940 Recovery = 98.87%						
V 292.402	40339.2	0.474742	mg/L	0.0016769	0.474742	0.0016769	0.35%
	QC value within limits for V 292.402 Recovery = 94.95%						
Zn 206.200	14500.3	0.492102	mg/L	0.0016728	0.492102	0.0016728	0.34%
	QC value within limits for Zn 206.200 Recovery = 98.42%						

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 7:22:25 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Al 308.215	42.1	-0.0057670	mg/L	0.00531757	-0.0057670	mg/L	0.00531757	92.21%
QC value within limits	for Al 308.215 Recovery = Not calculated							
Sb 206.836	-5.6	-0.0068755	mg/L	0.00092415	-0.0068755	mg/L	0.00092415	13.44%
QC value within limits	for Sb 206.836 Recovery = Not calculated							
As 188.979	-0.4	-0.0006187	mg/L	0.00029808	-0.0006187	mg/L	0.00029808	48.18%
QC value within limits	for As 188.979 Recovery = Not calculated							
Ba 233.527	143.0	-0.0015460	mg/L	0.00010758	-0.0015460	mg/L	0.00010758	6.96%
QC value within limits	for Ba 233.527 Recovery = Not calculated							
Be 234.861	251.1	-0.0009519	mg/L	0.00000217	-0.0009519	mg/L	0.00000217	0.23%
QC value within limits	for Be 234.861 Recovery = Not calculated							
Cd 226.502	45.5	-0.0021994	mg/L	0.00009772	-0.0021994	mg/L	0.00009772	4.44%
QC value within limits	for Cd 226.502 Recovery = Not calculated							
Ca 315.887	21730.1	-0.175510	mg/L	0.0036355	-0.175510	mg/L	0.0036355	2.07%
QC value within limits	for Ca 315.887 Recovery = Not calculated							
Cr 206.158	-0.2	-0.0026794	mg/L	0.00015331	-0.0026794	mg/L	0.00015331	5.72%
QC value within limits	for Cr 206.158 Recovery = Not calculated							
Co 228.616	12.9	-0.0013996	mg/L	0.00005907	-0.0013996	mg/L	0.00005907	4.22%
QC value within limits	for Co 228.616 Recovery = Not calculated							
Cu 324.752	4.4	-0.0021381	mg/L	0.00023537	-0.0021381	mg/L	0.00023537	11.01%
QC value within limits	for Cu 324.752 Recovery = Not calculated							
Fe 273.955	109.6	-0.0297654	mg/L	0.00017182	-0.0297654	mg/L	0.00017182	0.58%
QC value within limits	for Fe 273.955 Recovery = Not calculated							
Pb 220.353	25.5	0.0006750	mg/L	0.00083354	0.0006750	mg/L	0.00083354	123.49%
QC value within limits	for Pb 220.353 Recovery = Not calculated							
Mg 279.077	1016.9	-0.369741	mg/L	0.0000414	-0.369741	mg/L	0.0000414	0.01%
QC value within limits	for Mg 279.077 Recovery = Not calculated							
Mn 257.610	483.9	-0.0041597	mg/L	0.00005373	-0.0041597	mg/L	0.00005373	1.29%
QC value within limits	for Mn 257.610 Recovery = Not calculated							
Mo 202.031	12.7	-0.0039526	mg/L	0.00016629	-0.0039526	mg/L	0.00016629	4.21%
QC value within limits	for Mo 202.031 Recovery = Not calculated							
Ni 231.604	9.3	-0.0043330	mg/L	0.00024873	-0.0043330	mg/L	0.00024873	5.74%
QC value within limits	for Ni 231.604 Recovery = Not calculated							
Se 196.026	3.7	-0.0002555	mg/L	0.00507626	-0.0002555	mg/L	0.00507626	>999.9%
QC value within limits	for Se 196.026 Recovery = Not calculated							
Ag 328.068	-24.5	-0.0004894	mg/L	0.00003846	-0.0004894	mg/L	0.00003846	7.86%
QC value within limits	for Ag 328.068 Recovery = Not calculated							
Na 330.237	350.2	1.28796	mg/L	0.144715	1.28796	mg/L	0.144715	11.24%
QC value within limits	for Na 330.237 Recovery = Not calculated							
Tl 190.801	6.4	0.0005411	mg/L	0.00172083	0.0005411	mg/L	0.00172083	318.00%
QC value within limits	for Tl 190.801 Recovery = Not calculated							
Sn 189.927	14.9	-0.0003812	mg/L	0.00024640	-0.0003812	mg/L	0.00024640	64.63%
QC value within limits	for Sn 189.927 Recovery = Not calculated							
Ti 334.940	147.2	-0.0051635	mg/L	0.00002174	-0.0051635	mg/L	0.00002174	0.42%
QC value within limits	for Ti 334.940 Recovery = Not calculated							
V 292.402	49.1	-0.0031715	mg/L	0.00087168	-0.0031715	mg/L	0.00087168	27.49%
QC value within limits	for V 292.402 Recovery = Not calculated							
Zn 206.200	41.2	-0.0011464	mg/L	0.00021380	-0.0011464	mg/L	0.00021380	18.65%
QC value within limits	for Zn 206.200 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63022-024  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 136  
 Date Collected: 12/12/2011 7:25:39 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63022-024

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1192.3	0.140387	mg/L	0.0031228	0.140387	mg/L	0.0031228	2.22%
Sb 206.836	3.8	0.0006881	mg/L	0.00008845	0.0006881	mg/L	0.00008845	12.85%
As 188.979	-17.5	-0.0139884	mg/L	0.00153870	-0.0139884	mg/L	0.00153870	11.00%
Ba 233.527	11241.4	0.218143	mg/L	0.0003676	0.218143	mg/L	0.0003676	0.17%
Be 234.861	330.8	-0.0007697	mg/L	0.00006975	-0.0007697	mg/L	0.00006975	9.06%
Cd 226.502	128.0	-0.0010104	mg/L	0.00003596	-0.0010104	mg/L	0.00003596	3.56%
Ca 315.887	4157580.8	79.6359	mg/L	0.16507	79.6359	mg/L	0.16507	0.21%
Cr 206.158	-11.0	-0.0018557	mg/L	0.00039042	-0.0018557	mg/L	0.00039042	21.04%
Co 228.616	111.0	0.0029392	mg/L	0.00029645	0.0029392	mg/L	0.00029645	10.09%
Cu 324.752	1991.3	0.0146952	mg/L	0.00006122	0.0146952	mg/L	0.00006122	0.42%
Fe 273.955	828.9	0.0162218	mg/L	0.00052763	0.0162218	mg/L	0.00052763	3.25%
Pb 220.353	48.9	0.0053875	mg/L	0.00036497	0.0053875	mg/L	0.00036497	6.77%
Mg 279.077	150336.2	10.1969	mg/L	0.09994	10.1969	mg/L	0.09994	0.98%
Mn 257.610	232714.7	0.553138	mg/L	0.0049072	0.553138	mg/L	0.0049072	0.89%
Mo 202.031	-4.7	-0.0055506	mg/L	0.00030135	-0.0055506	mg/L	0.00030135	5.43%
Ni 231.604	1143.9	0.0257868	mg/L	0.00017483	0.0257868	mg/L	0.00017483	0.68%
Se 196.026	51.2	0.0196623	mg/L	0.00111187	0.0196623	mg/L	0.00111187	5.65%
Ag 328.068	-224.3	-0.0011359	mg/L	0.00144127	-0.0011359	mg/L	0.00144127	126.89%
Na 330.237	531257.7	1298.40	mg/L	6.081	1298.40	mg/L	6.081	0.47%
Tl 190.801	2.7	-0.0022096	mg/L	0.00280049	-0.0022096	mg/L	0.00280049	126.74%
Sn 189.927	-7.6	0.0017906	mg/L	0.00089829	0.0017906	mg/L	0.00089829	50.17%
Ti 334.940	124.1	-0.0052485	mg/L	0.00007582	-0.0052485	mg/L	0.00007582	1.44%
V 292.402	691.8	0.0009984	mg/L	0.00008838	0.0009984	mg/L	0.00008838	8.85%
Zn 206.200	2049.8	0.0672829	mg/L	0.00016028	0.0672829	mg/L	0.00016028	0.24%

Sequence No.: 22  
 Sample ID: 63081-014  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 137  
 Date Collected: 12/12/2011 7:28:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-014

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc. Units	Std.Dev.	
Al 308.215	1670.4	0.201150	mg/L	0.0026275	0.201150	mg/L	0.0026275 1.31%
Sb 206.836	3.4	0.0029967	mg/L	0.00167743	0.0029967	mg/L	0.00167743 55.98%
As 188.979	-4.2	0.0024069	mg/L	0.00345137	0.0024069	mg/L	0.00345137 143.40%
Ba 233.527	36442.9	0.716498	mg/L	0.0015678	0.716498	mg/L	0.0015678 0.22%
Be 234.861	-11589.7	-0.0021166	mg/L	0.00027164	-0.0021166	mg/L	0.00027164 12.83%
Cd 226.502	719.1	0.0068756	mg/L	0.00017709	0.0068756	mg/L	0.00017709 2.58%
Ca 315.887	2227268.6	42.3858	mg/L	0.18021	42.3858	mg/L	0.18021 0.43%
Cr 206.158	-1113.0	0.0847098	mg/L	0.00012668	0.0847098	mg/L	0.00012668 0.15%
Co 228.616	1497.1	0.0634427	mg/L	0.00043057	0.0634427	mg/L	0.00043057 0.68%
Cu 324.752	1245.5	0.0085624	mg/L	0.00000940	0.0085624	mg/L	0.00000940 0.11%
Fe 273.955	527138.8	33.6614	mg/L	0.05973	33.6614	mg/L	0.05973 0.18%
Pb 220.353	412.0	0.0569666	mg/L	0.00028028	0.0569666	mg/L	0.00028028 0.49%
Mg 279.077	76979.6	5.00579	mg/L	0.018643	5.00579	mg/L	0.018643 0.37%
Mn 257.610	2607907.0	6.25647	mg/L	0.023433	6.25647	mg/L	0.023433 0.37%
Mo 202.031	-25.8	-0.0062881	mg/L	0.00014451	-0.0062881	mg/L	0.00014451 2.30%
Ni 231.604	1633.1	0.0379596	mg/L	0.00011933	0.0379596	mg/L	0.00011933 0.31%
Se 196.026	-132.1	0.0242412	mg/L	0.00389427	0.0242412	mg/L	0.00389427 16.06%
Ag 328.068	27.0	-0.0005616	mg/L	0.00018386	-0.0005616	mg/L	0.00018386 32.74%
Na 330.237	559262.3	1366.82	mg/L	6.669	1366.82	mg/L	6.669 0.49%
Tl 190.801	1.0	-0.0005944	mg/L	0.00052019	-0.0005944	mg/L	0.00052019 87.51%
Sn 189.927	-21.8	-0.0050607	mg/L	0.00148056	-0.0050607	mg/L	0.00148056 29.26%
Ti 334.940	99.2	-0.0053396	mg/L	0.00002632	-0.0053396	mg/L	0.00002632 0.49%
V 292.402	403.7	-0.0007355	mg/L	0.00005249	-0.0007355	mg/L	0.00005249 7.14%
Zn 206.200	210147.3	7.18537	mg/L	0.018679	7.18537	mg/L	0.018679 0.26%

Sequence No.: 23  
 Sample ID: 63081-015  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 138  
 Date Collected: 12/12/2011 7:32:39 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-015

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2560.0	0.314142	mg/L	0.0071859	0.314142	mg/L	0.0071859	2.29%
Sb 206.836	2.4	0.0007692	mg/L	0.00393993	0.0007692	mg/L	0.00393993	512.20%
As 188.979	4.5	0.0064133	mg/L	0.00307905	0.0064133	mg/L	0.00307905	48.01%
Ba 233.527	40845.5	0.803921	mg/L	0.0092083	0.803921	mg/L	0.0092083	1.15%
Be 234.861	-5114.0	-0.0013340	mg/L	0.00008287	-0.0013340	mg/L	0.00008287	6.21%
Cd 226.502	189.2	-0.0004185	mg/L	0.00004169	-0.0004185	mg/L	0.00004169	9.96%
Ca 315.887	1924405.0	36.5413	mg/L	0.40696	36.5413	mg/L	0.40696	1.11%
Cr 206.158	-136.5	0.0145879	mg/L	0.00197214	0.0145879	mg/L	0.00197214	13.52%
Co 228.616	984.8	0.0412310	mg/L	0.00017611	0.0412310	mg/L	0.00017611	0.43%
Cu 324.752	11656.1	0.107479	mg/L	0.0017081	0.107479	mg/L	0.0017081	1.59%
Fe 273.955	242472.1	15.4636	mg/L	0.13371	15.4636	mg/L	0.13371	0.86%
Pb 220.353	17198.3	2.42182	mg/L	0.005604	2.42182	mg/L	0.005604	0.23%
Mg 279.077	50113.7	3.10462	mg/L	0.033542	3.10462	mg/L	0.033542	1.08%
Mn 257.610	1377341.6	3.30166	mg/L	0.037023	3.30166	mg/L	0.037023	1.12%
Mo 202.031	-11.4	-0.0056079	mg/L	0.0000378	-0.0056079	mg/L	0.0000378	0.07%
Ni 231.604	1717.2	0.0406327	mg/L	0.00014007	0.0406327	mg/L	0.00014007	0.34%
Se 196.026	-35.6	0.0221063	mg/L	0.00455222	0.0221063	mg/L	0.00455222	20.59%
Ag 328.068	-134.1	-0.0016440	mg/L	0.00047996	-0.0016440	mg/L	0.00047996	29.19%
Na 330.237	547858.2	1338.95	mg/L	10.914	1338.95	mg/L	10.914	0.82%
Tl 190.801	-3.5	-0.0048650	mg/L	0.00014237	-0.0048650	mg/L	0.00014237	2.93%
Sn 189.927	22.2	0.0047927	mg/L	0.00072908	0.0047927	mg/L	0.00072908	15.21%
Ti 334.940	196.9	-0.0049810	mg/L	0.00001026	-0.0049810	mg/L	0.00001026	0.21%
V 292.402	247.2	-0.0019753	mg/L	0.00015511	-0.0019753	mg/L	0.00015511	7.85%
Zn 206.200	33424.4	1.14063	mg/L	0.012025	1.14063	mg/L	0.012025	1.05%

Sequence No.: 24  
 Sample ID: 63081-016  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 139  
 Date Collected: 12/12/2011 7:35:50 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-016

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	142.4	0.0069963	mg/L	0.00142391	0.0069963	mg/L	0.00142391	20.35%
Sb 206.836	4.4	0.0011663	mg/L	0.00234888	0.0011663	mg/L	0.00234888	201.40%
As 188.979	-18.9	-0.0087898	mg/L	0.00348326	-0.0087898	mg/L	0.00348326	39.63%
Ba 233.527	22862.6	0.448182	mg/L	0.0021843	0.448182	mg/L	0.0021843	0.49%
Be 234.861	-31.0	-0.0013454	mg/L	0.00002182	-0.0013454	mg/L	0.00002182	1.62%
Cd 226.502	43.3	-0.0022343	mg/L	0.00002918	-0.0022343	mg/L	0.00002918	1.31%
Ca 315.887	23255554.3	448.178	mg/L	2.2591	448.178	mg/L	2.2591	0.50%
Cr 206.158	-223.8	0.0131952	mg/L	0.00055165	0.0131952	mg/L	0.00055165	4.18%
Co 228.616	786.1	0.0328368	mg/L	0.00021982	0.0328368	mg/L	0.00021982	0.67%
Cu 324.752	2890.9	0.0139126	mg/L	0.00005097	0.0139126	mg/L	0.00005097	0.37%
Fe 273.955	3714.7	0.200701	mg/L	0.0018435	0.200701	mg/L	0.0018435	0.92%
Pb 220.353	422.3	0.0645813	mg/L	0.00096400	0.0645813	mg/L	0.00096400	1.49%
Mg 279.077	100196.0	6.64872	mg/L	0.065358	6.64872	mg/L	0.065358	0.98%
Mn 257.610	553518.4	1.32328	mg/L	0.006880	1.32328	mg/L	0.006880	0.52%
Mo 202.031	2.2	-0.0049152	mg/L	0.00028625	-0.0049152	mg/L	0.00028625	5.82%
Ni 231.604	1759.8	0.0421325	mg/L	0.00011767	0.0421325	mg/L	0.00011767	0.28%
Se 196.026	89.3	0.0080559	mg/L	0.00083534	0.0080559	mg/L	0.00083534	10.37%
Ag 328.068	-968.4	-0.0018510	mg/L	0.00070197	-0.0018510	mg/L	0.00070197	37.92%
Na 330.237	449697.8	1099.13	mg/L	8.439	1099.13	mg/L	8.439	0.77%
Tl 190.801	-1.1	-0.0067777	mg/L	0.00087917	-0.0067777	mg/L	0.00087917	12.97%
Sn 189.927	-158.6	0.0006139	mg/L	0.00010892	0.0006139	mg/L	0.00010892	17.74%
Ti 334.940	-233.3	-0.0065605	mg/L	0.00001747	-0.0065605	mg/L	0.00001747	0.27%
V 292.402	439.7	-0.0008430	mg/L	0.00006085	-0.0008430	mg/L	0.00006085	7.22%
Zn 206.200	40290.3	1.37539	mg/L	0.010858	1.37539	mg/L	0.010858	0.79%

Sequence No.: 25  
 Sample ID: 63081-039  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 140  
 Date Collected: 12/12/2011 7:39:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-039

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1223.6	0.144372	mg/L	0.0074227	0.144372	mg/L	0.0074227	5.14%
Sb 206.836	6.3	0.0040835	mg/L	0.00114728	0.0040835	mg/L	0.00114728	28.10%
As 188.979	-21.6	-0.0125803	mg/L	0.00352401	-0.0125803	mg/L	0.00352401	28.01%
Ba 233.527	45203.9	0.890147	mg/L	0.0100251	0.890147	mg/L	0.0100251	1.13%
Be 234.861	-6710.0	-0.0023465	mg/L	0.00021918	-0.0023465	mg/L	0.00021918	9.34%
Cd 226.502	215.6	-0.0000985	mg/L	0.00004334	-0.0000985	mg/L	0.00004334	43.98%
Ca 315.887	9618259.3	185.013	mg/L	0.5906	185.013	mg/L	0.5906	0.32%
Cr 206.158	-559.2	0.0436306	mg/L	0.00107441	0.0436306	mg/L	0.00107441	2.46%
Co 228.616	1208.3	0.0510493	mg/L	0.00065682	0.0510493	mg/L	0.00065682	1.29%
Cu 324.752	1015.3	0.0027721	mg/L	0.00021030	0.0027721	mg/L	0.00021030	7.59%
Fe 273.955	292574.8	18.6665	mg/L	0.11231	18.6665	mg/L	0.11231	0.60%
Pb 220.353	5854.4	0.825968	mg/L	0.0004895	0.825968	mg/L	0.0004895	0.06%
Mg 279.077	71395.3	4.61062	mg/L	0.061399	4.61062	mg/L	0.061399	1.33%
Mn 257.610	1216153.3	2.91487	mg/L	0.041883	2.91487	mg/L	0.041883	1.44%
Mo 202.031	-15.5	-0.0058757	mg/L	0.00034388	-0.0058757	mg/L	0.00034388	5.85%
Ni 231.604	3084.3	0.0768456	mg/L	0.00017366	0.0768456	mg/L	0.00017366	0.23%
Se 196.026	-19.2	0.0287620	mg/L	0.00319109	0.0287620	mg/L	0.00319109	11.09%
Ag 328.068	-402.9	-0.0014007	mg/L	0.00032427	-0.0014007	mg/L	0.00032427	23.15%
Na 330.237	508705.5	1243.30	mg/L	14.009	1243.30	mg/L	14.009	1.13%
Tl 190.801	-0.3	-0.0037074	mg/L	0.00052253	-0.0037074	mg/L	0.00052253	14.09%
Sn 189.927	-86.6	-0.0070289	mg/L	0.00017070	-0.0070289	mg/L	0.00017070	2.43%
Ti 334.940	-43.4	-0.0058633	mg/L	0.00004407	-0.0058633	mg/L	0.00004407	0.75%
V 292.402	326.3	-0.0015344	mg/L	0.00007710	-0.0015344	mg/L	0.00007710	5.02%
Zn 206.200	108393.1	3.70489	mg/L	0.046853	3.70489	mg/L	0.046853	1.26%

Sequence No.: 26  
 Sample ID: 63081-040  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 141  
 Date Collected: 12/12/2011 7:43:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-040

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1016.0	0.117974	mg/L	0.0026694	0.117974	mg/L	0.0026694	2.26%
Sb 206.836	6.8	0.0034304	mg/L	0.00003917	0.0034304	mg/L	0.00003917	1.14%
As 188.979	-12.1	-0.0048688	mg/L	0.00058919	-0.0048688	mg/L	0.00058919	12.10%
Ba 233.527	57721.7	1.13815	mg/L	0.008602	1.13815	mg/L	0.008602	0.76%
Be 234.861	-1642.4	-0.0015862	mg/L	0.00015749	-0.0015862	mg/L	0.00015749	9.93%
Cd 226.502	97.6	-0.0015366	mg/L	0.00005916	-0.0015366	mg/L	0.00005916	3.85%
Ca 315.887	15008856.4	289.038	mg/L	1.7739	289.038	mg/L	1.7739	0.61%
Cr 206.158	-374.1	0.0250978	mg/L	0.00036611	0.0250978	mg/L	0.00036611	1.46%
Co 228.616	773.1	0.0321416	mg/L	0.00040849	0.0321416	mg/L	0.00040849	1.27%
Cu 324.752	1143.8	0.0013601	mg/L	0.00014590	0.0013601	mg/L	0.00014590	10.73%
Fe 273.955	73426.8	4.65715	mg/L	0.036864	4.65715	mg/L	0.036864	0.79%
Pb 220.353	5736.4	0.811007	mg/L	0.0033877	0.811007	mg/L	0.0033877	0.42%
Mg 279.077	148207.4	10.0463	mg/L	0.05429	10.0463	mg/L	0.05429	0.54%
Mn 257.610	871174.2	2.08597	mg/L	0.017233	2.08597	mg/L	0.017233	0.83%
Mo 202.031	2.9	-0.0046856	mg/L	0.00028554	-0.0046856	mg/L	0.00028554	6.09%
Ni 231.604	1683.9	0.0400088	mg/L	0.00009931	0.0400088	mg/L	0.00009931	0.25%
Se 196.026	69.1	0.0252940	mg/L	0.00026265	0.0252940	mg/L	0.00026265	1.04%
Ag 328.068	-657.2	-0.0018976	mg/L	0.00072262	-0.0018976	mg/L	0.00072262	38.08%
Na 330.237	442031.5	1080.40	mg/L	8.015	1080.40	mg/L	8.015	0.74%
Tl 190.801	-4.5	-0.0077232	mg/L	0.00153505	-0.0077232	mg/L	0.00153505	19.88%
Sn 189.927	-125.5	-0.0064721	mg/L	0.00045643	-0.0064721	mg/L	0.00045643	7.05%
Ti 334.940	-187.8	-0.0063935	mg/L	0.00015586	-0.0063935	mg/L	0.00015586	2.44%
V 292.402	642.2	0.0004511	mg/L	0.00000237	0.0004511	mg/L	0.00000237	0.52%
Zn 206.200	68790.8	2.35015	mg/L	0.017642	2.35015	mg/L	0.017642	0.75%

Sequence No.: 27  
 Sample ID: 63081-041  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 142  
 Date Collected: 12/12/2011 7:46:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-041

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	4273.8	0.531861	mg/L	0.0087784	0.531861	mg/L	0.0087784	1.65%
Sb 206.836	6.6	0.0038406	mg/L	0.00012858	0.0038406	mg/L	0.00012858	3.35%
As 188.979	-0.8	0.0048013	mg/L	0.00110575	0.0048013	mg/L	0.00110575	23.03%
Ba 233.527	44367.8	0.873699	mg/L	0.0111031	0.873699	mg/L	0.0111031	1.27%
Be 234.861	-4219.3	-0.0018001	mg/L	0.00014720	-0.0018001	mg/L	0.00014720	8.18%
Cd 226.502	222.7	0.0001279	mg/L	0.00004217	0.0001279	mg/L	0.00004217	32.98%
Ca 315.887	11097646.1	213.562	mg/L	1.7603	213.562	mg/L	1.7603	0.82%
Cr 206.158	-619.3	0.0479324	mg/L	0.00204806	0.0479324	mg/L	0.00204806	4.27%
Co 228.616	1287.5	0.0547276	mg/L	0.00017004	0.0547276	mg/L	0.00017004	0.31%
Cu 324.752	1017.3	0.0020684	mg/L	0.00006811	0.0020684	mg/L	0.00006811	3.29%
Fe 273.955	189090.1	12.0511	mg/L	0.18002	12.0511	mg/L	0.18002	1.49%
Pb 220.353	19539.9	2.75558	mg/L	0.003274	2.75558	mg/L	0.003274	0.12%
Mg 279.077	116835.3	7.82620	mg/L	0.086303	7.82620	mg/L	0.086303	1.10%
Mn 257.610	665218.7	1.59199	mg/L	0.024440	1.59199	mg/L	0.024440	1.54%
Mo 202.031	3.4	-0.0043627	mg/L	0.00006804	-0.0043627	mg/L	0.00006804	1.56%
Ni 231.604	2626.2	0.0648455	mg/L	0.00030537	0.0648455	mg/L	0.00030537	0.47%
Se 196.026	25.4	0.0312807	mg/L	0.00639843	0.0312807	mg/L	0.00639843	20.45%
Ag 328.068	-570.1	-0.0022314	mg/L	0.00054686	-0.0022314	mg/L	0.00054686	24.51%
Na 330.237	546162.8	1334.81	mg/L	23.623	1334.81	mg/L	23.623	1.77%
Tl 190.801	4.0	-0.0016160	mg/L	0.00048789	-0.0016160	mg/L	0.00048789	30.19%
Sn 189.927	-54.1	0.0033321	mg/L	0.00100318	0.0033321	mg/L	0.00100318	30.11%
Ti 334.940	-76.4	-0.0059846	mg/L	0.00007342	-0.0059846	mg/L	0.00007342	1.23%
V 292.402	527.2	-0.0001822	mg/L	0.00027406	-0.0001822	mg/L	0.00027406	150.44%
Zn 206.200	119252.2	4.07624	mg/L	0.050269	4.07624	mg/L	0.050269	1.23%

Sequence No.: 28  
 Sample ID: ICESA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/12/2011 7:49:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICESA V-128666

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3511883.4	446.151 mg/L	0.2927	446.151 mg/L	0.2927	0.07%
QC value within limits for Al 308.215 Recovery = 89.23%						
Sb 206.836	-27.6	0.0169803 mg/L	0.00791368	0.0169803 mg/L	0.00791368	46.61%
As 188.979	-34.0	-0.0071727 mg/L	0.00179731	-0.0071727 mg/L	0.00179731	25.06%
Ba 233.527	210.5	-0.0028059 mg/L	0.00013805	-0.0028059 mg/L	0.00013805	4.92%
Be 234.861	-63249.3	-0.0128484 mg/L	0.00002620	-0.0128484 mg/L	0.00002620	0.20%
Cd 226.502	308.8	-0.0016379 mg/L	0.00016852	-0.0016379 mg/L	0.00016852	10.29%
Ca 315.887	23100338.9	445.183 mg/L	1.4813	445.183 mg/L	1.4813	0.33%
QC value within limits for Ca 315.887 Recovery = 89.04%						
Cr 206.158	8.1	-0.0018369 mg/L	0.00028384	-0.0018369 mg/L	0.00028384	15.45%
Co 228.616	95.1	-0.0022453 mg/L	0.00005216	-0.0022453 mg/L	0.00005216	2.32%
Cu 324.752	1474.9	0.0005618 mg/L	0.00075510	0.0005618 mg/L	0.00075510	134.41%
Fe 273.955	2688225.6	171.812 mg/L	0.0160	171.812 mg/L	0.0160	0.01%
QC value within limits for Fe 273.955 Recovery = 85.91%						
Pb 220.353	-482.4	0.0052151 mg/L	0.00160589	0.0052151 mg/L	0.00160589	30.79%
Mg 279.077	6722225.0	475.260 mg/L	3.1906	475.260 mg/L	3.1906	0.67%
QC value within limits for Mg 279.077 Recovery = 95.05%						
Mn 257.610	-1235.8	-0.0069711 mg/L	0.00007444	-0.0069711 mg/L	0.00007444	1.07%
Mo 202.031	-175.5	0.0011841 mg/L	0.00032252	0.0011841 mg/L	0.00032252	27.24%
Ni 231.604	246.9	-0.0021738 mg/L	0.00041253	-0.0021738 mg/L	0.00041253	18.98%
Se 196.026	-857.8	0.0166438 mg/L	0.00837153	0.0166438 mg/L	0.00837153	50.30%
Ag 328.068	-1100.2	-0.0010977 mg/L	0.00010394	-0.0010977 mg/L	0.00010394	9.47%
Na 330.237	405.0	1.42176 mg/L	0.104301	1.42176 mg/L	0.104301	7.34%
Tl 190.801	-16.8	-0.0018704 mg/L	0.00443238	-0.0018704 mg/L	0.00443238	236.97%
Sn 189.927	-176.7	-0.0039617 mg/L	0.00353610	-0.0039617 mg/L	0.00353610	89.26%
Ti 334.940	-327.0	-0.0069044 mg/L	0.00016789	-0.0069044 mg/L	0.00016789	2.43%
V 292.402	15064.5	0.0151300 mg/L	0.00144541	0.0151300 mg/L	0.00144541	9.55%
Zn 206.200	216.1	-0.0074970 mg/L	0.00008273	-0.0074970 mg/L	0.00008273	1.10%

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 7:53:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3509921.9	445.902 mg/L	2.4788	445.902 mg/L	2.4788	0.56%
QC value within limits for Al	308.215	Recovery = 89.18%				
Sb 206.836	1155.8	0.956973 mg/L	0.0347174	0.956973 mg/L	0.0347174	3.63%
QC value within limits for Sb	206.836	Recovery = 95.70%				
As 188.979	1076.4	0.941575 mg/L	0.0052177	0.941575 mg/L	0.0052177	0.55%
QC value within limits for As	188.979	Recovery = 94.16%				
Ba 233.527	23759.3	0.463346 mg/L	0.0033699	0.463346 mg/L	0.0033699	0.73%
QC value within limits for Ba	233.527	Recovery = 92.67%				
Be 234.861	186938.7	0.466717 mg/L	0.0033615	0.466717 mg/L	0.0033615	0.72%
QC value within limits for Be	234.861	Recovery = 93.34%				
Cd 226.502	62548.7	0.895475 mg/L	0.0065289	0.895475 mg/L	0.0065289	0.73%
QC value within limits for Cd	226.502	Recovery = 89.55%				
Ca 315.887	23004544.2	443.335 mg/L	2.6009	443.335 mg/L	2.6009	0.59%
QC value within limits for Ca	315.887	Recovery = 88.67%				
Cr 206.158	5244.6	0.457622 mg/L	0.0044100	0.457622 mg/L	0.0044100	0.96%
QC value within limits for Cr	206.158	Recovery = 91.52%				
Co 228.616	10037.3	0.438042 mg/L	0.0034184	0.438042 mg/L	0.0034184	0.78%
QC value within limits for Co	228.616	Recovery = 87.61%				
Cu 324.752	53278.6	0.492089 mg/L	0.0034945	0.492089 mg/L	0.0034945	0.71%
QC value within limits for Cu	324.752	Recovery = 98.42%				
Fe 273.955	2684375.1	171.566 mg/L	1.1011	171.566 mg/L	1.1011	0.64%
QC value within limits for Fe	273.955	Recovery = 85.78%				
Pb 220.353	5935.9	0.909947 mg/L	0.0032147	0.909947 mg/L	0.0032147	0.35%
QC value within limits for Pb	220.353	Recovery = 90.99%				
Mg 279.077	6690154.7	472.990 mg/L	3.3051	472.990 mg/L	3.3051	0.70%
QC value within limits for Mg	279.077	Recovery = 94.60%				
Mn 257.610	194657.2	0.463284 mg/L	0.0030603	0.463284 mg/L	0.0030603	0.66%
QC value within limits for Mn	257.610	Recovery = 92.66%				
Mo 202.031	-165.9	0.0020498 mg/L	0.00135235	0.0020498 mg/L	0.00135235	65.97%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604	32918.8	0.865154 mg/L	0.0068192	0.865154 mg/L	0.0068192	0.79%
QC value within limits for Ni	231.604	Recovery = 86.52%				
Se 196.026	684.9	0.904550 mg/L	0.0197988	0.904550 mg/L	0.0197988	2.19%
QC value within limits for Se	196.026	Recovery = 90.45%				
Ag 328.068	101540.6	1.01856 mg/L	0.000935	1.01856 mg/L	0.000935	0.09%
QC value within limits for Ag	328.068	Recovery = 101.86%				
Na 330.237	221.7	0.973921 mg/L	0.0983433	0.973921 mg/L	0.0983433	10.10%
QC value greater than the upper limit for Na	330.237	Recovery = Not calculated				
Tl 190.801	1313.1	0.882938 mg/L	0.0077054	0.882938 mg/L	0.0077054	0.87%
QC value within limits for Tl	190.801	Recovery = 88.29%				
Sn 189.927	-185.3	-0.0061640 mg/L	0.00142392	-0.0061640 mg/L	0.00142392	23.10%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940	-206.9	-0.0064634 mg/L	0.00004330	-0.0064634 mg/L	0.00004330	0.67%
QC value within limits for Ti	334.940	Recovery = Not calculated				
V 292.402	50921.2	0.453530 mg/L	0.0013865	0.453530 mg/L	0.0013865	0.31%
QC value within limits for V	292.402	Recovery = 90.71%				
Zn 206.200	26100.1	0.877923 mg/L	0.0080546	0.877923 mg/L	0.0080546	0.92%
QC value within limits for Zn	206.200	Recovery = 87.79%				

QC Failed. Continue with analysis.

Sequence No.: 30  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/12/2011 7:57:07 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	40804.7	5.16665 mg/L	0.079280	5.16665 mg/L	0.079280	1.53%
QC value within limits for Al 308.215 Recovery = 103.33%						
Sb 206.836	613.0	0.491470 mg/L	0.0015514	0.491470 mg/L	0.0015514	0.32%
QC value within limits for Sb 206.836 Recovery = 98.29%						
As 188.979	574.6	0.490650 mg/L	0.0014850	0.490650 mg/L	0.0014850	0.30%
QC value within limits for As 188.979 Recovery = 98.13%						
Ba 233.527	24777.1	0.486393 mg/L	0.0060218	0.486393 mg/L	0.0060218	1.24%
QC value within limits for Ba 233.527 Recovery = 97.28%						
Be 234.861	251936.6	0.484894 mg/L	0.0079615	0.484894 mg/L	0.0079615	1.64%
QC value within limits for Be 234.861 Recovery = 96.98%						
Cd 226.502	34356.0	0.492246 mg/L	0.0068958	0.492246 mg/L	0.0068958	1.40%
QC value within limits for Cd 226.502 Recovery = 98.45%						
Ca 315.887	2670088.0	50.9311 mg/L	0.78365	50.9311 mg/L	0.78365	1.54%
QC value within limits for Ca 315.887 Recovery = 101.86%						
Cr 206.158	5763.7	0.490918 mg/L	0.0023700	0.490918 mg/L	0.0023700	0.48%
QC value within limits for Cr 206.158 Recovery = 98.18%						
Co 228.616	11117.1	0.489468 mg/L	0.0014006	0.489468 mg/L	0.0014006	0.29%
QC value within limits for Co 228.616 Recovery = 97.89%						
Cu 324.752	50746.6	0.477951 mg/L	0.0076322	0.477951 mg/L	0.0076322	1.60%
QC value within limits for Cu 324.752 Recovery = 95.59%						
Fe 273.955	79675.4	5.05660 mg/L	0.068070	5.05660 mg/L	0.068070	1.35%
QC value within limits for Fe 273.955 Recovery = 101.13%						
Pb 220.353	3531.2	0.497483 mg/L	0.0008903	0.497483 mg/L	0.0008903	0.18%
QC value within limits for Pb 220.353 Recovery = 99.50%						
Mg 279.077	721528.6	50.6176 mg/L	0.93660	50.6176 mg/L	0.93660	1.85%
QC value within limits for Mg 279.077 Recovery = 101.24%						
Mn 257.610	206607.9	0.490095 mg/L	0.0096867	0.490095 mg/L	0.0096867	1.98%
QC value within limits for Mn 257.610 Recovery = 98.02%						
Mo 202.031	5321.0	0.485629 mg/L	0.0005291	0.485629 mg/L	0.0005291	0.11%
QC value within limits for Mo 202.031 Recovery = 97.13%						
Ni 231.604	18500.0	0.486618 mg/L	0.0147115	0.486618 mg/L	0.0147115	3.02%
QC value within limits for Ni 231.604 Recovery = 97.32%						
Se 196.026	852.2	0.499691 mg/L	0.0036868	0.499691 mg/L	0.0036868	0.74%
QC value within limits for Se 196.026 Recovery = 99.94%						
Ag 328.068	9541.3	0.0953460 mg/L	0.00123923	0.0953460 mg/L	0.00123923	1.30%
QC value within limits for Ag 328.068 Recovery = 95.35%						
Na 330.237	18696.9	46.1123 mg/L	0.69162	46.1123 mg/L	0.69162	1.50%
QC value within limits for Na 330.237 Recovery = 92.22%						
Tl 190.801	739.5	0.493230 mg/L	0.0004575	0.493230 mg/L	0.0004575	0.09%
QC value within limits for Tl 190.801 Recovery = 98.65%						
Sn 189.927	2087.8	0.494564 mg/L	0.0009013	0.494564 mg/L	0.0009013	0.18%
QC value within limits for Sn 189.927 Recovery = 98.91%						
Ti 334.940	134294.8	0.487275 mg/L	0.0120473	0.487275 mg/L	0.0120473	2.47%
QC value within limits for Ti 334.940 Recovery = 97.46%						
V 292.402	39805.1	0.468145 mg/L	0.0100629	0.468145 mg/L	0.0100629	2.15%
QC value within limits for V 292.402 Recovery = 93.63%						
Zn 206.200	14386.6	0.488213 mg/L	0.0013197	0.488213 mg/L	0.0013197	0.27%
QC value within limits for Zn 206.200 Recovery = 97.64%						

All analyte(s) passed QC.

Sequence No.: 31  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 8:00:25 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	2244.7	0.274056 mg/L	0.0033193	0.274056 mg/L	0.0033193	1.21%
QC value within limits for Al 308.215		Recovery = Not calculated				
Sb 206.836	-1.2	-0.0033385 mg/L	0.00430610	-0.0033385 mg/L	0.00430610	128.98%
QC value within limits for Sb 206.836		Recovery = Not calculated				
As 188.979	-2.0	-0.0019491 mg/L	0.00325142	-0.0019491 mg/L	0.00325142	166.82%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527	63.6	-0.0031197 mg/L	0.00006342	-0.0031197 mg/L	0.00006342	2.03%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861	219.4	-0.0009307 mg/L	0.00000328	-0.0009307 mg/L	0.00000328	0.35%
QC value within limits for Be 234.861		Recovery = Not calculated				
Cd 226.502	53.4	-0.0020879 mg/L	0.00007970	-0.0020879 mg/L	0.00007970	3.82%
QC value within limits for Cd 226.502		Recovery = Not calculated				
Ca 315.887	28605.7	-0.0428295 mg/L	0.00732842	-0.0428295 mg/L	0.00732842	17.11%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cr 206.158	0.5	-0.0025446 mg/L	0.00032124	-0.0025446 mg/L	0.00032124	12.62%
QC value within limits for Cr 206.158		Recovery = Not calculated				
Co 228.616	11.8	-0.0014518 mg/L	0.00010428	-0.0014518 mg/L	0.00010428	7.18%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cu 324.752	21.2	-0.0019816 mg/L	0.00031765	-0.0019816 mg/L	0.00031765	16.03%
QC value within limits for Cu 324.752		Recovery = Not calculated				
Fe 273.955	2115.9	0.0984948 mg/L	0.00027718	0.0984948 mg/L	0.00027718	0.28%
QC value within limits for Fe 273.955		Recovery = Not calculated				
Pb 220.353	13.7	-0.0009401 mg/L	0.00094969	-0.0009401 mg/L	0.00094969	101.02%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Mg 279.077	5397.9	-0.0597158 mg/L	0.00685017	-0.0597158 mg/L	0.00685017	11.47%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610	917.2	-0.0031178 mg/L	0.00003594	-0.0031178 mg/L	0.00003594	1.15%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031	12.5	-0.0039630 mg/L	0.00037782	-0.0039630 mg/L	0.00037782	9.53%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604	31.7	-0.0037414 mg/L	0.00016563	-0.0037414 mg/L	0.00016563	4.43%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Se 196.026	1.7	-0.0010393 mg/L	0.00034337	-0.0010393 mg/L	0.00034337	33.04%
QC value within limits for Se 196.026		Recovery = Not calculated				
Ag 328.068	58.5	0.0003385 mg/L	0.00006746	0.0003385 mg/L	0.00006746	19.93%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Na 330.237	360.2	1.31228 mg/L	0.091585	1.31228 mg/L	0.091585	6.98%
QC value within limits for Na 330.237		Recovery = Not calculated				
Tl 190.801	8.9	0.0021845 mg/L	0.00093662	0.0021845 mg/L	0.00093662	42.88%
QC value within limits for Tl 190.801		Recovery = Not calculated				
Sn 189.927	6.3	-0.0023914 mg/L	0.00083585	-0.0023914 mg/L	0.00083585	34.95%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940	146.2	-0.0051672 mg/L	0.00000957	-0.0051672 mg/L	0.00000957	0.19%
QC value within limits for Ti 334.940		Recovery = Not calculated				
V 292.402	50.8	-0.0032580 mg/L	0.00047158	-0.0032580 mg/L	0.00047158	14.47%
QC value within limits for V 292.402		Recovery = Not calculated				
Zn 206.200	124.6	0.0016980 mg/L	0.00008112	0.0016980 mg/L	0.00008112	4.78%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 32  
 Sample ID: 63057-010  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 143  
 Date Collected: 12/12/2011 8:03:39 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63057-010

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	2833.6	0.348854	mg/L	0.0004794	0.348854	mg/L	0.0004794 0.14%
Sb 206.836	-14.7	-0.0140469	mg/L	0.00428708	-0.0140469	mg/L	0.00428708 30.52%
As 188.979	-42.5	-0.0364723	mg/L	0.00488241	-0.0364723	mg/L	0.00488241 13.39%
Ba 233.527	9273.6	0.179191	mg/L	0.0000377	0.179191	mg/L	0.0000377 0.02%
Be 234.861	165.7	-0.0010168	mg/L	0.00001870	-0.0010168	mg/L	0.00001870 1.84%
Cd 226.502	70.0	-0.0018488	mg/L	0.00003807	-0.0018488	mg/L	0.00003807 2.06%
Ca 315.887	Saturated3						
Cr 206.158	-15.9	0.0077571	mg/L	0.00044586	0.0077571	mg/L	0.00044586 5.75%
Co 228.616	39.5	-0.0002136	mg/L	0.00006082	-0.0002136	mg/L	0.00006082 28.47%
Cu 324.752	82484.1	0.780368	mg/L	0.0009312	0.780368	mg/L	0.0009312 0.12%
Fe 273.955	2526.1	0.124715	mg/L	0.0071095	0.124715	mg/L	0.0071095 5.70%
Pb 220.353	8180.2	1.15019	mg/L	0.003554	1.15019	mg/L	0.003554 0.31%
Mg 279.077	4832.5	-0.0997286	mg/L	0.01240672	-0.0997286	mg/L	0.01240672 12.44%
Mn 257.610	1348.7	-0.0020802	mg/L	0.00010737	-0.0020802	mg/L	0.00010737 5.16%
Mo 202.031	30.3	-0.0023129	mg/L	0.00104399	-0.0023129	mg/L	0.00104399 45.14%
Ni 231.604	95.6	-0.0020454	mg/L	0.00004542	-0.0020454	mg/L	0.00004542 2.22%
Se 196.026	123.5	0.0692948	mg/L	0.00318718	0.0692948	mg/L	0.00318718 4.60%
Ag 328.068	-2801.7	-0.0280791	mg/L	0.00062363	-0.0280791	mg/L	0.00062363 2.22%
Na 330.237	10206.8	25.3695	mg/L	0.23264	25.3695	mg/L	0.23264 0.92%
Tl 190.801	3.8	-0.0012737	mg/L	0.00161679	-0.0012737	mg/L	0.00161679 126.94%
Sn 189.927	-476.4	-0.116472	mg/L	0.0003759	-0.116472	mg/L	0.0003759 0.32%
Ti 334.940	-1736.2	-0.0120772	mg/L	0.00023987	-0.0120772	mg/L	0.00023987 1.99%
V 292.402	60.1	-0.0031138	mg/L	0.00016419	-0.0031138	mg/L	0.00016419 5.27%
Zn 206.200	13726.1	0.466934	mg/L	0.0018553	0.466934	mg/L	0.0018553 0.40%

Sequence No.: 33

Sample ID: 63057-010 TCLP SPK

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 144

Date Collected: 12/12/2011 8:07:24 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63057-010 TCLP SPK

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	39557.4	5.00865	mg/L	0.039153	5.00865	mg/L	0.039153	0.78%
Sb 206.836	571.8	0.458213	mg/L	0.0011521	0.458213	mg/L	0.0011521	0.25%
As 188.979	525.4	0.447875	mg/L	0.0070373	0.447875	mg/L	0.0070373	1.57%
Ba 233.527	246553.1	4.87641	mg/L	0.048053	4.87641	mg/L	0.048053	0.99%
Be 234.861	242319.8	0.466149	mg/L	0.0049362	0.466149	mg/L	0.0049362	1.06%
Cd 226.502	31516.5	0.451328	mg/L	0.0065322	0.451328	mg/L	0.0065322	1.45%
Ca 315.887	Saturated3							
Cr 206.158	5401.9	0.470898	mg/L	0.0074237	0.470898	mg/L	0.0074237	1.58%
Co 228.616	10122.6	0.445474	mg/L	0.0013022	0.445474	mg/L	0.0013022	0.29%
Cu 324.752	130544.7	1.23632	mg/L	0.016046	1.23632	mg/L	0.016046	1.30%
Fe 273.955	72214.3	4.57964	mg/L	0.034306	4.57964	mg/L	0.034306	0.75%
Pb 220.353	40832.5	5.75403	mg/L	0.077316	5.75403	mg/L	0.077316	1.34%
Mg 279.077	636798.0	44.6216	mg/L	0.40243	44.6216	mg/L	0.40243	0.90%
Mn 257.610	198387.6	0.470432	mg/L	0.0046128	0.470432	mg/L	0.0046128	0.98%
Mo 202.031	4930.5	0.449621	mg/L	0.0008037	0.449621	mg/L	0.0008037	0.18%
Ni 231.604	16929.5	0.444922	mg/L	0.0008604	0.444922	mg/L	0.0008604	0.19%
Se 196.026	943.9	0.555823	mg/L	0.0165083	0.555823	mg/L	0.0165083	2.97%
Ag 328.068	7456.8	0.0736897	mg/L	0.00032818	0.0736897	mg/L	0.00032818	0.45%
Na 330.237	32373.5	79.5269	mg/L	0.82701	79.5269	mg/L	0.82701	1.04%
Tl 190.801	677.5	0.451998	mg/L	0.0019386	0.451998	mg/L	0.0019386	0.43%
Sn 189.927	1589.1	0.371920	mg/L	0.0018472	0.371920	mg/L	0.0018472	0.50%
Ti 334.940	127585.3	0.462646	mg/L	0.0047760	0.462646	mg/L	0.0047760	1.03%
V 292.402	38934.7	0.459316	mg/L	0.0049420	0.459316	mg/L	0.0049420	1.08%
Zn 206.200	26258.9	0.894461	mg/L	0.0062844	0.894461	mg/L	0.0062844	0.70%

Sequence No.: 34  
 Sample ID: 63057-011  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 145  
 Date Collected: 12/12/2011 8:11:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63057-011

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1670.4	0.201127	mg/L	0.0036704	0.201127	mg/L	0.0036704	1.82%
Sb 206.836	-13.9	-0.0134966	mg/L	0.00029110	-0.0134966	mg/L	0.00029110	2.16%
As 188.979	-36.8	-0.0315928	mg/L	0.00004087	-0.0315928	mg/L	0.00004087	0.13%
Ba 233.527	7120.9	0.136577	mg/L	0.0013311	0.136577	mg/L	0.0013311	0.97%
Be 234.861	224.7	-0.0009691	mg/L	0.00001360	-0.0009691	mg/L	0.00001360	1.40%
Cd 226.502	59.9	-0.0019927	mg/L	0.00003628	-0.0019927	mg/L	0.00003628	1.82%
Ca 315.887	Saturated3							
Cr 206.158	-56.0	0.0045376	mg/L	0.00030627	0.0045376	mg/L	0.00030627	6.75%
Co 228.616	48.4	0.0001786	mg/L	0.00026153	0.0001786	mg/L	0.00026153	146.47%
Cu 324.752	151866.3	1.43862	mg/L	0.005815	1.43862	mg/L	0.005815	0.40%
Fe 273.955	927.4	0.0225163	mg/L	0.00164539	0.0225163	mg/L	0.00164539	7.31%
Pb 220.353	13355.8	1.87964	mg/L	0.018110	1.87964	mg/L	0.018110	0.96%
Mg 279.077	2206.6	-0.285546	mg/L	0.0033173	-0.285546	mg/L	0.0033173	1.16%
Mn 257.610	938.6	-0.0030669	mg/L	0.00004413	-0.0030669	mg/L	0.00004413	1.44%
Mo 202.031	-5.9	-0.0056585	mg/L	0.00044346	-0.0056585	mg/L	0.00044346	7.84%
Ni 231.604	30.1	-0.0037819	mg/L	0.00009839	-0.0037819	mg/L	0.00009839	2.60%
Se 196.026	107.4	0.0597216	mg/L	0.00776798	0.0597216	mg/L	0.00776798	13.01%
Ag 328.068	-2501.9	-0.0251010	mg/L	0.00006216	-0.0251010	mg/L	0.00006216	0.25%
Na 330.237	14158.9	35.0253	mg/L	0.30215	35.0253	mg/L	0.30215	0.86%
Tl 190.801	0.9	-0.0031950	mg/L	0.00276603	-0.0031950	mg/L	0.00276603	86.57%
Sn 189.927	-398.5	-0.0980690	mg/L	0.00028198	-0.0980690	mg/L	0.00028198	0.29%
Ti 334.940	-1347.7	-0.0106514	mg/L	0.00000744	-0.0106514	mg/L	0.00000744	0.07%
V 292.402	21.6	-0.0035471	mg/L	0.00018380	-0.0035471	mg/L	0.00018380	5.18%
Zn 206.200	13875.1	0.472038	mg/L	0.0032010	0.472038	mg/L	0.0032010	0.68%

Sequence No.: 35  
 Sample ID: 63080-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 146  
 Date Collected: 12/12/2011 8:14:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63080-001

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	4008.6	0.498160	mg/L	0.0054680	0.498160	mg/L	0.0054680	1.10%
Sb 206.836	9.0	0.0053775	mg/L	0.00337024	0.0053775	mg/L	0.00337024	62.67%
As 188.979	-12.3	-0.0065551	mg/L	0.00011276	-0.0065551	mg/L	0.00011276	1.72%
Ba 233.527	20309.5	0.397532	mg/L	0.0009349	0.397532	mg/L	0.0009349	0.24%
Be 234.861	-2497.1	-0.0012992	mg/L	0.00018833	-0.0012992	mg/L	0.00018833	14.50%
Cd 226.502	162.7	-0.0006543	mg/L	0.00000055	-0.0006543	mg/L	0.00000055	0.08%
Ca 315.887	9687939.7	186.358	mg/L	0.6067	186.358	mg/L	0.6067	0.33%
Cr 206.158	-133.3	0.0097760	mg/L	0.00154104	0.0097760	mg/L	0.00154104	15.76%
Co 228.616	591.2	0.0240080	mg/L	0.00042735	0.0240080	mg/L	0.00042735	1.78%
Cu 324.752	976.3	0.0023669	mg/L	0.00050504	0.0023669	mg/L	0.00050504	21.34%
Fe 273.955	120547.4	7.66941	mg/L	0.049318	7.66941	mg/L	0.049318	0.64%
Pb 220.353	1739.5	0.245641	mg/L	0.0023414	0.245641	mg/L	0.0023414	0.95%
Mg 279.077	76047.3	4.93982	mg/L	0.000822	4.93982	mg/L	0.000822	0.02%
Mn 257.610	500438.1	1.19627	mg/L	0.000023	1.19627	mg/L	0.000023	0.00%
Mo 202.031	9.3	-0.0039729	mg/L	0.00016685	-0.0039729	mg/L	0.00016685	4.20%
Ni 231.604	2627.0	0.0649737	mg/L	0.00036905	0.0649737	mg/L	0.00036905	0.57%
Se 196.026	37.1	0.0260500	mg/L	0.00081374	0.0260500	mg/L	0.00081374	3.12%
Ag 328.068	-484.5	-0.0018258	mg/L	0.00022571	-0.0018258	mg/L	0.00022571	12.36%
Na 330.237	448661.4	1096.60	mg/L	4.198	1096.60	mg/L	4.198	0.38%
Tl 190.801	-2.2	-0.0057529	mg/L	0.00140134	-0.0057529	mg/L	0.00140134	24.36%
Sn 189.927	-77.4	-0.0047128	mg/L	0.00014455	-0.0047128	mg/L	0.00014455	3.07%
Ti 334.940	44.8	-0.0055395	mg/L	0.00001779	-0.0055395	mg/L	0.00001779	0.32%
V 292.402	373.9	-0.0010493	mg/L	0.00002485	-0.0010493	mg/L	0.00002485	2.37%
Zn 206.200	27503.6	0.938062	mg/L	0.0022321	0.938062	mg/L	0.0022321	0.24%

Sequence No.: 36  
 Sample ID: 63080-008  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 147  
 Date Collected: 12/12/2011 8:18:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63080-008

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	6909.9	0.866736	mg/L	0.0095257	0.866736	mg/L	0.0095257	1.10%
Sb 206.836	16.4	0.0111055	mg/L	0.00668807	0.0111055	mg/L	0.00668807	60.22%
As 188.979	-1.7	0.0002534	mg/L	0.00177066	0.0002534	mg/L	0.00177066	698.87%
Ba 233.527	20083.5	0.393122	mg/L	0.0000714	0.393122	mg/L	0.0000714	0.02%
Be 234.861	-1080.9	-0.0012634	mg/L	0.00007672	-0.0012634	mg/L	0.00007672	6.07%
Cd 226.502	59.1	-0.0020688	mg/L	0.00005684	-0.0020688	mg/L	0.00005684	2.75%
Ca 315.887	5095477.5	97.7350	mg/L	0.31264	97.7350	mg/L	0.31264	0.32%
Cr 206.158	-91.7	0.0075182	mg/L	0.00034778	0.0075182	mg/L	0.00034778	4.63%
Co 228.616	324.5	0.0122692	mg/L	0.00009392	0.0122692	mg/L	0.00009392	0.77%
Cu 324.752	885.0	0.0037495	mg/L	0.00038591	0.0037495	mg/L	0.00038591	10.29%
Fe 273.955	54981.1	3.47798	mg/L	0.024336	3.47798	mg/L	0.024336	0.70%
Pb 220.353	627.2	0.0874327	mg/L	0.00033396	0.0874327	mg/L	0.00033396	0.38%
Mg 279.077	300794.6	20.8442	mg/L	0.02153	20.8442	mg/L	0.02153	0.10%
Mn 257.610	568776.9	1.35985	mg/L	0.000874	1.35985	mg/L	0.000874	0.06%
Mo 202.031	21.9	-0.0029522	mg/L	0.00007250	-0.0029522	mg/L	0.00007250	2.46%
Ni 231.604	719.6	0.0144388	mg/L	0.00004956	0.0144388	mg/L	0.00004956	0.34%
Se 196.026	57.4	0.0324386	mg/L	0.00891110	0.0324386	mg/L	0.00891110	27.47%
Ag 328.068	-212.4	-0.0008666	mg/L	0.00050863	-0.0008666	mg/L	0.00050863	58.69%
Na 330.237	560956.7	1370.96	mg/L	1.785	1370.96	mg/L	1.785	0.13%
Tl 190.801	-5.7	-0.0073453	mg/L	0.00089090	-0.0073453	mg/L	0.00089090	12.13%
Sn 189.927	-39.5	-0.0040510	mg/L	0.00005540	-0.0040510	mg/L	0.00005540	1.37%
Ti 334.940	5911.3	0.0159955	mg/L	0.00028065	0.0159955	mg/L	0.00028065	1.75%
V 292.402	1866.2	0.0116521	mg/L	0.00020187	0.0116521	mg/L	0.00020187	1.73%
Zn 206.200	20823.5	0.709159	mg/L	0.0001026	0.709159	mg/L	0.0001026	0.01%

Sequence No.: 37  
 Sample ID: 63080-013  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 148  
 Date Collected: 12/12/2011 8:21:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63080-013

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1047.3	0.121914	mg/L	0.0001944	0.121914	mg/L	0.0001944	0.16%
Sb 206.836	20.8	0.0149719	mg/L	0.00234220	0.0149719	mg/L	0.00234220	15.64%
As 188.979	-46.5	-0.0349200	mg/L	0.00107203	-0.0349200	mg/L	0.00107203	3.07%
Ba 233.527	3165.2	0.0582762	mg/L	0.00013265	0.0582762	mg/L	0.00013265	0.23%
Be 234.861	-37.4	-0.0013431	mg/L	0.00001802	-0.0013431	mg/L	0.00001802	1.34%
Cd 226.502	44.9	-0.0022127	mg/L	0.00001374	-0.0022127	mg/L	0.00001374	0.62%
Ca 315.887	18426957.5	354.999	mg/L	0.8120	354.999	mg/L	0.8120	0.23%
Cr 206.158	35674.9	2.97624	mg/L	0.008767	2.97624	mg/L	0.008767	0.29%
Co 228.616	115.3	0.0031163	mg/L	0.00017406	0.0031163	mg/L	0.00017406	5.59%
Cu 324.752	1176.0	-0.0000004	mg/L	0.00000472	-0.0000004	mg/L	0.00000472	>999.9%
Fe 273.955	4071.8	0.223528	mg/L	0.0004258	0.223528	mg/L	0.0004258	0.19%
Pb 220.353	-38.0	-0.0021419	mg/L	0.00045391	-0.0021419	mg/L	0.00045391	21.19%
Mg 279.077	1169735.5	82.3352	mg/L	0.05292	82.3352	mg/L	0.05292	0.06%
Mn 257.610	36783.0	0.0816981	mg/L	0.00026866	0.0816981	mg/L	0.00026866	0.33%
Mo 202.031	40.2	-0.0014076	mg/L	0.00023302	-0.0014076	mg/L	0.00023302	16.55%
Ni 231.604	2085.4	0.0507773	mg/L	0.00053016	0.0507773	mg/L	0.00053016	1.04%
Se 196.026	82.7	0.0131471	mg/L	0.00153331	0.0131471	mg/L	0.00153331	11.66%
Ag 328.068	-819.9	-0.0017756	mg/L	0.00023171	-0.0017756	mg/L	0.00023171	13.05%
Na 330.237	519793.7	1270.39	mg/L	2.739	1270.39	mg/L	2.739	0.22%
Tl 190.801	3.0	-0.0037620	mg/L	0.00270382	-0.0037620	mg/L	0.00270382	71.87%
Sn 189.927	-141.9	-0.0041662	mg/L	0.00147127	-0.0041662	mg/L	0.00147127	35.31%
Ti 334.940	2059.2	0.0018549	mg/L	0.00048245	0.0018549	mg/L	0.00048245	26.01%
V 292.402	5116.0	0.0300261	mg/L	0.00020263	0.0300261	mg/L	0.00020263	0.67%
Zn 206.200	115.1	-0.0007650	mg/L	0.00013927	-0.0007650	mg/L	0.00013927	18.21%

Sequence No.: 38  
 Sample ID: 63080-017  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 149  
 Date Collected: 12/12/2011 8:24:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63080-017

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	10908.8	1.37476	mg/L	0.014485	1.37476	mg/L	0.014485	1.05%
Sb 206.836	60.6	0.0465362	mg/L	0.00494912	0.0465362	mg/L	0.00494912	10.63%
As 188.979	-111.7	-0.0904288	mg/L	0.00273902	-0.0904288	mg/L	0.00273902	3.03%
Ba 233.527	363.1	0.0028111	mg/L	0.00006183	0.0028111	mg/L	0.00006183	2.20%
Be 234.861	-5.3	-0.0013771	mg/L	0.00001455	-0.0013771	mg/L	0.00001455	1.06%
Cd 226.502	32.9	-0.0023822	mg/L	0.00005575	-0.0023822	mg/L	0.00005575	2.34%
Ca 315.887	18590636.6	358.157	mg/L	0.6686	358.157	mg/L	0.6686	0.19%
Cr 206.158	153947.8	12.8514	mg/L	0.20628	12.8514	mg/L	0.20628	1.61%
Co 228.616	-26.5	-0.0031519	mg/L	0.00048432	-0.0031519	mg/L	0.00048432	15.37%
Cu 324.752	969.5	-0.0020411	mg/L	0.00056863	-0.0020411	mg/L	0.00056863	27.86%
Fe 273.955	1735.3	0.0741602	mg/L	0.00064017	0.0741602	mg/L	0.00064017	0.86%
Pb 220.353	-41.7	-0.0024130	mg/L	0.00081072	-0.0024130	mg/L	0.00081072	33.60%
Mg 279.077	1031817.9	72.5754	mg/L	0.81385	72.5754	mg/L	0.81385	1.12%
Mn 257.610	790.8	-0.0045550	mg/L	0.00003062	-0.0045550	mg/L	0.00003062	0.67%
Mo 202.031	35.8	-0.0017706	mg/L	0.00076504	-0.0017706	mg/L	0.00076504	43.21%
Ni 231.604	86.7	-0.0022798	mg/L	0.00009156	-0.0022798	mg/L	0.00009156	4.02%
Se 196.026	90.0	0.0166055	mg/L	0.00258339	0.0166055	mg/L	0.00258339	15.56%
Ag 328.068	-770.0	-0.0011986	mg/L	0.00023644	-0.0011986	mg/L	0.00023644	19.73%
Na 330.237	475313.5	1161.71	mg/L	9.527	1161.71	mg/L	9.527	0.82%
Tl 190.801	4.8	-0.0026770	mg/L	0.00170316	-0.0026770	mg/L	0.00170316	63.62%
Sn 189.927	-109.1	0.0038846	mg/L	0.00036683	0.0038846	mg/L	0.00036683	9.44%
Ti 334.940	459.2	-0.0040185	mg/L	0.00009793	-0.0040185	mg/L	0.00009793	2.44%
V 292.402	3434.8	0.0128899	mg/L	0.00053325	0.0128899	mg/L	0.00053325	4.14%
Zn 206.200	-563.8	-0.0237338	mg/L	0.00005895	-0.0237338	mg/L	0.00005895	0.25%

Sequence No.: 39  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/12/2011 8:28:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	38241.9	4.84111 mg/L	0.035052	4.84111 mg/L	0.035052	0.72%
QC value within limits for Al 308.215 Recovery = 96.82%						
Sb 206.836	606.2	0.486000 mg/L	0.0021453	0.486000 mg/L	0.0021453	0.44%
QC value within limits for Sb 206.836 Recovery = 97.20%						
As 188.979	560.9	0.478874 mg/L	0.0038570	0.478874 mg/L	0.0038570	0.81%
QC value within limits for As 188.979 Recovery = 95.77%						
Ba 233.527	25283.7	0.496420 mg/L	0.0063793	0.496420 mg/L	0.0063793	1.29%
QC value within limits for Ba 233.527 Recovery = 99.28%						
Be 234.861	256406.6	0.493401 mg/L	0.0032189	0.493401 mg/L	0.0032189	0.65%
QC value within limits for Be 234.861 Recovery = 98.68%						
Cd 226.502	34707.7	0.497318 mg/L	0.0050012	0.497318 mg/L	0.0050012	1.01%
QC value within limits for Cd 226.502 Recovery = 99.46%						
Ca 315.887	2677249.2	51.0693 mg/L	0.70108	51.0693 mg/L	0.70108	1.37%
QC value within limits for Ca 315.887 Recovery = 102.14%						
Cr 206.158	5916.6	0.503558 mg/L	0.0011227	0.503558 mg/L	0.0011227	0.22%
QC value within limits for Cr 206.158 Recovery = 100.71%						
Co 228.616	11050.1	0.486488 mg/L	0.0000772	0.486488 mg/L	0.0000772	0.02%
QC value within limits for Co 228.616 Recovery = 97.30%						
Cu 324.752	51819.7	0.488134 mg/L	0.0046863	0.488134 mg/L	0.0046863	0.96%
QC value within limits for Cu 324.752 Recovery = 97.63%						
Fe 273.955	78125.3	4.95751 mg/L	0.051772	4.95751 mg/L	0.051772	1.04%
QC value within limits for Fe 273.955 Recovery = 99.15%						
Pb 220.353	3498.8	0.492869 mg/L	0.0023632	0.492869 mg/L	0.0023632	0.48%
QC value within limits for Pb 220.353 Recovery = 98.57%						
Mg 279.077	714712.4	50.1352 mg/L	0.63189	50.1352 mg/L	0.63189	1.26%
QC value within limits for Mg 279.077 Recovery = 100.27%						
Mn 257.610	209986.3	0.498207 mg/L	0.0051730	0.498207 mg/L	0.0051730	1.04%
QC value within limits for Mn 257.610 Recovery = 99.64%						
Mo 202.031	5285.3	0.482319 mg/L	0.0002008	0.482319 mg/L	0.0002008	0.04%
QC value within limits for Mo 202.031 Recovery = 96.46%						
Ni 231.604	18335.5	0.482253 mg/L	0.0007786	0.482253 mg/L	0.0007786	0.16%
QC value within limits for Ni 231.604 Recovery = 96.45%						
Se 196.026	846.7	0.496195 mg/L	0.0043393	0.496195 mg/L	0.0043393	0.87%
QC value within limits for Se 196.026 Recovery = 99.24%						
Ag 328.068	9721.6	0.0971372 mg/L	0.00114183	0.0971372 mg/L	0.00114183	1.18%
QC value within limits for Ag 328.068 Recovery = 97.14%						
Na 330.237	19274.0	47.5223 mg/L	0.23050	47.5223 mg/L	0.23050	0.49%
QC value within limits for Na 330.237 Recovery = 95.04%						
Tl 190.801	735.2	0.490413 mg/L	0.0041171	0.490413 mg/L	0.0041171	0.84%
QC value within limits for Tl 190.801 Recovery = 98.08%						
Sn 189.927	2090.9	0.495326 mg/L	0.0001718	0.495326 mg/L	0.0001718	0.03%
QC value within limits for Sn 189.927 Recovery = 99.07%						
Ti 334.940	136752.3	0.496296 mg/L	0.0041157	0.496296 mg/L	0.0041157	0.83%
QC value within limits for Ti 334.940 Recovery = 99.26%						
V 292.402	40445.9	0.476101 mg/L	0.0038110	0.476101 mg/L	0.0038110	0.80%
QC value within limits for V 292.402 Recovery = 95.22%						
Zn 206.200	14241.3	0.483255 mg/L	0.0004753	0.483255 mg/L	0.0004753	0.10%
QC value within limits for Zn 206.200 Recovery = 96.65%						

All analyte(s) passed QC.

Sequence No.: 40  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 8:31:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	66.0	-0.0027248 mg/L	0.01576594	-0.0027248 mg/L	0.01576594	578.61%
QC value within limits for Al 308.215		Recovery = Not calculated				
Sb 206.836	-7.0	-0.0080146 mg/L	0.00225125	-0.0080146 mg/L	0.00225125	28.09%
QC value within limits for Sb 206.836		Recovery = Not calculated				
As 188.979	-3.8	-0.0034787 mg/L	0.00035192	-0.0034787 mg/L	0.00035192	10.12%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527	43.6	-0.0035137 mg/L	0.00008474	-0.0035137 mg/L	0.00008474	2.41%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861	162.8	-0.0011216 mg/L	0.00000296	-0.0011216 mg/L	0.00000296	0.26%
QC value within limits for Be 234.861		Recovery = Not calculated				
Cd 226.502	35.4	-0.0023445 mg/L	0.00008386	-0.0023445 mg/L	0.00008386	3.58%
QC value within limits for Cd 226.502		Recovery = Not calculated				
Ca 315.887	37763.6	0.133896 mg/L	0.0189061	0.133896 mg/L	0.0189061	14.12%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cr 206.158	112.5	0.0067400 mg/L	0.00046019	0.0067400 mg/L	0.00046019	6.83%
QC value within limits for Cr 206.158		Recovery = Not calculated				
Co 228.616	5.2	-0.0017405 mg/L	0.00015444	-0.0017405 mg/L	0.00015444	8.87%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cu 324.752	99.9	-0.0012400 mg/L	0.00023496	-0.0012400 mg/L	0.00023496	18.95%
QC value within limits for Cu 324.752		Recovery = Not calculated				
Fe 273.955	98.8	-0.0304527 mg/L	0.00134819	-0.0304527 mg/L	0.00134819	4.43%
QC value within limits for Fe 273.955		Recovery = Not calculated				
Pb 220.353	8.3	-0.0017344 mg/L	0.00073287	-0.0017344 mg/L	0.00073287	42.26%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Mg 279.077	1465.6	-0.337983 mg/L	0.0019032	-0.337983 mg/L	0.0019032	0.56%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610	403.0	-0.0043543 mg/L	0.00002707	-0.0043543 mg/L	0.00002707	0.62%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031	8.4	-0.0043502 mg/L	0.00035525	-0.0043502 mg/L	0.00035525	8.17%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604	9.9	-0.0043156 mg/L	0.00001204	-0.0043156 mg/L	0.00001204	0.28%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Se 196.026	4.5	0.0001377 mg/L	0.00572975	0.0001377 mg/L	0.00572975	>999.9%
QC value within limits for Se 196.026		Recovery = Not calculated				
Ag 328.068	-35.3	-0.0005905 mg/L	0.00018666	-0.0005905 mg/L	0.00018666	31.61%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Na 330.237	499.2	1.65190 mg/L	0.046115	1.65190 mg/L	0.046115	2.79%
QC value within limits for Na 330.237		Recovery = Not calculated				
Tl 190.801	3.7	-0.0012491 mg/L	0.00128351	-0.0012491 mg/L	0.00128351	102.76%
QC value within limits for Tl 190.801		Recovery = Not calculated				
Sn 189.927	11.6	-0.0011135 mg/L	0.00147715	-0.0011135 mg/L	0.00147715	132.66%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940	37.6	-0.0055659 mg/L	0.00005464	-0.0055659 mg/L	0.00005464	0.98%
QC value within limits for Ti 334.940		Recovery = Not calculated				
V 292.402	-19.2	-0.0040184 mg/L	0.00018078	-0.0040184 mg/L	0.00018078	4.50%
QC value within limits for V 292.402		Recovery = Not calculated				
Zn 206.200	52.6	-0.0007584 mg/L	0.00006823	-0.0007584 mg/L	0.00006823	9.00%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 41  
 Sample ID: 63080-023  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 150  
 Date Collected: 12/12/2011 8:34:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63080-023

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	7234.9	0.908014	mg/L	0.0184703	0.908014	mg/L	0.0184703	2.03%
Sb 206.836	68.1	0.0525109	mg/L	0.00071655	0.0525109	mg/L	0.00071655	1.36%
As 188.979	-123.7	-0.101525	mg/L	0.0032765	-0.101525	mg/L	0.0032765	3.23%
Ba 233.527	206.4	-0.0002908	mg/L	0.00007204	-0.0002908	mg/L	0.00007204	24.77%
Be 234.861	107.5	-0.0012124	mg/L	0.00001994	-0.0012124	mg/L	0.00001994	1.64%
Cd 226.502	50.3	-0.0021298	mg/L	0.00007763	-0.0021298	mg/L	0.00007763	3.64%
Ca 315.887	16260259.8	313.187	mg/L	0.1923	313.187	mg/L	0.1923	0.06%
Cr 206.158	174156.1	14.5386	mg/L	0.23533	14.5386	mg/L	0.23533	1.62%
Co 228.616	-56.2	-0.0044636	mg/L	0.00046490	-0.0044636	mg/L	0.00046490	10.42%
Cu 324.752	919.3	-0.0013801	mg/L	0.00010450	-0.0013801	mg/L	0.00010450	7.57%
Fe 273.955	473.2	-0.0065178	mg/L	0.00264319	-0.0065178	mg/L	0.00264319	40.55%
Pb 220.353	-49.2	-0.0043217	mg/L	0.00030652	-0.0043217	mg/L	0.00030652	7.09%
Mg 279.077	1041408.6	73.2540	mg/L	0.42214	73.2540	mg/L	0.42214	0.58%
Mn 257.610	47.1	-0.0063548	mg/L	0.00003093	-0.0063548	mg/L	0.00003093	0.49%
Mo 202.031	32.0	-0.0021399	mg/L	0.00048651	-0.0021399	mg/L	0.00048651	22.74%
Ni 231.604	145.8	-0.0007085	mg/L	0.00001616	-0.0007085	mg/L	0.00001616	2.28%
Se 196.026	86.6	0.0185532	mg/L	0.00133334	0.0185532	mg/L	0.00133334	7.19%
Ag 328.068	-721.9	-0.0015613	mg/L	0.00047299	-0.0015613	mg/L	0.00047299	30.29%
Na 330.237	432262.0	1056.53	mg/L	13.056	1056.53	mg/L	13.056	1.24%
Tl 190.801	3.1	-0.0035160	mg/L	0.00136786	-0.0035160	mg/L	0.00136786	38.90%
Sn 189.927	-135.8	-0.0066360	mg/L	0.00135279	-0.0066360	mg/L	0.00135279	20.39%
Ti 334.940	670.4	-0.0032430	mg/L	0.00004098	-0.0032430	mg/L	0.00004098	1.26%
V 292.402	3208.0	0.0098834	mg/L	0.00022167	0.0098834	mg/L	0.00022167	2.24%
Zn 206.200	-726.5	-0.0293164	mg/L	0.00052968	-0.0293164	mg/L	0.00052968	1.81%

Sequence No.: 42  
 Sample ID: 63080-024  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 151  
 Date Collected: 12/12/2011 8:38:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63080-024

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	638.0	0.0699501	mg/L	0.00677591	0.0699501	mg/L	0.00677591	9.69%
Sb 206.836	3.1	0.0001342	mg/L	0.00198394	0.0001342	mg/L	0.00198394	>999.9%
As 188.979	8.3	0.0070534	mg/L	0.00083524	0.0070534	mg/L	0.00083524	11.84%
Ba 233.527	8043.7	0.154846	mg/L	0.0000086	0.154846	mg/L	0.0000086	0.01%
Be 234.861	78.7	-0.0012243	mg/L	0.00002204	-0.0012243	mg/L	0.00002204	1.80%
Cd 226.502	37.1	-0.0023212	mg/L	0.00008792	-0.0023212	mg/L	0.00008792	3.79%
Ca 315.887	1014324.1	18.9790	mg/L	0.13073	18.9790	mg/L	0.13073	0.69%
Cr 206.158	276.3	0.0234683	mg/L	0.00180812	0.0234683	mg/L	0.00180812	7.70%
Co 228.616	248.1	0.0090082	mg/L	0.00023197	0.0090082	mg/L	0.00023197	2.58%
Cu 324.752	263.3	-0.0001653	mg/L	0.00018361	-0.0001653	mg/L	0.00018361	111.07%
Fe 273.955	1533.8	0.0612830	mg/L	0.00014851	0.0612830	mg/L	0.00014851	0.24%
Pb 220.353	10.9	-0.0010085	mg/L	0.00016887	-0.0010085	mg/L	0.00016887	16.75%
Mg 279.077	176126.7	12.0220	mg/L	0.07926	12.0220	mg/L	0.07926	0.66%
Mn 257.610	171420.7	0.405978	mg/L	0.0022617	0.405978	mg/L	0.0022617	0.56%
Mo 202.031	4.3	-0.0047229	mg/L	0.00042049	-0.0047229	mg/L	0.00042049	8.90%
Ni 231.604	557.9	0.0102281	mg/L	0.00062765	0.0102281	mg/L	0.00062765	6.14%
Se 196.026	33.8	0.0154291	mg/L	0.00234146	0.0154291	mg/L	0.00234146	15.18%
Ag 328.068	-26.9	-0.0002671	mg/L	0.00076306	-0.0002671	mg/L	0.00076306	285.72%
Na 330.237	464860.9	1136.18	mg/L	5.963	1136.18	mg/L	5.963	0.52%
Tl 190.801	0.9	-0.0031023	mg/L	0.00153325	-0.0031023	mg/L	0.00153325	49.42%
Sn 189.927	-4.7	-0.0032077	mg/L	0.00044503	-0.0032077	mg/L	0.00044503	13.87%
Ti 334.940	297.2	-0.0046129	mg/L	0.00002578	-0.0046129	mg/L	0.00002578	0.56%
V 292.402	1645.3	0.0120096	mg/L	0.00016395	0.0120096	mg/L	0.00016395	1.37%
Zn 206.200	3606.5	0.120483	mg/L	0.0002698	0.120483	mg/L	0.0002698	0.22%

Sequence No.: 43  
 Sample ID: 63080-029  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 152  
 Date Collected: 12/12/2011 8:41:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63080-029

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	8578.3	1.07871	mg/L	0.004841	1.07871	mg/L	0.004841	0.45%
Sb 206.836	-1.2	-0.0029814	mg/L	0.00065755	-0.0029814	mg/L	0.00065755	22.06%
As 188.979	-1.1	-0.0004086	mg/L	0.00203147	-0.0004086	mg/L	0.00203147	497.18%
Ba 233.527	4277.3	0.0802795	mg/L	0.00003399	0.0802795	mg/L	0.00003399	0.04%
Be 234.861	-208.7	-0.0013259	mg/L	0.00000576	-0.0013259	mg/L	0.00000576	0.43%
Cd 226.502	42.8	-0.0022527	mg/L	0.00010247	-0.0022527	mg/L	0.00010247	4.55%
Ca 315.887	3015893.4	57.6043	mg/L	0.39331	57.6043	mg/L	0.39331	0.68%
Cr 206.158	452.5	0.0376936	mg/L	0.00090213	0.0376936	mg/L	0.00090213	2.39%
Co 228.616	308.3	0.0116091	mg/L	0.00009215	0.0116091	mg/L	0.00009215	0.79%
Cu 324.752	407.2	0.0002337	mg/L	0.00004428	0.0002337	mg/L	0.00004428	18.95%
Fe 273.955	12529.4	0.764193	mg/L	0.0030148	0.764193	mg/L	0.0030148	0.39%
Pb 220.353	-4.9	-0.0024075	mg/L	0.00101368	-0.0024075	mg/L	0.00101368	42.10%
Mg 279.077	351799.1	24.4535	mg/L	0.25791	24.4535	mg/L	0.25791	1.05%
Mn 257.610	333965.4	0.796001	mg/L	0.0055343	0.796001	mg/L	0.0055343	0.70%
Mo 202.031	10.5	-0.0040935	mg/L	0.00027095	-0.0040935	mg/L	0.00027095	6.62%
Ni 231.604	928.2	0.0200419	mg/L	0.00010734	0.0200419	mg/L	0.00010734	0.54%
Se 196.026	38.4	0.0166185	mg/L	0.00345332	0.0166185	mg/L	0.00345332	20.78%
Ag 328.068	-167.5	-0.0010424	mg/L	0.00076722	-0.0010424	mg/L	0.00076722	73.60%
Na 330.237	352332.5	861.248	mg/L	5.9832	861.248	mg/L	5.9832	0.69%
Tl 190.801	0.6	-0.0031033	mg/L	0.00444399	-0.0031033	mg/L	0.00444399	143.20%
Sn 189.927	-26.3	-0.0046876	mg/L	0.00155817	-0.0046876	mg/L	0.00155817	33.24%
Ti 334.940	7522.8	0.0219111	mg/L	0.00042141	0.0219111	mg/L	0.00042141	1.92%
V 292.402	2136.5	0.0136886	mg/L	0.00000512	0.0136886	mg/L	0.00000512	0.04%
Zn 206.200	3039.6	0.100770	mg/L	0.0001007	0.100770	mg/L	0.0001007	0.10%

Sequence No.: 44  
 Sample ID: 63099-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 153  
 Date Collected: 12/12/2011 8:45:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63099-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	407.2	0.0406457	mg/L	0.00029144	0.0406457	mg/L	0.00029144	0.72%
Sb 206.836	139.1	0.108130	mg/L	0.0042377	0.108130	mg/L	0.0042377	3.92%
As 188.979	656.3	0.564960	mg/L	0.0048681	0.564960	mg/L	0.0048681	0.86%
Ba 233.527	34097.0	0.670568	mg/L	0.0046759	0.670568	mg/L	0.0046759	0.70%
Be 234.861	48.9	-0.0013272	mg/L	0.00000770	-0.0013272	mg/L	0.00000770	0.58%
Cd 226.502	553.9	0.0051293	mg/L	0.00024083	0.0051293	mg/L	0.00024083	4.70%
Ca 315.887	13997676.8	269.525	mg/L	3.4032	269.525	mg/L	3.4032	1.26%
Cr 206.158	0.3	0.0119324	mg/L	0.00013005	0.0119324	mg/L	0.00013005	1.09%
Co 228.616	46.8	0.0001014	mg/L	0.00003773	0.0001014	mg/L	0.00003773	37.22%
Cu 324.752	3066.9	0.0200999	mg/L	0.00042462	0.0200999	mg/L	0.00042462	2.11%
Fe 273.955	414.2	-0.0102908	mg/L	0.00092508	-0.0102908	mg/L	0.00092508	8.99%
Pb 220.353	1648.8	0.234227	mg/L	0.0000375	0.234227	mg/L	0.0000375	0.02%
Mg 279.077	168934.0	11.5130	mg/L	0.08803	11.5130	mg/L	0.08803	0.76%
Mn 257.610	241946.9	0.575277	mg/L	0.0042417	0.575277	mg/L	0.0042417	0.74%
Mo 202.031	-13.4	-0.0063579	mg/L	0.00003402	-0.0063579	mg/L	0.00003402	0.54%
Ni 231.604	328.2	0.0041330	mg/L	0.00016535	0.0041330	mg/L	0.00016535	4.00%
Se 196.026	121.1	0.0423351	mg/L	0.00011300	0.0423351	mg/L	0.00011300	0.27%
Ag 328.068	-652.7	-0.0018492	mg/L	0.00040788	-0.0018492	mg/L	0.00040788	22.06%
Na 330.237	500758.5	1223.88	mg/L	11.164	1223.88	mg/L	11.164	0.91%
Tl 190.801	0.9	-0.0045581	mg/L	0.00163853	-0.0045581	mg/L	0.00163853	35.95%
Sn 189.927	-111.7	-0.0050487	mg/L	0.00043910	-0.0050487	mg/L	0.00043910	8.70%
Ti 334.940	-124.0	-0.0061593	mg/L	0.00001781	-0.0061593	mg/L	0.00001781	0.29%
V 292.402	842.2	0.0023710	mg/L	0.00005736	0.0023710	mg/L	0.00005736	2.42%
Zn 206.200	17018.9	0.579264	mg/L	0.0016137	0.579264	mg/L	0.0016137	0.28%

Sequence No.: 45  
 Sample ID: EF-V-130089  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 154  
 Date Collected: 12/12/2011 8:48:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: EF-V-130089

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	41.4	-0.0058271	mg/L	0.00041964	-0.0058271	mg/L	0.00041964	7.20%
Sb 206.836	-9.1	-0.0096865	mg/L	0.00490596	-0.0096865	mg/L	0.00490596	50.65%
As 188.979	-3.4	-0.0031432	mg/L	0.00248734	-0.0031432	mg/L	0.00248734	79.13%
Ba 233.527	126.1	-0.0018836	mg/L	0.00005927	-0.0018836	mg/L	0.00005927	3.15%
Be 234.861	23.1	-0.0013865	mg/L	0.00001417	-0.0013865	mg/L	0.00001417	1.02%
Cd 226.502	11.9	-0.0026826	mg/L	0.00002974	-0.0026826	mg/L	0.00002974	1.11%
Ca 315.887	33319.6	0.0481371	mg/L	0.00110305	0.0481371	mg/L	0.00110305	2.29%
Cr 206.158	53.9	0.0019785	mg/L	0.00038305	0.0019785	mg/L	0.00038305	19.36%
Co 228.616	13.1	-0.0013952	mg/L	0.00024143	-0.0013952	mg/L	0.00024143	17.31%
Cu 324.752	94.2	-0.0012906	mg/L	0.00007073	-0.0012906	mg/L	0.00007073	5.48%
Fe 273.955	170.4	-0.0258786	mg/L	0.00107710	-0.0258786	mg/L	0.00107710	4.16%
Pb 220.353	-5.2	-0.0036485	mg/L	0.00093344	-0.0036485	mg/L	0.00093344	25.58%
Mg 279.077	1665.1	-0.323867	mg/L	0.0027622	-0.323867	mg/L	0.0027622	0.85%
Mn 257.610	557.3	-0.0039841	mg/L	0.00003710	-0.0039841	mg/L	0.00003710	0.93%
Mo 202.031	-14.2	-0.0064361	mg/L	0.00031879	-0.0064361	mg/L	0.00031879	4.95%
Ni 231.604	73.8	-0.0026208	mg/L	0.00028617	-0.0026208	mg/L	0.00028617	10.92%
Se 196.026	0.3	-0.0022621	mg/L	0.00351607	-0.0022621	mg/L	0.00351607	155.43%
Ag 328.068	-15.3	-0.0003939	mg/L	0.00064707	-0.0003939	mg/L	0.00064707	164.28%
Na 330.237	505135.6	1234.57	mg/L	1.120	1234.57	mg/L	1.120	0.09%
Tl 190.801	2.6	-0.0019906	mg/L	0.00162710	-0.0019906	mg/L	0.00162710	81.74%
Sn 189.927	21.5	0.0012138	mg/L	0.00062545	0.0012138	mg/L	0.00062545	51.53%
Ti 334.940	93.4	-0.0053610	mg/L	0.00000678	-0.0053610	mg/L	0.00000678	0.13%
V 292.402	-28.3	-0.0041523	mg/L	0.00109272	-0.0041523	mg/L	0.00109272	26.32%
Zn 206.200	199.8	0.0042757	mg/L	0.00002233	0.0042757	mg/L	0.00002233	0.52%

Sequence No.: 46  
 Sample ID: EF-V-129043  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 155  
 Date Collected: 12/12/2011 8:51:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: EF-V-129043

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	257.2	0.0215979	mg/L	0.00257913	0.0215979	mg/L	0.00257913	11.94%
Sb 206.836	-2.1	-0.0041213	mg/L	0.00092561	-0.0041213	mg/L	0.00092561	22.46%
As 188.979	-7.7	-0.0067734	mg/L	0.00135728	-0.0067734	mg/L	0.00135728	20.04%
Ba 233.527	171.3	-0.0009887	mg/L	0.00003243	-0.0009887	mg/L	0.00003243	3.28%
Be 234.861	28.1	-0.0013688	mg/L	0.00001093	-0.0013688	mg/L	0.00001093	0.80%
Cd 226.502	15.5	-0.0026311	mg/L	0.00002856	-0.0026311	mg/L	0.00002856	1.09%
Ca 315.887	36214.5	0.104001	mg/L	0.0019551	0.104001	mg/L	0.0019551	1.88%
Cr 206.158	45.1	0.0013265	mg/L	0.00007355	0.0013265	mg/L	0.00007355	5.54%
Co 228.616	5.4	-0.0017362	mg/L	0.00033899	-0.0017362	mg/L	0.00033899	19.52%
Cu 324.752	34.9	-0.0018548	mg/L	0.00085298	-0.0018548	mg/L	0.00085298	45.99%
Fe 273.955	371.5	-0.0130230	mg/L	0.00044313	-0.0130230	mg/L	0.00044313	3.40%
Pb 220.353	-0.7	-0.0030014	mg/L	0.00090272	-0.0030014	mg/L	0.00090272	30.08%
Mg 279.077	1960.2	-0.302989	mg/L	0.0030163	-0.302989	mg/L	0.0030163	1.00%
Mn 257.610	702.0	-0.0036363	mg/L	0.00001206	-0.0036363	mg/L	0.00001206	0.33%
Mo 202.031	-18.4	-0.0068245	mg/L	0.00018801	-0.0068245	mg/L	0.00018801	2.75%
Ni 231.604	3.6	-0.0044861	mg/L	0.00027042	-0.0044861	mg/L	0.00027042	6.03%
Se 196.026	5.0	0.0005000	mg/L	0.00463699	0.0005000	mg/L	0.00463699	927.46%
Ag 328.068	-0.9	-0.0002491	mg/L	0.00018486	-0.0002491	mg/L	0.00018486	74.20%
Na 330.237	1828.9	4.90065	mg/L	0.117834	4.90065	mg/L	0.117834	2.40%
Tl 190.801	-1.2	-0.0045373	mg/L	0.00116195	-0.0045373	mg/L	0.00116195	25.61%
Sn 189.927	0.6	-0.0037349	mg/L	0.00141672	-0.0037349	mg/L	0.00141672	37.93%
Ti 334.940	31.7	-0.0055877	mg/L	0.00000223	-0.0055877	mg/L	0.00000223	0.04%
V 292.402	7.5	-0.0037255	mg/L	0.00022347	-0.0037255	mg/L	0.00022347	6.00%
Zn 206.200	294.2	0.0075052	mg/L	0.00038390	0.0075052	mg/L	0.00038390	5.12%

Sequence No.: 47  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/12/2011 8:54:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3515547.5	446.616	mg/L	4.9704	446.616 mg/L	4.9704	1.11%
QC value within limits for Al 308.215 Recovery = 89.32%							
Sb 206.836	-31.4	0.0139869	mg/L	0.00124131	0.0139869 mg/L	0.00124131	8.87%
As 188.979	-39.6	-0.0120369	mg/L	0.00074680	-0.0120369 mg/L	0.00074680	6.20%
Ba 233.527	155.4	-0.0038994	mg/L	0.00016725	-0.0038994 mg/L	0.00016725	4.29%
Be 234.861	-65967.6	-0.0179379	mg/L	0.00039048	-0.0179379 mg/L	0.00039048	2.18%
Cd 226.502	301.4	-0.0017480	mg/L	0.00008364	-0.0017480 mg/L	0.00008364	4.78%
Ca 315.887	22812325.8	439.625	mg/L	1.1519	439.625 mg/L	1.1519	0.26%
QC value within limits for Ca 315.887 Recovery = 87.93%							
Cr 206.158	36.9	0.0004482	mg/L	0.00075142	0.0004482 mg/L	0.00075142	167.64%
Co 228.616	93.0	-0.0023451	mg/L	0.00048041	-0.0023451 mg/L	0.00048041	20.49%
Cu 324.752	1469.1	0.0006477	mg/L	0.00008987	0.0006477 mg/L	0.00008987	13.87%
Fe 273.955	2691229.3	172.004	mg/L	2.0157	172.004 mg/L	2.0157	1.17%
QC value within limits for Fe 273.955 Recovery = 86.00%							
Pb 220.353	-508.6	0.0014920	mg/L	0.00230271	0.0014920 mg/L	0.00230271	154.33%
Mg 279.077	6633939.9	469.012	mg/L	0.4272	469.012 mg/L	0.4272	0.09%
QC value within limits for Mg 279.077 Recovery = 93.80%							
Mn 257.610	-2211.0	-0.0092049	mg/L	0.00017006	-0.0092049 mg/L	0.00017006	1.85%
Mo 202.031	-175.8	0.0011830	mg/L	0.00045520	0.0011830 mg/L	0.00045520	38.48%
Ni 231.604	239.6	-0.0023710	mg/L	0.00013259	-0.0023710 mg/L	0.00013259	5.59%
Se 196.026	-846.8	0.0240969	mg/L	0.00290500	0.0240969 mg/L	0.00290500	12.06%
Ag 328.068	-1053.7	-0.0007368	mg/L	0.00079236	-0.0007368 mg/L	0.00079236	107.55%
Na 330.237	232.9	1.00123	mg/L	0.049663	1.00123 mg/L	0.049663	4.96%
Tl 190.801	-9.7	0.0029297	mg/L	0.00825626	0.0029297 mg/L	0.00825626	281.81%
Sn 189.927	-176.5	-0.0044271	mg/L	0.00130374	-0.0044271 mg/L	0.00130374	29.45%
Ti 334.940	-272.4	-0.0067037	mg/L	0.00008391	-0.0067037 mg/L	0.00008391	1.25%
V 292.402	14939.9	0.0157732	mg/L	0.00123549	0.0157732 mg/L	0.00123549	7.83%
Zn 206.200	76.4	-0.0121114	mg/L	0.00020269	-0.0121114 mg/L	0.00020269	1.67%

All analyte(s) passed QC.

Sequence No.: 48  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 8:58:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3499999.2	444.641 mg/L	3.0594	444.641 mg/L	3.0594	0.69%
QC value within limits for Al	308.215	Recovery = 88.93%				
Sb 206.836	1158.3	0.958890 mg/L	0.0300745	0.958890 mg/L	0.0300745	3.14%
QC value within limits for Sb	206.836	Recovery = 95.89%				
As 188.979	1084.2	0.948224 mg/L	0.0076997	0.948224 mg/L	0.0076997	0.81%
QC value within limits for As	188.979	Recovery = 94.82%				
Ba 233.527	23686.9	0.461921 mg/L	0.0037312	0.461921 mg/L	0.0037312	0.81%
QC value within limits for Ba	233.527	Recovery = 92.38%				
Be 234.861	187938.3	0.468272 mg/L	0.0031908	0.468272 mg/L	0.0031908	0.68%
QC value within limits for Be	234.861	Recovery = 93.65%				
Cd 226.502	61747.6	0.883938 mg/L	0.0108864	0.883938 mg/L	0.0108864	1.23%
QC value within limits for Cd	226.502	Recovery = 88.39%				
Ca 315.887	23124172.7	445.643 mg/L	1.1224	445.643 mg/L	1.1224	0.25%
QC value within limits for Ca	315.887	Recovery = 89.13%				
Cr 206.158	5303.2	0.462308 mg/L	0.0002009	0.462308 mg/L	0.0002009	0.04%
QC value within limits for Cr	206.158	Recovery = 92.46%				
Co 228.616	10004.2	0.436587 mg/L	0.0035168	0.436587 mg/L	0.0035168	0.81%
QC value within limits for Co	228.616	Recovery = 87.32%				
Cu 324.752	53424.3	0.493413 mg/L	0.0041658	0.493413 mg/L	0.0041658	0.84%
QC value within limits for Cu	324.752	Recovery = 98.68%				
Fe 273.955	2675528.5	171.000 mg/L	1.2647	171.000 mg/L	1.2647	0.74%
QC value within limits for Fe	273.955	Recovery = 85.50%				
Pb 220.353	5934.3	0.909569 mg/L	0.0033485	0.909569 mg/L	0.0033485	0.37%
QC value within limits for Pb	220.353	Recovery = 90.96%				
Mg 279.077	6719459.7	475.064 mg/L	1.4974	475.064 mg/L	1.4974	0.32%
QC value within limits for Mg	279.077	Recovery = 95.01%				
Mn 257.610	193789.4	0.461140 mg/L	0.0027089	0.461140 mg/L	0.0027089	0.59%
QC value within limits for Mn	257.610	Recovery = 92.23%				
Mo 202.031	-174.2	0.0012148 mg/L	0.00264439	0.0012148 mg/L	0.00264439	217.68%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604	33111.0	0.870270 mg/L	0.0065399	0.870270 mg/L	0.0065399	0.75%
QC value within limits for Ni	231.604	Recovery = 87.03%				
Se 196.026	704.6	0.913877 mg/L	0.0210532	0.913877 mg/L	0.0210532	2.30%
QC value within limits for Se	196.026	Recovery = 91.39%				
Ag 328.068	102274.0	1.02588 mg/L	0.007048	1.02588 mg/L	0.007048	0.69%
QC value within limits for Ag	328.068	Recovery = 102.59%				
Na 330.237	63.4	0.587133 mg/L	0.3040658	0.587133 mg/L	0.3040658	51.79%
QC value greater than the upper limit for Na	330.237	Recovery = Not calculated				
Tl 190.801	1292.8	0.869406 mg/L	0.0312214	0.869406 mg/L	0.0312214	3.59%
QC value within limits for Tl	190.801	Recovery = 86.94%				
Sn 189.927	-188.3	-0.0066531 mg/L	0.00318502	-0.0066531 mg/L	0.00318502	47.87%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940	-131.4	-0.0061862 mg/L	0.00022381	-0.0061862 mg/L	0.00022381	3.62%
QC value within limits for Ti	334.940	Recovery = Not calculated				
V 292.402	50809.3	0.451440 mg/L	0.0050070	0.451440 mg/L	0.0050070	1.11%
QC value within limits for V	292.402	Recovery = 90.29%				
Zn 206.200	25859.4	0.869635 mg/L	0.0065177	0.869635 mg/L	0.0065177	0.75%
QC value within limits for Zn	206.200	Recovery = 86.96%				

QC Failed. Continue with analysis.

Sequence No.: 49  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/12/2011 9:02:12 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	41396.7	5.24198 mg/L	0.020137	5.24198 mg/L	0.020137	0.38%
QC value within limits for Al 308.215 Recovery = 104.84%						
Sb 206.836	598.9	0.480113 mg/L	0.0015183	0.480113 mg/L	0.0015183	0.32%
QC value within limits for Sb 206.836 Recovery = 96.02%						
As 188.979	556.6	0.475229 mg/L	0.0030490	0.475229 mg/L	0.0030490	0.64%
QC value within limits for As 188.979 Recovery = 95.05%						
Ba 233.527	25003.1	0.490859 mg/L	0.0008167	0.490859 mg/L	0.0008167	0.17%
QC value within limits for Ba 233.527 Recovery = 98.17%						
Be 234.861	254957.8	0.490719 mg/L	0.0036548	0.490719 mg/L	0.0036548	0.74%
QC value within limits for Be 234.861 Recovery = 98.14%						
Cd 226.502	34072.9	0.488165 mg/L	0.0057266	0.488165 mg/L	0.0057266	1.17%
QC value within limits for Cd 226.502 Recovery = 97.63%						
Ca 315.887	2648890.4	50.5220 mg/L	0.21137	50.5220 mg/L	0.21137	0.42%
QC value within limits for Ca 315.887 Recovery = 101.04%						
Cr 206.158	5727.1	0.487615 mg/L	0.0025320	0.487615 mg/L	0.0025320	0.52%
QC value within limits for Cr 206.158 Recovery = 97.52%						
Co 228.616	10938.2	0.481528 mg/L	0.0022743	0.481528 mg/L	0.0022743	0.47%
QC value within limits for Co 228.616 Recovery = 96.31%						
Cu 324.752	51546.2	0.485554 mg/L	0.0036745	0.485554 mg/L	0.0036745	0.76%
QC value within limits for Cu 324.752 Recovery = 97.11%						
Fe 273.955	80456.4	5.10653 mg/L	0.020283	5.10653 mg/L	0.020283	0.40%
QC value within limits for Fe 273.955 Recovery = 102.13%						
Pb 220.353	3451.9	0.486292 mg/L	0.0007308	0.486292 mg/L	0.0007308	0.15%
QC value within limits for Pb 220.353 Recovery = 97.26%						
Mg 279.077	714319.1	50.1074 mg/L	0.11402	50.1074 mg/L	0.11402	0.23%
QC value within limits for Mg 279.077 Recovery = 100.21%						
Mn 257.610	209274.6	0.496507 mg/L	0.0040655	0.496507 mg/L	0.0040655	0.82%
QC value within limits for Mn 257.610 Recovery = 99.30%						
Mo 202.031	5226.2	0.476896 mg/L	0.0012403	0.476896 mg/L	0.0012403	0.26%
QC value within limits for Mo 202.031 Recovery = 95.38%						
Ni 231.604	18163.5	0.477682 mg/L	0.0016176	0.477682 mg/L	0.0016176	0.34%
QC value within limits for Ni 231.604 Recovery = 95.54%						
Se 196.026	835.9	0.490491 mg/L	0.0003671	0.490491 mg/L	0.0003671	0.07%
QC value within limits for Se 196.026 Recovery = 98.10%						
Ag 328.068	9738.7	0.0973001 mg/L	0.00054422	0.0973001 mg/L	0.00054422	0.56%
QC value within limits for Ag 328.068 Recovery = 97.30%						
Na 330.237	18928.6	46.6784 mg/L	0.43552	46.6784 mg/L	0.43552	0.93%
QC value within limits for Na 330.237 Recovery = 93.36%						
Tl 190.801	732.4	0.488554 mg/L	0.0005381	0.488554 mg/L	0.0005381	0.11%
QC value within limits for Tl 190.801 Recovery = 97.71%						
Sn 189.927	2067.0	0.489632 mg/L	0.0029147	0.489632 mg/L	0.0029147	0.60%
QC value within limits for Sn 189.927 Recovery = 97.93%						
Ti 334.940	136365.6	0.494877 mg/L	0.0046282	0.494877 mg/L	0.0046282	0.94%
QC value within limits for Ti 334.940 Recovery = 98.98%						
V 292.402	40586.4	0.477782 mg/L	0.0027092	0.477782 mg/L	0.0027092	0.57%
QC value within limits for V 292.402 Recovery = 95.56%						
Zn 206.200	14100.6	0.478445 mg/L	0.0003424	0.478445 mg/L	0.0003424	0.07%
QC value within limits for Zn 206.200 Recovery = 95.69%						

All analyte(s) passed QC.

Sequence No.: 50  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/12/2011 9:05:30 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	2129.3	0.259408 mg/L	0.0068827	0.259408 mg/L	0.0068827	2.65%
QC value within limits for Al	308.215	Recovery = Not calculated				
Sb 206.836	5.9	0.0022395 mg/L	0.00264201	0.0022395 mg/L	0.00264201	117.97%
QC value within limits for Sb	206.836	Recovery = Not calculated				
As 188.979	-0.4	-0.0005669 mg/L	0.00288349	-0.0005669 mg/L	0.00288349	508.62%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527	37.4	-0.0036399 mg/L	0.0005869	-0.0036399 mg/L	0.0005869	1.61%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 234.861	210.1	-0.0009590 mg/L	0.00003189	-0.0009590 mg/L	0.00003189	3.33%
QC value within limits for Be	234.861	Recovery = Not calculated				
Cd 226.502	58.8	-0.0020087 mg/L	0.00008320	-0.0020087 mg/L	0.00008320	4.14%
QC value within limits for Cd	226.502	Recovery = Not calculated				
Ca 315.887	22710.4	-0.156594 mg/L	0.0036574	-0.156594 mg/L	0.0036574	2.34%
QC value within limits for Ca	315.887	Recovery = Not calculated				
Cr 206.158	21.9	-0.0008388 mg/L	0.00056205	-0.0008388 mg/L	0.00056205	67.01%
QC value within limits for Cr	206.158	Recovery = Not calculated				
Co 228.616	14.2	-0.0013453 mg/L	0.00049504	-0.0013453 mg/L	0.00049504	36.80%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cu 324.752	-0.6	-0.0021862 mg/L	0.00011718	-0.0021862 mg/L	0.00011718	5.36%
QC value within limits for Cu	324.752	Recovery = Not calculated				
Fe 273.955	1860.4	0.0821602 mg/L	0.00185050	0.0821602 mg/L	0.00185050	2.25%
QC value within limits for Fe	273.955	Recovery = Not calculated				
Pb 220.353	6.0	-0.0020215 mg/L	0.00002404	-0.0020215 mg/L	0.00002404	1.19%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Mg 279.077	5275.4	-0.0683859 mg/L	0.00360002	-0.0683859 mg/L	0.00360002	5.26%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610	256.4	-0.0047048 mg/L	0.00001884	-0.0047048 mg/L	0.00001884	0.40%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031	6.0	-0.0045603 mg/L	0.00017383	-0.0045603 mg/L	0.00017383	3.81%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Ni 231.604	21.5	-0.0040107 mg/L	0.00015937	-0.0040107 mg/L	0.00015937	3.97%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Se 196.026	0.1	-0.0019753 mg/L	0.00379639	-0.0019753 mg/L	0.00379639	192.19%
QC value within limits for Se	196.026	Recovery = Not calculated				
Ag 328.068	114.2	0.0008908 mg/L	0.00035836	0.0008908 mg/L	0.00035836	40.23%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Na 330.237	196.1	0.911331 mg/L	0.1690877	0.911331 mg/L	0.1690877	18.55%
QC value within limits for Na	330.237	Recovery = Not calculated				
Tl 190.801	7.5	0.0012536 mg/L	0.00221528	0.0012536 mg/L	0.00221528	176.72%
QC value within limits for Tl	190.801	Recovery = Not calculated				
Sn 189.927	6.1	-0.0024451 mg/L	0.00091060	-0.0024451 mg/L	0.00091060	37.24%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940	74.6	-0.0054302 mg/L	0.00013589	-0.0054302 mg/L	0.00013589	2.50%
QC value within limits for Ti	334.940	Recovery = Not calculated				
V 292.402	49.9	-0.0032701 mg/L	0.00030320	-0.0032701 mg/L	0.00030320	9.27%
QC value within limits for V	292.402	Recovery = Not calculated				
Zn 206.200	27.7	-0.0016178 mg/L	0.00018039	-0.0016178 mg/L	0.00018039	11.15%
QC value within limits for Zn	206.200	Recovery = Not calculated				

All analyte(s) passed QC.

File T13480B2

Batch 13480

Method: PE2 4300DV AXIAL

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Date: 1/16/2012 6:52:43 PM

Analyst *LAB* 1/17/12

Method Loaded

Method Name: PE2 4300DV AXIAL  
IEC File: IEC092611B2.iec  
Method Description: 200.716010B

Method Last Saved: 1/16/2012 10:36:38 AM  
MSF File:

*sh* 1/17/12

Sequence No.: 1

Sample ID: Calib Blk 1 V-130860

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/16/2012 6:49:09 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Blk 1 V-130860

Analyte	Mean Corrected		Std.Dev.	RSD	Calib	
	Intensity				Conc.	Units
Sc 361.383	1107643.5		708.00	0.06%	100.0	%
Y 371.029	442483.5		520.13	0.12%	100	%
Ag 328.068†	-87.7		18.97	21.64%	[0.00]	mg/L
Al 308.215†	5321.8		41.79	0.79%	[0.00]	mg/L
As 188.979†	-11.0		3.38	30.81%	[0.00]	mg/L
Ba 233.527†	-706.5		15.74	2.23%	[0.00]	mg/L
Be 313.107†	-1481.6		27.31	1.84%	[0.00]	mg/L
Ca 315.887†	-35848.9		231.44	0.65%	[0.00]	mg/L
Cd 228.802†	324.4		5.42	1.67%	[0.00]	mg/L
Co 228.616†	30.6		9.12	29.76%	[0.00]	mg/L
Cr 267.716†	256.4		1.82	0.71%	[0.00]	mg/L
Cu 327.393†	-2188.9		38.07	1.74%	[0.00]	mg/L
Fe 273.955†	-3211.4		0.32	0.01%	[0.00]	mg/L
K 404.721†	-388.9		48.19	12.39%	[0.00]	mg/L
Mg 279.077†	-6493.5		116.21	1.79%	[0.00]	mg/L
Mn 257.610†	-1730.2		4.42	0.26%	[0.00]	mg/L
Mo 202.031†	1.3		4.90	367.32%	[0.00]	mg/L
Na 330.237†	-485.3		18.97	3.91%	[0.00]	mg/L
Ni 231.604†	112.8		2.99	2.65%	[0.00]	mg/L
Pb 220.353†	-6.3		7.78	122.74%	[0.00]	mg/L
Sb 206.836†	-43.5		0.23	0.52%	[0.00]	mg/L
Se 196.026†	29.0		5.02	17.29%	[0.00]	mg/L
Sn 189.927†	7.9		0.64	8.07%	[0.00]	mg/L
Ti 334.940†	1865.3		4.02	0.22%	[0.00]	mg/L
Tl 190.801†	-13.4		0.22	1.67%	[0.00]	mg/L
V 290.880†	2697.0		19.25	0.71%	[0.00]	mg/L
Zn 206.200†	21.3		4.28	20.04%	[0.00]	mg/L

13480  
12491

As reported

Sequence No.: 2

Sample ID: Calib 1 V-128669

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 1/16/2012 6:53:55 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1132788.0	11087.26	0.98%	102 %
Y 371.029	450797.5	3928.79	0.87%	102 %
As 188.979†	6.2	0.21	3.34%	[0.005] mg/L
Be 313.107†	7367.0	141.74	1.92%	[0.003] mg/L
Cd 228.802†	102.7	4.31	4.20%	[0.003] mg/L
Pb 220.353†	19.5	8.19	41.89%	[0.004] mg/L
Tl 190.801†	3.1	0.29	9.44%	[0.005] mg/L

Sequence No.: 3

Sample ID: Calib 2 V-130865

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 1/16/2012 6:57:34 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 2 V-130865

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1116170.1	8074.48	0.72%	101 %
Y 371.029	444133.7	2937.67	0.66%	100 %
Ag 328.068†	269.4	13.76	5.11%	[0.002] mg/L
Al 308.215†	2935.3	59.30	2.02%	[0.10] mg/L
As 188.979†	12.4	1.36	11.01%	[0.010] mg/L
Ba 233.527†	1224.8	0.45	0.04%	[0.010] mg/L
Be 313.107†	24709.6	315.62	1.28%	[0.010] mg/L
Ca 315.887†	98969.7	689.76	0.70%	[1.0] mg/L
Cd 228.802†	352.4	11.06	3.14%	[0.010] mg/L
Co 228.616†	293.5	1.85	0.63%	[0.010] mg/L
Cr 267.716†	656.1	1.74	0.26%	[0.010] mg/L
Cu 327.393†	1250.4	3.35	0.27%	[0.010] mg/L
Fe 273.955†	891.3	26.14	2.93%	[0.10] mg/L
K 404.721†	128.2	26.37	20.56%	[1.0] mg/L
Mg 279.077†	12061.1	92.50	0.77%	[1.0] mg/L
Mn 257.610†	3921.4	15.25	0.39%	[0.010] mg/L
Mo 202.031†	126.4	6.06	4.80%	[0.010] mg/L
Na 330.237†	782.7	0.52	0.07%	[1.0] mg/L
Ni 231.604†	383.6	4.06	1.06%	[0.010] mg/L
Pb 220.353†	81.8	5.08	6.22%	[0.010] mg/L
Sb 206.836†	5.3	0.61	11.62%	[0.010] mg/L
Se 196.026†	9.4	3.18	33.82%	[0.010] mg/L
Sn 189.927†	11.8	0.36	3.07%	[0.010] mg/L
Ti 334.940†	6416.0	114.87	1.79%	[0.010] mg/L
Tl 190.801†	7.8	2.89	37.21%	[0.010] mg/L
V 290.880†	1350.8	15.43	1.14%	[0.010] mg/L
Zn 206.200†	228.8	0.17	0.07%	[0.010] mg/L

Sequence No.: 4

Sample ID: Calib 3 V-129805

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/16/2012 7:01:15 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 3 V-129805

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1073058.1	8536.88	0.80%	96.9	%
Y 371.029	420902.0	3070.37	0.73%	95.1	%
Ag 328.068†	13067.5	292.93	2.24%	[0.10]	mg/L
Al 308.215†	135248.8	3352.66	2.48%	[5.0]	mg/L
As 188.979†	442.8	10.65	2.40%	[0.50]	mg/L
Ba 233.527†	58886.9	1416.22	2.40%	[0.50]	mg/L
Be 313.107†	1286110.1	14917.17	1.16%	[0.50]	mg/L
Ca 315.887†	4816685.4	51096.96	1.06%	[50]	mg/L
Cd 228.802†	17320.4	431.01	2.49%	[0.50]	mg/L
Co 228.616†	14486.1	323.22	2.23%	[0.50]	mg/L
Cr 267.716†	32303.5	812.33	2.51%	[0.50]	mg/L
Cu 327.393†	59058.5	1383.93	2.34%	[0.50]	mg/L
Fe 273.955†	43822.4	1108.13	2.53%	[5.0]	mg/L
K 404.721†	4590.4	122.76	2.67%	[50]	mg/L
Mg 279.077†	571168.7	5971.66	1.05%	[50]	mg/L
Mn 257.610†	188371.0	4517.92	2.40%	[0.50]	mg/L
Mo 202.031†	5985.0	47.18	0.79%	[0.50]	mg/L
Na 330.237†	44478.3	978.19	2.20%	[50]	mg/L
Ni 231.604†	18719.9	458.02	2.45%	[0.50]	mg/L
Pb 220.353†	4440.0	13.39	0.30%	[0.50]	mg/L
Sb 206.836†	460.2	5.83	1.27%	[0.50]	mg/L
Se 196.026†	421.2	8.31	1.97%	[0.50]	mg/L
Sn 189.927†	639.8	2.35	0.37%	[0.50]	mg/L
Ti 334.940†	324408.8	4063.25	1.25%	[0.50]	mg/L
Tl 190.801†	397.5	4.39	1.10%	[0.50]	mg/L
V 290.880†	69359.9	1650.41	2.38%	[0.50]	mg/L
Zn 206.200†	13273.3	368.74	2.78%	[0.50]	mg/L

Sequence No.: 5  
 Sample ID: Calib 4 V-130869  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 1/16/2012 7:05:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: Calib 4 V-130869

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units
Sc 361.383	1030719.6	14690.01	1.43%	93.1 %
Y 371.029	405669.0	5353.56	1.32%	91.7 %
Ag 328.068†	26242.9	64.07	0.24%	[0.20] mg/L
Al 308.215†	270128.2	2013.96	0.75%	[10] mg/L
As 188.979†	877.8	6.72	0.77%	[1.0] mg/L
Ba 233.527†	116096.7	681.83	0.59%	[1.0] mg/L
Be 313.107†	2541482.7	33172.38	1.31%	[1.0] mg/L
Ca 315.887†	9457560.8	107744.16	1.14%	[100] mg/L
Cd 228.802†	34556.6	187.69	0.54%	[1.0] mg/L
Co 228.616†	28389.4	129.59	0.46%	[1.0] mg/L
Cr 267.716†	63980.6	481.16	0.75%	[1.0] mg/L
Cu 327.393†	117826.6	751.38	0.64%	[1.0] mg/L
Fe 273.955†	86442.3	463.77	0.54%	[10] mg/L
K 404.721†	10053.0	21.31	0.21%	[100] mg/L
Mg 279.077†	1123338.2	4184.40	0.37%	[100] mg/L
Mn 257.610†	371450.0	2100.64	0.57%	[1.0] mg/L
Mo 202.031†	11916.4	134.45	1.13%	[1.0] mg/L
Na 330.237†	95483.2	588.54	0.62%	[100] mg/L
Ni 231.604†	36594.0	162.52	0.44%	[1.0] mg/L
Pb 220.353†	8677.6	93.52	1.08%	[1.0] mg/L
Sb 206.836†	919.6	12.05	1.31%	[1.0] mg/L
Se 196.026†	838.4	4.23	0.50%	[1.0] mg/L
Sn 189.927†	1271.0	19.70	1.55%	[1.0] mg/L
Ti 334.940†	644775.7	5385.91	0.84%	[1.0] mg/L
Tl 190.801†	776.4	15.72	2.02%	[1.0] mg/L
V 290.880†	136713.1	823.35	0.60%	[1.0] mg/L
Zn 206.200†	26190.9	25.12	0.10%	[1.0] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-6.7	131100	0.00000	0.999998	
Al 308.215	3	Lin, Calc Int	139.9	27000	0.00000	1.000000	
As 188.979	4	Lin, Calc Int	2.2	876.8	0.00000	0.999989	
Ba 233.527	3	Lin, Calc Int	181.6	116200	0.00000	0.999973	
Be 313.107	4	Lin, Calc Int	1614.2	2546000	0.00000	0.999982	
Ca 315.887	3	Lin, Calc Int	17993.8	94710	0.00000	0.999955	
Cd 228.802	4	Lin, Calc Int	7.1	34560	0.00000	0.999999	
Co 228.616	3	Lin, Calc Int	57.4	28440	0.00000	0.999945	
Cr 267.716	3	Lin, Calc Int	64.4	64030	0.00000	0.999988	
Cu 327.393	3	Lin, Calc Int	59.2	117800	0.00000	0.999999	
Fe 273.955	3	Lin, Calc Int	121.6	8654	0.00000	0.999975	
K 404.721	3	Lin, Calc Int	-66.8	99.60	0.00000	0.998939	
Mg 279.077	3	Lin, Calc Int	2104.7	11250	0.00000	0.999963	
Mn 257.610	3	Lin, Calc Int	575.5	371800	0.00000	0.999974	
Mo 202.031	3	Lin, Calc Int	8.2	11920	0.00000	0.999998	
Na 330.237	3	Lin, Calc Int	-672.1	949.9	0.00000	0.999384	
Ni 231.604	3	Lin, Calc Int	85.0	36660	0.00000	0.999930	
Pb 220.353	4	Lin, Calc Int	6.3	8710	0.00000	0.999931	
Sb 206.836	3	Lin, Calc Int	-1.7	921.8	0.00000	0.999992	
Se 196.026	3	Lin, Calc Int	0.8	838.3	0.00000	0.999997	
Sn 189.927	3	Lin, Calc Int	0.3	1272	0.00000	0.999993	
Ti 334.940	3	Lin, Calc Int	353.4	645200	0.00000	0.999995	
Tl 190.801	4	Lin, Calc Int	0.9	779.0	0.00000	0.999929	
V 290.880	3	Lin, Calc Int	175.2	136900	0.00000	0.999971	
Zn 206.200	3	Lin, Calc Int	17.3	26240	0.00000	0.999972	

Sequence No.: 6

Sample ID: ICS3 V-129805

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/16/2012 7:09:57 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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 Mean Data: ICS3 V-129805

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1081020.3	97.6 %	0.85			0.87%
Y 371.029	423753.4	95.8 %	0.77			0.81%
Ag 328.068†	13141.2	0.100372 mg/L	0.0008763	0.100372 mg/L	0.0008763	0.87%
QC value within limits for Ag		328.068 Recovery = 100.37%				
Al 308.215†	135504.2	5.00296 mg/L	0.062736	5.00296 mg/L	0.062736	1.25%
QC value within limits for Al		308.215 Recovery = 100.06%				
As 188.979†	440.2	0.499499 mg/L	0.0030828	0.499499 mg/L	0.0030828	0.62%
QC value within limits for As		188.979 Recovery = 99.90%				
Ba 233.527†	59184.0	0.507709 mg/L	0.0061218	0.507709 mg/L	0.0061218	1.21%
QC value within limits for Ba		233.527 Recovery = 101.54%				
Be 313.107†	1290351.7	0.505888 mg/L	0.0059836	0.505888 mg/L	0.0059836	1.18%
QC value within limits for Be		313.107 Recovery = 101.18%				
Ca 315.887†	4843069.7	50.9457 mg/L	0.59462	50.9457 mg/L	0.59462	1.17%
QC value within limits for Ca		315.887 Recovery = 101.89%				
Cd 228.802†	17383.4	0.502633 mg/L	0.0039153	0.502633 mg/L	0.0039153	0.78%
QC value within limits for Cd		228.802 Recovery = 100.53%				
Co 228.616†	14548.6	0.510232 mg/L	0.0061991	0.510232 mg/L	0.0061991	1.21%
QC value within limits for Co		228.616 Recovery = 102.05%				
Cr 267.716†	32458.0	0.509572 mg/L	0.0061656	0.509572 mg/L	0.0061656	1.21%
QC value within limits for Cr		267.716 Recovery = 101.91%				
Cu 327.393†	59087.5	0.499523 mg/L	0.0047646	0.499523 mg/L	0.0047646	0.95%
QC value within limits for Cu		327.393 Recovery = 99.90%				
Fe 273.955†	44068.2	5.09881 mg/L	0.057708	5.09881 mg/L	0.057708	1.13%
QC value within limits for Fe		273.955 Recovery = 101.98%				
K 404.721†	4664.2	47.5023 mg/L	0.33087	47.5023 mg/L	0.33087	0.70%
QC value within limits for K		404.721 Recovery = 95.00%				
Mg 279.077†	575222.7	50.9618 mg/L	0.58911	50.9618 mg/L	0.58911	1.16%
QC value within limits for Mg		279.077 Recovery = 101.92%				
Mn 257.610†	189365.2	0.508111 mg/L	0.0059484	0.508111 mg/L	0.0059484	1.17%
QC value within limits for Mn		257.610 Recovery = 101.62%				
Mo 202.031†	6010.9	0.502647 mg/L	0.0082488	0.502647 mg/L	0.0082488	1.64%
QC value within limits for Mo		202.031 Recovery = 100.53%				
Na 330.237†	44473.0	47.5270 mg/L	0.42069	47.5270 mg/L	0.42069	0.89%
QC value within limits for Na		330.237 Recovery = 95.05%				
Ni 231.604†	18812.8	0.511290 mg/L	0.0069246	0.511290 mg/L	0.0069246	1.35%
QC value within limits for Ni		231.604 Recovery = 102.26%				
Pb 220.353†	4471.3	0.512981 mg/L	0.0059211	0.512981 mg/L	0.0059211	1.15%
QC value within limits for Pb		220.353 Recovery = 102.60%				
Sb 206.836†	461.1	0.503457 mg/L	0.0053824	0.503457 mg/L	0.0053824	1.07%
QC value within limits for Sb		206.836 Recovery = 100.69%				
Se 196.026†	420.6	0.499963 mg/L	0.0146787	0.499963 mg/L	0.0146787	2.94%
QC value within limits for Se		196.026 Recovery = 99.99%				
Sn 189.927†	657.9	0.517099 mg/L	0.0115886	0.517099 mg/L	0.0115886	2.24%
QC value within limits for Sn		189.927 Recovery = 103.42%				
Ti 334.940†	324660.4	0.502679 mg/L	0.0061833	0.502679 mg/L	0.0061833	1.23%
QC value within limits for Ti		334.940 Recovery = 100.54%				
Tl 190.801†	398.3	0.513095 mg/L	0.0055948	0.513095 mg/L	0.0055948	1.09%
QC value within limits for Tl		190.801 Recovery = 102.62%				
V 290.880†	69689.7	0.504789 mg/L	0.0063650	0.504789 mg/L	0.0063650	1.26%
QC value within limits for V		290.880 Recovery = 100.96%				
Zn 206.200†	13417.4	0.509061 mg/L	0.0052827	0.509061 mg/L	0.0052827	1.04%
QC value within limits for Zn		206.200 Recovery = 101.81%				

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV V-129811 (2)

Date Collected: 1/16/2012 7:13:44 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICV V-129811 (2)

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	1046255.1		94.5 %	0.25			0.26%
Y 371.029	411112.2		92.9 %	0.28			0.30%
Ag 328.068†	25980.6	0.198376 mg/L		0.0014921	0.198376 mg/L	0.0014921	0.75%
QC value within limits for Ag		328.068	Recovery = 99.19%				
Al 308.215†	274582.5	10.1431 mg/L		0.07757	10.1431 mg/L	0.07757	0.76%
QC value within limits for Al		308.215	Recovery = 101.43%				
As 188.979†	888.3	1.01037 mg/L		0.004326	1.01037 mg/L	0.004326	0.43%
QC value within limits for As		188.979	Recovery = 101.04%				
Ba 233.527†	118963.6	1.02210 mg/L		0.005415	1.02210 mg/L	0.005415	0.53%
QC value within limits for Ba		233.527	Recovery = 102.21%				
Be 313.107†	2562720.3	1.00534 mg/L		0.011787	1.00534 mg/L	0.011787	1.17%
QC value within limits for Be		313.107	Recovery = 100.53%				
Ca 315.887†	9624314.6	101.429 mg/L		1.1115	101.429 mg/L	1.1115	1.10%
QC value within limits for Ca		315.887	Recovery = 101.43%				
Cd 228.802†	35150.4	1.01657 mg/L		0.007176	1.01657 mg/L	0.007176	0.71%
QC value within limits for Cd		228.802	Recovery = 101.66%				
Co 228.616†	29220.4	1.02686 mg/L		0.005321	1.02686 mg/L	0.005321	0.52%
QC value within limits for Co		228.616	Recovery = 102.69%				
Cr 267.716†	64655.2	1.01618 mg/L		0.006020	1.01618 mg/L	0.006020	0.59%
QC value within limits for Cr		267.716	Recovery = 101.62%				
Cu 327.393†	118859.9	1.00537 mg/L		0.006026	1.00537 mg/L	0.006026	0.60%
QC value within limits for Cu		327.393	Recovery = 100.54%				
Fe 273.955†	87341.1	10.1197 mg/L		0.06197	10.1197 mg/L	0.06197	0.61%
QC value within limits for Fe		273.955	Recovery = 101.20%				
K 404.721†	10097.5	102.056 mg/L		1.9208	102.056 mg/L	1.9208	1.88%
QC value within limits for K		404.721	Recovery = 102.06%				
Mg 279.077†	1145476.9	101.669 mg/L		0.6747	101.669 mg/L	0.6747	0.66%
QC value within limits for Mg		279.077	Recovery = 101.67%				
Mn 257.610†	375759.2	1.00978 mg/L		0.006516	1.00978 mg/L	0.006516	0.65%
QC value within limits for Mn		257.610	Recovery = 100.98%				
Mo 202.031†	12216.0	1.02228 mg/L		0.010837	1.02228 mg/L	0.010837	1.06%
QC value within limits for Mo		202.031	Recovery = 102.23%				
Na 330.237†	95929.2	101.698 mg/L		0.6696	101.698 mg/L	0.6696	0.66%
QC value within limits for Na		330.237	Recovery = 101.70%				
Ni 231.604†	37443.9	1.01996 mg/L		0.006722	1.01996 mg/L	0.006722	0.66%
QC value within limits for Ni		231.604	Recovery = 102.00%				
Pb 220.353†	8856.9	1.01690 mg/L		0.005179	1.01690 mg/L	0.005179	0.51%
QC value within limits for Pb		220.353	Recovery = 101.69%				
Sb 206.836†	929.9	1.01342 mg/L		0.004480	1.01342 mg/L	0.004480	0.44%
QC value within limits for Sb		206.836	Recovery = 101.34%				
Se 196.026†	852.7	1.01450 mg/L		0.003558	1.01450 mg/L	0.003558	0.35%
QC value within limits for Se		196.026	Recovery = 101.45%				
Sn 189.927†	1320.6	1.03820 mg/L		0.001453	1.03820 mg/L	0.001453	0.14%
QC value within limits for Sn		189.927	Recovery = 103.82%				
Ti 334.940†	653412.0	1.01225 mg/L		0.006645	1.01225 mg/L	0.006645	0.66%
QC value within limits for Ti		334.940	Recovery = 101.22%				
Tl 190.801†	818.8	1.05582 mg/L		0.009078	1.05582 mg/L	0.009078	0.86%
QC value within limits for Tl		190.801	Recovery = 105.58%				
V 290.880†	138455.9	1.00416 mg/L		0.005311	1.00416 mg/L	0.005311	0.53%
QC value within limits for V		290.880	Recovery = 100.42%				
Zn 206.200†	26941.2	1.02284 mg/L		0.007769	1.02284 mg/L	0.007769	0.76%
QC value within limits for Zn		206.200	Recovery = 102.28%				

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-130860

Date Collected: 1/16/2012 7:18:40 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICB V-130860

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	1126101.1	102 %	0.4			0.40%	
Y 371.029	449046.1	101 %	0.3			0.29%	
Ag 328.068†	42.7	0.0003755 mg/L	0.00033086	0.0003755 mg/L	0.00033086	88.10%	
QC value within limits for Ag	328.068	Recovery = Not calculated					
Al 308.215†	-42.6	-0.0067520 mg/L	0.00018007	-0.0067520 mg/L	0.00018007	2.67%	
QC value within limits for Al	308.215	Recovery = Not calculated					
As 188.979†	0.7	-0.0017140 mg/L	0.00548659	-0.0017140 mg/L	0.00548659	320.11%	
QC value within limits for As	188.979	Recovery = Not calculated					
Ba 233.527†	11.4	-0.0014647 mg/L	0.00006395	-0.0014647 mg/L	0.00006395	4.37%	
QC value within limits for Ba	233.527	Recovery = Not calculated					
Be 313.107†	6.8	-0.0006310 mg/L	0.00000881	-0.0006310 mg/L	0.00000881	1.40%	
QC value within limits for Be	313.107	Recovery = Not calculated					
Ca 315.887†	516.8	-0.184531 mg/L	0.0005733	-0.184531 mg/L	0.0005733	0.31%	
QC value within limits for Ca	315.887	Recovery = Not calculated					
Cd 228.802†	7.7	0.0000180 mg/L	0.00012397	0.0000180 mg/L	0.00012397	689.58%	
QC value within limits for Cd	228.802	Recovery = Not calculated					
Co 228.616†	-7.4	-0.0022793 mg/L	0.00005387	-0.0022793 mg/L	0.00005387	2.36%	
QC value within limits for Co	228.616	Recovery = Not calculated					
Cr 267.716†	-8.3	-0.0011378 mg/L	0.00013355	-0.0011378 mg/L	0.00013355	11.74%	
QC value within limits for Cr	267.716	Recovery = Not calculated					
Cu 327.393†	-10.6	-0.0005875 mg/L	0.00024429	-0.0005875 mg/L	0.00024429	41.58%	
QC value within limits for Cu	327.393	Recovery = Not calculated					
Fe 273.955†	20.1	-0.0118071 mg/L	0.00008670	-0.0118071 mg/L	0.00008670	0.73%	
QC value within limits for Fe	273.955	Recovery = Not calculated					
K 404.721†	-50.0	0.168371 mg/L	0.8261510	0.168371 mg/L	0.8261510	490.67%	
QC value within limits for K	404.721	Recovery = Not calculated					
Mg 279.077†	23.3	-0.185084 mg/L	0.0049423	-0.185084 mg/L	0.0049423	2.67%	
QC value within limits for Mg	279.077	Recovery = Not calculated					
Mn 257.610†	0.4	-0.0015473 mg/L	0.00000959	-0.0015473 mg/L	0.00000959	0.62%	
QC value within limits for Mn	257.610	Recovery = Not calculated					
Mo 202.031†	4.9	-0.0002733 mg/L	0.00031794	-0.0002733 mg/L	0.00031794	116.33%	
QC value within limits for Mo	202.031	Recovery = Not calculated					
Na 330.237†	35.6	0.745013 mg/L	0.0521985	0.745013 mg/L	0.0521985	7.01%	
QC value within limits for Na	330.237	Recovery = Not calculated					
Ni 231.604†	0.4	-0.0023067 mg/L	0.00002464	-0.0023067 mg/L	0.00002464	1.07%	
QC value within limits for Ni	231.604	Recovery = Not calculated					
Pb 220.353†	-8.0	-0.0016363 mg/L	0.00089323	-0.0016363 mg/L	0.00089323	54.59%	
QC value within limits for Pb	220.353	Recovery = Not calculated					
Sb 206.836†	-2.3	-0.0006618 mg/L	0.00039049	-0.0006618 mg/L	0.00039049	59.00%	
QC value within limits for Sb	206.836	Recovery = Not calculated					
Se 196.026†	10.5	0.0115989 mg/L	0.00155523	0.0115989 mg/L	0.00155523	13.41%	
QC value within limits for Se	196.026	Recovery = Not calculated					
Sn 189.927†	6.1	0.0045019 mg/L	0.00089751	0.0045019 mg/L	0.00089751	19.94%	
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	-48.9	-0.0006236 mg/L	0.00007658	-0.0006236 mg/L	0.00007658	12.28%	
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	3.6	0.0035065 mg/L	0.00310390	0.0035065 mg/L	0.00310390	88.52%	
QC value within limits for Tl	190.801	Recovery = Not calculated					
V 290.880†	-67.1	-0.0017560 mg/L	0.00020968	-0.0017560 mg/L	0.00020968	11.94%	
QC value within limits for V	290.880	Recovery = Not calculated					
Zn 206.200†	-2.5	-0.0007518 mg/L	0.00011822	-0.0007518 mg/L	0.00011822	15.73%	
QC value within limits for Zn	206.200	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-130873

Date Collected: 1/16/2012 7:22:19 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-130873

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	977135.1	88.2	%	0.25			0.28%
Y 371.029	381715.6	86.3	%	0.21			0.24%
Ag 328.068†	-1200.2	0.0028409	mg/L	0.00000016	0.0028409	mg/L	0.00000016 0.01%
Al 308.215†	13351627.2	494.435	mg/L	0.3586	494.435	mg/L	0.3586 0.07%
QC value within limits for Al 308.215 Recovery = 98.89%							
As 188.979†	-21.9	-0.0045292	mg/L	0.01148419	-0.0045292	mg/L	0.01148419 253.56%
Ba 233.527†	386.6	0.0017641	mg/L	0.00008864	0.0017641	mg/L	0.00008864 5.02%
Be 313.107†	-1843.1	-0.0013582	mg/L	0.00000874	-0.0013582	mg/L	0.00000874 0.64%
Ca 315.887†	45218886.3	477.255	mg/L	2.1010	477.255	mg/L	2.1010 0.44%
QC value within limits for Ca 315.887 Recovery = 95.45%							
Cd 228.802†	146.0	0.0010407	mg/L	0.00020363	0.0010407	mg/L	0.00020363 19.57%
Co 228.616†	-122.9	0.0007289	mg/L	0.00021141	0.0007289	mg/L	0.00021141 29.01%
Cr 267.716†	58.9	0.0061646	mg/L	0.00002049	0.0061646	mg/L	0.00002049 0.33%
Cu 327.393†	543.0	-0.0141158	mg/L	0.00036988	-0.0141158	mg/L	0.00036988 2.62%
Fe 273.955†	1572239.1	181.869	mg/L	0.1507	181.869	mg/L	0.1507 0.08%
QC value within limits for Fe 273.955 Recovery = 90.93%							
K 404.721†	-1075.6	-10.1286	mg/L	0.22359	-10.1286	mg/L	0.22359 2.21%
Mg 279.077†	5538684.6	492.315	mg/L	0.5919	492.315	mg/L	0.5919 0.12%
QC value within limits for Mg 279.077 Recovery = 98.46%							
Mn 257.610†	-3723.5	-0.0033347	mg/L	0.00010760	-0.0033347	mg/L	0.00010760 3.23%
Mo 202.031†	128.6	0.0056976	mg/L	0.00039395	0.0056976	mg/L	0.00039395 6.91%
Na 330.237†	-42.6	0.662645	mg/L	0.0889246	0.662645	mg/L	0.0889246 13.42%
Ni 231.604†	34.3	-0.0013737	mg/L	0.00010132	-0.0013737	mg/L	0.00010132 7.38%
Pb 220.353†	-543.8	0.0008230	mg/L	0.00076181	0.0008230	mg/L	0.00076181 92.56%
Sb 206.836†	-109.2	-0.0060929	mg/L	0.00026466	-0.0060929	mg/L	0.00026466 4.34%
Se 196.026†	21.6	0.0005046	mg/L	0.00456560	0.0005046	mg/L	0.00456560 904.72%
Sn 189.927†	13.6	0.0033067	mg/L	0.00400734	0.0033067	mg/L	0.00400734 121.19%
Ti 334.940†	459.7	0.0001648	mg/L	0.00008801	0.0001648	mg/L	0.00008801 53.41%
Tl 190.801†	-14.6	0.0026983	mg/L	0.00208914	0.0026983	mg/L	0.00208914 77.42%
V 290.880†	6659.5	0.0045205	mg/L	0.00058732	0.0045205	mg/L	0.00058732 12.99%
Zn 206.200†	154.5	-0.0101909	mg/L	0.00067978	-0.0101909	mg/L	0.00067978 6.67%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-130874

Date Collected: 1/16/2012 7:27:45 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-130874

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	981583.8	88.6 %	0.52			0.58%
Y 371.029	381770.3	86.3 %	0.53			0.62%
Ag 328.068†	134445.6	1.03717 mg/L	0.000456	1.03717 mg/L	0.000456	0.04%
	QC value within limits for Ag	328.068 Recovery =	103.72%			
Al 308.215†	13473445.6	498.946 mg/L	4.4622	498.946 mg/L	4.4622	0.89%
	QC value within limits for Al	308.215 Recovery =	99.79%			
As 188.979†	849.6	0.989811 mg/L	0.0132586	0.989811 mg/L	0.0132586	1.34%
	QC value within limits for As	188.979 Recovery =	98.98%			
Ba 233.527†	57892.4	0.496594 mg/L	0.0002206	0.496594 mg/L	0.0002206	0.04%
	QC value within limits for Ba	233.527 Recovery =	99.32%			
Be 313.107†	1244878.2	0.488384 mg/L	0.0061120	0.488384 mg/L	0.0061120	1.25%
	QC value within limits for Be	313.107 Recovery =	97.68%			
Ca 315.887†	45768566.3	483.059 mg/L	5.0307	483.059 mg/L	5.0307	1.04%
	QC value within limits for Ca	315.887 Recovery =	96.61%			
Cd 228.802†	34541.2	0.996091 mg/L	0.0112018	0.996091 mg/L	0.0112018	1.12%
	QC value within limits for Cd	228.802 Recovery =	99.61%			
Co 228.616†	12883.3	0.458171 mg/L	0.0055576	0.458171 mg/L	0.0055576	1.21%
	QC value within limits for Co	228.616 Recovery =	91.63%			
Cr 267.716†	30368.7	0.479931 mg/L	0.0057566	0.479931 mg/L	0.0057566	1.20%
	QC value within limits for Cr	267.716 Recovery =	95.99%			
Cu 327.393†	60751.8	0.496727 mg/L	0.0016635	0.496727 mg/L	0.0016635	0.33%
	QC value within limits for Cu	327.393 Recovery =	99.35%			
Fe 273.955†	1592777.2	184.245 mg/L	2.3307	184.245 mg/L	2.3307	1.26%
	QC value within limits for Fe	273.955 Recovery =	92.12%			
K 404.721†	-1091.6	-10.2896 mg/L	1.59963	-10.2896 mg/L	1.59963	15.55%
Mg 279.077†	5610284.5	498.681 mg/L	6.8117	498.681 mg/L	6.8117	1.37%
	QC value within limits for Mg	279.077 Recovery =	99.74%			
Mn 257.610†	174773.9	0.476844 mg/L	0.0001386	0.476844 mg/L	0.0001386	0.03%
	QC value within limits for Mn	257.610 Recovery =	95.37%			
Mo 202.031†	137.0	0.0063354 mg/L	0.00019559	0.0063354 mg/L	0.00019559	3.09%
Na 330.237†	184.4	0.901602 mg/L	0.0620178	0.901602 mg/L	0.0620178	6.88%
Ni 231.604†	32919.5	0.895643 mg/L	0.0103225	0.895643 mg/L	0.0103225	1.15%
	QC value within limits for Ni	231.604 Recovery =	89.56%			
Pb 220.353†	7506.4	0.925528 mg/L	0.0102858	0.925528 mg/L	0.0102858	1.11%
	QC value within limits for Pb	220.353 Recovery =	92.55%			
Sb 206.836†	790.0	0.970376 mg/L	0.0208476	0.970376 mg/L	0.0208476	2.15%
	QC value within limits for Sb	206.836 Recovery =	97.04%			
Se 196.026†	821.6	0.954422 mg/L	0.0100571	0.954422 mg/L	0.0100571	1.05%
	QC value within limits for Se	196.026 Recovery =	95.44%			
Sn 189.927†	12.0	0.0020408 mg/L	0.00325257	0.0020408 mg/L	0.00325257	159.38%
Ti 334.940†	649.6	0.0004591 mg/L	0.00003942	0.0004591 mg/L	0.00003942	8.59%
Tl 190.801†	705.5	0.926412 mg/L	0.0141573	0.926412 mg/L	0.0141573	1.53%
	QC value within limits for Tl	190.801 Recovery =	92.64%			
V 290.880†	69740.7	0.464740 mg/L	0.0013515	0.464740 mg/L	0.0013515	0.29%
	QC value within limits for V	290.880 Recovery =	92.95%			
Zn 206.200†	24493.9	0.917148 mg/L	0.0124495	0.917148 mg/L	0.0124495	1.36%
	QC value within limits for Zn	206.200 Recovery =	91.71%			

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: MB 12491 (1)

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 38

Date Collected: 1/16/2012 7:33:10 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: MB 12491 (1)

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1120730.7		101 %	1.7				1.65%
Y 371.029	445909.9		101 %	1.6				1.54%
Ag 328.068†	5.0	0.0000888	mg/L	0.00012327	0.0000888	mg/L	0.00012327	138.80%
Al 308.215†	322.3	0.0067532	mg/L	0.00126974	0.0067532	mg/L	0.00126974	18.80%
As 188.979†	2.9	0.0008050	mg/L	0.00280909	0.0008050	mg/L	0.00280909	348.96%
Ba 233.527†	32.7	-0.0012812	mg/L	0.00019154	-0.0012812	mg/L	0.00019154	14.95%
Be 313.107†	59.3	-0.0006104	mg/L	0.00002431	-0.0006104	mg/L	0.00002431	3.98%
Ca 315.887†	7797.0	-0.107663	mg/L	0.0081089	-0.107663	mg/L	0.0081089	7.53%
Cd 228.802†	1.9	-0.0001490	mg/L	0.00018449	-0.0001490	mg/L	0.00018449	123.84%
Co 228.616†	-6.6	-0.0022487	mg/L	0.00016220	-0.0022487	mg/L	0.00016220	7.21%
Cr 267.716†	2.8	-0.0009622	mg/L	0.00000119	-0.0009622	mg/L	0.00000119	0.12%
Cu 327.393†	59.9	0.0000093	mg/L	0.00010665	0.0000093	mg/L	0.00010665	>999.9%
Fe 273.955†	211.7	0.0103473	mg/L	0.00676881	0.0103473	mg/L	0.00676881	65.42%
K 404.721†	-9.0	0.580550	mg/L	1.4368727	0.580550	mg/L	1.4368727	247.50%
Mg 279.077†	312.8	-0.159339	mg/L	0.0179032	-0.159339	mg/L	0.0179032	11.24%
Mn 257.610†	133.2	-0.0011892	mg/L	0.00007409	-0.0011892	mg/L	0.00007409	6.23%
Mo 202.031†	8.0	-0.0000124	mg/L	0.00026261	-0.0000124	mg/L	0.00026261	>999.9%
Na 330.237†	116.8	0.830458	mg/L	0.0411300	0.830458	mg/L	0.0411300	4.95%
Ni 231.604†	2.1	-0.0022619	mg/L	0.00006971	-0.0022619	mg/L	0.00006971	3.08%
Pb 220.353†	-5.6	-0.0013637	mg/L	0.00109943	-0.0013637	mg/L	0.00109943	80.62%
Sb 206.836†	-2.1	-0.0004594	mg/L	0.00246760	-0.0004594	mg/L	0.00246760	537.13%
Se 196.026†	7.9	0.0084153	mg/L	0.00706507	0.0084153	mg/L	0.00706507	83.95%
Sn 189.927†	33.0	0.0256252	mg/L	0.00328678	0.0256252	mg/L	0.00328678	12.83%
Ti 334.940†	-34.9	-0.0006019	mg/L	0.00010063	-0.0006019	mg/L	0.00010063	16.72%
Tl 190.801†	1.6	0.0008828	mg/L	0.00060695	0.0008828	mg/L	0.00060695	68.76%
V 290.880†	-36.1	-0.0015321	mg/L	0.00007307	-0.0015321	mg/L	0.00007307	4.77%
Zn 206.200†	309.8	0.0111480	mg/L	0.00030278	0.0111480	mg/L	0.00030278	2.72%

Sequence No.: 12  
 Sample ID: LCSW 12491  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 39  
 Date Collected: 1/16/2012 7:36:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW 12491

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1088003.9	98.2	%	0.33				0.34%
Y 371.029	426035.4	96.3	%	0.33				0.35%
Ag 328.068†	12549.6	0.0958500	mg/L	0.00179824	0.0958500	mg/L	0.00179824	1.88%
Al 308.215†	131278.1	4.84631	mg/L	0.084422	4.84631	mg/L	0.084422	1.74%
As 188.979†	436.7	0.495412	mg/L	0.0014924	0.495412	mg/L	0.0014924	0.30%
Ba 233.527†	57892.4	0.496594	mg/L	0.0073181	0.496594	mg/L	0.0073181	1.47%
Be 313.107†	1271546.9	0.498505	mg/L	0.0031901	0.498505	mg/L	0.0031901	0.64%
Ca 315.887†	4789802.7	50.3833	mg/L	0.27269	50.3833	mg/L	0.27269	0.54%
Cd 228.802†	16883.8	0.488181	mg/L	0.0082959	0.488181	mg/L	0.0082959	1.70%
Co 228.616†	14301.3	0.501566	mg/L	0.0068322	0.501566	mg/L	0.0068322	1.36%
Cr 267.716†	31472.2	0.494198	mg/L	0.0072959	0.494198	mg/L	0.0072959	1.48%
Cu 327.393†	58265.1	0.492567	mg/L	0.0083071	0.492567	mg/L	0.0083071	1.69%
Fe 273.955†	42672.4	4.93710	mg/L	0.072497	4.93710	mg/L	0.072497	1.47%
K 404.721†	4512.9	45.9831	mg/L	1.50615	45.9831	mg/L	1.50615	3.28%
Mg 279.077†	563795.7	49.9458	mg/L	0.27024	49.9458	mg/L	0.27024	0.54%
Mn 257.610†	183556.2	0.492482	mg/L	0.0072592	0.492482	mg/L	0.0072592	1.47%
Mo 202.031†	6080.5	0.508495	mg/L	0.0038635	0.508495	mg/L	0.0038635	0.76%
Na 330.237†	43217.9	46.2056	mg/L	0.77602	46.2056	mg/L	0.77602	1.68%
Ni 231.604†	18258.3	0.496172	mg/L	0.0066039	0.496172	mg/L	0.0066039	1.33%
Pb 220.353†	4436.9	0.509040	mg/L	0.0028467	0.509040	mg/L	0.0028467	0.56%
Sb 206.836†	462.2	0.504636	mg/L	0.0055717	0.504636	mg/L	0.0055717	1.10%
Se 196.026†	421.4	0.500867	mg/L	0.0072738	0.500867	mg/L	0.0072738	1.45%
Sn 189.927†	666.4	0.523762	mg/L	0.0027561	0.523762	mg/L	0.0027561	0.53%
Ti 334.940†	320605.9	0.496395	mg/L	0.0038198	0.496395	mg/L	0.0038198	0.77%
Tl 190.801†	410.6	0.528815	mg/L	0.0035193	0.528815	mg/L	0.0035193	0.67%
V 290.880†	68055.6	0.492940	mg/L	0.0071627	0.492940	mg/L	0.0071627	1.45%
Zn 206.200†	13122.1	0.497839	mg/L	0.0077888	0.497839	mg/L	0.0077888	1.56%

Sequence No.: 13

Sample ID: LCSW MR 12491

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 1/16/2012 7:40:38 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW MR 12491

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	1114029.5	101	%	2.8			2.75%	
Y 371.029	436354.6	98.6	%	2.80			2.84%	
Ag 328.068†	12490.0	0.0953969	mg/L	0.00237449	0.0953969	mg/L	0.00237449	2.49%
Al 308.215†	130395.5	4.81393	mg/L	0.149917	4.81393	mg/L	0.149917	3.11%
As 188.979†	429.1	0.486836	mg/L	0.0165703	0.486836	mg/L	0.0165703	3.40%
Ba 233.527†	57784.1	0.495662	mg/L	0.0147201	0.495662	mg/L	0.0147201	2.97%
Be 313.107†	1234905.0	0.484122	mg/L	0.0144338	0.484122	mg/L	0.0144338	2.98%
Ca 315.887†	4670147.2	49.1199	mg/L	1.45666	49.1199	mg/L	1.45666	2.97%
Cd 228.802†	16836.9	0.486824	mg/L	0.0157071	0.486824	mg/L	0.0157071	3.23%
Co 228.616†	14261.4	0.500144	mg/L	0.0157567	0.500144	mg/L	0.0157567	3.15%
Cr 267.716†	31353.8	0.492251	mg/L	0.0153464	0.492251	mg/L	0.0153464	3.12%
Cu 327.393†	57710.2	0.487895	mg/L	0.0138223	0.487895	mg/L	0.0138223	2.83%
Fe 273.955†	42620.6	4.93059	mg/L	0.140704	4.93059	mg/L	0.140704	2.85%
K 404.721†	4472.6	45.5788	mg/L	1.16314	45.5788	mg/L	1.16314	2.55%
Mg 279.077†	548914.7	48.6225	mg/L	1.44177	48.6225	mg/L	1.44177	2.97%
Mn 257.610†	182850.1	0.490579	mg/L	0.0149569	0.490579	mg/L	0.0149569	3.05%
Mo 202.031†	5895.9	0.493034	mg/L	0.0130873	0.493034	mg/L	0.0130873	2.65%
Na 330.237†	43012.4	45.9893	mg/L	1.28573	45.9893	mg/L	1.28573	2.80%
Ni 231.604†	18227.0	0.495303	mg/L	0.0169757	0.495303	mg/L	0.0169757	3.43%
Pb 220.353†	4320.3	0.495643	mg/L	0.0118426	0.495643	mg/L	0.0118426	2.39%
Sb 206.836†	443.3	0.484127	mg/L	0.0141310	0.484127	mg/L	0.0141310	2.92%
Se 196.026†	408.3	0.485243	mg/L	0.0158644	0.485243	mg/L	0.0158644	3.27%
Sn 189.927†	642.1	0.504684	mg/L	0.0164693	0.504684	mg/L	0.0164693	3.26%
Ti 334.940†	310917.7	0.481378	mg/L	0.0142186	0.481378	mg/L	0.0142186	2.95%
Tl 190.801†	400.4	0.515680	mg/L	0.0114464	0.515680	mg/L	0.0114464	2.22%
V 290.880†	67729.8	0.490629	mg/L	0.0149829	0.490629	mg/L	0.0149829	3.05%
Zn 206.200†	13309.6	0.505024	mg/L	0.0151813	0.505024	mg/L	0.0151813	3.01%

Sequence No.: 14  
 Sample ID: 63081-028  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 1/16/2012 7:44:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-028

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	995129.5	89.8	%	0.12				0.13%
Y 371.029	395254.3	89.3	%	0.14				0.16%
Ag 328.068†	46.8	0.0013305	mg/L	0.00048354	0.0013305	mg/L	0.00048354	36.34%
Al 308.215†	9843.7	0.359073	mg/L	0.0008800	0.359073	mg/L	0.0008800	0.25%
As 188.979†	2.9	-0.0011740	mg/L	0.00160715	-0.0011740	mg/L	0.00160715	136.90%
Ba 233.527†	163749.5	1.40748	mg/L	0.001669	1.40748	mg/L	0.001669	0.12%
Be 313.107†	37.1	-0.0006189	mg/L	0.00000596	-0.0006189	mg/L	0.00000596	0.96%
Ca 315.887†	24019093.0	253.416	mg/L	4.0138	253.416	mg/L	4.0138	1.58%
Cd 228.802†	266.7	0.0074724	mg/L	0.00016207	0.0074724	mg/L	0.00016207	2.17%
Co 228.616†	2254.5	0.0773077	mg/L	0.00085445	0.0773077	mg/L	0.00085445	1.11%
Cr 267.716†	28.8	0.0015493	mg/L	0.00004915	0.0015493	mg/L	0.00004915	3.17%
Cu 327.393†	143304.1	1.21283	mg/L	0.001506	1.21283	mg/L	0.001506	0.12%
Fe 273.955†	21192.6	2.43833	mg/L	0.003727	2.43833	mg/L	0.003727	0.15%
K 404.721†	615.4	6.84926	mg/L	0.511559	6.84926	mg/L	0.511559	7.47%
Mg 279.077†	97562.6	8.48814	mg/L	0.006187	8.48814	mg/L	0.006187	0.07%
Mn 257.610†	1159473.1	3.11698	mg/L	0.004156	3.11698	mg/L	0.004156	0.13%
Mo 202.031†	155.3	0.0068131	mg/L	0.00062967	0.0068131	mg/L	0.00062967	9.24%
Na 330.237†	1647308.3	1734.93	mg/L	0.363	1734.93	mg/L	0.363	0.02%
Ni 231.604†	4087.5	0.109188	mg/L	0.0009514	0.109188	mg/L	0.0009514	0.87%
Pb 220.353†	1395271.8	160.183	mg/L	0.1363	160.183	mg/L	0.1363	0.09%
Sb 206.836†	-7.0	-0.0076975	mg/L	0.00387175	-0.0076975	mg/L	0.00387175	50.30%
Se 196.026†	23.2	0.0176954	mg/L	0.00435142	0.0176954	mg/L	0.00435142	24.59%
Sn 189.927†	-1.9	-0.0012672	mg/L	0.00216163	-0.0012672	mg/L	0.00216163	170.59%
Ti 334.940†	-175.1	-0.0008192	mg/L	0.00012905	-0.0008192	mg/L	0.00012905	15.75%
Tl 190.801†	-5.7	-0.0118468	mg/L	0.00590635	-0.0118468	mg/L	0.00590635	49.86%
V 290.880†	1182.6	0.0066559	mg/L	0.00026796	0.0066559	mg/L	0.00026796	4.03%
Zn 206.200†	124788.5	4.75458	mg/L	0.006330	4.75458	mg/L	0.006330	0.13%

Sequence No.: 15  
 Sample ID: 63081-028 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 42  
 Date Collected: 1/16/2012 7:48:15 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-028 MR

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	994655.9	89.8	%	1.79				1.99%
Y 371.029	393919.9	89.0	%	1.72				1.93%
Ag 328.068†	24.7	0.0011981	mg/L	0.00051415	0.0011981	mg/L	0.00051415	42.92%
Al 308.215†	9762.0	0.356062	mg/L	0.0045250	0.356062	mg/L	0.0045250	1.27%
As 188.979†	5.2	0.0014231	mg/L	0.00084837	0.0014231	mg/L	0.00084837	59.62%
Ba 233.527†	167017.0	1.43560	mg/L	0.006956	1.43560	mg/L	0.006956	0.48%
Be 313.107†	25.3	-0.0006235	mg/L	0.00000618	-0.0006235	mg/L	0.00000618	0.99%
Ca 315.887†	24874024.8	262.443	mg/L	2.7187	262.443	mg/L	2.7187	1.04%
Cd 228.802†	264.6	0.0074116	mg/L	0.00045526	0.0074116	mg/L	0.00045526	6.14%
Co 228.616†	2328.7	0.0799141	mg/L	0.00101939	0.0799141	mg/L	0.00101939	1.28%
Cr 267.716†	43.7	0.0018275	mg/L	0.00018214	0.0018275	mg/L	0.00018214	9.97%
Cu 327.393†	146288.4	1.23806	mg/L	0.007564	1.23806	mg/L	0.007564	0.61%
Fe 273.955†	21008.3	2.41710	mg/L	0.008579	2.41710	mg/L	0.008579	0.35%
K 404.721†	576.2	6.45593	mg/L	0.407427	6.45593	mg/L	0.407427	6.31%
Mg 279.077†	99268.7	8.63985	mg/L	0.029589	8.63985	mg/L	0.029589	0.34%
Mn 257.610†	1189685.3	3.19824	mg/L	0.008476	3.19824	mg/L	0.008476	0.27%
Mo 202.031†	146.8	0.0059033	mg/L	0.00069196	0.0059033	mg/L	0.00069196	11.72%
Na 330.237†	1696082.6	1786.28	mg/L	0.678	1786.28	mg/L	0.678	0.04%
Ni 231.604†	4222.2	0.112863	mg/L	0.0013353	0.112863	mg/L	0.0013353	1.18%
Pb 220.353†	1429846.4	164.153	mg/L	0.6799	164.153	mg/L	0.6799	0.41%
Sb 206.836†	-2.8	-0.0031622	mg/L	0.00352663	-0.0031622	mg/L	0.00352663	111.52%
Se 196.026†	26.0	0.0206734	mg/L	0.00711453	0.0206734	mg/L	0.00711453	34.41%
Sn 189.927†	0.7	0.0008637	mg/L	0.00033424	0.0008637	mg/L	0.00033424	38.70%
Ti 334.940†	-287.2	-0.0009929	mg/L	0.00005387	-0.0009929	mg/L	0.00005387	5.43%
Tl 190.801†	-2.5	-0.0078778	mg/L	0.00019091	-0.0078778	mg/L	0.00019091	2.42%
V 290.880†	1257.4	0.0071900	mg/L	0.00022935	0.0071900	mg/L	0.00022935	3.19%
Zn 206.200†	126743.1	4.82906	mg/L	0.010622	4.82906	mg/L	0.010622	0.22%

Sequence No.: 16  
 Sample ID: 63081-028 TCLP SPK  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 43  
 Date Collected: 1/16/2012 7:52:18 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-028 TCLP SPK

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1020304.6	92.1	%	1.92				2.08%
Y 371.029	404060.2	91.3	%	1.86				2.03%
Ag 328.068†	13051.4	0.100586	mg/L	0.0004280	0.100586	mg/L	0.0004280	0.43%
Al 308.215†	141807.9	5.23677	mg/L	0.035559	5.23677	mg/L	0.035559	0.68%
As 188.979†	453.7	0.512964	mg/L	0.0200887	0.512964	mg/L	0.0200887	3.92%
Ba 233.527†	720193.8	6.19561	mg/L	0.022433	6.19561	mg/L	0.022433	0.36%
Be 313.107†	1235982.5	0.484545	mg/L	0.0023990	0.484545	mg/L	0.0023990	0.50%
Ca 315.887†	28211425.1	297.681	mg/L	3.2729	297.681	mg/L	3.2729	1.10%
Cd 228.802†	17843.4	0.515908	mg/L	0.0025005	0.515908	mg/L	0.0025005	0.48%
Co 228.616†	16116.1	0.565341	mg/L	0.0065939	0.565341	mg/L	0.0065939	1.17%
Cr 267.716†	30627.7	0.482835	mg/L	0.0058146	0.482835	mg/L	0.0058146	1.20%
Cu 327.393†	200612.5	1.69789	mg/L	0.011231	1.69789	mg/L	0.011231	0.66%
Fe 273.955†	61524.1	7.11777	mg/L	0.058743	7.11777	mg/L	0.058743	0.83%
K 404.721†	7280.5	73.7719	mg/L	0.40423	73.7719	mg/L	0.40423	0.55%
Mg 279.077†	625437.5	55.4270	mg/L	0.06131	55.4270	mg/L	0.06131	0.11%
Mn 257.610†	1321169.9	3.55220	mg/L	0.014284	3.55220	mg/L	0.014284	0.40%
Mo 202.031†	5781.5	0.478003	mg/L	0.0178192	0.478003	mg/L	0.0178192	3.73%
Na 330.237†	1680082.0	1769.43	mg/L	12.818	1769.43	mg/L	12.818	0.72%
Ni 231.604†	21836.6	0.593755	mg/L	0.0050573	0.593755	mg/L	0.0050573	0.85%
Pb 220.353†	1400675.2	160.804	mg/L	0.3252	160.804	mg/L	0.3252	0.20%
Sb 206.836†	444.0	0.482991	mg/L	0.0130297	0.482991	mg/L	0.0130297	2.70%
Se 196.026†	453.0	0.529711	mg/L	0.0206752	0.529711	mg/L	0.0206752	3.90%
Sn 189.927†	615.5	0.484292	mg/L	0.0298825	0.484292	mg/L	0.0298825	6.17%
Ti 334.940†	310956.8	0.481439	mg/L	0.0033490	0.481439	mg/L	0.0033490	0.70%
Tl 190.801†	362.3	0.463428	mg/L	0.0244515	0.463428	mg/L	0.0244515	5.28%
V 290.880†	68268.0	0.493963	mg/L	0.0047230	0.493963	mg/L	0.0047230	0.96%
Zn 206.200†	133746.9	5.09450	mg/L	0.054740	5.09450	mg/L	0.054740	1.07%

Sequence No.: 17

Sample ID: 63081-028 PS

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 44

Date Collected: 1/16/2012 7:56:23 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-028 PS

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	994718.5	89.8	%	1.06			1.18%	
Y 371.029	393427.2	88.9	%	1.06			1.20%	
Ag 328.068†	8806.9	0.0681491	mg/L	0.00091127	0.0681491	mg/L	0.00091127	1.34%
Al 308.215†	139676.1	5.15650	mg/L	0.040075	5.15650	mg/L	0.040075	0.78%
As 188.979†	470.1	0.531618	mg/L	0.0126662	0.531618	mg/L	0.0126662	2.38%
Ba 233.527†	706372.5	6.07668	mg/L	0.034785	6.07668	mg/L	0.034785	0.57%
Be 313.107†	1227400.6	0.481142	mg/L	0.0027726	0.481142	mg/L	0.0027726	0.58%
Ca 315.887†	27635033.6	291.595	mg/L	2.9441	291.595	mg/L	2.9441	1.01%
Cd 228.802†	17593.6	0.508682	mg/L	0.0076386	0.508682	mg/L	0.0076386	1.50%
Co 228.616†	15919.7	0.558546	mg/L	0.0075431	0.558546	mg/L	0.0075431	1.35%
Cr 267.716†	30233.2	0.477044	mg/L	0.0056663	0.477044	mg/L	0.0056663	1.19%
Cu 327.393†	196008.6	1.65887	mg/L	0.015422	1.65887	mg/L	0.015422	0.93%
Fe 273.955†	60754.0	7.02869	mg/L	0.083561	7.02869	mg/L	0.083561	1.19%
K 404.721†	7064.2	71.6001	mg/L	0.59037	71.6001	mg/L	0.59037	0.82%
Mg 279.077†	622850.6	55.1969	mg/L	0.40019	55.1969	mg/L	0.40019	0.73%
Mn 257.610†	1302345.4	3.50158	mg/L	0.019400	3.50158	mg/L	0.019400	0.55%
Mo 202.031†	6552.7	0.542847	mg/L	0.0071169	0.542847	mg/L	0.0071169	1.31%
Na 330.237†	1653721.2	1741.68	mg/L	1.681	1741.68	mg/L	1.681	0.10%
Ni 231.604†	21467.3	0.583738	mg/L	0.0069809	0.583738	mg/L	0.0069809	1.20%
Pb 220.353†	1381833.0	158.641	mg/L	1.0512	158.641	mg/L	1.0512	0.66%
Sb 206.836†	506.1	0.550390	mg/L	0.0024152	0.550390	mg/L	0.0024152	0.44%
Se 196.026†	466.8	0.546304	mg/L	0.0087238	0.546304	mg/L	0.0087238	1.60%
Sn 189.927†	723.3	0.568951	mg/L	0.0158235	0.568951	mg/L	0.0158235	2.78%
Ti 334.940†	340198.3	0.526763	mg/L	0.0024828	0.526763	mg/L	0.0024828	0.47%
Tl 190.801†	364.9	0.467084	mg/L	0.0035563	0.467084	mg/L	0.0035563	0.76%
V 290.880†	67385.3	0.487661	mg/L	0.0050498	0.487661	mg/L	0.0050498	1.04%
Zn 206.200†	131055.0	4.99193	mg/L	0.080385	4.99193	mg/L	0.080385	1.61%

Sequence No.: 18

Autosampler Location: 6

Sample ID: CCV V-130872

Date Collected: 1/16/2012 8:00:26 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-130872

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1131371.6	102 %		1.6			1.61%
Y 371.029	442059.6	99.9 %		1.58			1.58%
Ag 328.068†	12932.7	0.0987774 mg/L		0.00142487	0.0987774 mg/L	0.00142487	1.44%
QC value within limits for Ag		328.068	Recovery = 98.78%				
Al 308.215†	134145.5	4.95250 mg/L		0.076338	4.95250 mg/L	0.076338	1.54%
QC value within limits for Al		308.215	Recovery = 99.05%				
As 188.979†	445.2	0.505215 mg/L		0.0007993	0.505215 mg/L	0.0007993	0.16%
QC value within limits for As		188.979	Recovery = 101.04%				
Ba 233.527†	59166.6	0.507559 mg/L		0.0074358	0.507559 mg/L	0.0074358	1.47%
QC value within limits for Ba		233.527	Recovery = 101.51%				
Be 313.107†	1270150.1	0.497962 mg/L		0.0054678	0.497962 mg/L	0.0054678	1.10%
QC value within limits for Be		313.107	Recovery = 99.59%				
Ca 315.887†	4824018.9	50.7445 mg/L		0.44420	50.7445 mg/L	0.44420	0.88%
QC value within limits for Ca		315.887	Recovery = 101.49%				
Cd 228.802†	17268.5	0.499309 mg/L		0.0074491	0.499309 mg/L	0.0074491	1.49%
QC value within limits for Cd		228.802	Recovery = 99.86%				
Co 228.616†	14605.1	0.512261 mg/L		0.0078159	0.512261 mg/L	0.0078159	1.53%
QC value within limits for Co		228.616	Recovery = 102.45%				
Cr 267.716†	32049.9	0.503222 mg/L		0.0080450	0.503222 mg/L	0.0080450	1.60%
QC value within limits for Cr		267.716	Recovery = 100.64%				
Cu 327.393†	58610.6	0.495488 mg/L		0.0077929	0.495488 mg/L	0.0077929	1.57%
QC value within limits for Cu		327.393	Recovery = 99.10%				
Fe 273.955†	43775.7	5.06488 mg/L		0.070813	5.06488 mg/L	0.070813	1.40%
QC value within limits for Fe		273.955	Recovery = 101.30%				
K 404.721†	4619.5	47.0536 mg/L		0.85814	47.0536 mg/L	0.85814	1.82%
QC value within limits for K		404.721	Recovery = 94.11%				
Mg 279.077†	571864.0	50.6632 mg/L		0.44171	50.6632 mg/L	0.44171	0.87%
QC value within limits for Mg		279.077	Recovery = 101.33%				
Mn 257.610†	187583.8	0.503319 mg/L		0.0070884	0.503319 mg/L	0.0070884	1.41%
QC value within limits for Mn		257.610	Recovery = 100.66%				
Mo 202.031†	6063.8	0.507086 mg/L		0.0037918	0.507086 mg/L	0.0037918	0.75%
QC value within limits for Mo		202.031	Recovery = 101.42%				
Na 330.237†	44624.6	47.6865 mg/L		0.53282	47.6865 mg/L	0.53282	1.12%
QC value within limits for Na		330.237	Recovery = 95.37%				
Ni 231.604†	18812.9	0.511298 mg/L		0.0069467	0.511298 mg/L	0.0069467	1.36%
QC value within limits for Ni		231.604	Recovery = 102.26%				
Pb 220.353†	5330.9	0.611672 mg/L		0.0073407	0.611672 mg/L	0.0073407	1.20%
QC value greater than the upper limit for Pb		220.353	Recovery = 122.33%				
Sb 206.836†	463.6	0.506124 mg/L		0.0042001	0.506124 mg/L	0.0042001	0.83%
QC value within limits for Sb		206.836	Recovery = 101.22%				
Se 196.026†	429.1	0.510054 mg/L		0.0076577	0.510054 mg/L	0.0076577	1.50%
QC value within limits for Se		196.026	Recovery = 102.01%				
Sn 189.927†	691.2	0.543307 mg/L		0.0039528	0.543307 mg/L	0.0039528	0.73%
QC value within limits for Sn		189.927	Recovery = 108.66%				
Ti 334.940†	315657.9	0.488725 mg/L		0.0062557	0.488725 mg/L	0.0062557	1.28%
QC value within limits for Ti		334.940	Recovery = 97.75%				
Tl 190.801†	417.8	0.538022 mg/L		0.0071926	0.538022 mg/L	0.0071926	1.34%
QC value within limits for Tl		190.801	Recovery = 107.60%				
V 290.880†	69110.8	0.500581 mg/L		0.0072256	0.500581 mg/L	0.0072256	1.44%
QC value within limits for V		290.880	Recovery = 100.12%				
Zn 206.200†	13449.0	0.510273 mg/L		0.0062807	0.510273 mg/L	0.0062807	1.23%
QC value within limits for Zn		206.200	Recovery = 102.05%				
QC Failed.	Continue with analysis.						

Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/16/2012 8:04:12 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Table with columns: Analyte, Mean Corrected Intensity, Calib Conc. Units, Std.Dev., Sample Conc. Units, Std.Dev., RSD. Lists various elements like Sc, Y, Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Ti, Tl, V, Zn with their respective values and recovery percentages.

All analyte(s) passed QC.

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Sequence No.: 20                               Autosampler Location: 45
Sample ID: 63081-047                         Date Collected: 1/16/2012 8:07:51 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                            Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: 63081-047

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1030435.1	93.0	%	2.01				2.16%
Y 371.029	409561.9	92.6	%	2.02				2.18%
Ag 328.068†	-313.4	0.0012459	mg/L	0.00057864	0.0012459	mg/L	0.00057864	46.44%
Al 308.215†	8225.3	0.299161	mg/L	0.0006676	0.299161	mg/L	0.0006676	0.22%
As 188.979†	179.7	0.208408	mg/L	0.0069828	0.208408	mg/L	0.0069828	3.35%
Ba 233.527†	88028.3	0.755910	mg/L	0.0042238	0.755910	mg/L	0.0042238	0.56%
Be 313.107†	82.9	-0.0006008	mg/L	0.00001810	-0.0006008	mg/L	0.00001810	3.01%
Ca 315.887†	21868390.0	230.708	mg/L	0.1533	230.708	mg/L	0.1533	0.07%
Cd 228.802†	567.1	0.0153232	mg/L	0.00033566	0.0153232	mg/L	0.00033566	2.19%
Co 228.616†	1585.3	0.0537720	mg/L	0.00059031	0.0537720	mg/L	0.00059031	1.10%
Cr 267.716†	327.8	0.0072070	mg/L	0.00022242	0.0072070	mg/L	0.00022242	3.09%
Cu 327.393†	436.4	0.0004731	mg/L	0.00035449	0.0004731	mg/L	0.00035449	74.93%
Fe 273.955†	463750.3	53.5786	mg/L	0.33493	53.5786	mg/L	0.33493	0.63%
K 404.721†	356.4	4.24883	mg/L	0.242357	4.24883	mg/L	0.242357	5.70%
Mg 279.077†	64817.0	5.57640	mg/L	0.050163	5.57640	mg/L	0.050163	0.90%
Mn 257.610†	712662.2	1.91759	mg/L	0.010391	1.91759	mg/L	0.010391	0.54%
Mo 202.031†	143.4	0.0063081	mg/L	0.00029821	0.0063081	mg/L	0.00029821	4.73%
Na 330.237†	1489476.0	1568.77	mg/L	0.469	1568.77	mg/L	0.469	0.03%
Ni 231.604†	4200.5	0.112271	mg/L	0.0020878	0.112271	mg/L	0.0020878	1.86%
Pb 220.353†	133840.4	15.3607	mg/L	0.12826	15.3607	mg/L	0.12826	0.84%
Sb 206.836†	-11.3	-0.0047730	mg/L	0.00233520	-0.0047730	mg/L	0.00233520	48.93%
Se 196.026†	10.5	0.0152037	mg/L	0.00869128	0.0152037	mg/L	0.00869128	57.17%
Sn 189.927†	13.6	0.0092035	mg/L	0.00046794	0.0092035	mg/L	0.00046794	5.08%
Ti 334.940†	-288.8	-0.0009954	mg/L	0.00002109	-0.0009954	mg/L	0.00002109	2.12%
Tl 190.801†	-4.0	-0.0058843	mg/L	0.00177918	-0.0058843	mg/L	0.00177918	30.24%
V 290.880†	1250.0	0.0059821	mg/L	0.00020841	0.0059821	mg/L	0.00020841	3.48%
Zn 206.200†	243786.8	9.28953	mg/L	0.094802	9.28953	mg/L	0.094802	1.02%

Sequence No.: 21  
 Sample ID: 63081-047 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 1/16/2012 8:11:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-047 SD

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1105519.9	99.8	%	2.79				2.80%
Y 371.029	432627.4	97.8	%	2.77				2.83%
Ag 328.068†	-35.3	0.0005379	mg/L	0.00047471	0.0005379	mg/L	0.00047471	88.26%
Al 308.215†	2002.3	0.0688317	mg/L	0.00746509	0.0688317	mg/L	0.00746509	10.85%
As 188.979†	37.0	0.0409811	mg/L	0.00148448	0.0409811	mg/L	0.00148448	3.62%
Ba 233.527†	18317.1	0.156054	mg/L	0.0033053	0.156054	mg/L	0.0033053	2.12%
Be 313.107†	-199.7	-0.0007120	mg/L	0.00003771	-0.0007120	mg/L	0.00003771	5.30%
Ca 315.887†	4644741.0	48.8516	mg/L	0.94908	48.8516	mg/L	0.94908	1.94%
Cd 228.802†	123.5	0.0031838	mg/L	0.00065601	0.0031838	mg/L	0.00065601	20.60%
Co 228.616†	319.7	0.0092447	mg/L	0.00002788	0.0092447	mg/L	0.00002788	0.30%
Cr 267.716†	53.8	0.0005044	mg/L	0.00039626	0.0005044	mg/L	0.00039626	78.56%
Cu 327.393†	-183.9	-0.0026389	mg/L	0.00134405	-0.0026389	mg/L	0.00134405	50.93%
Fe 273.955†	97836.5	11.2922	mg/L	0.22424	11.2922	mg/L	0.22424	1.99%
K 404.721†	-4.0	0.630706	mg/L	0.5320317	0.630706	mg/L	0.5320317	84.35%
Mg 279.077†	13729.3	1.03366	mg/L	0.011852	1.03366	mg/L	0.011852	1.15%
Mn 257.610†	148364.6	0.397993	mg/L	0.0087087	0.397993	mg/L	0.0087087	2.19%
Mo 202.031†	79.2	0.0048913	mg/L	0.00018918	0.0048913	mg/L	0.00018918	3.87%
Na 330.237†	261422.9	275.923	mg/L	5.6059	275.923	mg/L	5.6059	2.03%
Ni 231.604†	893.4	0.0220569	mg/L	0.00089200	0.0220569	mg/L	0.00089200	4.04%
Pb 220.353†	28717.7	3.29535	mg/L	0.073404	3.29535	mg/L	0.073404	2.23%
Sb 206.836†	-5.2	-0.0026181	mg/L	0.00106228	-0.0026181	mg/L	0.00106228	40.57%
Se 196.026†	14.0	0.0165363	mg/L	0.00505233	0.0165363	mg/L	0.00505233	30.55%
Sn 189.927†	5.9	0.0041213	mg/L	0.00228503	0.0041213	mg/L	0.00228503	55.44%
Ti 334.940†	-122.7	-0.0007380	mg/L	0.00012099	-0.0007380	mg/L	0.00012099	16.39%
Tl 190.801†	0.1	-0.0009649	mg/L	0.00204031	-0.0009649	mg/L	0.00204031	211.46%
V 290.880†	411.7	0.0013493	mg/L	0.00050604	0.0013493	mg/L	0.00050604	37.51%
Zn 206.200†	51287.1	1.95378	mg/L	0.042701	1.95378	mg/L	0.042701	2.19%

Sequence No.: 22  
 Sample ID: 63111-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 1/16/2012 8:15:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-003

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1053962.6	95.2 %		2.10			2.21%
Y 371.029	415533.0	93.9 %		1.99			2.12%
Ag 328.068†	-53.7	0.0011079 mg/L		0.00030265	0.0011079 mg/L	0.00030265	27.32%
Al 308.215†	9136.8	0.332917 mg/L		0.0139223	0.332917 mg/L	0.0139223	4.18%
As 188.979†	14.6	0.0133302 mg/L		0.00621067	0.0133302 mg/L	0.00621067	46.59%
Ba 233.527†	80049.6	0.687254 mg/L		0.0187780	0.687254 mg/L	0.0187780	2.73%
Be 313.107†	-135.4	-0.0006869 mg/L		0.00002050	-0.0006869 mg/L	0.00002050	2.98%
Ca 315.887†	21390406.9	225.661 mg/L		8.5643	225.661 mg/L	8.5643	3.80%
Cd 228.802†	624.2	0.0177229 mg/L		0.00038384	0.0177229 mg/L	0.00038384	2.17%
Co 228.616†	1246.3	0.0418508 mg/L		0.00112615	0.0418508 mg/L	0.00112615	2.69%
Cr 267.716†	396.6	0.0064204 mg/L		0.00017643	0.0064204 mg/L	0.00017643	2.75%
Cu 327.393†	61195.9	0.516275 mg/L		0.0141150	0.516275 mg/L	0.0141150	2.73%
Fe 273.955†	68812.6	7.93948 mg/L		0.192394	7.93948 mg/L	0.192394	2.42%
K 404.721†	421.4	4.90142 mg/L		0.825866	4.90142 mg/L	0.825866	16.85%
Mg 279.077†	48294.4	4.10720 mg/L		0.099142	4.10720 mg/L	0.099142	2.41%
Mn 257.610†	531335.0	1.42785 mg/L		0.037130	1.42785 mg/L	0.037130	2.60%
Mo 202.031†	144.1	0.0064793 mg/L		0.00030559	0.0064793 mg/L	0.00030559	4.72%
Na 330.237†	1537858.6	1619.70 mg/L		42.784	1619.70 mg/L	42.784	2.64%
Ni 231.604†	2520.2	0.0664353 mg/L		0.00163578	0.0664353 mg/L	0.00163578	2.46%
Pb 220.353†	35616.1	4.08739 mg/L		0.097988	4.08739 mg/L	0.097988	2.40%
Sb 206.836†	-0.9	-0.0019983 mg/L		0.00324348	-0.0019983 mg/L	0.00324348	162.31%
Se 196.026†	13.4	0.0092515 mg/L		0.00450581	0.0092515 mg/L	0.00450581	48.70%
Sn 189.927†	14.2	0.0111386 mg/L		0.00136182	0.0111386 mg/L	0.00136182	12.23%
Ti 334.940†	-51.5	-0.0006277 mg/L		0.00009454	-0.0006277 mg/L	0.00009454	15.06%
Tl 190.801†	-2.4	-0.0044491 mg/L		0.00063037	-0.0044491 mg/L	0.00063037	14.17%
V 290.880†	755.9	0.0037257 mg/L		0.00042127	0.0037257 mg/L	0.00042127	11.31%
Zn 206.200†	426075.7	16.2363 mg/L		0.40292	16.2363 mg/L	0.40292	2.48%

Sequence No.: 23  
 Sample ID: 63111-039  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 1/16/2012 8:19:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-039

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	980246.4	88.5	%	0.32				0.36%
Y 371.029	409986.2	92.7	%	0.26				0.29%
Ag 328.068†	-107.1	0.0003575	mg/L	0.00005558	0.0003575	mg/L	0.00005558	15.55%
Al 308.215†	8688.3	0.316263	mg/L	0.0051977	0.316263	mg/L	0.0051977	1.64%
As 188.979†	13.8	0.0104812	mg/L	0.00447139	0.0104812	mg/L	0.00447139	42.66%
Ba 233.527†	109751.2	0.942832	mg/L	0.0099466	0.942832	mg/L	0.0099466	1.05%
Be 313.107†	1105.9	-0.0001991	mg/L	0.00004064	-0.0001991	mg/L	0.00004064	20.41%
Ca 315.887†	31518733.0	332.601	mg/L	5.7033	332.601	mg/L	5.7033	1.71%
Cd 228.802†	209.5	0.0058281	mg/L	0.00062784	0.0058281	mg/L	0.00062784	10.77%
Co 228.616†	1374.4	0.0463611	mg/L	0.00052860	0.0463611	mg/L	0.00052860	1.14%
Cr 267.716†	-77.6	0.0005303	mg/L	0.00028757	0.0005303	mg/L	0.00028757	54.23%
Cu 327.393†	11746.5	0.0953145	mg/L	0.00016216	0.0953145	mg/L	0.00016216	0.17%
Fe 273.955†	15813.2	1.81513	mg/L	0.015636	1.81513	mg/L	0.015636	0.86%
K 404.721†	857.3	9.27885	mg/L	0.358111	9.27885	mg/L	0.358111	3.86%
Mg 279.077†	53472.9	4.56768	mg/L	0.053120	4.56768	mg/L	0.053120	1.16%
Mn 257.610†	1551726.9	4.17192	mg/L	0.036300	4.17192	mg/L	0.036300	0.87%
Mo 202.031†	166.6	0.0060255	mg/L	0.00001429	0.0060255	mg/L	0.00001429	0.24%
Na 330.237†	1660420.1	1748.73	mg/L	9.678	1748.73	mg/L	9.678	0.55%
Ni 231.604†	2016.9	0.0527085	mg/L	0.00101456	0.0527085	mg/L	0.00101456	1.92%
Pb 220.353†	213362.6	24.4939	mg/L	0.27485	24.4939	mg/L	0.27485	1.12%
Sb 206.836†	44.6	0.0480174	mg/L	0.00327400	0.0480174	mg/L	0.00327400	6.82%
Se 196.026†	21.5	0.0124998	mg/L	0.00678841	0.0124998	mg/L	0.00678841	54.31%
Sn 189.927†	12.5	0.0102255	mg/L	0.00332756	0.0102255	mg/L	0.00332756	32.54%
Ti 334.940†	-144.8	-0.0007723	mg/L	0.00001353	-0.0007723	mg/L	0.00001353	1.75%
Tl 190.801†	-1.9	-0.0082485	mg/L	0.00267436	-0.0082485	mg/L	0.00267436	32.42%
V 290.880†	980.6	0.0055006	mg/L	0.00056322	0.0055006	mg/L	0.00056322	10.24%
Zn 206.200†	88553.3	3.37383	mg/L	0.041982	3.37383	mg/L	0.041982	1.24%

Sequence No.: 24  
Sample ID: EF-V-132485  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 49  
Date Collected: 1/16/2012 8:23:21 PM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Mean Data: EF-V-132485

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sc 361.383	1012777.6		91.4 %	0.63				0.69%
Y 371.029	393967.0		89.0 %	0.56				0.62%
Ag 328.068†	-59.8	-0.0004059	mg/L	0.00013430	-0.0004059	mg/L	0.00013430	33.09%
Al 308.215†	1924.4	0.0660806	mg/L	0.00252892	0.0660806	mg/L	0.00252892	3.83%
As 188.979†	-2.9	-0.0058326	mg/L	0.00029819	-0.0058326	mg/L	0.00029819	5.11%
Ba 233.527†	117.7	-0.0005503	mg/L	0.00013326	-0.0005503	mg/L	0.00013326	24.21%
Be 313.107†	-351.9	-0.0007719	mg/L	0.00000875	-0.0007719	mg/L	0.00000875	1.13%
Ca 315.887†	21638.0	0.0384779	mg/L	0.00914166	0.0384779	mg/L	0.00914166	23.76%
Cd 228.802†	51.0	0.0012721	mg/L	0.00057792	0.0012721	mg/L	0.00057792	45.43%
Co 228.616†	2.5	-0.0019281	mg/L	0.00011312	-0.0019281	mg/L	0.00011312	5.87%
Cr 267.716†	104.9	0.0006318	mg/L	0.00020258	0.0006318	mg/L	0.00020258	32.06%
Cu 327.393†	-30.5	-0.0007596	mg/L	0.00019864	-0.0007596	mg/L	0.00019864	26.15%
Fe 273.955†	-130.4	-0.0291916	mg/L	0.01312709	-0.0291916	mg/L	0.01312709	44.97%
K 404.721†	-96.8	-0.301652	mg/L	1.0459330	-0.301652	mg/L	1.0459330	346.74%
Mg 279.077†	15.3	-0.185792	mg/L	0.0012599	-0.185792	mg/L	0.0012599	0.68%
Mn 257.610†	67.6	-0.0013673	mg/L	0.00026567	-0.0013673	mg/L	0.00026567	19.43%
Mo 202.031†	9.7	0.0001323	mg/L	0.00016812	0.0001323	mg/L	0.00016812	127.05%
Na 330.237†	1640206.1	1727.45	mg/L	8.250	1727.45	mg/L	8.250	0.48%
Ni 231.604†	119.7	0.0009462	mg/L	0.00043173	0.0009462	mg/L	0.00043173	45.63%
Pb 220.353†	216.7	0.0241711	mg/L	0.00088807	0.0241711	mg/L	0.00088807	3.67%
Sb 206.836†	-10.1	-0.0091142	mg/L	0.00518411	-0.0091142	mg/L	0.00518411	56.88%
Se 196.026†	16.1	0.0181748	mg/L	0.00421170	0.0181748	mg/L	0.00421170	23.17%
Sn 189.927†	3.1	0.0021833	mg/L	0.00300516	0.0021833	mg/L	0.00300516	137.65%
Ti 334.940†	-40.8	-0.0006110	mg/L	0.00004472	-0.0006110	mg/L	0.00004472	7.32%
Tl 190.801†	-3.6	-0.0058067	mg/L	0.00028895	-0.0058067	mg/L	0.00028895	4.98%
V 290.880†	551.8	0.0027656	mg/L	0.00081867	0.0027656	mg/L	0.00081867	29.60%
Zn 206.200†	326.7	0.0117934	mg/L	0.00122857	0.0117934	mg/L	0.00122857	10.42%

Sequence No.: 25

Sample ID: ICSA V-130873

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/16/2012 8:27:04 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-130873

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1017063.3	91.8 %		0.93			1.01%
Y 371.029	394145.6	89.1 %		0.11			0.12%
Ag 328.068†	-1260.5	0.0025280 mg/L		0.00018149	0.0025280 mg/L	0.00018149	7.18%
Al 308.215†	13367520.7	495.024 mg/L		0.4783	495.024 mg/L	0.4783	0.10%
QC value within limits for Al 308.215 Recovery = 99.00%							
As 188.979†	-20.9	-0.0029311 mg/L		0.00013381	-0.0029311 mg/L	0.00013381	4.57%
Ba 233.527†	403.8	0.0019120 mg/L		0.00007797	0.0019120 mg/L	0.00007797	4.08%
Be 313.107†	-1839.2	-0.0013566 mg/L		0.00000908	-0.0013566 mg/L	0.00000908	0.67%
Ca 315.887†	45309178.6	478.208 mg/L		1.5945	478.208 mg/L	1.5945	0.33%
QC value within limits for Ca 315.887 Recovery = 95.64%							
Cd 228.802†	135.5	0.0006901 mg/L		0.00026140	0.0006901 mg/L	0.00026140	37.88%
Co 228.616†	-134.5	0.0003285 mg/L		0.00013313	0.0003285 mg/L	0.00013313	40.52%
Cr 267.716†	34.6	0.0058815 mg/L		0.00020815	0.0058815 mg/L	0.00020815	3.54%
Cu 327.393†	367.3	-0.0157155 mg/L		0.00041857	-0.0157155 mg/L	0.00041857	2.66%
Fe 273.955†	1597265.3	184.764 mg/L		0.2981	184.764 mg/L	0.2981	0.16%
QC value within limits for Fe 273.955 Recovery = 92.38%							
K 404.721†	-1137.7	-10.7530 mg/L		1.11802	-10.7530 mg/L	1.11802	10.40%
Mg 279.077†	5616500.4	499.234 mg/L		0.9634	499.234 mg/L	0.9634	0.19%
QC value within limits for Mg 279.077 Recovery = 99.85%							
Mn 257.610†	-3812.6	-0.0034434 mg/L		0.00017804	-0.0034434 mg/L	0.00017804	5.17%
Mo 202.031†	123.8	0.0052837 mg/L		0.00032283	0.0052837 mg/L	0.00032283	6.11%
Na 330.237†	296.6	1.01980 mg/L		0.022756	1.01980 mg/L	0.022756	2.23%
Ni 231.604†	24.5	-0.0016415 mg/L		0.00041464	-0.0016415 mg/L	0.00041464	25.26%
Pb 220.353†	-205.6	0.0394400 mg/L		0.00378718	0.0394400 mg/L	0.00378718	9.60%
Sb 206.836†	-115.3	-0.0120848 mg/L		0.00174825	-0.0120848 mg/L	0.00174825	14.47%
Se 196.026†	12.8	-0.0093626 mg/L		0.00880516	-0.0093626 mg/L	0.00880516	94.05%
Sn 189.927†	26.4	0.0134310 mg/L		0.00839458	0.0134310 mg/L	0.00839458	62.50%
Ti 334.940†	348.9	-0.0000070 mg/L		0.00005744	-0.0000070 mg/L	0.00005744	819.35%
Tl 190.801†	-13.6	0.0040457 mg/L		0.00122330	0.0040457 mg/L	0.00122330	30.24%
V 290.880†	6568.8	0.0032451 mg/L		0.00091487	0.0032451 mg/L	0.00091487	28.19%
Zn 206.200†	204.0	-0.0085214 mg/L		0.00006741	-0.0085214 mg/L	0.00006741	0.79%

All analyte(s) passed QC.

Sequence No.: 26

Autosampler Location: 8

Sample ID: ICSAB V-130874

Date Collected: 1/16/2012 8:32:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-130874

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	983084.1	88.8 %	0.17			0.19%
Y 371.029	383647.5	86.7 %	0.35			0.40%
Ag 328.068†	137967.2	1.06427 mg/L	0.010443	1.06427 mg/L	0.010443	0.98%
QC value within limits for Ag		328.068 Recovery = 106.43%				
Al 308.215†	13728024.2	508.374 mg/L	0.2145	508.374 mg/L	0.2145	0.04%
QC value within limits for Al		308.215 Recovery = 101.67%				
As 188.979†	891.2	1.03770 mg/L	0.002999	1.03770 mg/L	0.002999	0.29%
QC value within limits for As		188.979 Recovery = 103.77%				
Ba 233.527†	59427.0	0.509799 mg/L	0.0056799	0.509799 mg/L	0.0056799	1.11%
QC value within limits for Ba		233.527 Recovery = 101.96%				
Be 313.107†	1260276.9	0.494432 mg/L	0.0020522	0.494432 mg/L	0.0020522	0.42%
QC value within limits for Be		313.107 Recovery = 98.89%				
Ca 315.887†	46871185.0	494.701 mg/L	0.3158	494.701 mg/L	0.3158	0.06%
QC value within limits for Ca		315.887 Recovery = 98.94%				
Cd 228.802†	35605.9	1.02683 mg/L	0.003290	1.02683 mg/L	0.003290	0.32%
QC value within limits for Cd		228.802 Recovery = 102.68%				
Co 228.616†	13308.5	0.473252 mg/L	0.0012495	0.473252 mg/L	0.0012495	0.26%
QC value within limits for Co		228.616 Recovery = 94.65%				
Cr 267.716†	31097.9	0.491448 mg/L	0.0056446	0.491448 mg/L	0.0056446	1.15%
QC value within limits for Cr		267.716 Recovery = 98.29%				
Cu 327.393†	61758.5	0.504901 mg/L	0.0049547	0.504901 mg/L	0.0049547	0.98%
QC value within limits for Cu		327.393 Recovery = 100.98%				
Fe 273.955†	1624303.0	187.891 mg/L	0.6337	187.891 mg/L	0.6337	0.34%
QC value within limits for Fe		273.955 Recovery = 93.95%				
K 404.721†	-1269.8	-12.0785 mg/L	0.70354	-12.0785 mg/L	0.70354	5.82%
Mg 279.077†	5710701.4	507.610 mg/L	1.6891	507.610 mg/L	1.6891	0.33%
QC value within limits for Mg		279.077 Recovery = 101.52%				
Mn 257.610†	179769.8	0.490445 mg/L	0.0054918	0.490445 mg/L	0.0054918	1.12%
QC value within limits for Mn		257.610 Recovery = 98.09%				
Mo 202.031†	128.3	0.0054677 mg/L	0.00049069	0.0054677 mg/L	0.00049069	8.97%
Na 330.237†	405.0	1.13387 mg/L	0.049073	1.13387 mg/L	0.049073	4.33%
Ni 231.604†	34053.4	0.926571 mg/L	0.0032979	0.926571 mg/L	0.0032979	0.36%
QC value within limits for Ni		231.604 Recovery = 92.66%				
Pb 220.353†	8108.4	0.995856 mg/L	0.0049959	0.995856 mg/L	0.0049959	0.50%
QC value within limits for Pb		220.353 Recovery = 99.59%				
Sb 206.836†	827.9	1.01365 mg/L	0.006711	1.01365 mg/L	0.006711	0.66%
QC value within limits for Sb		206.836 Recovery = 101.37%				
Se 196.026†	857.4	0.996583 mg/L	0.0054305	0.996583 mg/L	0.0054305	0.54%
QC value within limits for Se		196.026 Recovery = 99.66%				
Sn 189.927†	18.8	0.0072569 mg/L	0.00241605	0.0072569 mg/L	0.00241605	33.29%
Ti 334.940†	667.5	0.0004869 mg/L	0.00004292	0.0004869 mg/L	0.00004292	8.81%
Tl 190.801†	723.2	0.949558 mg/L	0.0043098	0.949558 mg/L	0.0043098	0.45%
QC value within limits for Tl		190.801 Recovery = 94.96%				
V 290.880†	71573.8	0.477342 mg/L	0.0056337	0.477342 mg/L	0.0056337	1.18%
QC value within limits for V		290.880 Recovery = 95.47%				
Zn 206.200†	25489.0	0.954791 mg/L	0.0042602	0.954791 mg/L	0.0042602	0.45%
QC value within limits for Zn		206.200 Recovery = 95.48%				

All analyte(s) passed QC.

Sequence No.: 27  
 Sample ID: CCV V-130872  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 1/16/2012 8:37:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-130872

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1082364.5	97.7 %	1.00			1.02%
Y 371.029	422902.2	95.6 %	0.91			0.96%
Ag 328.068†	12857.5	0.0982052 mg/L	0.00115769	0.0982052 mg/L	0.00115769	1.18%
QC value within limits for Ag		328.068 Recovery = 98.21%				
Al 308.215†	133300.4	4.92134 mg/L	0.050768	4.92134 mg/L	0.050768	1.03%
QC value within limits for Al		308.215 Recovery = 98.43%				
As 188.979†	437.9	0.496811 mg/L	0.0033328	0.496811 mg/L	0.0033328	0.67%
QC value within limits for As		188.979 Recovery = 99.36%				
Ba 233.527†	58493.9	0.501770 mg/L	0.0053702	0.501770 mg/L	0.0053702	1.07%
QC value within limits for Ba		233.527 Recovery = 100.35%				
Be 313.107†	1265012.0	0.495944 mg/L	0.0047005	0.495944 mg/L	0.0047005	0.95%
QC value within limits for Be		313.107 Recovery = 99.19%				
Ca 315.887†	4796080.2	50.4495 mg/L	0.38246	50.4495 mg/L	0.38246	0.76%
QC value within limits for Ca		315.887 Recovery = 100.90%				
Cd 228.802†	17116.8	0.494921 mg/L	0.0064372	0.494921 mg/L	0.0064372	1.30%
QC value within limits for Cd		228.802 Recovery = 98.98%				
Co 228.616†	14438.0	0.506367 mg/L	0.0052660	0.506367 mg/L	0.0052660	1.04%
QC value within limits for Co		228.616 Recovery = 101.27%				
Cr 267.716†	31785.1	0.499046 mg/L	0.0069337	0.499046 mg/L	0.0069337	1.39%
QC value within limits for Cr		267.716 Recovery = 99.81%				
Cu 327.393†	58213.7	0.492129 mg/L	0.0058140	0.492129 mg/L	0.0058140	1.18%
QC value within limits for Cu		327.393 Recovery = 98.43%				
Fe 273.955†	43371.5	5.01799 mg/L	0.055982	5.01799 mg/L	0.055982	1.12%
QC value within limits for Fe		273.955 Recovery = 100.36%				
K 404.721†	4498.7	45.8410 mg/L	0.73623	45.8410 mg/L	0.73623	1.61%
QC value within limits for K		404.721 Recovery = 91.68%				
Mg 279.077†	566895.2	50.2214 mg/L	0.37744	50.2214 mg/L	0.37744	0.75%
QC value within limits for Mg		279.077 Recovery = 100.44%				
Mn 257.610†	185896.3	0.498777 mg/L	0.0056232	0.498777 mg/L	0.0056232	1.13%
QC value within limits for Mn		257.610 Recovery = 99.76%				
Mo 202.031†	5991.7	0.501045 mg/L	0.0076477	0.501045 mg/L	0.0076477	1.53%
QC value within limits for Mo		202.031 Recovery = 100.21%				
Na 330.237†	43902.8	46.9267 mg/L	0.34817	46.9267 mg/L	0.34817	0.74%
QC value within limits for Na		330.237 Recovery = 93.85%				
Ni 231.604†	18576.0	0.504829 mg/L	0.0041305	0.504829 mg/L	0.0041305	0.82%
QC value within limits for Ni		231.604 Recovery = 100.97%				
Pb 220.353†	4693.4	0.538485 mg/L	0.0062722	0.538485 mg/L	0.0062722	1.16%
QC value within limits for Pb		220.353 Recovery = 107.70%				
Sb 206.836†	455.7	0.497579 mg/L	0.0103676	0.497579 mg/L	0.0103676	2.08%
QC value within limits for Sb		206.836 Recovery = 99.52%				
Se 196.026†	427.0	0.507534 mg/L	0.0010554	0.507534 mg/L	0.0010554	0.21%
QC value within limits for Se		196.026 Recovery = 101.51%				
Sn 189.927†	666.8	0.524087 mg/L	0.0114247	0.524087 mg/L	0.0114247	2.18%
QC value within limits for Sn		189.927 Recovery = 104.82%				
Ti 334.940†	314805.8	0.487404 mg/L	0.0052041	0.487404 mg/L	0.0052041	1.07%
QC value within limits for Ti		334.940 Recovery = 97.48%				
Tl 190.801†	409.4	0.527228 mg/L	0.0040295	0.527228 mg/L	0.0040295	0.76%
QC value within limits for Tl		190.801 Recovery = 105.45%				
V 290.880†	68703.7	0.497633 mg/L	0.0059376	0.497633 mg/L	0.0059376	1.19%
QC value within limits for V		290.880 Recovery = 99.53%				
Zn 206.200†	13252.7	0.502806 mg/L	0.0064651	0.502806 mg/L	0.0064651	1.29%
QC value within limits for Zn		206.200 Recovery = 100.56%				

All analyte(s) passed QC.

Sequence No.: 28

Autosampler Location: 1

Sample ID: CCB

Date Collected: 1/16/2012 8:41:41 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----  
Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	1122096.5	101 %		0.9			0.91%
Y 371.029	446011.1	101 %		0.9			0.91%
Ag 328.068†	7.6	0.0001072 mg/L		0.00015777	0.0001072 mg/L	0.00015777	147.19%
QC value within limits for Ag	328.068	Recovery = Not calculated					
Al 308.215†	17.8	-0.0045238 mg/L		0.00047748	-0.0045238 mg/L	0.00047748	10.55%
QC value within limits for Al	308.215	Recovery = Not calculated					
As 188.979†	3.6	0.0016467 mg/L		0.00117062	0.0016467 mg/L	0.00117062	71.09%
QC value within limits for As	188.979	Recovery = Not calculated					
Ba 233.527†	11.5	-0.0014635 mg/L		0.00004766	-0.0014635 mg/L	0.00004766	3.26%
QC value within limits for Ba	233.527	Recovery = Not calculated					
Be 313.107†	34.7	-0.0006201 mg/L		0.00005135	-0.0006201 mg/L	0.00005135	8.28%
QC value within limits for Be	313.107	Recovery = Not calculated					
Ca 315.887†	71.1	-0.189237 mg/L		0.0043459	-0.189237 mg/L	0.0043459	2.30%
QC value within limits for Ca	315.887	Recovery = Not calculated					
Cd 228.802†	2.6	-0.0001298 mg/L		0.00034391	-0.0001298 mg/L	0.00034391	264.97%
QC value within limits for Cd	228.802	Recovery = Not calculated					
Co 228.616†	-2.2	-0.0020955 mg/L		0.00038555	-0.0020955 mg/L	0.00038555	18.40%
QC value within limits for Co	228.616	Recovery = Not calculated					
Cr 267.716†	-5.1	-0.0010863 mg/L		0.00003450	-0.0010863 mg/L	0.00003450	3.18%
QC value within limits for Cr	267.716	Recovery = Not calculated					
Cu 327.393†	-222.5	-0.0023861 mg/L		0.00033014	-0.0023861 mg/L	0.00033014	13.84%
QC value within limits for Cu	327.393	Recovery = Not calculated					
Fe 273.955†	40.9	-0.0093943 mg/L		0.00354827	-0.0093943 mg/L	0.00354827	37.77%
QC value within limits for Fe	273.955	Recovery = Not calculated					
K 404.721†	-121.4	-0.547893 mg/L		0.1639118	-0.547893 mg/L	0.1639118	29.92%
QC value within limits for K	404.721	Recovery = Not calculated					
Mg 279.077†	118.4	-0.176628 mg/L		0.0108976	-0.176628 mg/L	0.0108976	6.17%
QC value within limits for Mg	279.077	Recovery = Not calculated					
Mn 257.610†	-30.7	-0.0016308 mg/L		0.00001247	-0.0016308 mg/L	0.00001247	0.76%
QC value within limits for Mn	257.610	Recovery = Not calculated					
Mo 202.031†	8.5	0.0000291 mg/L		0.00026848	0.0000291 mg/L	0.00026848	921.61%
QC value within limits for Mo	202.031	Recovery = Not calculated					
Na 330.237†	160.5	0.876508 mg/L		0.0052592	0.876508 mg/L	0.0052592	0.60%
QC value within limits for Na	330.237	Recovery = Not calculated					
Ni 231.604†	-12.2	-0.0026501 mg/L		0.00009476	-0.0026501 mg/L	0.00009476	3.58%
QC value within limits for Ni	231.604	Recovery = Not calculated					
Pb 220.353†	225.1	0.0251299 mg/L		0.00064321	0.0251299 mg/L	0.00064321	2.56%
QC value within limits for Pb	220.353	Recovery = Not calculated					
Sb 206.836†	-3.3	-0.0017553 mg/L		0.00209735	-0.0017553 mg/L	0.00209735	119.49%
QC value within limits for Sb	206.836	Recovery = Not calculated					
Se 196.026†	3.6	0.0033597 mg/L		0.00064893	0.0033597 mg/L	0.00064893	19.31%
QC value within limits for Se	196.026	Recovery = Not calculated					
Sn 189.927†	1.4	0.0008570 mg/L		0.00209856	0.0008570 mg/L	0.00209856	244.88%
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	-26.6	-0.0005890 mg/L		0.00002367	-0.0005890 mg/L	0.00002367	4.02%
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	2.3	0.0018415 mg/L		0.00081629	0.0018415 mg/L	0.00081629	44.33%
QC value within limits for Tl	190.801	Recovery = Not calculated					
V 290.880†	-14.4	-0.0013717 mg/L		0.00011391	-0.0013717 mg/L	0.00011391	8.30%
QC value within limits for V	290.880	Recovery = Not calculated					
Zn 206.200†	11.3	-0.0002268 mg/L		0.00005170	-0.0002268 mg/L	0.00005170	22.80%
QC value within limits for Zn	206.200	Recovery = Not calculated					

All analyte(s) passed QC.

File T13480C2

Batch 13480

Method: PE2 4300DV AXIAL

Page 1

Date: 1/17/2012 11:11:30 AM

Analyst S Bl 1/17/12

Analysis Begun

Start Time: 1/17/2012 11:08:02 AM Plasma On Time: 12:00:00 AM
Logged In Analyst: shiamala Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030901 Autosampler Model: AS-93plus

Sample Information File: C:\pe\administrator\Sample Information\01.17.12.sif
Batch ID: 11227
Results Data Set: T13480C2
Results Library: C:\pe\administrator\Results\Results.mdb

sh 1/17/12

Method Loaded

Method Name: PE2 4300DV AXIAL Method Last Saved: 1/16/2012 10:36:38 AM
IEC File: IEC092611B2.iec MSF File:
Method Description: 200.7/6010B

Sequence No.: 1 Autosampler Location: 1
Sample ID: Calib Blk 1 V-130860 Date Collected: 1/17/2012 11:08:03 AM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: Calib Blk 1 V-130860

Table with columns: Analyte, Mean Corrected Intensity, Std.Dev., RSD, Conc., Calib Units. Lists elements like Sc, Y, Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Ti, Tl, V, Zn with their respective values.

13480
12491

Pb reported
028
63081.022 100 Pb reported
50 1/17

Sequence No.: 2  
Sample ID: Calib 1 V-128669  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 10  
Date Collected: 1/17/2012 11:12:42 AM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1051151.2	11886.10	1.13%	102	%
Y 371.029	402307.5	4281.10	1.06%	101	%
As 188.979†	4.3	3.42	79.30%	[0.005]	mg/L
Be 313.107†	7000.4	107.39	1.53%	[0.003]	mg/L
Cd 228.802†	98.0	11.03	11.26%	[0.003]	mg/L
Pb 220.353†	10.9	3.93	35.87%	[0.004]	mg/L
Tl 190.801†	3.9	0.15	3.88%	[0.005]	mg/L

Sequence No.: 3

Sample ID: Calib 2 V-130865

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 1/17/2012 11:16:21 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 2 V-130865

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1048304.4	8515.90	0.81%	101	%
Y 371.029	401426.2	3077.85	0.77%	101	%
Ag 328.068†	313.0	23.17	7.40%	[0.002]	mg/L
Al 308.215†	2706.3	113.59	4.20%	[0.10]	mg/L
As 188.979†	9.3	3.40	36.55%	[0.010]	mg/L
Ba 233.527†	1071.4	7.30	0.68%	[0.010]	mg/L
Be 313.107†	23159.0	427.17	1.84%	[0.010]	mg/L
Ca 315.887†	91834.2	1272.71	1.39%	[1.0]	mg/L
Cd 228.802†	323.1	6.81	2.11%	[0.010]	mg/L
Co 228.616†	266.2	4.89	1.84%	[0.010]	mg/L
Cr 267.716†	586.8	3.35	0.57%	[0.010]	mg/L
Cu 327.393†	1290.6	59.78	4.63%	[0.010]	mg/L
Fe 273.955†	962.4	21.86	2.27%	[0.10]	mg/L
K 404.721†	48.3	5.01	10.37%	[1.0]	mg/L
Mg 279.077†	11103.3	141.12	1.27%	[1.0]	mg/L
Mn 257.610†	3838.4	39.52	1.03%	[0.010]	mg/L
Mo 202.031†	120.9	2.47	2.04%	[0.010]	mg/L
Na 330.237†	812.2	21.55	2.65%	[1.0]	mg/L
Ni 231.604†	345.2	0.04	0.01%	[0.010]	mg/L
Pb 220.353†	63.8	2.21	3.47%	[0.010]	mg/L
Sb 206.836†	8.9	4.61	51.50%	[0.010]	mg/L
Se 196.026†	4.8	7.21	151.06%	[0.010]	mg/L
Sn 189.927†	17.4	0.97	5.58%	[0.010]	mg/L
Ti 334.940†	5356.7	57.45	1.07%	[0.010]	mg/L
Tl 190.801†	8.6	2.05	23.93%	[0.010]	mg/L
V 290.880†	1191.3	30.75	2.58%	[0.010]	mg/L
Zn 206.200†	214.9	4.96	2.31%	[0.010]	mg/L

Sequence No.: 4

Sample ID: Calib 3 V-129805

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/17/2012 11:20:02 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 3 V-129805

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units
Sc 361.383	991151.9	6010.29	0.61%	95.8 %
Y 371.029	375516.8	2200.31	0.59%	94.7 %
Ag 328.068†	14470.0	19.04	0.13%	[0.10] mg/L
Al 308.215†	131075.1	457.51	0.35%	[5.0] mg/L
As 188.979†	422.6	1.03	0.24%	[0.50] mg/L
Ba 233.527†	51862.3	71.62	0.14%	[0.50] mg/L
Be 313.107†	1196987.6	9538.96	0.80%	[0.50] mg/L
Ca 315.887†	4468584.7	31642.44	0.71%	[50] mg/L
Cd 228.802†	16318.0	59.72	0.37%	[0.50] mg/L
Co 228.616†	12799.6	21.26	0.17%	[0.50] mg/L
Cr 267.716†	29380.8	57.68	0.20%	[0.50] mg/L
Cu 327.393†	56992.2	122.86	0.22%	[0.50] mg/L
Fe 273.955†	44050.0	26.72	0.06%	[5.0] mg/L
K 404.721†	4479.5	42.00	0.94%	[50] mg/L
Mg 279.077†	520316.3	3338.30	0.64%	[50] mg/L
Mn 257.610†	181464.7	273.77	0.15%	[0.50] mg/L
Mo 202.031†	6135.6	52.12	0.85%	[0.50] mg/L
Na 330.237†	43361.7	90.90	0.21%	[50] mg/L
Ni 231.604†	16972.7	13.20	0.08%	[0.50] mg/L
Pb 220.353†	4124.6	25.33	0.61%	[0.50] mg/L
Sb 206.836†	505.7	3.56	0.70%	[0.50] mg/L
Se 196.026†	377.1	6.84	1.81%	[0.50] mg/L
Sn 189.927†	726.7	3.66	0.50%	[0.50] mg/L
Ti 334.940†	270787.0	2418.19	0.89%	[0.50] mg/L
Tl 190.801†	349.5	2.11	0.61%	[0.50] mg/L
V 290.880†	65489.0	73.99	0.11%	[0.50] mg/L
Zn 206.200†	11764.0	95.05	0.81%	[0.50] mg/L

Sequence No.: 5

Sample ID: Calib 4 V-130869

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 1/17/2012 11:23:49 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 4 V-130869

Analyte	Mean Corrected			Conc. Units
	Intensity	Std.Dev.	RSD	
Sc 361.383	983143.0	4210.27	0.43%	95.0 %
Y 371.029	372100.0	1307.88	0.35%	93.8 %
Ag 328.068†	28512.1	367.23	1.29%	[0.20] mg/L
Al 308.215†	260012.0	3506.84	1.35%	[10] mg/L
As 188.979†	860.1	2.52	0.29%	[1.0] mg/L
Ba 233.527†	101411.1	1399.93	1.38%	[1.0] mg/L
Be 313.107†	2379490.0	26155.22	1.10%	[1.0] mg/L
Ca 315.887†	8915790.6	91211.20	1.02%	[100] mg/L
Cd 228.802†	32329.1	452.01	1.40%	[1.0] mg/L
Co 228.616†	24988.9	378.18	1.51%	[1.0] mg/L
Cr 267.716†	57844.9	841.61	1.45%	[1.0] mg/L
Cu 327.393†	111694.5	1212.94	1.09%	[1.0] mg/L
Fe 273.955†	86328.3	1225.90	1.42%	[10] mg/L
K 404.721†	9746.3	71.46	0.73%	[100] mg/L
Mg 279.077†	1033381.2	11233.35	1.09%	[100] mg/L
Mn 257.610†	356204.9	4889.06	1.37%	[1.0] mg/L
Mo 202.031†	12239.8	40.21	0.33%	[1.0] mg/L
Na 330.237†	91333.6	987.20	1.08%	[100] mg/L
Ni 231.604†	33075.6	446.20	1.35%	[1.0] mg/L
Pb 220.353†	8162.1	29.24	0.36%	[1.0] mg/L
Sb 206.836†	1002.1	0.96	0.10%	[1.0] mg/L
Se 196.026†	771.7	1.51	0.20%	[1.0] mg/L
Sn 189.927†	1454.7	9.07	0.62%	[1.0] mg/L
Ti 334.940†	537764.4	5647.59	1.05%	[1.0] mg/L
Tl 190.801†	675.0	0.82	0.12%	[1.0] mg/L
V 290.880†	127521.7	1699.05	1.33%	[1.0] mg/L
Zn 206.200†	23252.7	362.86	1.56%	[1.0] mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	51.6	142700	0.00000	0.999971	
Al 308.215	3	Lin, Calc Int	242.8	26010	0.00000	0.999991	
As 188.979	4	Lin, Calc Int	-0.7	858.0	0.00000	0.999963	
Ba 233.527	3	Lin, Calc Int	236.5	101600	0.00000	0.999932	
Be 313.107	4	Lin, Calc Int	660.8	2382000	0.00000	0.999995	
Ca 315.887	3	Lin, Calc Int	3160.5	89160	0.00000	0.999999	
Cd 228.802	4	Lin, Calc Int	19.4	32370	0.00000	0.999989	
Co 228.616	3	Lin, Calc Int	62.9	25040	0.00000	0.999922	
Cr 267.716	3	Lin, Calc Int	87.2	57920	0.00000	0.999967	
Cu 327.393	3	Lin, Calc Int	287.2	111800	0.00000	0.999947	
Fe 273.955	3	Lin, Calc Int	206.2	8643	0.00000	0.999946	
K 404.721	3	Lin, Calc Int	-94.0	97.02	0.00000	0.999165	
Mg 279.077	3	Lin, Calc Int	1009.2	10340	0.00000	0.999994	
Mn 257.610	3	Lin, Calc Int	737.4	356700	0.00000	0.999954	
Mo 202.031	3	Lin, Calc Int	2.2	12240	0.00000	0.999999	
Na 330.237	3	Lin, Calc Int	-465.5	909.7	0.00000	0.999664	
Ni 231.604	3	Lin, Calc Int	85.7	33150	0.00000	0.999909	
Pb 220.353	4	Lin, Calc Int	-6.9	8188	0.00000	0.999980	
Sb 206.836	3	Lin, Calc Int	0.4	1004	0.00000	0.999987	
Se 196.026	3	Lin, Calc Int	-2.9	771.7	0.00000	0.999937	
Sn 189.927	3	Lin, Calc Int	1.2	1453	0.00000	0.999998	
Ti 334.940	3	Lin, Calc Int	337.2	538100	0.00000	0.999993	
Tl 190.801	4	Lin, Calc Int	2.2	677.1	0.00000	0.999859	
V 290.880	3	Lin, Calc Int	276.4	127900	0.00000	0.999900	
Zn 206.200	3	Lin, Calc Int	17.1	23290	0.00000	0.999980	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-129805

Date Collected: 1/17/2012 11:28:43 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICS3 V-129805

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1015086.7	98.1 %	0.35			0.35%
Y 371.029	384528.4	97.0 %	0.41			0.42%
Ag 328.068†	14376.2	0.100518 mg/L	0.0009731	0.100518 mg/L	0.0009731	0.97%
QC value within limits for Ag		328.068 Recovery = 100.52%				
Al 308.215†	131175.0	5.02315 mg/L	0.040894	5.02315 mg/L	0.040894	0.81%
QC value within limits for Al		308.215 Recovery = 100.46%				
As 188.979†	432.7	0.505055 mg/L	0.0011485	0.505055 mg/L	0.0011485	0.23%
QC value within limits for As		188.979 Recovery = 101.01%				
Ba 233.527†	52069.8	0.510228 mg/L	0.0036538	0.510228 mg/L	0.0036538	0.72%
QC value within limits for Ba		233.527 Recovery = 102.05%				
Be 313.107†	1211723.5	0.508151 mg/L	0.0046445	0.508151 mg/L	0.0046445	0.91%
QC value within limits for Be		313.107 Recovery = 101.63%				
Ca 315.887†	4541573.9	50.9004 mg/L	0.42740	50.9004 mg/L	0.42740	0.84%
QC value within limits for Ca		315.887 Recovery = 101.80%				
Cd 228.802†	16388.8	0.505661 mg/L	0.0043070	0.505661 mg/L	0.0043070	0.85%
QC value within limits for Cd		228.802 Recovery = 101.13%				
Co 228.616†	12915.4	0.514010 mg/L	0.0033117	0.514010 mg/L	0.0033117	0.64%
QC value within limits for Co		228.616 Recovery = 102.80%				
Cr 267.716†	29565.9	0.512571 mg/L	0.0031430	0.512571 mg/L	0.0031430	0.61%
QC value within limits for Cr		267.716 Recovery = 102.51%				
Cu 327.393†	56794.4	0.503887 mg/L	0.0041082	0.503887 mg/L	0.0041082	0.82%
QC value within limits for Cu		327.393 Recovery = 100.78%				
Fe 273.955†	44298.7	5.12178 mg/L	0.032662	5.12178 mg/L	0.032662	0.64%
QC value within limits for Fe		273.955 Recovery = 102.44%				
K 404.721†	4563.6	48.0068 mg/L	0.77143	48.0068 mg/L	0.77143	1.61%
QC value within limits for K		404.721 Recovery = 96.01%				
Mg 279.077†	530855.2	51.2613 mg/L	0.45568	51.2613 mg/L	0.45568	0.89%
QC value within limits for Mg		279.077 Recovery = 102.52%				
Mn 257.610†	182132.7	0.508953 mg/L	0.0034824	0.508953 mg/L	0.0034824	0.68%
QC value within limits for Mn		257.610 Recovery = 101.79%				
Mo 202.031†	6158.7	0.501789 mg/L	0.0020765	0.501789 mg/L	0.0020765	0.41%
QC value within limits for Mo		202.031 Recovery = 100.36%				
Na 330.237†	43164.3	47.9590 mg/L	0.41815	47.9590 mg/L	0.41815	0.87%
QC value within limits for Na		330.237 Recovery = 95.92%				
Ni 231.604†	17154.9	0.515416 mg/L	0.0027623	0.515416 mg/L	0.0027623	0.54%
QC value within limits for Ni		231.604 Recovery = 103.08%				
Pb 220.353†	4156.8	0.508910 mg/L	0.0013807	0.508910 mg/L	0.0013807	0.27%
QC value within limits for Pb		220.353 Recovery = 101.78%				
Sb 206.836†	507.6	0.506805 mg/L	0.0000520	0.506805 mg/L	0.0000520	0.01%
QC value within limits for Sb		206.836 Recovery = 101.36%				
Se 196.026†	388.8	0.506795 mg/L	0.0058020	0.506795 mg/L	0.0058020	1.14%
QC value within limits for Se		196.026 Recovery = 101.36%				
Sn 189.927†	743.4	0.511091 mg/L	0.0043324	0.511091 mg/L	0.0043324	0.85%
QC value within limits for Sn		189.927 Recovery = 102.22%				
Ti 334.940†	272300.8	0.505397 mg/L	0.0048819	0.505397 mg/L	0.0048819	0.97%
QC value within limits for Ti		334.940 Recovery = 101.08%				
Tl 190.801†	350.6	0.517472 mg/L	0.0032431	0.517472 mg/L	0.0032431	0.63%
QC value within limits for Tl		190.801 Recovery = 103.49%				
V 290.880†	65591.5	0.507760 mg/L	0.0036144	0.507760 mg/L	0.0036144	0.71%
QC value within limits for V		290.880 Recovery = 101.55%				
Zn 206.200†	12012.4	0.513502 mg/L	0.0038456	0.513502 mg/L	0.0038456	0.75%
QC value within limits for Zn		206.200 Recovery = 102.70%				

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV V-129811 (2)

Date Collected: 1/17/2012 11:32:30 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICV V-129811 (2)

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	977114.2	94.5 %	0.87			0.92%
Y 371.029	370514.5	93.4 %	0.76			0.81%
Ag 328.068†	27692.9	0.193956 mg/L	0.0050886	0.193956 mg/L	0.0050886	2.62%
QC value within limits for Ag	328.068	Recovery = 96.98%				
Al 308.215†	259347.1	9.94060 mg/L	0.260737	9.94060 mg/L	0.260737	2.62%
QC value within limits for Al	308.215	Recovery = 99.41%				
As 188.979†	838.0	0.977234 mg/L	0.0070006	0.977234 mg/L	0.0070006	0.72%
QC value within limits for As	188.979	Recovery = 97.72%				
Ba 233.527†	101288.3	0.994716 mg/L	0.0260082	0.994716 mg/L	0.0260082	2.61%
QC value within limits for Ba	233.527	Recovery = 99.47%				
Be 313.107†	2357253.9	0.988791 mg/L	0.0068566	0.988791 mg/L	0.0068566	0.69%
QC value within limits for Be	313.107	Recovery = 98.88%				
Ca 315.887†	8840769.5	99.1178 mg/L	0.53647	99.1178 mg/L	0.53647	0.54%
QC value within limits for Ca	315.887	Recovery = 99.12%				
Cd 228.802†	32091.1	0.990717 mg/L	0.0271540	0.990717 mg/L	0.0271540	2.74%
QC value within limits for Cd	228.802	Recovery = 99.07%				
Co 228.616†	24974.2	0.996274 mg/L	0.0266577	0.996274 mg/L	0.0266577	2.68%
QC value within limits for Co	228.616	Recovery = 99.63%				
Cr 267.716†	57092.1	0.991280 mg/L	0.0272085	0.991280 mg/L	0.0272085	2.74%
QC value within limits for Cr	267.716	Recovery = 99.13%				
Cu 327.393†	111485.4	0.991620 mg/L	0.0252333	0.991620 mg/L	0.0252333	2.54%
QC value within limits for Cu	327.393	Recovery = 99.16%				
Fe 273.955†	84472.9	9.78863 mg/L	0.274553	9.78863 mg/L	0.274553	2.80%
QC value within limits for Fe	273.955	Recovery = 97.89%				
K 404.721†	9761.6	101.583 mg/L	2.3797	101.583 mg/L	2.3797	2.34%
QC value within limits for K	404.721	Recovery = 101.58%				
Mg 279.077†	1018898.2	98.4782 mg/L	0.52538	98.4782 mg/L	0.52538	0.53%
QC value within limits for Mg	279.077	Recovery = 98.48%				
Mn 257.610†	350588.3	0.981600 mg/L	0.0265763	0.981600 mg/L	0.0265763	2.71%
QC value within limits for Mn	257.610	Recovery = 98.16%				
Mo 202.031†	12085.2	0.984848 mg/L	0.0289319	0.984848 mg/L	0.0289319	2.94%
QC value within limits for Mo	202.031	Recovery = 98.48%				
Na 330.237†	90435.5	99.9207 mg/L	2.31386	99.9207 mg/L	2.31386	2.32%
QC value within limits for Na	330.237	Recovery = 99.92%				
Ni 231.604†	32809.4	0.988134 mg/L	0.0271625	0.988134 mg/L	0.0271625	2.75%
QC value within limits for Ni	231.604	Recovery = 98.81%				
Pb 220.353†	7939.7	0.971347 mg/L	0.0055588	0.971347 mg/L	0.0055588	0.57%
QC value within limits for Pb	220.353	Recovery = 97.13%				
Sb 206.836†	988.1	0.986937 mg/L	0.0092257	0.986937 mg/L	0.0092257	0.93%
QC value within limits for Sb	206.836	Recovery = 98.69%				
Se 196.026†	752.8	0.977550 mg/L	0.0144017	0.977550 mg/L	0.0144017	1.47%
QC value within limits for Se	196.026	Recovery = 97.75%				
Sn 189.927†	1448.3	0.996418 mg/L	0.0035265	0.996418 mg/L	0.0035265	0.35%
QC value within limits for Sn	189.927	Recovery = 99.64%				
Ti 334.940†	539567.9	1.00207 mg/L	0.008930	1.00207 mg/L	0.008930	0.89%
QC value within limits for Ti	334.940	Recovery = 100.21%				
Tl 190.801†	691.4	1.02367 mg/L	0.008198	1.02367 mg/L	0.008198	0.80%
QC value within limits for Tl	190.801	Recovery = 102.37%				
V 290.880†	126277.7	0.979613 mg/L	0.0256606	0.979613 mg/L	0.0256606	2.62%
QC value within limits for V	290.880	Recovery = 97.96%				
Zn 206.200†	22900.4	0.979585 mg/L	0.0277134	0.979585 mg/L	0.0277134	2.83%
QC value within limits for Zn	206.200	Recovery = 97.96%				

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-130860

Date Collected: 1/17/2012 11:37:24 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICB V-130860

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1039055.5	100	%	0.0				0.01%
Y 371.029	400342.8	101	%	0.1				0.06%
Ag 328.068†	64.3	0.0000885	mg/L	0.00049042	0.0000885	mg/L	0.00049042	554.21%
QC value	within limits	for Ag 328.068	Recovery = Not calculated					
Al 308.215†	-73.0	-0.0121442	mg/L	0.00037292	-0.0121442	mg/L	0.00037292	3.07%
QC value	within limits	for Al 308.215	Recovery = Not calculated					
As 188.979†	-0.4	0.0003231	mg/L	0.00142270	0.0003231	mg/L	0.00142270	440.40%
QC value	within limits	for As 188.979	Recovery = Not calculated					
Ba 233.527†	38.5	-0.0019489	mg/L	0.00015372	-0.0019489	mg/L	0.00015372	7.89%
QC value	within limits	for Ba 233.527	Recovery = Not calculated					
Be 313.107†	234.5	-0.0001786	mg/L	0.00001392	-0.0001786	mg/L	0.00001392	7.80%
QC value	within limits	for Be 313.107	Recovery = Not calculated					
Ca 315.887†	1157.5	-0.0224651	mg/L	0.00085162	-0.0224651	mg/L	0.00085162	3.79%
QC value	within limits	for Ca 315.887	Recovery = Not calculated					
Cd 228.802†	1.1	-0.0005662	mg/L	0.00054464	-0.0005662	mg/L	0.00054464	96.19%
QC value	within limits	for Cd 228.802	Recovery = Not calculated					
Co 228.616†	9.6	-0.0021303	mg/L	0.00014720	-0.0021303	mg/L	0.00014720	6.91%
QC value	within limits	for Co 228.616	Recovery = Not calculated					
Cr 267.716†	-6.1	-0.0016113	mg/L	0.00028869	-0.0016113	mg/L	0.00028869	17.92%
QC value	within limits	for Cr 267.716	Recovery = Not calculated					
Cu 327.393†	198.7	-0.0007907	mg/L	0.00025041	-0.0007907	mg/L	0.00025041	31.67%
QC value	within limits	for Cu 327.393	Recovery = Not calculated					
Fe 273.955†	94.4	-0.0129636	mg/L	0.00077553	-0.0129636	mg/L	0.00077553	5.98%
QC value	within limits	for Fe 273.955	Recovery = Not calculated					
K 404.721†	-29.4	0.665624	mg/L	0.0664704	0.665624	mg/L	0.0664704	9.99%
QC value	within limits	for K 404.721	Recovery = Not calculated					
Mg 279.077†	298.0	-0.0688061	mg/L	0.00264477	-0.0688061	mg/L	0.00264477	3.84%
QC value	within limits	for Mg 279.077	Recovery = Not calculated					
Mn 257.610†	66.8	-0.0018807	mg/L	0.00004897	-0.0018807	mg/L	0.00004897	2.60%
QC value	within limits	for Mn 257.610	Recovery = Not calculated					
Mo 202.031†	5.1	0.0002412	mg/L	0.00002830	0.0002412	mg/L	0.00002830	11.73%
QC value	within limits	for Mo 202.031	Recovery = Not calculated					
Na 330.237†	15.9	0.529164	mg/L	0.0295709	0.529164	mg/L	0.0295709	5.59%
QC value	within limits	for Na 330.237	Recovery = Not calculated					
Ni 231.604†	0.4	-0.0025727	mg/L	0.00016988	-0.0025727	mg/L	0.00016988	6.60%
QC value	within limits	for Ni 231.604	Recovery = Not calculated					
Pb 220.353†	-29.5	-0.0027571	mg/L	0.00004551	-0.0027571	mg/L	0.00004551	1.65%
QC value	within limits	for Pb 220.353	Recovery = Not calculated					
Sb 206.836†	-0.7	-0.0010200	mg/L	0.00234940	-0.0010200	mg/L	0.00234940	230.33%
QC value	within limits	for Sb 206.836	Recovery = Not calculated					
Se 196.026†	-5.3	-0.0030319	mg/L	0.00801121	-0.0030319	mg/L	0.00801121	264.23%
QC value	within limits	for Se 196.026	Recovery = Not calculated					
Sn 189.927†	6.0	0.0033392	mg/L	0.00258035	0.0033392	mg/L	0.00258035	77.28%
QC value	within limits	for Sn 189.927	Recovery = Not calculated					
Ti 334.940†	11.0	-0.0006061	mg/L	0.00007878	-0.0006061	mg/L	0.00007878	13.00%
QC value	within limits	for Ti 334.940	Recovery = Not calculated					
Tl 190.801†	2.5	0.0004667	mg/L	0.00216842	0.0004667	mg/L	0.00216842	464.62%
QC value	within limits	for Tl 190.801	Recovery = Not calculated					
V 290.880†	-122.0	-0.0031103	mg/L	0.00033167	-0.0031103	mg/L	0.00033167	10.66%
QC value	within limits	for V 290.880	Recovery = Not calculated					
Zn 206.200†	1.2	-0.0006807	mg/L	0.00005469	-0.0006807	mg/L	0.00005469	8.03%
QC value	within limits	for Zn 206.200	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-130873

Date Collected: 1/17/2012 11:41:03 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-130873

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	911511.9	88.1 %		0.05			0.06%
Y 371.029	346148.0	87.3 %		0.04			0.04%
Ag 328.068†	-1291.0	0.0024656 mg/L		0.00034564	0.0024656 mg/L	0.00034564	14.02%
Al 308.215†	13129142.2	504.672 mg/L		1.4697	504.672 mg/L	1.4697	0.29%
QC value within limits for Al 308.215 Recovery = 100.93%							
As 188.979†	-24.9	-0.0055187 mg/L		0.00986912	-0.0055187 mg/L	0.00986912	178.83%
Ba 233.527†	397.0	0.0015795 mg/L		0.00014521	0.0015795 mg/L	0.00014521	9.19%
Be 313.107†	-1585.6	-0.0009430 mg/L		0.00004661	-0.0009430 mg/L	0.00004661	4.94%
Ca 315.887†	42905936.1	481.174 mg/L		2.9547	481.174 mg/L	2.9547	0.61%
QC value within limits for Ca 315.887 Recovery = 96.23%							
Cd 228.802†	146.1	0.0009679 mg/L		0.00005398	0.0009679 mg/L	0.00005398	5.58%
Co 228.616†	-129.1	-0.0004495 mg/L		0.00006805	-0.0004495 mg/L	0.00006805	15.14%
Cr 267.716†	10.1	0.0048631 mg/L		0.00045725	0.0048631 mg/L	0.00045725	9.40%
Cu 327.393†	607.0	-0.0155870 mg/L		0.00034006	-0.0155870 mg/L	0.00034006	2.18%
Fe 273.955†	1554251.0	179.993 mg/L		0.1116	179.993 mg/L	0.1116	0.06%
QC value within limits for Fe 273.955 Recovery = 90.00%							
K 404.721†	-1096.1	-10.3295 mg/L		0.40547	-10.3295 mg/L	0.40547	3.93%
Mg 279.077†	5128049.9	496.028 mg/L		0.1051	496.028 mg/L	0.1051	0.02%
QC value within limits for Mg 279.077 Recovery = 99.21%							
Mn 257.610†	-3611.6	-0.0040507 mg/L		0.00013454	-0.0040507 mg/L	0.00013454	3.32%
Mo 202.031†	140.9	0.0069624 mg/L		0.00006701	0.0069624 mg/L	0.00006701	0.96%
Na 330.237†	-162.2	0.333351 mg/L		0.0121945	0.333351 mg/L	0.0121945	3.66%
Ni 231.604†	21.8	-0.0019190 mg/L		0.00014382	-0.0019190 mg/L	0.00014382	7.49%
Pb 220.353†	-467.3	0.0095791 mg/L		0.00002342	0.0095791 mg/L	0.00002342	0.24%
Sb 206.836†	-104.6	0.0073816 mg/L		0.00348712	0.0073816 mg/L	0.00348712	47.24%
Se 196.026†	13.8	-0.0042191 mg/L		0.00560889	-0.0042191 mg/L	0.00560889	132.94%
Sn 189.927†	2.9	-0.0059432 mg/L		0.00256496	-0.0059432 mg/L	0.00256496	43.16%
Ti 334.940†	168.6	-0.0003132 mg/L		0.00004724	-0.0003132 mg/L	0.00004724	15.08%
Tl 190.801†	-12.2	0.0015270 mg/L		0.00050006	0.0015270 mg/L	0.00050006	32.75%
V 290.880†	6197.9	0.0032278 mg/L		0.00057365	0.0032278 mg/L	0.00057365	17.77%
Zn 206.200†	124.0	-0.0109414 mg/L		0.00011967	-0.0109414 mg/L	0.00011967	1.09%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-130874  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/17/2012 11:46:12 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-130874

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	912943.1		88.3 %	0.34			0.39%
Y 371.029	347868.1		87.7 %	0.33			0.37%
Ag 328.068†	142985.1	1.01340 mg/L		0.000002	1.01340 mg/L	0.000002	0.00%
QC value within limits for Ag		328.068	Recovery = 101.34%				
Al 308.215†	13106014.1	503.783 mg/L		7.8729	503.783 mg/L	7.8729	1.56%
QC value within limits for Al		308.215	Recovery = 100.76%				
As 188.979†	805.6	0.962243 mg/L		0.0231680	0.962243 mg/L	0.0231680	2.41%
QC value within limits for As		188.979	Recovery = 96.22%				
Ba 233.527†	50389.5	0.493688 mg/L		0.0021376	0.493688 mg/L	0.0021376	0.43%
QC value within limits for Ba		233.527	Recovery = 98.74%				
Be 313.107†	1154174.6	0.484348 mg/L		0.0017070	0.484348 mg/L	0.0017070	0.35%
QC value within limits for Be		313.107	Recovery = 96.87%				
Ca 315.887†	42174726.8	472.973 mg/L		10.4186	472.973 mg/L	10.4186	2.20%
QC value within limits for Ca		315.887	Recovery = 94.59%				
Cd 228.802†	32471.5	0.999711 mg/L		0.0124425	0.999711 mg/L	0.0124425	1.24%
QC value within limits for Cd		228.802	Recovery = 99.97%				
Co 228.616†	11412.4	0.460550 mg/L		0.0062128	0.460550 mg/L	0.0062128	1.35%
QC value within limits for Co		228.616	Recovery = 92.11%				
Cr 267.716†	27697.0	0.483094 mg/L		0.0063499	0.483094 mg/L	0.0063499	1.31%
QC value within limits for Cr		267.716	Recovery = 96.62%				
Cu 327.393†	58890.3	0.505866 mg/L		0.0009446	0.505866 mg/L	0.0009446	0.19%
QC value within limits for Cu		327.393	Recovery = 101.17%				
Fe 273.955†	1539521.1	178.287 mg/L		0.7726	178.287 mg/L	0.7726	0.43%
QC value within limits for Fe		273.955	Recovery = 89.14%				
K 404.721†	-1041.6	-9.76752 mg/L		0.794189	-9.76752 mg/L	0.794189	8.13%
Mg 279.077†	5077809.2	491.168 mg/L		2.9354	491.168 mg/L	2.9354	0.60%
QC value within limits for Mg		279.077	Recovery = 98.23%				
Mn 257.610†	164196.2	0.466369 mg/L		0.0014900	0.466369 mg/L	0.0014900	0.32%
QC value within limits for Mn		257.610	Recovery = 93.27%				
Mo 202.031†	142.4	0.0072532 mg/L		0.00161106	0.0072532 mg/L	0.00161106	22.21%
Na 330.237†	45.0	0.561089 mg/L		0.0400868	0.561089 mg/L	0.0400868	7.14%
Ni 231.604†	29831.9	0.897437 mg/L		0.0126186	0.897437 mg/L	0.0126186	1.41%
QC value within limits for Ni		231.604	Recovery = 89.74%				
Pb 220.353†	6907.2	0.910297 mg/L		0.0129149	0.910297 mg/L	0.0129149	1.42%
QC value within limits for Pb		220.353	Recovery = 91.03%				
Sb 206.836†	867.4	0.975405 mg/L		0.0031848	0.975405 mg/L	0.0031848	0.33%
QC value within limits for Sb		206.836	Recovery = 97.54%				
Se 196.026†	746.9	0.945344 mg/L		0.0121250	0.945344 mg/L	0.0121250	1.28%
QC value within limits for Se		196.026	Recovery = 94.53%				
Sn 189.927†	-4.5	-0.0111110 mg/L		0.00010041	-0.0111110 mg/L	0.00010041	0.90%
Ti 334.940†	205.2	-0.0002453 mg/L		0.00000640	-0.0002453 mg/L	0.00000640	2.61%
Tl 190.801†	609.6	0.918717 mg/L		0.0193875	0.918717 mg/L	0.0193875	2.11%
QC value within limits for Tl		190.801	Recovery = 91.87%				
V 290.880†	64636.2	0.460632 mg/L		0.0016835	0.460632 mg/L	0.0016835	0.37%
QC value within limits for V		290.880	Recovery = 92.13%				
Zn 206.200†	21339.4	0.900252 mg/L		0.0134871	0.900252 mg/L	0.0134871	1.50%
QC value within limits for Zn		206.200	Recovery = 90.03%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 12491 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 1/17/2012 11:51:15 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: MB 12491 (1)

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1056991.5	102	%	0.2				0.15%
Y 371.029	408403.3	103	%	0.2				0.21%
Ag 328.068†	114.0	0.0004395	mg/L	0.00016671	0.0004395	mg/L	0.00016671	37.93%
Al 308.215†	220.3	-0.0008613	mg/L	0.00251523	-0.0008613	mg/L	0.00251523	292.02%
As 188.979†	0.6	0.0015537	mg/L	0.00107364	0.0015537	mg/L	0.00107364	69.10%
Ba 233.527†	66.4	-0.0016746	mg/L	0.00006644	-0.0016746	mg/L	0.00006644	3.97%
Be 313.107†	265.1	-0.0001656	mg/L	0.00000283	-0.0001656	mg/L	0.00000283	1.71%
Ca 315.887†	8828.0	0.0635637	mg/L	0.00283721	0.0635637	mg/L	0.00283721	4.46%
Cd 228.802†	-4.9	-0.0007507	mg/L	0.00022397	-0.0007507	mg/L	0.00022397	29.83%
Co 228.616†	2.2	-0.0024242	mg/L	0.00016616	-0.0024242	mg/L	0.00016616	6.85%
Cr 267.716†	-1.9	-0.0015396	mg/L	0.00006200	-0.0015396	mg/L	0.00006200	4.03%
Cu 327.393†	487.1	0.0017874	mg/L	0.00074213	0.0017874	mg/L	0.00074213	41.52%
Fe 273.955†	387.6	0.0209642	mg/L	0.00006026	0.0209642	mg/L	0.00006026	0.29%
K 404.721†	4.9	1.01841	mg/L	0.099078	1.01841	mg/L	0.099078	9.73%
Mg 279.077†	620.2	-0.0376432	mg/L	0.00121607	-0.0376432	mg/L	0.00121607	3.23%
Mn 257.610†	201.2	-0.0015025	mg/L	0.00004017	-0.0015025	mg/L	0.00004017	2.67%
Mo 202.031†	-0.2	-0.0001984	mg/L	0.00047858	-0.0001984	mg/L	0.00047858	241.22%
Na 330.237†	3.8	0.515848	mg/L	0.0342076	0.515848	mg/L	0.0342076	6.63%
Ni 231.604†	1.5	-0.0025421	mg/L	0.00026494	-0.0025421	mg/L	0.00026494	10.42%
Pb 220.353†	-48.8	-0.0051165	mg/L	0.00047867	-0.0051165	mg/L	0.00047867	9.36%
Sb 206.836†	-4.5	-0.0048723	mg/L	0.00107232	-0.0048723	mg/L	0.00107232	22.01%
Se 196.026†	-2.5	0.0005361	mg/L	0.00340387	0.0005361	mg/L	0.00340387	634.97%
Sn 189.927†	38.9	0.0259833	mg/L	0.00411893	0.0259833	mg/L	0.00411893	15.85%
Ti 334.940†	-85.4	-0.0007853	mg/L	0.00013638	-0.0007853	mg/L	0.00013638	17.37%
Tl 190.801†	1.2	-0.0014534	mg/L	0.00191494	-0.0014534	mg/L	0.00191494	131.75%
V 290.880†	-18.9	-0.0023079	mg/L	0.00052665	-0.0023079	mg/L	0.00052665	22.82%
Zn 206.200†	293.2	0.0118600	mg/L	0.00004534	0.0118600	mg/L	0.00004534	0.38%

Sequence No.: 12

Autosampler Location: 39

Sample ID: LCSW 12491

Date Collected: 1/17/2012 11:54:55 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: LCSW 12491

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	1023860.0	99.0	%	1.29			1.30%	
Y 371.029	392054.8	98.9	%	1.24			1.26%	
Ag 328.068†	13679.5	0.0956386	mg/L	0.00019813	0.0956386	mg/L	0.00019813	0.21%
Al 308.215†	130410.8	4.99395	mg/L	0.031261	4.99395	mg/L	0.031261	0.63%
As 188.979†	420.5	0.490748	mg/L	0.0063592	0.490748	mg/L	0.0063592	1.30%
Ba 233.527†	53025.8	0.519638	mg/L	0.0029025	0.519638	mg/L	0.0029025	0.56%
Be 313.107†	1230549.4	0.516033	mg/L	0.0022991	0.516033	mg/L	0.0022991	0.45%
Ca 315.887†	4619437.3	51.7736	mg/L	0.14925	51.7736	mg/L	0.14925	0.29%
Cd 228.802†	16275.6	0.502166	mg/L	0.0013133	0.502166	mg/L	0.0013133	0.26%
Co 228.616†	13174.4	0.524282	mg/L	0.0035125	0.524282	mg/L	0.0035125	0.67%
Cr 267.716†	29800.3	0.516587	mg/L	0.0032442	0.516587	mg/L	0.0032442	0.63%
Cu 327.393†	58421.1	0.518412	mg/L	0.0021516	0.518412	mg/L	0.0021516	0.42%
Fe 273.955†	43036.4	4.97584	mg/L	0.023783	4.97584	mg/L	0.023783	0.48%
K 404.721†	4548.7	47.8529	mg/L	0.22489	47.8529	mg/L	0.22489	0.47%
Mg 279.077†	533357.8	51.5034	mg/L	0.11261	51.5034	mg/L	0.11261	0.22%
Mn 257.610†	178882.9	0.499833	mg/L	0.0030156	0.499833	mg/L	0.0030156	0.60%
Mo 202.031†	6116.8	0.498352	mg/L	0.0062033	0.498352	mg/L	0.0062033	1.24%
Na 330.237†	43093.6	47.8813	mg/L	0.27750	47.8813	mg/L	0.27750	0.58%
Ni 231.604†	17163.5	0.515670	mg/L	0.0028862	0.515670	mg/L	0.0028862	0.56%
Pb 220.353†	4071.7	0.498510	mg/L	0.0038934	0.498510	mg/L	0.0038934	0.78%
Sb 206.836†	489.2	0.488469	mg/L	0.0083759	0.488469	mg/L	0.0083759	1.71%
Se 196.026†	386.6	0.503903	mg/L	0.0089151	0.503903	mg/L	0.0089151	1.77%
Sn 189.927†	705.9	0.485276	mg/L	0.0005615	0.485276	mg/L	0.0005615	0.12%
Ti 334.940†	289287.9	0.536965	mg/L	0.0034807	0.536965	mg/L	0.0034807	0.65%
Tl 190.801†	369.0	0.544899	mg/L	0.0094956	0.544899	mg/L	0.0094956	1.74%
V 290.880†	65829.8	0.509626	mg/L	0.0035501	0.509626	mg/L	0.0035501	0.70%
Zn 206.200†	12033.7	0.514412	mg/L	0.0018668	0.514412	mg/L	0.0018668	0.36%

Sequence No.: 13

Sample ID: LCSW MR 12491

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 1/17/2012 11:58:39 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW MR 12491

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1012837.3	97.9	%	0.37				0.37%
Y 371.029	387799.8	97.8	%	0.25				0.26%
Ag 328.068†	13332.4	0.0931968	mg/L	0.00183355	0.0931968	mg/L	0.00183355	1.97%
Al 308.215†	127240.4	4.87241	mg/L	0.107137	4.87241	mg/L	0.107137	2.20%
As 188.979†	406.8	0.474845	mg/L	0.0004379	0.474845	mg/L	0.0004379	0.09%
Ba 233.527†	51744.8	0.507028	mg/L	0.0099131	0.507028	mg/L	0.0099131	1.96%
Be 313.107†	1181854.0	0.495598	mg/L	0.0065923	0.495598	mg/L	0.0065923	1.33%
Ca 315.887†	4393427.2	49.2388	mg/L	0.69768	49.2388	mg/L	0.69768	1.42%
Cd 228.802†	15823.9	0.488212	mg/L	0.0105022	0.488212	mg/L	0.0105022	2.15%
Co 228.616†	12787.5	0.508810	mg/L	0.0117891	0.508810	mg/L	0.0117891	2.32%
Cr 267.716†	29001.0	0.502667	mg/L	0.0098752	0.502667	mg/L	0.0098752	1.96%
Cu 327.393†	57198.6	0.507547	mg/L	0.0096568	0.507547	mg/L	0.0096568	1.90%
Fe 273.955†	41764.3	4.82767	mg/L	0.102599	4.82767	mg/L	0.102599	2.13%
K 404.721†	4410.9	46.4331	mg/L	0.51823	46.4331	mg/L	0.51823	1.12%
Mg 279.077†	507654.5	49.0167	mg/L	0.74088	49.0167	mg/L	0.74088	1.51%
Mn 257.610†	174103.5	0.486422	mg/L	0.0098297	0.486422	mg/L	0.0098297	2.02%
Mo 202.031†	5908.5	0.481390	mg/L	0.0019476	0.481390	mg/L	0.0019476	0.40%
Na 330.237†	42143.1	46.8365	mg/L	1.15092	46.8365	mg/L	1.15092	2.46%
Ni 231.604†	16623.8	0.499375	mg/L	0.0123946	0.499375	mg/L	0.0123946	2.48%
Pb 220.353†	3923.9	0.480455	mg/L	0.0029861	0.480455	mg/L	0.0029861	0.62%
Sb 206.836†	472.1	0.471364	mg/L	0.0057194	0.471364	mg/L	0.0057194	1.21%
Se 196.026†	367.6	0.479287	mg/L	0.0130087	0.479287	mg/L	0.0130087	2.71%
Sn 189.927†	672.7	0.462380	mg/L	0.0026228	0.462380	mg/L	0.0026228	0.57%
Ti 334.940†	280089.0	0.519870	mg/L	0.0050769	0.519870	mg/L	0.0050769	0.98%
Tl 190.801†	361.0	0.533001	mg/L	0.0048448	0.533001	mg/L	0.0048448	0.91%
V 290.880†	64257.0	0.497486	mg/L	0.0100754	0.497486	mg/L	0.0100754	2.03%
Zn 206.200†	11613.3	0.496434	mg/L	0.0019361	0.496434	mg/L	0.0019361	0.39%

Sequence No.: 14  
Sample ID: 63081-028 10D  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 26  
Date Collected: 1/17/2012 12:02:27 PM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

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Mean Data: 63081-028 10D

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1022724.8	98.9 %		2.74			2.77%
Y 371.029	393044.5	99.1 %		2.73			2.76%
Ag 328.068†	145.9	0.0007539 mg/L	0.00023145	0.0007539 mg/L	0.00023145	30.70%	
Al 308.215†	762.4	0.0198667 mg/L	0.00355006	0.0198667 mg/L	0.00355006	17.87%	
As 188.979†	0.5	0.0011757 mg/L	0.00127910	0.0011757 mg/L	0.00127910	108.79%	
Ba 233.527†	14862.8	0.143975 mg/L	0.0033178	0.143975 mg/L	0.0033178	2.30%	
Be 313.107†	370.5	-0.0001212 mg/L	0.00003280	-0.0001212 mg/L	0.00003280	27.07%	
Ca 315.887†	2292845.2	25.6799 mg/L	0.76430	25.6799 mg/L	0.76430	2.98%	
Cd 228.802†	15.9	-0.0001118 mg/L	0.00009092	-0.0001118 mg/L	0.00009092	81.36%	
Co 228.616†	195.8	0.0053248 mg/L	0.00066130	0.0053248 mg/L	0.00066130	12.42%	
Cr 267.716†	-3.6	-0.0013379 mg/L	0.00013902	-0.0013379 mg/L	0.00013902	10.39%	
Cu 327.393†	14168.3	0.123846 mg/L	0.0029685	0.123846 mg/L	0.0029685	2.40%	
Fe 273.955†	2346.3	0.247934 mg/L	0.0028470	0.247934 mg/L	0.0028470	1.15%	
K 404.721†	-31.5	0.643575 mg/L	0.5842909	0.643575 mg/L	0.5842909	90.79%	
Mg 279.077†	9780.2	0.848564 mg/L	0.0059982	0.848564 mg/L	0.0059982	0.71%	
Mn 257.610†	110936.5	0.308987 mg/L	0.0077730	0.308987 mg/L	0.0077730	2.52%	
Mo 202.031†	59.0	0.0040802 mg/L	0.00050002	0.0040802 mg/L	0.00050002	12.26%	
Na 330.237†	126475.8	139.537 mg/L	3.3816	139.537 mg/L	3.3816	2.42%	
Ni 231.604†	405.2	0.0096428 mg/L	0.00019950	0.0096428 mg/L	0.00019950	2.07%	
Pb 220.353†	131405.1	16.0498 mg/L	0.40334	16.0498 mg/L	0.40334	2.51%	
Sb 206.836†	3.0	0.0024648 mg/L	0.00142187	0.0024648 mg/L	0.00142187	57.69%	
Se 196.026†	2.4	0.0059677 mg/L	0.00917005	0.0059677 mg/L	0.00917005	153.66%	
Sn 189.927†	-4.4	-0.0037657 mg/L	0.00179556	-0.0037657 mg/L	0.00179556	47.68%	
Ti 334.940†	-216.3	-0.0010285 mg/L	0.00004970	-0.0010285 mg/L	0.00004970	4.83%	
Tl 190.801†	1.9	-0.0007796 mg/L	0.00314237	-0.0007796 mg/L	0.00314237	403.05%	
V 290.880†	67.5	-0.0017001 mg/L	0.00012099	-0.0017001 mg/L	0.00012099	7.12%	
Zn 206.200†	10978.4	0.470680 mg/L	0.0131370	0.470680 mg/L	0.0131370	2.79%	

Sequence No.: 15  
 Sample ID: 63081-028 MR 10D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 27  
 Date Collected: 1/17/2012 12:06:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-028 MR 10D

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	996774.7	96.4	%	1.18				1.23%
Y 371.029	383614.4	96.8	%	1.20				1.24%
Ag 328.068†	103.2	0.0004579	mg/L	0.00003558	0.0004579	mg/L	0.00003558	7.77%
Al 308.215†	952.6	0.0271860	mg/L	0.00045918	0.0271860	mg/L	0.00045918	1.69%
As 188.979†	2.7	0.0037260	mg/L	0.00015926	0.0037260	mg/L	0.00015926	4.27%
Ba 233.527†	15821.4	0.153412	mg/L	0.0023626	0.153412	mg/L	0.0023626	1.54%
Be 313.107†	230.9	-0.0001798	mg/L	0.00000688	-0.0001798	mg/L	0.00000688	3.82%
Ca 315.887†	2414097.1	27.0397	mg/L	0.28234	27.0397	mg/L	0.28234	1.04%
Cd 228.802†	17.1	-0.0000757	mg/L	0.00031391	-0.0000757	mg/L	0.00031391	414.45%
Co 228.616†	217.9	0.0062060	mg/L	0.00005075	0.0062060	mg/L	0.00005075	0.82%
Cr 267.716†	-4.8	-0.0013500	mg/L	0.00000585	-0.0013500	mg/L	0.00000585	0.43%
Cu 327.393†	14848.5	0.129914	mg/L	0.0019115	0.129914	mg/L	0.0019115	1.47%
Fe 273.955†	2219.9	0.233325	mg/L	0.0104832	0.233325	mg/L	0.0104832	4.49%
K 404.721†	-8.4	0.881477	mg/L	0.3347447	0.881477	mg/L	0.3347447	37.98%
Mg 279.077†	10152.9	0.884621	mg/L	0.0007704	0.884621	mg/L	0.0007704	0.09%
Mn 257.610†	118086.1	0.329032	mg/L	0.0049635	0.329032	mg/L	0.0049635	1.51%
Mo 202.031†	53.9	0.0036321	mg/L	0.00009829	0.0036321	mg/L	0.00009829	2.71%
Na 330.237†	135390.7	149.337	mg/L	1.8539	149.337	mg/L	1.8539	1.24%
Ni 231.604†	428.6	0.0103479	mg/L	0.00001027	0.0103479	mg/L	0.00001027	0.10%
Pb 220.353†	140581.7	17.1706	mg/L	0.22646	17.1706	mg/L	0.22646	1.32%
Sb 206.836†	-1.1	-0.0016631	mg/L	0.00031321	-0.0016631	mg/L	0.00031321	18.83%
Se 196.026†	-1.4	0.0010065	mg/L	0.00405245	0.0010065	mg/L	0.00405245	402.64%
Sn 189.927†	-5.4	-0.0045027	mg/L	0.00044437	-0.0045027	mg/L	0.00044437	9.87%
Ti 334.940†	-168.0	-0.0009388	mg/L	0.00003473	-0.0009388	mg/L	0.00003473	3.70%
Tl 190.801†	0.5	-0.0029891	mg/L	0.00123741	-0.0029891	mg/L	0.00123741	41.40%
V 290.880†	130.9	-0.0012074	mg/L	0.00035666	-0.0012074	mg/L	0.00035666	29.54%
Zn 206.200†	11732.7	0.503072	mg/L	0.0058668	0.503072	mg/L	0.0058668	1.17%

Sequence No.: 16  
 Sample ID: 63081-028 TCLP SPK 10D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 28  
 Date Collected: 1/17/2012 12:09:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-028 TCLP SPK 10D

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1002148.6	96.9	%	0.40				0.41%
Y 371.029	385368.0	97.2	%	0.30				0.31%
Ag 328.068†	1407.3	0.0096074	mg/L	0.00041936	0.0096074	mg/L	0.00041936	4.36%
Al 308.215†	13627.6	0.513474	mg/L	0.0110325	0.513474	mg/L	0.0110325	2.15%
As 188.979†	42.1	0.0496095	mg/L	0.00207518	0.0496095	mg/L	0.00207518	4.18%
Ba 233.527†	67496.1	0.662078	mg/L	0.0109952	0.662078	mg/L	0.0109952	1.66%
Be 313.107†	118816.0	0.0495749	mg/L	0.00086816	0.0495749	mg/L	0.00086816	1.75%
Ca 315.887†	2789487.1	31.2499	mg/L	0.55430	31.2499	mg/L	0.55430	1.77%
Cd 228.802†	1643.4	0.0501629	mg/L	0.00039628	0.0501629	mg/L	0.00039628	0.79%
Co 228.616†	1527.9	0.0585847	mg/L	0.00041911	0.0585847	mg/L	0.00041911	0.72%
Cr 267.716†	2912.3	0.0493541	mg/L	0.00054131	0.0493541	mg/L	0.00054131	1.10%
Cu 327.393†	20023.6	0.176060	mg/L	0.0030014	0.176060	mg/L	0.0030014	1.70%
Fe 273.955†	6277.4	0.704749	mg/L	0.0080214	0.704749	mg/L	0.0080214	1.14%
K 404.721†	436.1	5.46299	mg/L	1.118550	5.46299	mg/L	1.118550	20.48%
Mg 279.077†	61720.0	5.87362	mg/L	0.115449	5.87362	mg/L	0.115449	1.97%
Mn 257.610†	130820.1	0.364769	mg/L	0.0059180	0.364769	mg/L	0.0059180	1.62%
Mo 202.031†	647.2	0.0520069	mg/L	0.00031199	0.0520069	mg/L	0.00031199	0.60%
Na 330.237†	135466.3	149.420	mg/L	2.8581	149.420	mg/L	2.8581	1.91%
Ni 231.604†	2148.7	0.0622864	mg/L	0.00016872	0.0622864	mg/L	0.00016872	0.27%
Pb 220.353†	137091.1	16.7443	mg/L	0.30465	16.7443	mg/L	0.30465	1.82%
Sb 206.836†	47.3	0.0466931	mg/L	0.00576938	0.0466931	mg/L	0.00576938	12.36%
Se 196.026†	42.6	0.0579592	mg/L	0.00439653	0.0579592	mg/L	0.00439653	7.59%
Sn 189.927†	66.3	0.0448771	mg/L	0.00100330	0.0448771	mg/L	0.00100330	2.24%
Ti 334.940†	28305.6	0.0519744	mg/L	0.00084442	0.0519744	mg/L	0.00084442	1.62%
Tl 190.801†	34.3	0.0473408	mg/L	0.00078355	0.0473408	mg/L	0.00078355	1.66%
V 290.880†	6764.5	0.0503781	mg/L	0.00138478	0.0503781	mg/L	0.00138478	2.75%
Zn 206.200†	12348.1	0.529341	mg/L	0.0105875	0.529341	mg/L	0.0105875	2.00%

Sequence No.: 17  
 Sample ID: 63081-028 PS 10D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 29  
 Date Collected: 1/17/2012 12:13:33 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-028 PS 10D

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1004999.9	97.2 %		0.15			0.15%
Y 371.029	385690.4	97.3 %		0.24			0.25%
Ag 328.068†	9626.7	0.0673076 mg/L		0.00082925	0.0673076 mg/L	0.00082925	1.23%
Al 308.215†	133873.9	5.12640 mg/L		0.041635	5.12640 mg/L	0.041635	0.81%
As 188.979†	436.0	0.508584 mg/L		0.0001754	0.508584 mg/L	0.0001754	0.03%
Ba 233.527†	530198.6	5.21675 mg/L		0.043806	5.21675 mg/L	0.043806	0.84%
Be 313.107†	1246963.8	0.522888 mg/L		0.0044346	0.522888 mg/L	0.0044346	0.85%
Ca 315.887†	6969904.8	78.1352 mg/L		0.68410	78.1352 mg/L	0.68410	0.88%
Cd 228.802†	16741.8	0.516565 mg/L		0.0050113	0.516565 mg/L	0.0050113	0.97%
Co 228.616†	13754.6	0.547470 mg/L		0.0058158	0.547470 mg/L	0.0058158	1.06%
Cr 267.716†	30628.2	0.531314 mg/L		0.0061258	0.531314 mg/L	0.0061258	1.15%
Cu 327.393†	72924.7	0.647785 mg/L		0.0035224	0.647785 mg/L	0.0035224	0.54%
Fe 273.955†	45079.3	5.21286 mg/L		0.058829	5.21286 mg/L	0.058829	1.13%
K 404.721†	5047.5	52.9938 mg/L		0.05698	52.9938 mg/L	0.05698	0.11%
Mg 279.077†	550542.3	53.1659 mg/L		0.47410	53.1659 mg/L	0.47410	0.89%
Mn 257.610†	292086.4	0.817252 mg/L		0.0088279	0.817252 mg/L	0.0088279	1.08%
Mo 202.031†	6565.2	0.534396 mg/L		0.0006891	0.534396 mg/L	0.0006891	0.13%
Na 330.237†	184076.5	202.853 mg/L		1.4422	202.853 mg/L	1.4422	0.71%
Ni 231.604†	18022.5	0.541620 mg/L		0.0063520	0.541620 mg/L	0.0063520	1.17%
Pb 220.353†	169260.8	20.6737 mg/L		0.23604	20.6737 mg/L	0.23604	1.14%
Sb 206.836†	522.5	0.521469 mg/L		0.0001905	0.521469 mg/L	0.0001905	0.04%
Se 196.026†	403.1	0.524244 mg/L		0.0104249	0.524244 mg/L	0.0104249	1.99%
Sn 189.927†	737.8	0.507270 mg/L		0.0035681	0.507270 mg/L	0.0035681	0.70%
Ti 334.940†	317441.4	0.589283 mg/L		0.0048350	0.589283 mg/L	0.0048350	0.82%
Tl 190.801†	375.0	0.553805 mg/L		0.0016661	0.553805 mg/L	0.0016661	0.30%
V 290.880†	67295.9	0.521046 mg/L		0.0061807	0.521046 mg/L	0.0061807	1.19%
Zn 206.200†	23339.3	0.999851 mg/L		0.0144087	0.999851 mg/L	0.0144087	1.44%

Sequence No.: 18  
 Sample ID: CCV V-130872  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 1/17/2012 12:17:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-130872

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1004487.1	97.1 %		0.53			0.55%
Y 371.029	385638.8	97.3 %		0.50			0.51%
Ag 328.068†	13246.3	0.0926035 mg/L		0.00080827	0.0926035 mg/L	0.00080827	0.87%
		QC value within limits for Ag	328.068	Recovery = 92.60%			
Al 308.215†	128345.8	4.91500 mg/L		0.044620	4.91500 mg/L	0.044620	0.91%
		QC value within limits for Al	308.215	Recovery = 98.30%			
As 188.979†	412.7	0.481707 mg/L		0.0020417	0.481707 mg/L	0.0020417	0.42%
		QC value within limits for As	188.979	Recovery = 96.34%			
Ba 233.527†	52867.5	0.518079 mg/L		0.0041947	0.518079 mg/L	0.0041947	0.81%
		QC value within limits for Ba	233.527	Recovery = 103.62%			
Be 313.107†	1206491.8	0.505933 mg/L		0.0027315	0.505933 mg/L	0.0027315	0.54%
		QC value within limits for Be	313.107	Recovery = 101.19%			
Ca 315.887†	4518072.0	50.6368 mg/L		0.23359	50.6368 mg/L	0.23359	0.46%
		QC value within limits for Ca	315.887	Recovery = 101.27%			
Cd 228.802†	16031.3	0.494619 mg/L		0.0038516	0.494619 mg/L	0.0038516	0.78%
		QC value within limits for Cd	228.802	Recovery = 98.92%			
Co 228.616†	13101.1	0.521300 mg/L		0.0047935	0.521300 mg/L	0.0047935	0.92%
		QC value within limits for Co	228.616	Recovery = 104.26%			
Cr 267.716†	29548.3	0.512104 mg/L		0.0047770	0.512104 mg/L	0.0047770	0.93%
		QC value within limits for Cr	267.716	Recovery = 102.42%			
Cu 327.393†	56856.0	0.504434 mg/L		0.0044866	0.504434 mg/L	0.0044866	0.89%
		QC value within limits for Cu	327.393	Recovery = 100.89%			
Fe 273.955†	41832.9	4.83642 mg/L		0.043781	4.83642 mg/L	0.043781	0.91%
		QC value within limits for Fe	273.955	Recovery = 96.73%			
K 404.721†	4484.6	47.1927 mg/L		0.64913	47.1927 mg/L	0.64913	1.38%
		QC value within limits for K	404.721	Recovery = 94.39%			
Mg 279.077†	528739.4	51.0566 mg/L		0.23130	51.0566 mg/L	0.23130	0.45%
		QC value within limits for Mg	279.077	Recovery = 102.11%			
Mn 257.610†	175527.2	0.490414 mg/L		0.0045590	0.490414 mg/L	0.0045590	0.93%
		QC value within limits for Mn	257.610	Recovery = 98.08%			
Mo 202.031†	5879.8	0.479015 mg/L		0.0033738	0.479015 mg/L	0.0033738	0.70%
		QC value within limits for Mo	202.031	Recovery = 95.80%			
Na 330.237†	42569.1	47.3047 mg/L		0.38989	47.3047 mg/L	0.38989	0.82%
		QC value within limits for Na	330.237	Recovery = 94.61%			
Ni 231.604†	17077.1	0.513047 mg/L		0.0042782	0.513047 mg/L	0.0042782	0.83%
		QC value within limits for Ni	231.604	Recovery = 102.61%			
Pb 220.353†	4213.6	0.515819 mg/L		0.0010606	0.515819 mg/L	0.0010606	0.21%
		QC value within limits for Pb	220.353	Recovery = 103.16%			
Sb 206.836†	461.9	0.461256 mg/L		0.0021703	0.461256 mg/L	0.0021703	0.47%
		QC value within limits for Sb	206.836	Recovery = 92.25%			
Se 196.026†	383.8	0.500229 mg/L		0.0011506	0.500229 mg/L	0.0011506	0.23%
		QC value within limits for Se	196.026	Recovery = 100.05%			
Sn 189.927†	666.8	0.458330 mg/L		0.0032698	0.458330 mg/L	0.0032698	0.71%
		QC value within limits for Sn	189.927	Recovery = 91.67%			
Ti 334.940†	288015.2	0.534600 mg/L		0.0034482	0.534600 mg/L	0.0034482	0.65%
		QC value within limits for Ti	334.940	Recovery = 106.92%			
Tl 190.801†	365.1	0.539160 mg/L		0.0036644	0.539160 mg/L	0.0036644	0.68%
		QC value within limits for Tl	190.801	Recovery = 107.83%			
V 290.880†	64913.2	0.502467 mg/L		0.0036836	0.502467 mg/L	0.0036836	0.73%
		QC value within limits for V	290.880	Recovery = 100.49%			
Zn 206.200†	11878.9	0.507778 mg/L		0.0035549	0.507778 mg/L	0.0035549	0.70%
		QC value within limits for Zn	206.200	Recovery = 101.56%			

All analyte(s) passed QC.

Sequence No.: 19

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 1/17/2012 12:21:07 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1034529.8	100 %	1.1			1.06%
Y 371.029	402796.4	102 %	1.0			1.03%
Ag 328.068†	45.4	-0.0000439 mg/L	0.00019933	-0.0000439 mg/L	0.00019933	454.40%
QC value within limits for Ag 328.068						Recovery = Not calculated
Al 308.215†	-293.6	-0.0206244 mg/L	0.00045635	-0.0206244 mg/L	0.00045635	2.21%
QC value within limits for Al 308.215						Recovery = Not calculated
As 188.979†	-5.0	-0.0049673 mg/L	0.00452007	-0.0049673 mg/L	0.00452007	91.00%
QC value within limits for As 188.979						Recovery = Not calculated
Ba 233.527†	42.6	-0.0019090 mg/L	0.00002100	-0.0019090 mg/L	0.00002100	1.10%
QC value within limits for Ba 233.527						Recovery = Not calculated
Be 313.107†	322.1	-0.0001419 mg/L	0.00001932	-0.0001419 mg/L	0.00001932	13.61%
QC value within limits for Be 313.107						Recovery = Not calculated
Ca 315.887†	3853.1	0.0077672 mg/L	0.00299985	0.0077672 mg/L	0.00299985	38.62%
QC value within limits for Ca 315.887						Recovery = Not calculated
Cd 228.802†	10.2	-0.0002848 mg/L	0.00037907	-0.0002848 mg/L	0.00037907	133.10%
QC value within limits for Cd 228.802						Recovery = Not calculated
Co 228.616†	6.2	-0.0022647 mg/L	0.00048499	-0.0022647 mg/L	0.00048499	21.42%
QC value within limits for Co 228.616						Recovery = Not calculated
Cr 267.716†	-13.9	-0.0017458 mg/L	0.00015142	-0.0017458 mg/L	0.00015142	8.67%
QC value within limits for Cr 267.716						Recovery = Not calculated
Cu 327.393†	591.1	0.0027190 mg/L	0.00030147	0.0027190 mg/L	0.00030147	11.09%
QC value within limits for Cu 327.393						Recovery = Not calculated
Fe 273.955†	79.7	-0.0146644 mg/L	0.00319615	-0.0146644 mg/L	0.00319615	21.80%
QC value within limits for Fe 273.955						Recovery = Not calculated
K 404.721†	15.5	1.12778 mg/L	0.063337	1.12778 mg/L	0.063337	5.62%
QC value within limits for K 404.721						Recovery = Not calculated
Mg 279.077†	221.3	-0.0762324 mg/L	0.00429581	-0.0762324 mg/L	0.00429581	5.64%
QC value within limits for Mg 279.077						Recovery = Not calculated
Mn 257.610†	34.9	-0.0019702 mg/L	0.00001063	-0.0019702 mg/L	0.00001063	0.54%
QC value within limits for Mn 257.610						Recovery = Not calculated
Mo 202.031†	6.0	0.0003129 mg/L	0.00008736	0.0003129 mg/L	0.00008736	27.92%
QC value within limits for Mo 202.031						Recovery = Not calculated
Na 330.237†	37.0	0.552282 mg/L	0.0768481	0.552282 mg/L	0.0768481	13.91%
QC value within limits for Na 330.237						Recovery = Not calculated
Ni 231.604†	20.0	-0.0019834 mg/L	0.00009441	-0.0019834 mg/L	0.00009441	4.76%
QC value within limits for Ni 231.604						Recovery = Not calculated
Pb 220.353†	54.4	0.0074919 mg/L	0.00016968	0.0074919 mg/L	0.00016968	2.26%
QC value within limits for Pb 220.353						Recovery = Not calculated
Sb 206.836†	0.1	-0.0002975 mg/L	0.00060446	-0.0002975 mg/L	0.00060446	203.20%
QC value within limits for Sb 206.836						Recovery = Not calculated
Se 196.026†	-1.9	0.0013527 mg/L	0.00540878	0.0013527 mg/L	0.00540878	399.84%
QC value within limits for Se 196.026						Recovery = Not calculated
Sn 189.927†	7.8	0.0045437 mg/L	0.00196609	0.0045437 mg/L	0.00196609	43.27%
QC value within limits for Sn 189.927						Recovery = Not calculated
Ti 334.940†	95.5	-0.0004491 mg/L	0.00004685	-0.0004491 mg/L	0.00004685	10.43%
QC value within limits for Ti 334.940						Recovery = Not calculated
Tl 190.801†	2.5	0.0003920 mg/L	0.00053946	0.0003920 mg/L	0.00053946	137.60%
QC value within limits for Tl 190.801						Recovery = Not calculated
V 290.880†	-115.0	-0.0030544 mg/L	0.00009505	-0.0030544 mg/L	0.00009505	3.11%
QC value within limits for V 290.880						Recovery = Not calculated
Zn 206.200†	-0.9	-0.0007676 mg/L	0.00007661	-0.0007676 mg/L	0.00007661	9.98%
QC value within limits for Zn 206.200						Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: 63081-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 1/17/2012 12:24:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-047

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	908162.9		87.8 %	0.57			0.65%
Y 371.029	356741.9		90.0 %	0.50			0.55%
Ag 328.068†	-247.8	0.0014301	mg/L	0.00027811	0.0014301	mg/L	0.00027811 19.45%
Al 308.215†	7820.5	0.290996	mg/L	0.0045644	0.290996	mg/L	0.0045644 1.57%
As 188.979†	163.4	0.196968	mg/L	0.0101946	0.196968	mg/L	0.0101946 5.18%
Ba 233.527†	80669.8	0.791756	mg/L	0.0032658	0.791756	mg/L	0.0032658 0.41%
Be 313.107†	401.4	-0.0001080	mg/L	0.00000752	-0.0001080	mg/L	0.00000752 6.96%
Ca 315.887†	20761525.3	232.814	mg/L	0.1839	232.814	mg/L	0.1839 0.08%
Cd 228.802†	510.8	0.0143284	mg/L	0.00084824	0.0143284	mg/L	0.00084824 5.92%
Co 228.616†	1434.6	0.0548327	mg/L	0.00084136	0.0548327	mg/L	0.00084136 1.53%
Cr 267.716†	328.8	0.0072151	mg/L	0.00023284	0.0072151	mg/L	0.00023284 3.23%
Cu 327.393†	962.4	0.0032837	mg/L	0.00007949	0.0032837	mg/L	0.00007949 2.42%
Fe 273.955†	450596.8	52.1102	mg/L	0.17839	52.1102	mg/L	0.17839 0.34%
K 404.721†	326.6	4.33494	mg/L	0.421022	4.33494	mg/L	0.421022 9.71%
Mg 279.077†	60807.2	5.78531	mg/L	0.013649	5.78531	mg/L	0.013649 0.24%
Mn 257.610†	680720.3	1.90889	mg/L	0.007324	1.90889	mg/L	0.007324 0.38%
Mo 202.031†	156.1	0.0074878	mg/L	0.00011669	0.0074878	mg/L	0.00011669 1.56%
Na 330.237†	1468274.9	1614.48	mg/L	10.510	1614.48	mg/L	10.510 0.65%
Ni 231.604†	3856.3	0.113768	mg/L	0.0021120	0.113768	mg/L	0.0021120 1.86%
Pb 220.353†	123705.3	15.1054	mg/L	0.04802	15.1054	mg/L	0.04802 0.32%
Sb 206.836†	-13.7	-0.0087217	mg/L	0.00245231	-0.0087217	mg/L	0.00245231 28.12%
Se 196.026†	3.8	0.0119291	mg/L	0.00042047	0.0119291	mg/L	0.00042047 3.52%
Sn 189.927†	-0.4	-0.0022377	mg/L	0.00687322	-0.0022377	mg/L	0.00687322 307.16%
Ti 334.940†	-359.4	-0.0012944	mg/L	0.00000742	-0.0012944	mg/L	0.00000742 0.57%
Tl 190.801†	-5.7	-0.0113079	mg/L	0.00161311	-0.0113079	mg/L	0.00161311 14.27%
V 290.880†	1146.0	0.0049567	mg/L	0.00028565	0.0049567	mg/L	0.00028565 5.76%
Zn 206.200†	219355.1	9.41874	mg/L	0.025556	9.41874	mg/L	0.025556 0.27%

Sequence No.: 21  
 Sample ID: 63081-047 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 1/17/2012 12:28:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-047 SD

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	976640.0	94.4 %		2.15				2.28%
Y 371.029	377635.1	95.2 %		2.01				2.12%
Ag 328.068†	-17.6	0.0002528 mg/L	0.00005063	0.0002528 mg/L	0.00005063	0.00005063	20.02%	
Al 308.215†	1791.5	0.0593927 mg/L	0.01002637	0.0593927 mg/L	0.01002637	0.01002637	16.88%	
As 188.979†	29.9	0.0369039 mg/L	0.00125276	0.0369039 mg/L	0.00125276	0.00125276	3.39%	
Ba 233.527†	16727.4	0.162330 mg/L	0.0047598	0.162330 mg/L	0.0047598	0.0047598	2.93%	
Be 313.107†	247.6	-0.0001730 mg/L	0.00000665	-0.0001730 mg/L	0.00000665	0.00000665	3.84%	
Ca 315.887†	4364972.0	48.9197 mg/L	1.53073	48.9197 mg/L	1.53073	1.53073	3.13%	
Cd 228.802†	115.2	0.0027828 mg/L	0.00078072	0.0027828 mg/L	0.00078072	0.00078072	28.06%	
Co 228.616†	290.4	0.0091087 mg/L	0.00027187	0.0091087 mg/L	0.00027187	0.00027187	2.98%	
Cr 267.716†	59.4	0.0001750 mg/L	0.00002814	0.0001750 mg/L	0.00002814	0.00002814	16.08%	
Cu 327.393†	347.6	-0.0000382 mg/L	0.00078089	-0.0000382 mg/L	0.00078089	0.00078089	>999.9%	
Fe 273.955†	94375.0	10.8953 mg/L	0.31578	10.8953 mg/L	0.31578	0.31578	2.90%	
K 404.721†	-73.6	0.209971 mg/L	0.1507558	0.209971 mg/L	0.1507558	0.1507558	71.80%	
Mg 279.077†	12923.0	1.15262 mg/L	0.020645	1.15262 mg/L	0.020645	0.020645	1.79%	
Mn 257.610†	141534.4	0.395259 mg/L	0.0115416	0.395259 mg/L	0.0115416	0.0115416	2.92%	
Mo 202.031†	77.4	0.0050791 mg/L	0.00010503	0.0050791 mg/L	0.00010503	0.00010503	2.07%	
Na 330.237†	260943.1	287.347 mg/L	8.9181	287.347 mg/L	8.9181	8.9181	3.10%	
Ni 231.604†	842.3	0.0228302 mg/L	0.00056518	0.0228302 mg/L	0.00056518	0.00056518	2.48%	
Pb 220.353†	26001.5	3.17566 mg/L	0.091951	3.17566 mg/L	0.091951	0.091951	2.90%	
Sb 206.836†	-3.0	-0.0022856 mg/L	0.00680760	-0.0022856 mg/L	0.00680760	0.00680760	297.85%	
Se 196.026†	3.0	0.0083665 mg/L	0.00634712	0.0083665 mg/L	0.00634712	0.00634712	75.86%	
Sn 189.927†	-0.4	-0.0013318 mg/L	0.00258701	-0.0013318 mg/L	0.00258701	0.00258701	194.25%	
Ti 334.940†	-88.5	-0.0007911 mg/L	0.00004245	-0.0007911 mg/L	0.00004245	0.00004245	5.37%	
Tl 190.801†	-1.5	-0.0053867 mg/L	0.00513307	-0.0053867 mg/L	0.00513307	0.00513307	95.29%	
V 290.880†	364.0	0.0003084 mg/L	0.00106419	0.0003084 mg/L	0.00106419	0.00106419	345.11%	
Zn 206.200†	45482.4	1.95236 mg/L	0.061724	1.95236 mg/L	0.061724	0.061724	3.16%	

Sequence No.: 22  
 Sample ID: 63111-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 1/17/2012 12:32:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-003

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891576.9	86.2	%	1.18				1.37%
Y 371.029	348595.6	87.9	%	1.15				1.30%
Ag 328.068†	17.5	0.0012444	mg/L	0.00034314	0.0012444	mg/L	0.00034314	27.58%
Al 308.215†	9083.8	0.339544	mg/L	0.0016023	0.339544	mg/L	0.0016023	0.47%
As 188.979†	12.2	0.0141008	mg/L	0.00482866	0.0141008	mg/L	0.00482866	34.24%
Ba 233.527†	73505.2	0.721230	mg/L	0.0012792	0.721230	mg/L	0.0012792	0.18%
Be 313.107†	319.1	-0.0001429	mg/L	0.00001941	-0.0001429	mg/L	0.00001941	13.59%
Ca 315.887†	20493164.2	229.805	mg/L	0.1203	229.805	mg/L	0.1203	0.05%
Cd 228.802†	596.5	0.0177040	mg/L	0.00033693	0.0177040	mg/L	0.00033693	1.90%
Co 228.616†	1153.3	0.0435997	mg/L	0.00011356	0.0435997	mg/L	0.00011356	0.26%
Cr 267.716†	399.1	0.0066093	mg/L	0.00011883	0.0066093	mg/L	0.00011883	1.80%
Cu 327.393†	61574.2	0.545449	mg/L	0.0002959	0.545449	mg/L	0.0002959	0.05%
Fe 273.955†	66367.3	7.65618	mg/L	0.002145	7.65618	mg/L	0.002145	0.03%
K 404.721†	373.9	4.82188	mg/L	2.260021	4.82188	mg/L	2.260021	46.87%
Mg 279.077†	44678.1	4.22486	mg/L	0.008693	4.22486	mg/L	0.008693	0.21%
Mn 257.610†	504100.5	1.41167	mg/L	0.009982	1.41167	mg/L	0.009982	0.71%
Mo 202.031†	164.3	0.0082203	mg/L	0.00125451	0.0082203	mg/L	0.00125451	15.26%
Na 330.237†	1543110.6	1696.74	mg/L	12.780	1696.74	mg/L	12.780	0.75%
Ni 231.604†	2372.5	0.0690013	mg/L	0.00047493	0.0690013	mg/L	0.00047493	0.69%
Pb 220.353†	32261.9	3.94033	mg/L	0.010923	3.94033	mg/L	0.010923	0.28%
Sb 206.836†	0.8	-0.0025031	mg/L	0.00055329	-0.0025031	mg/L	0.00055329	22.10%
Se 196.026†	14.3	0.0164901	mg/L	0.00601538	0.0164901	mg/L	0.00601538	36.48%
Sn 189.927†	-5.5	-0.0043654	mg/L	0.00327210	-0.0043654	mg/L	0.00327210	74.96%
Ti 334.940†	-112.8	-0.0008363	mg/L	0.00012211	-0.0008363	mg/L	0.00012211	14.60%
Tl 190.801†	-0.7	-0.0044832	mg/L	0.00226357	-0.0044832	mg/L	0.00226357	50.49%
V 290.880†	800.3	0.0035822	mg/L	0.00028157	0.0035822	mg/L	0.00028157	7.86%
Zn 206.200†	375717.1	16.1334	mg/L	0.18414	16.1334	mg/L	0.18414	1.14%

Sequence No.: 23  
 Sample ID: 63111-039  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 1/17/2012 12:36:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-039

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	907908.2	87.8	%	1.21				1.38%
Y 371.029	378136.0	95.4	%	1.35				1.42%
Ag 328.068†	1.9	0.0007331	mg/L	0.00011144	0.0007331	mg/L	0.00011144	15.20%
Al 308.215†	8187.9	0.305066	mg/L	0.0004304	0.305066	mg/L	0.0004304	0.14%
As 188.979†	10.7	0.0105992	mg/L	0.00015054	0.0105992	mg/L	0.00015054	1.42%
Ba 233.527†	100324.6	0.985230	mg/L	0.0019511	0.985230	mg/L	0.0019511	0.20%
Be 313.107†	1371.2	0.0002989	mg/L	0.00001534	0.0002989	mg/L	0.00001534	5.13%
Ca 315.887†	29020647.1	325.444	mg/L	7.1916	325.444	mg/L	7.1916	2.21%
Cd 228.802†	194.0	0.0053657	mg/L	0.00010354	0.0053657	mg/L	0.00010354	1.93%
Co 228.616†	1269.1	0.0482292	mg/L	0.00001034	0.0482292	mg/L	0.00001034	0.02%
Cr 267.716†	-63.2	0.0001375	mg/L	0.00011737	0.0001375	mg/L	0.00011737	85.34%
Cu 327.393†	12021.9	0.101147	mg/L	0.0000059	0.101147	mg/L	0.0000059	0.01%
Fe 273.955†	15211.4	1.73794	mg/L	0.013091	1.73794	mg/L	0.013091	0.75%
K 404.721†	789.0	9.10074	mg/L	0.685288	9.10074	mg/L	0.685288	7.53%
Mg 279.077†	50370.2	4.77555	mg/L	0.022504	4.77555	mg/L	0.022504	0.47%
Mn 257.610†	1476232.2	4.13705	mg/L	0.008329	4.13705	mg/L	0.008329	0.20%
Mo 202.031†	186.0	0.0079061	mg/L	0.00027391	0.0079061	mg/L	0.00027391	3.46%
Na 330.237†	1616592.8	1777.51	mg/L	5.633	1777.51	mg/L	5.633	0.32%
Ni 231.604†	1902.0	0.0548100	mg/L	0.00080767	0.0548100	mg/L	0.00080767	1.47%
Pb 220.353†	196821.7	24.0389	mg/L	0.09769	24.0389	mg/L	0.09769	0.41%
Sb 206.836†	52.3	0.0495608	mg/L	0.00084068	0.0495608	mg/L	0.00084068	1.70%
Se 196.026†	9.3	0.0038435	mg/L	0.00698213	0.0038435	mg/L	0.00698213	181.66%
Sn 189.927†	-3.6	-0.0026690	mg/L	0.00117422	-0.0026690	mg/L	0.00117422	43.99%
Ti 334.940†	-133.5	-0.0008747	mg/L	0.00008419	-0.0008747	mg/L	0.00008419	9.62%
Tl 190.801†	-1.9	-0.0106759	mg/L	0.00382058	-0.0106759	mg/L	0.00382058	35.79%
V 290.880†	904.6	0.0045182	mg/L	0.00034510	0.0045182	mg/L	0.00034510	7.64%
Zn 206.200†	79510.9	3.41351	mg/L	0.019822	3.41351	mg/L	0.019822	0.58%

Sequence No.: 24  
 Sample ID: EF-V-132485  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 49  
 Date Collected: 1/17/2012 12:40:14 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: EF-V-132485

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	927060.0	89.6	%	0.34				0.38%
Y 371.029	357827.2	90.2	%	0.27				0.30%
Ag 328.068†	22.4	-0.0002036	mg/L	0.00008617	-0.0002036	mg/L	0.00008617	42.32%
Al 308.215†	1657.8	0.0543894	mg/L	0.00115477	0.0543894	mg/L	0.00115477	2.12%
As 188.979†	-6.8	-0.0071019	mg/L	0.00139101	-0.0071019	mg/L	0.00139101	19.59%
Ba 233.527†	152.1	-0.0008313	mg/L	0.00005707	-0.0008313	mg/L	0.00005707	6.87%
Be 313.107†	21.2	-0.0002684	mg/L	0.00001008	-0.0002684	mg/L	0.00001008	3.76%
Ca 315.887†	24876.7	0.243556	mg/L	0.0125751	0.243556	mg/L	0.0125751	5.16%
Cd 228.802†	26.3	0.0002130	mg/L	0.00043404	0.0002130	mg/L	0.00043404	203.76%
Co 228.616†	7.6	-0.0022066	mg/L	0.00003445	-0.0022066	mg/L	0.00003445	1.56%
Cr 267.716†	78.8	-0.0001463	mg/L	0.00005933	-0.0001463	mg/L	0.00005933	40.55%
Cu 327.393†	470.5	0.0016363	mg/L	0.00024595	0.0016363	mg/L	0.00024595	15.03%
Fe 273.955†	11.2	-0.0225955	mg/L	0.00234144	-0.0225955	mg/L	0.00234144	10.36%
K 404.721†	31.5	1.29341	mg/L	0.157282	1.29341	mg/L	0.157282	12.16%
Mg 279.077†	123.5	-0.0856898	mg/L	0.00007539	-0.0856898	mg/L	0.00007539	0.09%
Mn 257.610†	86.2	-0.0018269	mg/L	0.00018595	-0.0018269	mg/L	0.00018595	10.18%
Mo 202.031†	4.5	0.0001832	mg/L	0.00093988	0.0001832	mg/L	0.00093988	512.93%
Na 330.237†	1608451.6	1768.56	mg/L	9.676	1768.56	mg/L	9.676	0.55%
Ni 231.604†	117.8	0.0009675	mg/L	0.00042855	0.0009675	mg/L	0.00042855	44.30%
Pb 220.353†	61.3	0.0083499	mg/L	0.00201640	0.0083499	mg/L	0.00201640	24.15%
Sb 206.836†	-4.9	-0.0052593	mg/L	0.00458365	-0.0052593	mg/L	0.00458365	87.15%
Se 196.026†	4.4	0.0094803	mg/L	0.00105112	0.0094803	mg/L	0.00105112	11.09%
Sn 189.927†	7.5	0.0043422	mg/L	0.00004782	0.0043422	mg/L	0.00004782	1.10%
Ti 334.940†	173.8	-0.0003035	mg/L	0.00002146	-0.0003035	mg/L	0.00002146	7.07%
Tl 190.801†	-0.6	-0.0041052	mg/L	0.00028354	-0.0041052	mg/L	0.00028354	6.91%
V 290.880†	490.5	0.0016812	mg/L	0.00061315	0.0016812	mg/L	0.00061315	36.47%
Zn 206.200†	292.0	0.0118098	mg/L	0.00031316	0.0118098	mg/L	0.00031316	2.65%

Sequence No.: 25  
 Sample ID: ICSA V-130873  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 1/17/2012 12:43:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-130873

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	880479.8		85.1 %	0.22			0.26%
Y 371.029	338782.9		85.4 %	0.26			0.31%
Ag 328.068†	-1210.2	0.0028028	mg/L	0.00056686	0.0028028	mg/L	0.00056686 20.22%
Al 308.215†	13139786.7	505.081	mg/L	3.5366	505.081	mg/L	3.5366 0.70%
QC value within limits for Al 308.215 Recovery = 101.02%							
As 188.979†	-24.2	-0.0054953	mg/L	0.00246884	-0.0054953	mg/L	0.00246884 44.93%
Ba 233.527†	428.3	0.0018878	mg/L	0.00006257	0.0018878	mg/L	0.00006257 3.31%
Be 313.107†	-1432.7	-0.0008790	mg/L	0.00003007	-0.0008790	mg/L	0.00003007 3.42%
Ca 315.887†	43027301.3	482.535	mg/L	1.9699	482.535	mg/L	1.9699 0.41%
QC value within limits for Ca 315.887 Recovery = 96.51%							
Cd 228.802†	135.2	0.0007120	mg/L	0.00016272	0.0007120	mg/L	0.00016272 22.85%
Co 228.616†	-110.4	0.0003004	mg/L	0.00032190	0.0003004	mg/L	0.00032190 107.17%
Cr 267.716†	65.8	0.0056556	mg/L	0.00005574	0.0056556	mg/L	0.00005574 0.99%
Cu 327.393†	962.4	-0.0125543	mg/L	0.00061367	-0.0125543	mg/L	0.00061367 4.89%
Fe 273.955†	1511830.9	175.090	mg/L	0.0332	175.090	mg/L	0.0332 0.02%
QC value within limits for Fe 273.955 Recovery = 87.54%							
K 404.721†	-1011.9	-9.46191	mg/L	0.406818	-9.46191	mg/L	0.406818 4.30%
Mg 279.077†	5227631.4	505.663	mg/L	0.4223	505.663	mg/L	0.4223 0.08%
QC value within limits for Mg 279.077 Recovery = 101.13%							
Mn 257.610†	-3728.7	-0.0046012	mg/L	0.00010764	-0.0046012	mg/L	0.00010764 2.34%
Mo 202.031†	138.2	0.0067188	mg/L	0.00118385	0.0067188	mg/L	0.00118385 17.62%
Na 330.237†	78.2	0.597630	mg/L	0.1182548	0.597630	mg/L	0.1182548 19.79%
Ni 231.604†	40.5	-0.0013541	mg/L	0.00043979	-0.0013541	mg/L	0.00043979 32.48%
Pb 220.353†	-402.0	0.0178449	mg/L	0.00050381	0.0178449	mg/L	0.00050381 2.82%
Sb 206.836†	-104.1	0.0071548	mg/L	0.00282426	0.0071548	mg/L	0.00282426 39.47%
Se 196.026†	10.2	-0.0099763	mg/L	0.00638332	-0.0099763	mg/L	0.00638332 63.98%
Sn 189.927†	-6.3	-0.0119946	mg/L	0.00157187	-0.0119946	mg/L	0.00157187 13.10%
Ti 334.940†	322.0	-0.0000282	mg/L	0.00016769	-0.0000282	mg/L	0.00016769 594.42%
Tl 190.801†	-16.3	-0.0046772	mg/L	0.00393290	-0.0046772	mg/L	0.00393290 84.09%
V 290.880†	6166.6	0.0023739	mg/L	0.00016125	0.0023739	mg/L	0.00016125 6.79%
Zn 206.200†	152.7	-0.0100118	mg/L	0.00016742	-0.0100118	mg/L	0.00016742 1.67%

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: ICSAB V-130874  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/17/2012 12:49:06 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-130874

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	875675.7	84.7 %		0.42			0.50%
Y 371.029	337138.7	85.0 %		0.41			0.48%
Ag 328.068†	135831.7	0.963204 mg/L		0.0006863	0.963204 mg/L	0.0006863	0.07%
QC value within limits for Ag		328.068	Recovery = 96.32%				
Al 308.215†	13310621.6	511.648 mg/L		0.2355	511.648 mg/L	0.2355	0.05%
QC value within limits for Al		308.215	Recovery = 102.33%				
As 188.979†	802.0	0.957433 mg/L		0.0068269	0.957433 mg/L	0.0068269	0.71%
QC value within limits for As		188.979	Recovery = 95.74%				
Ba 233.527†	52446.2	0.513932 mg/L		0.0004467	0.513932 mg/L	0.0004467	0.09%
QC value within limits for Ba		233.527	Recovery = 102.79%				
Be 313.107†	1182970.5	0.496439 mg/L		0.0004702	0.496439 mg/L	0.0004702	0.09%
QC value within limits for Be		313.107	Recovery = 99.29%				
Ca 315.887†	43311284.2	485.720 mg/L		0.5892	485.720 mg/L	0.5892	0.12%
QC value within limits for Ca		315.887	Recovery = 97.14%				
Cd 228.802†	32529.1	1.00154 mg/L		0.005160	1.00154 mg/L	0.005160	0.52%
QC value within limits for Cd		228.802	Recovery = 100.15%				
Co 228.616†	11795.6	0.475968 mg/L		0.0028083	0.475968 mg/L	0.0028083	0.59%
QC value within limits for Co		228.616	Recovery = 95.19%				
Cr 267.716†	28552.4	0.497757 mg/L		0.0022080	0.497757 mg/L	0.0022080	0.44%
QC value within limits for Cr		267.716	Recovery = 99.55%				
Cu 327.393†	59695.5	0.512614 mg/L		0.0020926	0.512614 mg/L	0.0020926	0.41%
QC value within limits for Cu		327.393	Recovery = 102.52%				
Fe 273.955†	1513332.1	175.264 mg/L		0.1575	175.264 mg/L	0.1575	0.09%
QC value within limits for Fe		273.955	Recovery = 87.63%				
K 404.721†	-1127.5	-10.6526 mg/L		0.09736	-10.6526 mg/L	0.09736	0.91%
Mg 279.077†	5243135.7	507.163 mg/L		0.5881	507.163 mg/L	0.5881	0.12%
QC value within limits for Mg		279.077	Recovery = 101.43%				
Mn 257.610†	164097.5	0.465955 mg/L		0.0003710	0.465955 mg/L	0.0003710	0.08%
QC value within limits for Mn		257.610	Recovery = 93.19%				
Mo 202.031†	140.6	0.0069285 mg/L		0.00053628	0.0069285 mg/L	0.00053628	7.74%
Na 330.237†	239.7	0.775149 mg/L		0.0154868	0.775149 mg/L	0.0154868	2.00%
Ni 231.604†	30347.6	0.912995 mg/L		0.0037640	0.912995 mg/L	0.0037640	0.41%
QC value within limits for Ni		231.604	Recovery = 91.30%				
Pb 220.353†	6969.4	0.919230 mg/L		0.0046264	0.919230 mg/L	0.0046264	0.50%
QC value within limits for Pb		220.353	Recovery = 91.92%				
Sb 206.836†	806.9	0.915928 mg/L		0.0030087	0.915928 mg/L	0.0030087	0.33%
QC value within limits for Sb		206.836	Recovery = 91.59%				
Se 196.026†	764.2	0.966013 mg/L		0.0058483	0.966013 mg/L	0.0058483	0.61%
QC value within limits for Se		196.026	Recovery = 96.60%				
Sn 189.927†	-8.6	-0.0137123 mg/L		0.00394893	-0.0137123 mg/L	0.00394893	28.80%
Ti 334.940†	390.7	0.0000996 mg/L		0.00007724	0.0000996 mg/L	0.00007724	77.57%
Tl 190.801†	639.4	0.962936 mg/L		0.0092281	0.962936 mg/L	0.0092281	0.96%
QC value within limits for Tl		190.801	Recovery = 96.29%				
V 290.880†	65884.7	0.469246 mg/L		0.0005010	0.469246 mg/L	0.0005010	0.11%
QC value within limits for V		290.880	Recovery = 93.85%				
Zn 206.200†	21848.5	0.921612 mg/L		0.0043365	0.921612 mg/L	0.0043365	0.47%
QC value within limits for Zn		206.200	Recovery = 92.16%				

All analyte(s) passed QC.

Sequence No.: 27  
 Sample ID: CCV V-130872  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 1/17/2012 12:54:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-130872

Analyte	Mean Corrected Intensity	Conc. Units	Calib Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	969104.4	93.7 %		0.03			0.04%
Y 371.029	374065.6	94.3 %		0.05			0.05%
Ag 328.068†	12838.7	0.0897473 mg/L		0.00105840	0.0897473 mg/L	0.00105840	1.18%
	QC value less than the lower limit for Ag 328.068 Recovery = 89.75%						
Al 308.215†	128313.4	4.91406 mg/L		0.039210	4.91406 mg/L	0.039210	0.80%
	QC value within limits for Al 308.215 Recovery = 98.28%						
As 188.979†	404.5	0.472116 mg/L		0.0077329	0.472116 mg/L	0.0077329	1.64%
	QC value within limits for As 188.979 Recovery = 94.42%						
Ba 233.527†	52875.9	0.518162 mg/L		0.0050471	0.518162 mg/L	0.0050471	0.97%
	QC value within limits for Ba 233.527 Recovery = 103.63%						
Be 313.107†	1202347.0	0.504184 mg/L		0.0051991	0.504184 mg/L	0.0051991	1.03%
	QC value within limits for Be 313.107 Recovery = 100.84%						
Ca 315.887†	4479422.5	50.2033 mg/L		0.46991	50.2033 mg/L	0.46991	0.94%
	QC value within limits for Ca 315.887 Recovery = 100.41%						
Cd 228.802†	15819.7	0.488085 mg/L		0.0057812	0.488085 mg/L	0.0057812	1.18%
	QC value within limits for Cd 228.802 Recovery = 97.62%						
Co 228.616†	13060.0	0.519597 mg/L		0.0053277	0.519597 mg/L	0.0053277	1.03%
	QC value within limits for Co 228.616 Recovery = 103.92%						
Cr 267.716†	29505.3	0.511281 mg/L		0.0052569	0.511281 mg/L	0.0052569	1.03%
	QC value within limits for Cr 267.716 Recovery = 102.26%						
Cu 327.393†	57013.6	0.505850 mg/L		0.0036831	0.505850 mg/L	0.0036831	0.73%
	QC value within limits for Cu 327.393 Recovery = 101.17%						
Fe 273.955†	40793.6	4.71602 mg/L		0.047350	4.71602 mg/L	0.047350	1.00%
	QC value within limits for Fe 273.955 Recovery = 94.32%						
K 404.721†	4547.4	47.8397 mg/L		0.82217	47.8397 mg/L	0.82217	1.72%
	QC value within limits for K 404.721 Recovery = 95.68%						
Mg 279.077†	524458.3	50.6424 mg/L		0.51755	50.6424 mg/L	0.51755	1.02%
	QC value within limits for Mg 279.077 Recovery = 101.28%						
Mn 257.610†	173180.9	0.483827 mg/L		0.0043225	0.483827 mg/L	0.0043225	0.89%
	QC value within limits for Mn 257.610 Recovery = 96.77%						
Mo 202.031†	5738.1	0.467453 mg/L		0.0039062	0.467453 mg/L	0.0039062	0.84%
	QC value within limits for Mo 202.031 Recovery = 93.49%						
Na 330.237†	42809.2	47.5687 mg/L		0.25062	47.5687 mg/L	0.25062	0.53%
	QC value within limits for Na 330.237 Recovery = 95.14%						
Ni 231.604†	16895.5	0.507559 mg/L		0.0055913	0.507559 mg/L	0.0055913	1.10%
	QC value within limits for Ni 231.604 Recovery = 101.51%						
Pb 220.353†	3983.5	0.487715 mg/L		0.0066477	0.487715 mg/L	0.0066477	1.36%
	QC value within limits for Pb 220.353 Recovery = 97.54%						
Sb 206.836†	447.9	0.447294 mg/L		0.0028917	0.447294 mg/L	0.0028917	0.65%
	QC value less than the lower limit for Sb 206.836 Recovery = 89.46%						
Se 196.026†	375.6	0.489587 mg/L		0.0071717	0.489587 mg/L	0.0071717	1.46%
	QC value within limits for Se 196.026 Recovery = 97.92%						
Sn 189.927†	626.8	0.430837 mg/L		0.0019122	0.430837 mg/L	0.0019122	0.44%
	QC value less than the lower limit for Sn 189.927 Recovery = 86.17%						
Ti 334.940†	294792.4	0.547194 mg/L		0.0059605	0.547194 mg/L	0.0059605	1.09%
	QC value within limits for Ti 334.940 Recovery = 109.44%						
Tl 190.801†	367.7	0.543120 mg/L		0.0021406	0.543120 mg/L	0.0021406	0.39%
	QC value within limits for Tl 190.801 Recovery = 108.62%						
V 290.880†	64498.6	0.499251 mg/L		0.0045798	0.499251 mg/L	0.0045798	0.92%
	QC value within limits for V 290.880 Recovery = 99.85%						
Zn 206.200†	11693.9	0.499847 mg/L		0.0057890	0.499847 mg/L	0.0057890	1.16%
	QC value within limits for Zn 206.200 Recovery = 99.97%						

QC Failed. Continue with analysis.

```

=====
Sequence No.: 28                               Autosampler Location: 1
Sample ID: CCB                                 Date Collected: 1/17/2012 12:57:55 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
=====
    
```

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	997416.1	96.4 %		0.21			0.22%
Y 371.029	390213.3	98.4 %		0.26			0.26%
Ag 328.068†	66.6	0.0001049 mg/L		0.00034508	0.0001049 mg/L	0.00034508	329.07%
QC value	within limits for Ag 328.068 Recovery = Not calculated						
Al 308.215†	-355.0	-0.0229917 mg/L		0.00382403	-0.0229917 mg/L	0.00382403	16.63%
QC value	within limits for Al 308.215 Recovery = Not calculated						
As 188.979†	1.7	0.0027621 mg/L		0.00165610	0.0027621 mg/L	0.00165610	59.96%
QC value	within limits for As 188.979 Recovery = Not calculated						
Ba 233.527†	25.3	-0.0020798 mg/L		0.00018324	-0.0020798 mg/L	0.00018324	8.81%
QC value	within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	474.2	-0.0000780 mg/L		0.00003366	-0.0000780 mg/L	0.00003366	43.15%
QC value	within limits for Be 313.107 Recovery = Not calculated						
Ca 315.887†	4693.8	0.0171970 mg/L		0.00150550	0.0171970 mg/L	0.00150550	8.75%
QC value	within limits for Ca 315.887 Recovery = Not calculated						
Cd 228.802†	10.2	-0.0002831 mg/L		0.00007705	-0.0002831 mg/L	0.00007705	27.22%
QC value	within limits for Cd 228.802 Recovery = Not calculated						
Co 228.616†	3.9	-0.0023571 mg/L		0.00021507	-0.0023571 mg/L	0.00021507	9.12%
QC value	within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-15.0	-0.0017640 mg/L		0.00002812	-0.0017640 mg/L	0.00002812	1.59%
QC value	within limits for Cr 267.716 Recovery = Not calculated						
Cu 327.393†	556.1	0.0024060 mg/L		0.00013012	0.0024060 mg/L	0.00013012	5.41%
QC value	within limits for Cu 327.393 Recovery = Not calculated						
Fe 273.955†	70.1	-0.0157738 mg/L		0.00288923	-0.0157738 mg/L	0.00288923	18.32%
QC value	within limits for Fe 273.955 Recovery = Not calculated						
K.404.721†	94.7	1.94398 mg/L		0.524398	1.94398 mg/L	0.524398	26.98%
QC value	within limits for K 404.721 Recovery = Not calculated						
Mg 279.077†	232.2	-0.0751748 mg/L		0.00497439	-0.0751748 mg/L	0.00497439	6.62%
QC value	within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	4.4	-0.0020558 mg/L		0.00003037	-0.0020558 mg/L	0.00003037	1.48%
QC value	within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	8.8	0.0005434 mg/L		0.00052424	0.0005434 mg/L	0.00052424	96.48%
QC value	within limits for Mo 202.031 Recovery = Not calculated						
Na 330.237†	181.6	0.711295 mg/L		0.0429025	0.711295 mg/L	0.0429025	6.03%
QC value	within limits for Na 330.237 Recovery = Not calculated						
Ni 231.604†	28.4	-0.0017285 mg/L		0.00008199	-0.0017285 mg/L	0.00008199	4.74%
QC value	within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353†	-41.1	-0.0041702 mg/L		0.00160575	-0.0041702 mg/L	0.00160575	38.51%
QC value	within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	-1.4	-0.0017192 mg/L		0.00167999	-0.0017192 mg/L	0.00167999	97.72%
QC value	within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.5	0.0005073 mg/L		0.00176263	0.0005073 mg/L	0.00176263	347.47%
QC value	within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	2.6	0.0010040 mg/L		0.00082056	0.0010040 mg/L	0.00082056	81.73%
QC value	within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940†	79.9	-0.0004781 mg/L		0.00000913	-0.0004781 mg/L	0.00000913	1.91%
QC value	within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.4	0.0017900 mg/L		0.00025743	0.0017900 mg/L	0.00025743	14.38%
QC value	within limits for Tl 190.801 Recovery = Not calculated						
V 290.880†	-54.1	-0.0025784 mg/L		0.00025562	-0.0025784 mg/L	0.00025562	9.91%
QC value	within limits for V 290.880 Recovery = Not calculated						
Zn 206.200†	-2.0	-0.0008177 mg/L		0.00006274	-0.0008177 mg/L	0.00006274	7.67%
QC value	within limits for Zn 206.200 Recovery = Not calculated						

All analyte(s) passed QC.

1st Review OA 01-13-2012

Y-132625

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100, S/N B050-9550

Technique: AA FIMS-MHS  
Autosampler Model: AS-91

gh 1/16/12

Sample Information File: C:\data-AA\johns\Sample Information\H13480T.sif  
Batch ID: H13480T  
Results Data Set: H13480T  
Results Library: C:\data-AA\johns\Results\Results.mdb

Method Loaded

Method Name: HgCV1 TCLP (7470A)  
Method Description: HgCV1 TCLP

Method Last Saved: 6/20/2011 3:11:15 PM

Sequence No.: 1  
Sample ID: Calibration Blank  
Analyst:

Autosampler Location: 1  
Date Collected: 1/13/2012 7:05:26 PM  
Data Type: Original

Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.00]	[0.00]	-0.0001	-0.0033	-0.0001	19:06:14	Yes
2	[0.00]	[0.00]	0.0001	0.0006	0.0001	19:06:47	Yes
Mean:	[0.00]	[0.00]	0.0000				
SD:	0.00	0.00	0.0001				
%RSD:	0.00	0.00	>999.9%				

Auto-zero performed.

Sequence No.: 2  
Sample ID: .2 PPB  
Analyst:

Autosampler Location: 2  
Date Collected: 1/13/2012 7:06:49 PM  
Data Type: Original

Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.2]	[0.2]	0.0011	0.0053	0.0011	19:07:35	Yes
2	[0.2]	[0.2]	0.0009	0.0031	0.0009	19:08:09	Yes
Mean:	[0.2]	[0.2]	0.0010				
SD:	0.0	0.0	0.0001				
%RSD:	0.0	0.0	12.63				

Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000 Slope: 0.00495 Intercept: 0.00000

Sequence No.: 3  
Sample ID: .5 PPB  
Analyst:

Autosampler Location: 3  
Date Collected: 1/13/2012 7:08:10 PM  
Data Type: Original

Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.5]	[0.5]	0.0023	0.0086	0.0023	19:08:57	Yes
2	[0.5]	[0.5]	0.0022	0.0069	0.0022	19:09:31	Yes
Mean:	[0.5]	[0.5]	0.0022				
SD:	0.0	0.0	0.0000				
%RSD:	0.0	0.0	1.74				

Standard number 2 applied. [0.5]  
Correlation Coef.: 0.998828 Slope: 0.00445 Intercept: 0.00004

Sequence No.: 4  
Sample ID: 1 PPB  
Analyst:

Autosampler Location: 4  
Date Collected: 1/13/2012 7:09:32 PM  
Data Type: Original

Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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1 [1] 0.0049 0.0235 0.0049 19:10:19 Yes  
 2 [1] 0.0049 0.0231 0.0049 19:10:53 Yes  
 Mean: [1] 0.0049  
 SD: 0 0.0000  
 %RSD: 0 0.17

Standard number 3 applied. [1]  
 Correlation Coef.: 0.998664 Slope: 0.00488 Intercept: -0.00004

Sequence No.: 5 Autosampler Location: 5  
 Sample ID: 2 PPB Date Collected: 1/13/2012 7:10:54 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0098	0.0397	0.0098	19:11:41	Yes
2		[2]	0.0095	0.0374	0.0095	19:12:14	Yes
Mean:		[2]	0.0097				
SD:		0	0.0002				
%RSD:		0	1.99				

Standard number 4 applied. [2]  
 Correlation Coef.: 0.999695 Slope: 0.00485 Intercept: -0.00003

Sequence No.: 6 Autosampler Location: 6  
 Sample ID: 5 PPB Date Collected: 1/13/2012 7:12:16 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0235	0.0896	0.0235	19:13:03	Yes
2		[5]	0.0238	0.0888	0.0238	19:13:36	Yes
Mean:		[5]	0.0236				
SD:		0	0.0002				
%RSD:		0	0.86				

Standard number 5 applied. [5]  
 Correlation Coef.: 0.999901 Slope: 0.00473 Intercept: 0.00004

Sequence No.: 7 Autosampler Location: 7  
 Sample ID: 10 PPB Date Collected: 1/13/2012 7:13:38 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0462	0.1735	0.0462	19:14:24	Yes
2		[10]	0.0460	0.1727	0.0460	19:14:57	Yes
Mean:		[10]	0.0461				
SD:		0	0.0002				
%RSD:		0	0.33				

Standard number 6 applied. [10]  
 Correlation Coef.: 0.999887 Slope: 0.00462 Intercept: 0.00017

Sequence No.: 8 Autosampler Location: 8  
 Sample ID: 25 PPB Date Collected: 1/13/2012 7:14:59 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1139	0.4254	0.1139	19:15:46	Yes
2		[25]	0.1108	0.4194	0.1108	19:16:19	Yes
Mean:		[25]	0.1123				
SD:		0	0.0022				
%RSD:		0	1.93				

Standard number 7 applied. [25]  
 Correlation Coef.: 0.999910 Slope: 0.00449 Intercept: 0.00044

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered		Calculated		Standard Deviation	%RSD
		Conc. ug/L	Conc. ug/L	Conc. ug/L	Conc. ug/L		
Calibration Blank	0.0000	0	-0.098	0.00	>999.9%		
.2 PPB	0.0010	0.2	0.122	0.00	12.6		
.5 PPB	0.0022	0.5	0.400	0.00	1.7		
1 PPB	0.0049	1.0	0.995	0.00	0.2		
2 PPB	0.0097	2.0	2.053	0.00	2.0		
5 PPB	0.0236	5.0	5.165	0.00	0.9		
10 PPB	0.0461	10.0	10.164	0.00	0.3		
25 PPB	0.1123	25.0	24.900	0.00	1.9		

Correlation Coef.: 0.999910 Slope: 0.00449 Intercept: 0.00044

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 1/13/2012 7:16:21 PM

Analyst:

Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	21.66	21.66	0.0977	0.3717	0.0978	19:17:10	Yes
2	21.64	21.64	0.0977	0.3700	0.0977	19:17:43	Yes
Mean:	21.65	21.65	0.0977				
SD:	0.009	0.009	0.0000				
%RSD:	0.043	0.043	0.04				

QC value within limits for Hg 253.7 Recovery = 108.24%  
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 1/13/2012 7:17:45 PM

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.090	-0.090	0.0000	-0.0011	0.0000	19:18:32	Yes
2	-0.098	-0.098	0.0000	-0.0014	0.0000	19:19:05	Yes
Mean:	-0.094	-0.094	0.0000				
SD:	0.006	0.006	0.0000				
%RSD:	6.238	6.238	132.69				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 12491 (1)

Date Collected: 1/13/2012 7:19:07 PM

Analyst:

Data Type: Original

## Replicate Data: MB 12491 (1)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.060	-0.060	0.0002	0.0014	0.0002	19:19:54	Yes
2	-0.093	-0.093	0.0000	-0.0004	0.0000	19:20:28	Yes
Mean:	-0.077	-0.077	0.0001				
SD:	0.023	0.023	0.0001				
%RSD:	29.86	29.86	105.46				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCSW 12491

Date Collected: 1/13/2012 7:20:29 PM

Analyst:

Data Type: Original

## Replicate Data: LCSW 12491

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.78	10.78	0.0489	0.1842	0.0489	19:21:16	Yes
2	10.79	10.79	0.0489	0.1898	0.0489	19:21:49	Yes
Mean:	10.78	10.78	0.0489				

Method: HgCV1 TCLP (7470A)

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Date: 1/13/2012 7:28:37 PM

SD: 0.010 0.010 0.0000  
 %RSD: 0.096 0.096 0.10

Sequence No.: 13  
 Sample ID: LCSW MR 12491  
 Analyst:

Autosampler Location: 13  
 Date Collected: 1/13/2012 7:21:51 PM  
 Data Type: Original

Replicate Data: LCSW MR 12491

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.96	10.96	0.0497	0.1903	0.0497	19:22:37	Yes
2	10.75	10.75	0.0488	0.1846	0.0488	19:23:10	Yes
Mean:	10.86	10.86	0.0492				
SD:	0.142	0.142	0.0006				
%RSD:	1.312	1.312	1.30				

Sequence No.: 14  
 Sample ID: 63081-047  
 Analyst:

Autosampler Location: 14  
 Date Collected: 1/13/2012 7:23:12 PM  
 Data Type: Original

Replicate Data: 63081-047

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.128	0.128	0.0010	0.0051	0.0010	19:23:58	Yes
2	0.107	0.107	0.0009	0.0035	0.0009	19:24:32	Yes
Mean:	0.118	0.118	0.0010				
SD:	0.015	0.015	0.0001				
%RSD:	12.88	12.88	7.02				

Sequence No.: 15  
 Sample ID: 63081-047 MR  
 Analyst:

Autosampler Location: 15  
 Date Collected: 1/13/2012 7:24:33 PM  
 Data Type: Original

Replicate Data: 63081-047 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.086	0.086	0.0008	0.0030	0.0008	19:25:20	Yes
2	0.082	0.082	0.0008	0.0030	0.0008	19:25:53	Yes
Mean:	0.084	0.084	0.0008				
SD:	0.003	0.003	0.0000				
%RSD:	3.422	3.422	1.58				

Sequence No.: 16  
 Sample ID: 63081-047 TCLP SPK  
 Analyst:

Autosampler Location: 16  
 Date Collected: 1/13/2012 7:25:54 PM  
 Data Type: Original

Replicate Data: 63081-047 TCLP SPK

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	11.07	11.07	0.0502	0.1868	0.0502	19:26:41	Yes
2	11.08	11.08	0.0502	0.1842	0.0502	19:27:14	Yes
Mean:	11.07	11.07	0.0502				
SD:	0.002	0.002	0.0000				
%RSD:	0.018	0.018	0.02				

Sequence No.: 17  
 Sample ID: EF-V-132485  
 Analyst:

Autosampler Location: 17  
 Date Collected: 1/13/2012 7:27:16 PM  
 Data Type: Original

Replicate Data: EF-V-132485

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.084	-0.084	0.0001	-0.0018	0.0001	19:28:02	Yes
2	-0.077	-0.077	0.0001	-0.0007	0.0001	19:28:35	Yes
Mean:	-0.081	-0.081	0.0001				
SD:	0.005	0.005	0.0000				

%RSD: 6.115 6.115 28.41

Sequence No.: 18

Autosampler Location: 9

Sample ID: CCV

Date Collected: 1/13/2012 7:28:37 PM

Analyst:

Data Type: Original

-----  
 Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	11.08	11.08	0.0502	0.1936	0.0502	19:29:26	Yes
2	10.99	10.99	0.0498	0.1902	0.0498	19:30:00	Yes
Mean:	11.03	11.03	0.0500				
SD:	0.064	0.064	0.0003				
%RSD:	0.582	0.582	0.58				

QC value within limits for Hg 253.7 Recovery = 110.33%  
 All analyte(s) passed QC.

Sequence No.: 19

Autosampler Location: 1

Sample ID: CCB

Date Collected: 1/13/2012 7:30:01 PM

Analyst:

Data Type: Original

-----  
 Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.088	-0.088	0.0000	0.0000	0.0001	19:30:48	Yes
2	-0.050	-0.050	0.0002	0.0023	0.0002	19:31:21	Yes
Mean:	-0.069	-0.069	0.0001				
SD:	0.027	0.027	0.0001				
%RSD:	39.18	39.18	93.28				

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-126648



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Persulfate		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5202	Potassium Persulfate	500 g	neat neat	

Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

Veritech Lot Number: V-128669



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

Veritech Lot Number: V-129805



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6334	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

Veritech Lot Number: V-128659



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

Veritech Lot Number: V-128660



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128660



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-131199



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 12/19/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI H2O			
6373	Acetic Acid	627 ml	neat neat	
6362	Sodium Hydroxide	283 g	neat neat	
6191				

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128664



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6244	Hydrochloric Acid	25 ml	neat neat	
6433	Nitric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Lot Number: V-128666



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5821	DI Water			
5821	ICSAB	10 ml	NEAT ug/ml	
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-128668



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128666



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
5821	ICSAB	10 ml	NEAT ug/ml	
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128668



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129043

Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-2		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 11/17/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 2/16/2012		Final Volume: 40 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5368	Di water Acetic Acid Glacial	227 ml	neat neat	

## Veritech Lot Number: V-129415

Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/23/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 5/25/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6335	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Lot Number: V-129806

Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129815

Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130089

Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 12/6/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/5/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6362	Acetic Acid	627 ml	neat neat	
6191	Sodium Hydroxide	283 g	neat neat	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-129811



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6454	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-130673



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/13/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/12/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6507	Hydrochloric Acid	1000 ml	neat neat	

Veritech Lot Number: V-130860



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

Veritech Lot Number: V-130865



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-130604



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-2		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/12/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/11/2012		Final Volume: 40 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	Di water			
5368	Acetic Acid Glacial	227 ml	neat neat	

Veritech Lot Number: V-130673



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/13/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/12/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6507	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130869



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-130872



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
6495	ICV 1	10 ml	NEAT neat	
6496	ICV 2	10 ml	50 ug/ml	

Veritech Lot Number: V-130873



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

Veritech Lot Number: V-130874



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5821	ICSAB	10 ml	NEAT ug/ml	
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-131432



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hydroxylamine Hydrochloride		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/21/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 6/20/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6434	Sodium Chloride	1200 g	neat neat	
6421	Hydroxylamine Hydrochloride	1200 g	96 %	

## Veritech Lot Number: V-131852



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Permanganate		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/29/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 3/28/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6538	POTASSIUM PERMANGANATE	500 g	NEAT neat	

## Veritech Lot Number: V-132262



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 1/6/2012		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/18/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6507	Hydrochloric Acid	900	neat neat	

## Veritech Lot Number: V-132485



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 01/12/12	
Prep Date: 1/11/2012		Concentration: Reagent	Checked: Yes	
Expiration Date: 6/10/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6362	Acetic Acid	627 ml	neat neat	
6191	Sodium Hydroxide	283 g	neat neat	

## Veritech Lot Number: V-132603



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11760	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6454	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-132602



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11760	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6454	Nitric Acid	12.5 ml	neat neat	
5675	Mercury	.125 ml	1000 mg/l	
6528	DI H2O			

## Veritech Lot Number: V-132603



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11760	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6454	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-132615



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ ICV 20 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132603	Hg intermediate Control	.5 ml	1.0 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132616



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ CCV 10 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132603	Hg intermediate Control	.25 ml	1.0 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132617



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard blk		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 0 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-132618



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .2 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132602	Hg Intermediate Standard	.02 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132619



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .5 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
V-132602	Hg Intermediate Standard	.05 ml	.25 ppm	

## Veritech Lot Number: V-132620



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 1 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132602	Hg Intermediate Standard	.1 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132621



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 2 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132602	Hg Intermediate Standard	.2 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132622



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 5 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132602	Hg Intermediate Standard	.5 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132623



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 10 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132602	Hg Intermediate Standard	1 ml	.25 ppm	
6528	DI H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-132624



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 25 ppb		BatchNumber: B-11762	ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132602 6528	Hg Intermediate Standard DI H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-132625



Prepared By: Adelarthey, Olufemi		Department: Metals		ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:		ApproveDate: 01/20/12	
Prep Date: 1/13/2012		Concentration: reagent I		Checked: Yes	
Expiration Date: 1/13/2012		Final Volume: 1 l			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc	
V-132262 6140	3% HCL Stannous Chloride		reagent I NEAT neat	1000 ml 13.2 g	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5202									
Description Potassium Persulfate							 ApprovedBy: gael ApproveDate: 12/01/10 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	P282-500	092677	08/27/10	08/26/13	Miller,Gael E.	2	500g	neat	neat

Veritech Control/Receipt Number: 5403									
Description ICSA							 ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	NEAT	NEAT

Veritech Control/Receipt Number: 5404									
Description ICSB							 ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	10000	MG/L

Veritech Control/Receipt Number: 5405									
Description ICSC							 ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	100	MG/L

Veritech Control/Receipt Number: 5700									
Description Arsenic							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

Veritech Control/Receipt Number: 5703									
Description Beryllium							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

Veritech Control/Receipt Number: 5704									
Description Cadmium							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL

## Veritech Standard Receipt Log

<b>Veritech Control/Receipt Number: 5368</b>											
Description Acetic Acid Glacial								ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
Fisher	A38S-212	105020	10/21/10	09/21/15	Lopez, Jose	6	2.5L	neat	neat		
<b>Veritech Control/Receipt Number: 5403</b>											
Description ICSA								ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	NEAT	NEAT		
<b>Veritech Control/Receipt Number: 5404</b>											
Description ICSB								ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	10000	MG/L		
<b>Veritech Control/Receipt Number: 5405</b>											
Description ICSC								ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	100	MG/L		
<b>Veritech Control/Receipt Number: 5700</b>											
Description Arsenic								ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL		
<b>Veritech Control/Receipt Number: 5703</b>											
Description Beryllium								ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL		
<b>Veritech Control/Receipt Number: 5704</b>											
Description Cadmium								ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL		

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5403										
Description ICSA							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT	
Veritech Control/Receipt Number: 5404										
Description ICSB							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MG/L	
Veritech Control/Receipt Number: 5405										
Description ICSC							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MG/L	
Veritech Control/Receipt Number: 6191										
Description Sodium Hydroxide							ApprovedBy: richq ApproveDate: 07/26/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	S318-10	111357	07/26/11	07/25/15	Quimby, Richard	2	10KG	neat	neat	
Veritech Control/Receipt Number: 6244										
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat	
Veritech Control/Receipt Number: 6362										
Description Acetic Acid							ApprovedBy: shiamala ApproveDate: 10/25/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat	
Veritech Control/Receipt Number: 6373										
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml			

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5716									
Description Lead							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5728									
Description Thallium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5821									
Description ICSAB							ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL
Veritech Control/Receipt Number: 6047									
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6144									
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5675									
Description						ApprovedBy: shiamala			
Mercury						ApproveDate: 11/10/11			
						Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L

Veritech Control/Receipt Number: 5715									
Description						ApprovedBy: shiamala			
Mercury						ApproveDate: 05/04/11			
						Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

Veritech Control/Receipt Number: 6454									
Description						ApprovedBy: shiamala			
Nitric Acid						ApproveDate: 12/05/11			
						Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

Veritech Control/Receipt Number: 6528									
Description						ApprovedBy: shiamala			
DI H2O						ApproveDate: 01/06/12			
						Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5702									
Description							ApprovedBy: shiamala		
Barium							ApproveDate: 05/06/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BAP1-1-1	BAP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5716									
Description							ApprovedBy: shiamala		
Lead							ApproveDate: 03/24/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 6386									
Description							ApprovedBy: shiamala		
Sulfuric Acid							ApproveDate: 10/24/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A510SK-212	3110100	10/19/11	12/30/13	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6454									
Description							ApprovedBy: shiamala		
Nitric Acid							ApproveDate: 12/05/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6495									
Description							ApprovedBy: shiamala		
ICV 1							ApproveDate: 12/15/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6496									
Description							ApprovedBy: shiamala		
ICV 2							ApproveDate: 12/15/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/MI

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5702										
Description Barium							ApprovedBy: shiamala ApproveDate: 05/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	BAP1-1-1	BAP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	

Veritech Control/Receipt Number: 5716										
Description Lead							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	

Veritech Control/Receipt Number: 6444										
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J T Baker	9598-34	K44023	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat	

Veritech Control/Receipt Number: 6495										
Description ICV 1							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	

Veritech Control/Receipt Number: 6496										
Description ICV 2							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/ML	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5702									
Description Barium							 ApprovedBy: shiamala ApproveDate: 05/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BAP1-1-1	BAP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

Veritech Control/Receipt Number: 5716									
Description Lead							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

Veritech Control/Receipt Number: 6047									
Description ICV1							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

Veritech Control/Receipt Number: 6048									
Description ICV2							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

Veritech Control/Receipt Number: 6445									
Description Nitric Acid							 ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5715									
Description							ApprovedBy: shiamala		
Mercury							ApproveDate: 05/04/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5716									
Description							ApprovedBy: shiamala		
Lead							ApproveDate: 03/24/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5728									
Description							ApprovedBy: shiamala		
Thallium							ApproveDate: 03/24/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5821									
Description							ApprovedBy: SHIAMALA		
ICSAB							ApproveDate: 08/11/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL
Veritech Control/Receipt Number: 6047									
Description							ApprovedBy: shiamala		
ICV1							ApproveDate: 06/24/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6048									
Description							ApprovedBy: shiamala		
ICV2							ApproveDate: 06/24/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6140									
Description							ApprovedBy: shiamala		
Stannous Chloride							ApproveDate: 07/13/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6144									
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6191									
Description Sodium Hydroxide							ApprovedBy: richq ApproveDate: 07/26/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	S318-10	111357	07/26/11	07/25/15	Quimby, Richard	2	10KG	neat	neat
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6362									
Description Acetic Acid							ApprovedBy: shiamala ApproveDate: 10/25/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6421									
Description Hydroxylamine Hydrochloride							ApprovedBy: ApproveDate: Checked: No		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CCI (via Lab Sale)	5470-11-1 (LS-2752)	200916837	11/02/11	11/01/12	Kalin, Gabrielle	1	2.5Kg	96	%
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat
Veritech Control/Receipt Number: 6335									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 10/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K33031	09/27/11	09/26/12	Lopez, Jose	12	4L	neat	neat
Veritech Control/Receipt Number: 6362									
Description Acetic Acid							ApprovedBy: shiamala ApproveDate: 10/25/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6433



Description

Nitric Acid

ApprovedBy: shiamala  
 ApproveDate: 11/15/11  
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6434									
Description							ApprovedBy: bhavin		
Sodium Chloride							ApproveDate: 11/10/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	S271-10	113099	11/08/11	11/07/15	Quimby, Richard	3	10KG	neat	neat
Veritech Control/Receipt Number: 6454									
Description							ApprovedBy: shiamala		
Nitric Acid							ApproveDate: 12/05/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6495									
Description							ApprovedBy: shiamala		
ICV 1							ApproveDate: 12/15/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6496									
Description							ApprovedBy: shiamala		
ICV 2							ApproveDate: 12/15/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/MI
Veritech Control/Receipt Number: 6507									
Description							ApprovedBy: shiamala		
Hydrochloric Acid							ApproveDate: 12/05/11		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6528									
Description							ApprovedBy: shiamala		
DI H2O							ApproveDate: 01/06/12		
							Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			
Veritech Control/Receipt Number: 6538									
Description							ApprovedBy:		
POTASSIUM PERMANGANATE							ApproveDate:		
							Checked: No		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
LABCHEM	T10208	0104-26	12/20/11	12/19/12	Kalin, Gabrielle	1	2.5K	NEAT	NEAT

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6507



Description

Hydrochloric Acid

ApprovedBy: shiamala

ApproveDate: 12/05/11

Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

**TCLP  
Metal Data  
Digestion Logbook Data**

ICP SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13414 Analyst: DA  
 QC Number: 11724 Prep Date: 12/22/2011  
 Matrix: TCLP Reviewed By: JB

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml					
LCS							--
LCSD							--
1. AC63081-024					V-131199		AC63081-024
MR AC63081-024							
MS AC63081-024							
MSD							
2. AC63081-025	50ml	50ml			V-131199		AC63081-024
3. AC63081-026							
4. AC63111-034							
5. AC63111-035							
6. AC63111-036							
7. AC63250-001							
8. AC63269-001							AC63290-001
9. AC63290-001					V-130604		
10. AC63290-001 SPK							
11. AC63290-002							
12. AC63279-001					V-131199		AC63081-024
13. AC63278-001							
14. AC63334-001							
15. AC63334-002							
16. AC63334-003							
17. AC63334-004							
18. EF-1-V-131199							
19. EF-2-V-130604					V-130604		
20.							

Hot Plate Temperature: 92.3°C (90-95°C)

	Volume mL	Lot #
LCS, LCSD	0.5ml	V-6495,6496
LLCS, LLLCSD		V-
MS, MSD	0.5ml, 0.25ml	V-6495,6496; 5716
LLMS, LLMSD		V-5702

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3.0ml	V-6444
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5.0ml	V-130673

Relinquished By: DA Date: 12/22/2011  
 Received By: J Date: 12/22/11

ICP SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13480 Analyst: JK  
 QC Number: 12491 Prep Date: 11/13/12  
 Matrix: TCLP Reviewed By: SO

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml				--	
LCS						--	
LCSD						--	
1. AC 63081-028					V-132485	63081-028	
MR 63081-028							
MS 63081-028							
MSD 63081-028							
2. 63081-028							
3. 63111-003							
4. 63111-039							
5. EF-1 V-132485	↓	↓			↓	↓	
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

JU  
11/13/12

Hot Plate Temperature: 92.3° C (90-95° C)

	Volume mL	Lot#
LCS, LCSD	0.5ml	V-6495, 6496
LLCS, LLLCSD		V-
MS, MSD	0.5; 0.25	V-6495, 6496, 5702, 5716
LLMS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3	V-6454
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5ml	V-130673

Relinquished By JK Date 11/13/12  
 Received By SO Date 11/13/12

HG SAMPLE PREPARATION LOG

Hampton-Clarke/veritec

ANALYTICAL METHOD: 245.1 7470A 7471A OTHER \_\_\_\_\_

Batch No.:\* 13480

Analyst: Ju

QC Number: 12491

Prep Date: 11/3/12

Matrix: TCLP

Review By: [Signature]

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25 mL	25 mL	
LCS	↓	↓	
LCS D			
1 AC 63081-047			
MR 63081-047			
MS 63081-047	↓	↓	
MSD			
2 EF1-V-132485	25 mL	25 mL	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 131852	HNO <sub>3</sub>	0.625 mL	V- 6454
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V- 126648	HCl		V-
NH <sub>2</sub> OH: V- 131432	H <sub>2</sub> SO <sub>4</sub>	1.25 mL	V- 6386
	Aqua Regia		V-

**Block Temp.	93.8 °C
Time In Block:	12:45
Time Out of Block:	14:45
** Required range = 90-95°	

Spike Volume & Lot #

LCS v. 132603 0.15g (0.25 ml) Ju 11/3/12

MS v. 132603 0.250 ml

Standards/Control Batch B- 11762

Relinquished By: Ju

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriprolog using the standard batch number and the corresponding V #s.

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13375 Analyst: CJA  
 QC Number: 11680 Prep Date: 12/10/11  
 Matrix: TCLP Reviewed By: SB

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50mL	50mL				--	
LCS - W	↓	↓				--	
LCSD - W	↓	↓				--	
1. 03022-023	↓	↓			EF-1 130089	↑	
MR 03022-023	↓	↓			↓	03022-023	
MS 03022-023	↓	↓			↓	03022-023	
MSD							
2. 03022-024	50mL	50mL			EF-1 130089	03022-023	
3. 03081-014	↓	↓			↓	↓	
4. 03081-015	↓	↓			↓	↓	
5. 03081-016	↓	↓			↓	↓	
6. 03081-039	↓	↓			↓	↓	
7. 03081-040	↓	↓			↓	↓	
8. 03081-041	↓	↓			↓	↓	
9. 03057-010	↓	↓			EF-2 129043	03057-010	
10. 03057-010 T-spk	↓	↓			↓	↓	
11. 03057-011	↓	↓			↓	↓	
12. 03080-001	↓	↓			EF-1 130089	03022-023	
13. 03080-008	↓	↓			↓	↓	
14. 03080-013	↓	↓			↓	↓	
15. 03080-017	↓	↓			↓	↓	
16. 03080-023	↓	↓			↓	↓	
17. 03080-024	↓	↓			↓	↓	
18. 03080-029	↓	↓			↓	↓	
19. 03099-001	↓	↓			↓	↓	
20. EF-1-130089	↓	↓			↓	↓	
EF-2-129043	↓	↓			EF-2 129043		

Hot Plate Temperature: 92.1 C (90-95° C)

	Volume mL	Lot #
LCS, LCSD	0.5mL	v-6047, 6048
LLCS, LLLCS		v-
MS, MSD	0.5mL	v-6047, 6048
LMMS, LLMMS	0.225	v-5716, 5702

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3	v-6445
HCl		v-
H <sub>2</sub> O <sub>2</sub>		v-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		v-12
1:1 HCl	5	v-129415

Relinquished By: CJA Date: 12/10/11  
 Received By: SB Date: 12/10/11



Last Page of Report

**Project: 544 Union Ave**

**Client PO:** 11140128

**Report To:** URS Corp.  
One Penn Plaza  
Suite 600  
New York, NY 10119

**Attn:** Robert Wolff

**Received Date:** 12/8/2011

**Report Date:** 1/26/2012

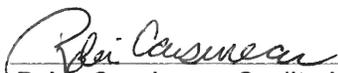
**Deliverables:** NYDOH-CatB

**Lab ID:** AC63111

**Lab Project No:** 1120830

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAC Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.



Robin Cousineau - Quality Assurance Director

OR

Stanley Gilewicz - Laboratory Director

NJ (07071)  
PA (68-00463)

NY (ELAP11408)  
KY (90124)

CT (PH-0671)  
WV (353)

USACE





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## **SDG Narrative**

# HCV Case Narrative/Conformance Summary

Client: URS Corporation  
Project: 544 Union Ave

HCV Project: 1120830

Hampton-Clarke/Veritech (HC-V) received the following samples on December 08, 2011:

<u>Client ID</u>	<u>HCV Sample ID</u>	<u>Matrix</u>	<u>Analysis</u>
B-15 4-6	AC63111-001	Soil	Metals (6010B/7471A)
B-15 8-10	AC63111-002	Soil	Metals (6010B/7471A)
B-15 10-12	AC63111-003	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-15 12-14	AC63111-004	Soil	Metals (6010B/7471A)
B-13 4-6	AC63111-005	Soil	Metals (6010B/7471A)
B-13 8-10	AC63111-006	Soil	Metals (6010B/7471A)
B-13 10-12	AC63111-007	Soil	Metals (6010B/7471A)
B-13 12-14	AC63111-008	Soil	Metals (6010B/7471A)
B-17 4-6	AC63111-009	Soil	Metals (6010B/7471A)
B-17 8-10	AC63111-010	Soil	Metals (6010B/7471A)
B-17 10-12	AC63111-011	Soil	Metals (6010B/7471A)
B-17 12-14	AC63111-012	Soil	Metals (6010B/7471A)
B-18 4-6	AC63111-013	Soil	Metals (6010B/7471A)
B-18 8-10	AC63111-014	Soil	Metals (6010B/7471A)
B-18 10-12	AC63111-015	Soil	Metals (6010B/7471A)
B-18 12-14	AC63111-016	Soil	Not Analyzed
B-12 4-6	AC63111-017	Soil	Metals (6010B/7471A)
B-12 6-8'	AC63111-018	Soil	TCLP Metals (6010B)
B-12 8'-10'	AC63111-019	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-12 10'-12'	AC63111-020	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-12 12-14	AC63111-021	Soil	Metals (6010B/7471A)
B-11 4-6	AC63111-022	Soil	Metals (6010B/7471A)
B-11 8-10	AC63111-023	Soil	Metals (6010B/7471A)
B-11 10-12	AC63111-024	Soil	Metals (6010B/7471A)
B-11 12-14	AC63111-025	Soil	Not Analyzed
B-10 4-6	AC63111-026	Soil	Metals (6010B/7471A)
B-10 8-10	AC63111-027	Soil	Metals (6010B/7471A)
B-10 10-12	AC63111-028	Soil	Metals (6010B/7471A)
B-10 12-14	AC63111-029	Soil	Not Analyzed
B-9 4-6	AC63111-030	Soil	Metals (6010B/7471A)
B-9 8-10	AC63111-031	Soil	Metals (6010B/7471A)
B-9 10-12	AC63111-032	Soil	Metals (6010B/7471A)
B-9 12-14	AC63111-033	Soil	Not Analyzed
B-1 4-6	AC63111-034	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-1 8-10	AC63111-035	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-1 10-12	AC63111-036	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-1 12-14	AC63111-037	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-2 4-6	AC63111-038	Soil	Metals (6010B/7471A)
B-2 8-10	AC63111-039	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-2 10-12	AC63111-040	Soil	Metals (6010B/7471A)
B-2 12-14	AC63111-041	Soil	Not Analyzed
B-8 4-6	AC63111-042	Soil	Metals (6010B/7471A)
B-8 6-8	AC63111-043	Soil	TCLP Metals (6010B)
B-8 8-10	AC63111-044	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-8 10-12	AC63111-045	Soil	Metals (6010B/7471A), TCLP Metals (6010B)
B-8 12-14	AC63111-046	Soil	Not Analyzed
B-2	AC63111-047	Aqueous	Metals (6010B/7470A)
B-12	AC63111-048	Aqueous	Metals (6010B/7470A)

*This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.*

**Metals Analysis:**

The Matrix Spike Duplicate for batch 11690 had recoveries outside QC limits. However, since the associated Method Blank and Laboratory Control Sample were within control, no corrective action was necessary. In addition the RPD between the QC sample and the Method Replicate is outside QC limits. The RPD criteria were met between the LCS/LCS Method Replicate.

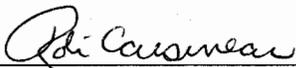
The Matrix Spike and/or Matrix Spike Duplicate for batch 11681 had recoveries outside QC limits. However, since the associated Method Blank and Laboratory Control Sample were within control, no corrective action was necessary. The serial dilution is also outside QC limits, suggesting matrix interference.

The Matrix Spike and Matrix Spike Duplicate for batch 11706 had recoveries outside QC limits. However, since the associated Method Blank and Laboratory Control Sample were within control, no corrective action was necessary. In addition the RPD between the QC sample and the Method Replicate and MS/MSD RPD are outside QC limits. The RPD criteria were met between the LCS/LCS Method Replicate.

**TCLP Metals Analysis:**

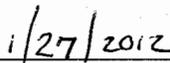
The serial dilution for batch 11724 is outside QC limits for one or more analytes, suggesting matrix interference.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
\_\_\_\_\_  
Robin Cousineau  
Quality Assurance Director

Or

\_\_\_\_\_  
Stanley Gilewicz  
Laboratory Director

  
\_\_\_\_\_  
Date

## **Reporting Limit Definitions**

## HCV Reporting Limit Definitions/Data Qualifiers

### REPORTING DEFINITIONS

**DF** = Dilution Factor

**MDL** = Method Detection Limit

**RL\*** = Reporting Limit

**ND** = Not Detected

**RT** = Retention Time

**NA** = Not Applicable

*\*Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

### DATA QUALIFIERS

- B-** Indicates analyte was present in the Method Blank and sample.
- d-** For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E-** Indicates the concentration exceeded the upper calibration range of the instrument.
- J-** Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.

## **Data Package Summary Forms**

# HCV Report Of Analysis

Client: URS Corp.

HCV Project #: 1120830

Project: 544 Union Ave

Sample ID: B-15 4-6  
 Lab#: AC63111-001  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

## % Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		67

## Mercury (Soil/Waste) 7471A

Analyte	DF	Units	RL	Result
Mercury	10	mg/kg	1.2	45

## Metals Pair 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.0	14
Lead	1	mg/kg	7.5	1000

Sample ID: B-15 8-10  
Lab#: AC63111-002  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		72

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	4.5

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.8	9.4
Lead	1	mg/kg	6.9	500

Sample ID: B-15 10-12  
 Lab#: AC63111-003  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		67

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	5	mg/kg	0.62	15

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.0	130
Lead	1	mg/kg	7.5	2400

**TCLP Metals 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.20	ND
Lead	1	mg/l	0.15	3.9

Sample ID: B-15 12-14  
Lab#: AC63111-004  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		72

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	2.0

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.8	32
Lead	1	mg/kg	6.9	250

Sample ID: B-13 4-6  
Lab#: AC63111-005  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		68

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	0.76

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.9	7.4
Lead	1	mg/kg	7.4	180

Sample ID: B-13 8-10  
Lab#: AC63111-006  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		83

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	2	mg/kg	0.20	2.7

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	8.3
Lead	1	mg/kg	6.0	280

Sample ID: B-13 10-12  
 Lab#: AC63111-007  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	2.4

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	29
Lead	1	mg/kg	6.5	320

Sample ID: B-13 12-14  
 Lab#: AC63111-008  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		79

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	1.3

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	17
Lead	1	mg/kg	6.3	380

Sample ID: B-17 4-6  
Lab#: AC63111-009  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		78

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.59

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	6.2
Lead	1	mg/kg	6.4	1700

Sample ID: B-17 8-10  
Lab#: AC63111-010  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		71

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	1.7

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.8	11
Lead	1	mg/kg	7.0	1200

Sample ID: B-17 10-12  
Lab#: AC63111-011  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		67

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	2.4

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.0	16
Lead	1	mg/kg	7.5	820

Sample ID: B-17 12-14  
Lab#: AC63111-012  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.33

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	8.5
Lead	1	mg/kg	6.5	140

Sample ID: B-18 4-6  
Lab#: AC63111-013  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		85

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.098	1.0

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	8.6
Lead	1	mg/kg	5.9	240

Sample ID: B-18 8-10  
Lab#: AC63111-014  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		78

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	1.6

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	11
Lead	1	mg/kg	6.4	450

Sample ID: B-18 10-12  
Lab#: AC63111-015  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		79

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.23

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	3.4
Lead	1	mg/kg	6.3	59

Sample ID: B-12 4-6  
 Lab#: AC631111-017  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		69

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	0.75

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.9	17
Lead	1	mg/kg	7.2	710

Sample ID: B-12 6-8'  
Lab#: AC63111-018  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

## TCLP Lead (6010)

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	ND

Sample ID: B-12 8'-10'  
 Lab#: AC63111-019  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	0.42

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	7.4
Lead	1	mg/kg	6.2	93

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	0.19

Sample ID: B-12 10'-12'  
 Lab#: AC63111-020  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		40

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.21	0.68

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	5.0	ND
Lead	1	mg/kg	12	1200

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	2.5

Sample ID: B-12 12-14  
Lab#: AC63111-021  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		65

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	4	mg/kg	0.51	12

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.1	22
Lead	1	mg/kg	7.7	590

Sample ID: B-11 4-6  
Lab#: AC63111-022  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		86

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.097	4.5

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.3	6.1
Lead	1	mg/kg	5.8	230

Sample ID: B-11 8-10  
Lab#: AC63111-023  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		83

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	2.9

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	6.0
Lead	1	mg/kg	6.0	220

Sample ID: B-11 10-12  
Lab#: AC63111-024  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		77

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	1.1

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	15
Lead	1	mg/kg	6.5	520

Sample ID: B-10 4-6  
Lab#: AC63111-026  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		89

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.094	2.5

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.2	14
Lead	1	mg/kg	5.6	490

Sample ID: B-10 8-10  
Lab#: AC63111-027  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		69

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	5.4

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.9	12
Lead	1	mg/kg	7.2	820

Sample ID: B-10 10-12  
Lab#: AC63111-028  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		82

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	1.5

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	12
Lead	1	mg/kg	6.1	250

Sample ID: B-9 4-6  
Lab#: AC63111-030  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		79

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	3.5

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	8.3
Lead	1	mg/kg	6.3	280

Sample ID: B-9 8-10  
Lab#: AC63111-031  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		59

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.14	1.6

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.4	21
Lead	1	mg/kg	8.5	200

Sample ID: B-9 10-12  
Lab#: AC63111-032  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	2.7

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	7.3
Lead	1	mg/kg	6.2	270

Sample ID: B-1 4-6  
 Lab#: AC63111-034  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		83

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	3.4

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	8.8
Lead	1	mg/kg	6.0	510

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	0.22

Sample ID: B-1 8-10  
 Lab#: AC63111-035  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		65

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.13	4.7

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.1	22
Lead	1	mg/kg	7.7	1400

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	1.0

Sample ID: B-1 10-12  
 Lab#: AC63111-036  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		60

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.14	6.0

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	3.3	7.2
Lead	1	mg/kg	8.3	340

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	2.9

Sample ID: B-1 12-14  
 Lab#: AC63111-037  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		82

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	1.8

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.4	7.6
Lead	1	mg/kg	6.1	250

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	0.47

Sample ID: B-2 4-6  
 Lab#: AC63111-038  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		71

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.12	0.47

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.8	10
Lead	1	mg/kg	7.0	550

Sample ID: B-2 8-10  
 Lab#: AC63111-039  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		76

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	4.3

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	28
Lead	1	mg/kg	6.6	5100

**TCLP Lead (6010)**

Analyte	DF	Units	RL	Result
Lead	1	mg/l	0.15	24

Sample ID: B-2 10-12  
Lab#: AC63111-040  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	0.81

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	4.9
Lead	1	mg/kg	6.2	250

Sample ID: B-8 4-6  
Lab#: AC63111-042  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		80

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	2.8

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.5	14
Lead	1	mg/kg	6.2	240

Sample ID: B-8 6-8  
Lab#: AC63111-043  
Matrix: Soil

Collection Date: 12/8/2011  
Receipt Date: 12/8/2011

**Mercury (TCLP) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

Sample ID: B-8 8-10  
 Lab#: AC63111-044  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		68

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	10	mg/kg	1.2	41

**Mercury (TCLP) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.9	11
Lead	1	mg/kg	7.4	390

Sample ID: B-8 10-12  
 Lab#: AC63111-045  
 Matrix: Soil

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		76

**Mercury (Soil/Waste) 7471A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	1.5

**Mercury (TCLP) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	mg/kg	2.6	9.9
Lead	1	mg/kg	6.6	270

Sample ID: B-2  
 Lab#: AC63111-047  
 Matrix: Aqueous

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**Mercury (Water) 7470A**

Analyte	DF	Units	RL	Result
Mercury	20	ug/l	14	370

**TAL Metals 6010**

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	180	77000
Antimony	1	ug/l	12	180
Arsenic	1	ug/l	7.5	560
Barium	1	ug/l	50	5500
Beryllium	1	ug/l	4.0	5.3
Cadmium	1	ug/l	3.5	21
Calcium	1	ug/l	2000	310000
Chromium	1	ug/l	50	310
Cobalt	1	ug/l	20	81
Copper	1	ug/l	50	4200
Iron	1	ug/l	280	230000
Lead	1	ug/l	4.0	29000
Magnesium	1	ug/l	2000	60000
Manganese	1	ug/l	40	2500
Nickel	1	ug/l	50	180
Potassium	1	ug/l	5000	56000
Selenium	1	ug/l	40	ND
Silver	1	ug/l	20	ND
Sodium	1	ug/l	5000	110000
Thallium	1	ug/l	10	ND
Vanadium	1	ug/l	50	260
Zinc	1	ug/l	50	5600

Sample ID: B-12  
 Lab#: AC63111-048  
 Matrix: Aqueous

Collection Date: 12/8/2011  
 Receipt Date: 12/8/2011

**Mercury (Water) 7470A**

Analyte	DF	Units	RL	Result
Mercury	2	ug/l	1.4	38

**TAL Metals 6010**

Analyte	DF	Units	RL	Result
Aluminum	1	ug/l	180	200000
Antimony	2	ug/l	24	35
Arsenic	2	ug/l	15	370
Barium	1	ug/l	50	3700
Beryllium	1	ug/l	4.0	12
Cadmium	1	ug/l	3.5	14
Calcium	2	ug/l	4000	950000
Chromium	1	ug/l	50	620
Cobalt	1	ug/l	20	180
Copper	2	ug/l	100	1800
Iron	1	ug/l	280	440000
Lead	2	ug/l	8.0	10000
Magnesium	1	ug/l	2000	78000
Manganese	1	ug/l	40	7100
Nickel	1	ug/l	50	360
Potassium	1	ug/l	5000	69000
Selenium	1	ug/l	40	ND
Silver	2	ug/l	40	ND
Sodium	1	ug/l	5000	74000
Thallium	2	ug/l	20	ND
Vanadium	1	ug/l	50	670
Zinc	1	ug/l	50	6000

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-001  
 Client Id: B-15 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 67  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	14	1	0.5	50	12/12/11	11689	S13383A3	22	P	PEICP3A
7439-92-1	Lead	7.5	1000	1	0.5	50	12/12/11	11689	S13383A3	22	P	PEICP3A
7439-97-6	Mercury	1.2	45	10	0.15	25	12/13/11	11689	H13383Sc	19	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-002  
 Client Id: B-15 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 72  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	9.4	1	0.5	50	12/12/11	11689	S13383A3	23	P	PEICP3A
7439-92-1	Lead	6.9	500	1	0.5	50	12/12/11	11689	S13383A3	23	P	PEICP3A
7439-97-6	Mercury	0.12	4.5	1	0.15	25	12/12/11	11689	H13383S	19	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-003  
 Client Id: B-15 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 67  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	130	1	0.5	50	12/12/11	11689	S13383A3	24	P	PEICP3A
7439-92-1	Lead	7.5	2400	1	0.5	50	12/12/11	11689	S13383A3	24	P	PEICP3A
7439-97-6	Mercury	0.62	15	5	0.15	25	12/13/11	11689	H13383Sc	20	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-004  
 Client Id: B-15 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 72  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	32	1	0.5	50	12/19/11	11720	S13410A3	22	P	PEICP3A
7439-92-1	Lead	6.9	250	1	0.5	50	12/19/11	11720	S13410A3	22	P	PEICP3A
7439-97-6	Mercury	0.12	2.0	1	0.15	25	12/17/11	11720	H13410S	18	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1

### Inorganic Analysis Data Sheet

Sample ID: AC63111-005  
 Client Id: B-13 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 68  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	7.4	1	0.5	50	12/12/11	11689	S13383A3	25	P	PEICP3A
7439-92-1	Lead	7.4	180	1	0.5	50	12/12/11	11689	S13383A3	25	P	PEICP3A
7439-97-6	Mercury	0.12	0.76	1	0.15	25	12/12/11	11689	H13383S	23	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-006  
 Client Id: B-13 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 83  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	8.3	1	0.5	50	12/12/11	11689	S13383A3	14	P	PEICP3A
7439-92-1	Lead	6.0	280	1	0.5	50	12/12/11	11689	S13383A3	14	P	PEICP3A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-006  
Client Id: B-13 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 83  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.20	2.7	2	0.15	25	12/13/11	11706	H13383Sc	23	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-007  
Client Id: B-13 10-12  
Matrix: SOIL  
Level: LOW

% Solid: 77  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	29	1	0.5	50	12/12/11	11689	S13383A3	26	P	PEICP3A
7439-92-1	Lead	6.5	320	1	0.5	50	12/12/11	11689	S13383A3	26	P	PEICP3A
7439-97-6	Mercury	0.11	2.4	1	0.15	25	12/12/11	11689	H13383S	24	CV	HGCV1A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-008  
 Client Id: B-13 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 79  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	17	1	0.5	50	12/19/11	11720	S13410A3	23	P	PEICP3A
7439-92-1	Lead	6.3	380	1	0.5	50	12/19/11	11720	S13410A3	23	P	PEICP3A
7439-97-6	Mercury	0.11	1.3	1	0.15	25	12/17/11	11720	H13410S	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-009  
 Client Id: B-17 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 78  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	6.2	1	0.5	50	12/12/11	11689	S13383A3	31	P	PEICP3A
7439-92-1	Lead	6.4	1700	1	0.5	50	12/12/11	11689	S13383A3	31	P	PEICP3A
7439-97-6	Mercury	0.11	0.59	1	0.15	25	12/12/11	11689	H13383S	25	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-010  
 Client Id: B-17 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 71  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	11	1	0.5	50	12/12/11	11689	S13383A3	32	P	PEICP3A
7439-92-1	Lead	7.0	1200	1	0.5	50	12/12/11	11689	S13383A3	32	P	PEICP3A
7439-97-6	Mercury	0.12	1.7	1	0.15	25	12/12/11	11689	H13383S	26	CV	HGCV1A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-011  
 Client Id: B-17 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 67  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	16	1	0.5	50	12/12/11	11689	S13383A3	33	P	PEICP3A
7439-92-1	Lead	7.5	820	1	0.5	50	12/12/11	11689	S13383A3	33	P	PEICP3A
7439-97-6	Mercury	0.12	2.4	1	0.15	25	12/12/11	11689	H13383S	27	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-012  
 Client Id: B-17 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	8.5	1	0.5	50	12/19/11	11720	S13410A3	24	P	PEICP3A
7439-92-1	Lead	6.5	140	1	0.5	50	12/19/11	11720	S13410A3	24	P	PEICP3A
7439-97-6	Mercury	0.11	0.33	1	0.15	25	12/17/11	11720	H13410S	20	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-013	% Solid: 85	Lab Name: Veritech	Nras No:
Client Id: B-18 4-6	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	8.6	1	0.5	50	12/12/11	11689	S13383A3	34	P	PEICP3A
7439-92-1	Lead	5.9	240	1	0.5	50	12/12/11	11689	S13383A3	34	P	PEICP3A
7439-97-6	Mercury	0.098	1.0	1	0.15	25	12/12/11	11689	H13383S	28	CV	HGCV1A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-014  
 Client Id: B-18 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 78  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	11	1	0.5	50	12/12/11	11689	S13383A3	35	P	PEICP3A
7439-92-1	Lead	6.4	450	1	0.5	50	12/12/11	11689	S13383A3	35	P	PEICP3A
7439-97-6	Mercury	0.11	1.6	1	0.15	25	12/12/11	11689	H13383S	29	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-015  
 Client Id: B-18 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 79  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	3.4	1	0.5	50	12/12/11	11689	S13383A3	36	P	PEICP3A
7439-92-1	Lead	6.3	59	1	0.5	50	12/12/11	11689	S13383A3	36	P	PEICP3A
7439-97-6	Mercury	0.11	0.23	1	0.15	25	12/12/11	11689	H13383S	30	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - Cold Vapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-017  
 Client Id: B-12 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 69  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	17	1	0.5	50	12/12/11	11689	S13383A3	37	P	PEICP3A
7439-92-1	Lead	7.2	710	1	0.5	50	12/12/11	11689	S13383A3	37	P	PEICP3A
7439-97-6	Mercury	0.12	0.75	1	0.15	25	12/12/11	11689	H13383S	31	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-019	% Solid: 81	Lab Name: Veritech	Nras No:
Client Id: B-12 8'-10'	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.4	1	0.5	50	12/12/11	11689	S13383A3	40	P	PEICP3A
7439-92-1	Lead	6.2	93	1	0.5	50	12/12/11	11689	S13383A3	40	P	PEICP3A
7439-97-6	Mercury	0.10	0.42	1	0.15	25	12/12/11	11689	H13383S	32	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-020  
 Client Id: B-12 10'-12'  
 Matrix: SOIL  
 Level: LOW

% Solid: 40  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	5.0	ND	1	0.5	50	12/12/11	11689	S13383A3	41	P	PEICP3A
7439-92-1	Lead	12	1200	1	0.5	50	12/12/11	11689	S13383A3	41	P	PEICP3A
7439-97-6	Mercury	0.21	0.68	1	0.15	25	12/12/11	11689	H13383S	35	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-021  
 Client Id: B-12 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 65  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.1	22	1	0.5	50	12/19/11	11720	S13410A3	25	P	PEICP3A
7439-92-1	Lead	7.7	590	1	0.5	50	12/19/11	11720	S13410A3	25	P	PEICP3A
7439-97-6	Mercury	0.51	12	4	0.15	25	12/17/11	11720	H13410Sb	11	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-022  
 Client Id: B-11 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 86  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.3	6.1	1	0.5	50	12/12/11	11689	S13383A3	42	P	PEICP3A
7439-92-1	Lead	5.8	230	1	0.5	50	12/12/11	11689	S13383A3	42	P	PEICP3A
7439-97-6	Mercury	0.097	4.5	1	0.15	25	12/12/11	11689	H13383S	36	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - Cold Vapor

MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-023	% Solid: 83	Lab Name: Veritech	Nras No:
Client Id: B-11 8-10	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	6.0	1	0.5	50	12/12/11	11689	S13383A3	43	P	PEICP3A
7439-92-1	Lead	6.0	220	1	0.5	50	12/12/11	11689	S13383A3	43	P	PEICP3A
7439-97-6	Mercury	0.10	2.9	1	0.15	25	12/12/11	11689	H13383S	37	CV	HGCV1A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-024  
Client Id: B-11 10-12  
Matrix: SOIL  
Level: LOW

% Solid: 77  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	15	1	0.5	50	12/12/11	11689	S13383A3	44	P	PEICP3A
7439-92-1	Lead	6.5	520	1	0.5	50	12/12/11	11689	S13383A3	44	P	PEICP3A
7439-97-6	Mercury	0.11	1.1	1	0.15	25	12/12/11	11689	H13383S	38	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-026	% Solid: 89	Lab Name: Veritech	Nras No:
Client Id: B-10 4-6	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.2	14	1	0.5	50	12/12/11	11689	S13383A3	45	P	PEICP3A
7439-92-1	Lead	5.6	490	1	0.5	50	12/12/11	11689	S13383A3	45	P	PEICP3A
7439-97-6	Mercury	0.094	2.5	1	0.15	25	12/12/11	11689	H13383S	39	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-027  
 Client Id: B-10 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 69  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	12	1	0.5	50	12/12/11	11689	S13383A3	46	P	PEICP3A
7439-92-1	Lead	7.2	820	1	0.5	50	12/12/11	11689	S13383A3	46	P	PEICP3A
7439-97-6	Mercury	0.12	5.4	1	0.15	25	12/12/11	11689	H13383S	40	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-028  
Client Id: B-10 10-12  
Matrix: SOIL  
Level: LOW

% Solid: 82  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	12	1	0.5	50	12/12/11	11690	S13384A3	22	P	PEICP3A
7439-92-1	Lead	6.1	250	1	0.5	50	12/12/11	11690	S13384A3	22	P	PEICP3A
7439-97-6	Mercury	0.10	1.5	1	0.15	25	12/12/11	11690	H13384S	18	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-030  
 Client Id: B-9 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 79  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	8.3	1	0.5	50	12/12/11	11690	S13384A3	23	P	PEICP3A
7439-92-1	Lead	6.3	280	1	0.5	50	12/12/11	11690	S13384A3	23	P	PEICP3A
7439-97-6	Mercury	0.11	3.5	1	0.15	25	12/12/11	11690	H13384S	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-031  
Client Id: B-9 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 59  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.4	21	1	0.5	50	12/12/11	11690	S13384A3	24	P	PEICP3A
7439-92-1	Lead	8.5	200	1	0.5	50	12/12/11	11690	S13384A3	24	P	PEICP3A
7439-97-6	Mercury	0.14	1.6	1	0.15	25	12/12/11	11690	H13384S	20	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-032  
 Client Id: B-9 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 81  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.3	1	0.5	50	12/12/11	11690	S13384A3	25	P	PEICP3A
7439-92-1	Lead	6.2	270	1	0.5	50	12/12/11	11690	S13384A3	25	P	PEICP3A
7439-97-6	Mercury	0.10	2.7	1	0.15	25	12/12/11	11690	H13384S	23	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-034  
Client Id: B-1 4-6  
Matrix: SOIL  
Level: LOW

% Solid: 83  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	8.8	1	0.5	50	12/12/11	11690	S13384A3	30	P	PEICP3A
7439-92-1	Lead	6.0	510	1	0.5	50	12/12/11	11690	S13384A3	30	P	PEICP3A
7439-97-6	Mercury	0.10	3.4	1	0.15	25	12/12/11	11690	H13384S	24	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - Cold Vapor

MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-035	% Solid: 65	Lab Name: Veritech	Nras No:
Client Id: B-1 8-10	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.1	22	1	0.5	50	12/12/11	11690	S13384A3	31	P	PEICP3A
7439-92-1	Lead	7.7	1400	1	0.5	50	12/12/11	11690	S13384A3	31	P	PEICP3A
7439-97-6	Mercury	0.13	4.7	1	0.15	25	12/12/11	11690	H13384S	25	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-036  
 Client Id: B-1 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 60  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.3	7.2	1	0.5	50	12/12/11	11690	S13384A3	32	P	PEICP3A
7439-92-1	Lead	8.3	340	1	0.5	50	12/12/11	11690	S13384A3	32	P	PEICP3A
7439-97-6	Mercury	0.14	6.0	1	0.15	25	12/12/11	11690	H13384S	26	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-037  
 Client Id: B-1 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 82  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	7.6	1	0.5	50	12/19/11	11720	S13410A3	26	P	PEICP3A
7439-92-1	Lead	6.1	250	1	0.5	50	12/19/11	11720	S13410A3	26	P	PEICP3A
7439-97-6	Mercury	0.10	1.8	1	0.15	25	12/17/11	11720	H13410S	24	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-038  
 Client Id: B-2 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 71  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	10	1	0.5	50	12/12/11	11690	S13384A3	33	P	PEICP3A
7439-92-1	Lead	7.0	550	1	0.5	50	12/12/11	11690	S13384A3	33	P	PEICP3A
7439-97-6	Mercury	0.12	0.47	1	0.15	25	12/12/11	11690	H13384S	27	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-039	% Solid: 76	Lab Name: Veritech	Nras No:
Client Id: B-2 8-10	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	28	1	0.5	50	12/12/11	11690	S13384A3	34	P	PEICP3A
7439-92-1	Lead	6.6	5100	1	0.5	50	12/12/11	11690	S13384A3	34	P	PEICP3A
7439-97-6	Mercury	0.11	4.3	1	0.15	25	12/12/11	11690	H13384S	28	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-040  
 Client Id: B-2 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 81  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	4.9	1	0.5	50	12/12/11	11690	S13384A3	35	P	PEICP3A
7439-92-1	Lead	6.2	250	1	0.5	50	12/12/11	11690	S13384A3	35	P	PEICP3A
7439-97-6	Mercury	0.10	0.81	1	0.15	25	12/12/11	11690	H13384S	29	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-042  
 Client Id: B-8 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 80  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	14	1	0.5	50	12/12/11	11690	S13384A3	38	P	PEICP3A
7439-92-1	Lead	6.2	240	1	0.5	50	12/12/11	11690	S13384A3	38	P	PEICP3A
7439-97-6	Mercury	0.10	2.8	1	0.15	25	12/12/11	11690	H13384S	30	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-044  
 Client Id: B-8 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 68  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	11	1	0.5	50	12/12/11	11690	S13384A3	39	P	PEICP3A
7439-92-1	Lead	7.4	390	1	0.5	50	12/12/11	11690	S13384A3	39	P	PEICP3A
7439-97-6	Mercury	1.2	41	10	0.15	25	12/13/11	11690	H13384Sb	11	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-045  
 Client Id: B-8 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	9.9	1	0.5	50	12/12/11	11690	S13384A3	40	P	PEICP3A
7439-92-1	Lead	6.6	270	1	0.5	50	12/12/11	11690	S13384A3	40	P	PEICP3A
7439-97-6	Mercury	0.11	1.5	1	0.15	25	12/12/11	11690	H13384S	32	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-047  
 Client Id: B-2  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	77000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-36-0	Antimony	12	180	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-38-2	Arsenic	7.5	560	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-39-3	Barium	50	5500	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-41-7	Beryllium	4.0	5.3	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-43-9	Cadmium	3.5	21	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-70-2	Calcium	2000	310000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-47-3	Chromium	50	310	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-48-4	Cobalt	20	81	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-50-8	Copper	50	4200	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-89-6	Iron	280	230000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-92-1	Lead	4.0	29000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-95-4	Magnesium	2000	60000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-96-5	Manganese	40	2500	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-97-6	Mercury	14	370	20	25	25	12/12/11	11681	H13377SWf	18	CV	HGCV1A
7440-02-0	Nickel	50	180	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-09-7	Potassium	5000	56000	1	50	50	12/10/11	11681	SW13377A	29	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-23-5	Sodium	5000	110000	1	50	50	12/10/11	11681	SW13377A	29	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-62-2	Vanadium	50	260	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-66-6	Zinc	50	5600	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-048  
Client Id: B-12  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	200000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-36-0	Antimony	24	35	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-38-2	Arsenic	15	370	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-39-3	Barium	50	3700	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-41-7	Beryllium	4.0	12	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-43-9	Cadmium	3.5	14	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-70-2	Calcium	4000	950000	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-47-3	Chromium	50	620	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-48-4	Cobalt	20	180	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-50-8	Copper	100	1800	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7439-89-6	Iron	280	440000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7439-92-1	Lead	8.0	10000	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7439-95-4	Magnesium	2000	78000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7439-96-5	Manganese	40	7100	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7439-97-6	Mercury	1.4	38	2	25	25	12/12/11	11681	H13377SWf	17	CV	HGCV1A
7440-02-0	Nickel	50	360	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-09-7	Potassium	5000	69000	1	50	50	12/10/11	11681	SW13377A	30	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-22-4	Silver	40	ND	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-23-5	Sodium	5000	74000	1	50	50	12/10/11	11681	SW13377A	30	P	PEICPRAD1A
7440-28-0	Thallium	20	ND	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-62-2	Vanadium	50	670	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-66-6	Zinc	50	6000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

### Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-003  
 Client Id: B-15 10-12  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	0.20	ND	1	50	50	01/16/12	12491	T13480B2	22	P	PEICP2A
7439-92-1	Lead	0.15	3.9	1	50	50	01/17/12	12491	T13480C2	22	P	PEICP2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV -ColdVapor
- MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-018  
 Client Id: B-12 6-8'  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	ND	1	50	50	12/14/11	11688	T13382A3	22	P	PEICP3A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-019	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B-12 8'-10'	Units: MG/L	Lab Code:	Sdg No:
Matrix: TCLP	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	0.19	1	50	50	12/14/11	11688	T13382A3	23	P	PEICP3A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-020  
Client Id: B-12 10'-12'  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	2.5	1	50	50	12/14/11	11688	T13382A3	24	P	PEICP3A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-034      % Solid: 0      Lab Name: Veritech      Nras No:  
 Client Id: B-1 4-6      Units: MG/L      Lab Code:      Sdg No:  
 Matrix: TCLP      Date Rec: 12/9/2011      Contract:      Case No:  
 Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	0.22	1	50	50	12/22/11	11724	T13414A	47	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-035	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B-1 8-10	Units: MG/L	Lab Code:	Sdg No:
Matrix: TCLP	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	1.0	1	50	50	12/22/11	11724	T13414A	48	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-036  
Client Id: B-1 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	2.9	1	50	50	12/22/11	11724	T13414A	49	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-037	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B-1 12-14	Units: MG/L	Lab Code:	Sdg No:
Matrix: TCLP	Date Rec: 12/14/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	0.47	1	50	50	12/19/11	11703	T13395A	21	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV - ColdVapor
- MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-039      % Solid: 0      Lab Name: Veritech      Nras No:  
Client Id: B-2 8-10      Units: MG/L      Lab Code:      Sdg No:  
Matrix: TCLP      Date Rec: 12/9/2011      Contract:      Case No:  
Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	24	1	50	50	01/17/12	12491	T13480C2	23	P	PEICP2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-043  
Client Id: B-8 6-8  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.00070	ND	1	25	25	12/14/11	11716	H13407T	14	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-044  
Client Id: B-8 8-10  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.00070	ND	1	25	25	12/14/11	11716	H13407T	17	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-045  
Client Id: B-8 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.00070	ND	1	25	25	12/14/11	11716	H13407T	18	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

**VERITECH Wet Chem Form1 Analysis Summary**  
**% Solids**

TestGroupName: % Solids SM2540G

Project #: 1120830

TestGroup: %SOLIDS

Lab#	Client SampleID	Matrix	Dilution:	Result	Units:	RL	Prep Date	Analysis Date	Received Date	Collect Date
AC63111-001	B-15 4-6	Soil	1	67	Percent			12/12/11	12/08/11	12/08/11
AC63111-002	B-15 8-10	Soil	1	72	Percent			12/12/11	12/08/11	12/08/11
AC63111-003	B-15 10-12	Soil	1	67	Percent			12/12/11	12/08/11	12/08/11
AC63111-004	B-15 12-14	Soil	1	72	Percent			12/16/11	12/08/11	12/08/11
AC63111-005	B-13 4-6	Soil	1	68	Percent			12/12/11	12/08/11	12/08/11
AC63111-006	B-13 8-10	Soil	1	83	Percent			12/12/11	12/08/11	12/08/11
AC63111-007	B-13 10-12	Soil	1	77	Percent			12/12/11	12/08/11	12/08/11
AC63111-008	B-13 12-14	Soil	1	79	Percent			12/16/11	12/08/11	12/08/11
AC63111-009	B-17 4-6	Soil	1	78	Percent			12/12/11	12/08/11	12/08/11
AC63111-010	B-17 8-10	Soil	1	71	Percent			12/12/11	12/08/11	12/08/11
AC63111-011	B-17 10-12	Soil	1	67	Percent			12/12/11	12/08/11	12/08/11
AC63111-012	B-17 12-14	Soil	1	77	Percent			12/16/11	12/08/11	12/08/11
AC63111-013	B-18 4-6	Soil	1	85	Percent			12/12/11	12/08/11	12/08/11
AC63111-014	B-18 8-10	Soil	1	78	Percent			12/12/11	12/08/11	12/08/11
AC63111-015	B-18 10-12	Soil	1	79	Percent			12/12/11	12/08/11	12/08/11
AC63111-017	B-12 4-6	Soil	1	69	Percent			12/12/11	12/08/11	12/08/11
AC63111-019	B-12 8'-10'	Soil	1	81	Percent			12/12/11	12/08/11	12/08/11
AC63111-020	B-12 10'-12'	Soil	1	40	Percent			12/12/11	12/08/11	12/08/11
AC63111-021	B-12 12-14	Soil	1	65	Percent			12/16/11	12/08/11	12/08/11
AC63111-022	B-11 4-6	Soil	1	86	Percent			12/12/11	12/08/11	12/08/11
AC63111-023	B-11 8-10	Soil	1	83	Percent			12/12/11	12/08/11	12/08/11
AC63111-024	B-11 10-12	Soil	1	77	Percent			12/12/11	12/08/11	12/08/11
AC63111-026	B-10 4-6	Soil	1	89	Percent			12/12/11	12/08/11	12/08/11
AC63111-027	B-10 8-10	Soil	1	69	Percent			12/12/11	12/08/11	12/08/11
AC63111-028	B-10 10-12	Soil	1	82	Percent			12/12/11	12/08/11	12/08/11
AC63111-030	B-9 4-6	Soil	1	79	Percent			12/12/11	12/08/11	12/08/11
AC63111-031	B-9 8-10	Soil	1	59	Percent			12/12/11	12/08/11	12/08/11
AC63111-032	B-9 10-12	Soil	1	81	Percent			12/12/11	12/08/11	12/08/11
AC63111-034	B-1 4-6	Soil	1	83	Percent			12/12/11	12/08/11	12/08/11
AC63111-035	B-1 8-10	Soil	1	65	Percent			12/12/11	12/08/11	12/08/11
AC63111-036	B-1 10-12	Soil	1	60	Percent			12/12/11	12/08/11	12/08/11
AC63111-037	B-1 12-14	Soil	1	82	Percent			12/16/11	12/08/11	12/08/11
AC63111-038	B-2 4-6	Soil	1	71	Percent			12/12/11	12/08/11	12/08/11
AC63111-039	B-2 8-10	Soil	1	76	Percent			12/12/11	12/08/11	12/08/11
AC63111-040	B-2 10-12	Soil	1	81	Percent			12/12/11	12/08/11	12/08/11
AC63111-042	B-8 4-6	Soil	1	80	Percent			12/12/11	12/08/11	12/08/11
AC63111-044	B-8 8-10	Soil	1	68	Percent			12/12/11	12/08/11	12/08/11
AC63111-045	B-8 10-12	Soil	1	76	Percent			12/12/11	12/08/11	12/08/11

## **Chain of Custody**

1120830 0104

**Vertech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004

2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only)

1120830

Page 1 of 5

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
<u>24 Hours (100%)</u>	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQulS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQulS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full / Category B	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**Customer Information**

1a) Customer: URS Corp  
 Address: 1 Penn Plaza, Suite 600  
NY, NY 10019  
 1b) Email/Cell/Fax/Ph: Robert.Wolff@URS.com  
 1c) Send Invoice to: Austin, TX  
 1d) Send Report to: Bob Wolff

**Project Information**

2a) Project: 544 Union Ave, Bklyn  
& Heatherwood  
 2b) Project Mgr: Bob Wolff  
 2c) Project Location (City/State): Brooklyn, NY  
 2d) Quote/PO # (If Applicable): 11140128

Expedited TAT Not Always Available (Please Check with Lab)!

FOR LAB USE ONLY

Check If Contingent ==>

**7) Analysis Request**

**Matrix Codes**

DW - Drinking Water S - Soil A - Air  
 GW - Ground Water SL - Sludge OT - Other  
 WW - Waste Water OL - Oil

Sample Type  
 Composite (C)  
 Grab (G)

Metals  
 Hg, Pb, As

For EPH Analysis:

EPH Cat 1  
 EPH Cat 2 Screen/Total  
 EPH Cat 2 Fractionation

**8)**

# of Bottles

None MeOH En Core NaOH HCl H2SO4 HNO3 Other:

9a) Methanol Bottle Numbers (If Applicable)

9b) Comments

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	Metals Hg, Pb, As	7) Analysis Request			8) # of Bottles							9a) Methanol Bottle Numbers (If Applicable)	9b) Comments	
			Date	Time				EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3			Other:
001	B-15 4-6	S	12/8/11	819	G	X														
002	B-15 8-10	S		820	G	X														
003	B-15 10-12	S		821	G	X														
004	B-15 12-14	S		823	G	X														Hold
005	B-13 4-6	S		907	G	X														
006	B-13 8-10	S		909	G	X														
007	B-13 10-12	S		914	G	X														
008	B-13 12-14	S		916	G	X														Hold
009	B-17 4-6	S		930	G	X														
010	B-12 8-10	S		932	G	X														

10) Relinquished by:  
Megan Dascoli  
TCL

Accepted by:  
[Signature]  
[Signature]

Date: 12/8/11 14:12  
12/8/11 15:29

**Comments, Notes, Special Requirements, HAZARDS**  
 Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:  
 BN or BNA (8270C SIM)  
 VOC (8260B SIM or 8011)  
 Metals (ICP-MS 200.8 or 6020)  
 Note: Check if applicable:  
 Project-Specific Reporting Limits  
 High Contaminant Concentrations  
 Cooler Temperature: 2.6°  
 Note on Hold: "Hold in contingency pending results of 4'-12" call Bob Wolff @ 212 896-0185"

11) Sampler (print name): Megan Dascoli Date: 12/18/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

1120830 0105

**Veritech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004

2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only)

1120830

Page 2 of 5

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQulS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQulS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full / Category B	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**Customer Information**

1a) Customer: URS Corp  
 Address: \_\_\_\_\_  
 1b) Email/Cell/Fax/Ph: \_\_\_\_\_  
 1c) Send Invoice to: \_\_\_\_\_  
 1d) Send Report to: \_\_\_\_\_

**Project Information**

2a) Project: 544 Union, Hawthorn  
 2b) Project Mgr: \_\_\_\_\_  
 2c) Project Location (City/State): Brooklyn, NY  
 2d) Quote/PO # (If Applicable): \_\_\_\_\_

Expedited TAT Not Always Available (Please Check with Lab)!

FOR LAB USE ONLY	Check If Contingent ==>										7) Analysis Request										9a) Methanol Bottle Numbers (If Applicable)						
	Matrix Codes										For EPH Analysis:											9b) Comments					
	Batch #	DW - Drinking Water	S - Soil	A - Air	GW - Ground Water	SL - Sludge	OT - Other	VV - Waste Water	OL - Oil	Sample Type	Composite (C)	Grab (G)	Metals	TCLP	PL6	EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	None	MeOH			En Core	NaOH	HCl	H2SO4	HNO3
Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date Time		Composite (C)	Grab (G)	Metals	TCLP	PL6	EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	8) # of Bottles						

10) Relinquished by:	Accepted by:	Date	Time	Comments, Notes, Special Requirements, HAZARDS
<u>Meyer Daniel</u>	<u>[Signature]</u>	12/8/11	14:12	Note: Check if low-level groundwater methods required to meet current standards in NJ or PA: <input type="checkbox"/> BN or BNA (8270C SIM) <input type="checkbox"/> VOC (8260B SIM or 8011) <input type="checkbox"/> Metals (ICP-MS 200.8 or 6020) Note: Check if applicable: <input type="checkbox"/> Project-Specific Reporting Limits <input type="checkbox"/> High Contaminant Concentrations Cooler Temperature <u>2.6</u>
<u>[Signature]</u>	<u>[Signature]</u>	12/8/11	15:29	
11) Sampler (print name): <u>M Dascoli</u>				Date: <u>12/8/11</u>

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

1120830 0106

**Vertech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004

2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only)

1120830

Page 3 of 5

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQulS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQulS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full / Category B	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

Expedited TAT Not Always Available (Please Check with Lab!)

**Customer Information**

1a) Customer: URS Corp  
 Address: \_\_\_\_\_  
 1b) Email/Cell/Fax/Ph: \_\_\_\_\_  
 1c) Send Invoice to: \_\_\_\_\_  
 1d) Send Report to: \_\_\_\_\_

**Project Information**

2a) Project: 574 Union Ave  
Heatherwood  
 2b) Project Mgr: \_\_\_\_\_  
 2c) Project Location (City/State): \_\_\_\_\_  
 2d) Quote/PO # (If Applicable): \_\_\_\_\_

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

FOR LAB USE ONLY

Check If Contingent ==>

**7) Analysis Request**

For EPH Analysis:

**Matrix Codes**

DW - Drinking Water S - Soil A - Air  
 GW - Ground Water SL - Sludge OT - Other  
 WW - Waste Water OL - Oil

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	Sample Type	8) # of Bottles							9a) Methanol Bottle Numbers (If Applicable)	9b) Comments	
			Date	Time				None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3			Other:
021	B-12 12-14	S	12/8/11	1010	X	X	Metals Hg, As, Pb										
022	B-11 4-6			1040	X	X	TCLP Pb										
023	B-11 8-10			1042	X	X											
024	B-11 10-12			1043	X	X											
025	B-11 12-14			1045	X	X											Hold
026	B-10 4-6			1101	X	X											
027	B-10 8-10			1103	X	X											
028	B-10 10-12			1104	X	X											
029	B-10 12-14			1105	X	X											Hold
030	B-9 4-6			1127	X	X											

**10) Relinquished by:**

**Accepted by:**

Date Time

**Comments, Notes, Special Requirements, HAZARDS**

*Megan Daniel*  
*JL*

*R...*  
*E...*

12/8/11 14:12  
 12/8/11 15:29

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:  
 BN or BNA (8270C SIM)  
 VOC (8260B SIM or 8011)  
 Metals (ICP-MS 200.8 or 6020)  
 Hold - see note p.1

Note: Check if applicable:  
 Project-Specific Reporting Limits  
 High Contaminant Concentrations

Cooler Temperature

26°

11) Sampler (print name): M Dascoli Date: 12/8/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

1120830 0107

**Veritech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004  
2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only)

1120830

Page 4 of 5

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQUIS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQUIS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full / Category B	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**Customer Information**

1a) Customer: URS Corp  
Address: \_\_\_\_\_  
1b) Email/Cell/Fax/Ph: \_\_\_\_\_  
1c) Send Invoice to: \_\_\_\_\_  
1d) Send Report to: \_\_\_\_\_

**Project Information**

2a) Project: 544 Union Heatherwood  
2b) Project Mgr: \_\_\_\_\_  
2c) Project Location (City/State): \_\_\_\_\_  
2d) Quote/PO # (If Applicable): \_\_\_\_\_

Expedited TAT Not Always Available (Please Check with Lab!)

FOR LAB USE ONLY

Check If Contingent ==>

**7) Analysis Request**

For EPH Analysis:

**Matrix Codes**

DW - Drinking Water S - Soil A - Air  
GW - Ground Water SL - Sludge OT - Other  
WW - Waste Water OL - Oil

Sample Type  
Composite (C)  
Grab (G)

Metals	As	Bi	Cr	Co	Cu	Fe	Mn	Ni	Pb	Sb	Se	Tl	V	Zn
Metals	As													

EPH Cat 1  
EPH Cat 2 Screen/Total  
EPH Cat 2 Fractionation

**8) # of Bottles**

None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:

9a) Methanol Bottle Numbers (If Applicable)

9b) Comments

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	Metals	As	Bi	Cr	Co	Cu	Fe	Mn	Ni	Pb	Sb	Se	Tl	V	Zn	EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	8) # of Bottles							Other:	9a) Methanol Bottle Numbers (If Applicable)	9b) Comments	
			Date	Time																					None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3				
031	B-9 8-10	S	12/8/11	1128	G	X																													
032	B-9 10-12	S	12/8/11	1130	G	X																													
033	B-9 12-14	S		1132	G	X																												Hold	
034	B-1 4-6	S		1145	G	X																													
035	B-1 8-10	S		1147	G	X																													
036	B-1 10-12	S		1149	G	X																													
037	B-1 12-14	S		1150	G	X																													Hold
038	B-2 4-6	S		1241	G	X																													
039	B-2 8-10	S		1242	G	X																													
040	B-2 10-12	S		1244	G	X																													

10) Relinquished by: Megan Rosal  
Accepted by: [Signature]  
Date: 12/8/11 Time: 14:12  
[Signature] Accepted by: [Signature]  
Date: 12/8/11 Time: 15:29

**Comments, Notes, Special Requirements, HAZARDS**  
Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:  
 BN or BNA (8270C SIM)  
 VOC (8260B SIM or 8011)  
 Metals (ICP-MS 200.8 or 6020)  
Note: Check if applicable:  
 Project-Specific Reporting Limits  
 High Contaminant Concentrations  
Cooler Temperature: 26°C  
11) Sampler (print name): M Dascoli Date: 12/8/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific  
Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

1120830 0108-

**Veritech/Division of Hampton-Clarke**

175 Route 46 West, Fairfield, New Jersey 07004

2 Madison Road, Fairfield, New Jersey 07004

Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458



**CHAIN OF CUSTODY RECORD**

Project # (Lab Use Only)

1120830

Page 5 of 5

**3) Reporting Requirements (Please Circle)**

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazsite/CSV
48 Hours (75%)	Waste	EQulS 4-File
72 Hours (50%)	Red - NJ / NY / PA	EQulS EZ
4 Days (35%; TPH)	CLP	Excel - NJCC
1 Week (25%; EPH)	Full / Category B	Excel - NY TAGM
10 Days (10%)	Category A	Excel - PA Act 2
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

NELAC/NJ #07071 & 07069 | CT #PH-0671 | NY #11408 & 11939 | PA #68-00463 & 68-04409 | WV #353 | KY #90124

**Customer Information**

1a) Customer: URS Corp  
 Address: \_\_\_\_\_  
 1b) Email/Cell/Fax/Ph: \_\_\_\_\_  
 1c) Send Invoice to: \_\_\_\_\_  
 1d) Send Report to: \_\_\_\_\_

**Project Information**

2a) Project: 544 Union Ave Heatherwood  
 2b) Project Mgr: \_\_\_\_\_  
 2c) Project Location (City/State): \_\_\_\_\_  
 2d) Quote/PO # (If Applicable): \_\_\_\_\_

Expedited TAT Not Always Available (Please Check with Lab!)

**FOR LAB USE ONLY**

Check If Contingent ==>

**7) Analysis Request**

For EPH Analysis:

**Matrix Codes**

DW - Drinking Water S - Soil A - Air  
 GW - Ground Water SL - Sludge OT - Other  
 WW - Waste Water OL - Oil

Batch #  
AC6311

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	Metals Hg, Pb, Cd	TCLP Hg	TAL Metals	EPH Cat 1	EPH Cat 2 Screen/Total	EPH Cat 2 Fractionation	8) # of Bottles							9a) Methanol Bottle Numbers (If Applicable)	9b) Comments	
			Date	Time									None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3			Other:
041	B-2 12-14	S	12/8/11	1245	X	X	X						1									Hold
042	B-8 4-6	S		1307	X	X	X						1									
043	B-8 6-8	S		1309	X	X	X						1									TCLP Hg only
044	B-8 8-10	S		1311	X	X	X						2									
045	B-8 10-12	S		1313	X	X	X						2									
046	B-8 12-14	S		1315	X	X	X						2									Hold
047	B-2	GW		1253	X				X													
048	B-12	GW		1015	X				X													

10) Relinquished by: Megan Dasoli  
 Accepted by: R. J. [Signature]  
 Date: 12/8/11 Time: 14:12  
E. J. [Signature]  
 Date: 12/8/11 Time: 15:29

**Comments, Notes, Special Requirements, HAZARDS**

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:

- BN or BNA (8270C SIM)
- VOC (8260B SIM or 8011)
- Metals (ICP-MS 200.8 or 6020)

for Hold, see note on p. 1

Note: Check if applicable:

- Project-Specific Reporting Limits
- High Contaminant Concentrations

Cooler Temperature 2-6

11) Sampler (print name): Megan Dasoli Date: 12/18/11

Please circle required parameter list (refer to HC-V summary): i) NJ 2008 SRS; ii) Current TCL; iii) HC-V 2010 Merged; iv) PA; v) NY; vi) Project-Specific

Please note NUMBERED tabs. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

# PROJECT MODIFICATIONS

**Client:** URS-NYC  
**Project:** 544 Union Ave

**HCV Project #:** 1120830

---

-----  
ben192.168.1.103  
12/15/2011 11:32:12 AM  
-----

Bob,

I have activated the samples below for the requested parameters on one week turnaround time with results due on 12/21.

Thanks and please let me know if you need anything else.  
Ben

-----Original Message-----

From: Wolff, Robert [mailto:robert.wolff@urs.com]  
Sent: Wednesday, December 14, 2011 11:54 AM  
To: bRao@hampton-clarke.com  
Subject: RE: 1120830\_111213164601 544 Union Ave Preliminary Results

Ben, please run additional totals analyses (Hg, Pb and As) on the following contingency samples (12' to 14')

B-1, AC63111-037  
B-3, AC63081-005  
B-12, AC63111-021  
B-13, AC63111-008  
B-14, AC63081-032  
B-15, AC63111-004  
B-16, AC63081-047  
B-17, AC63111-012  
B-19, AC63081-037

Also, run an additional TCLP for Lead on B-1 (12' to 14'), AC63111-037

Robert Wolff  
Principal Environmental Scientist  
Certified URS Project Manager  
One Penn Plaza  
Suite 600  
New York, NY 10119-0698  
Direct Line: 212-896-0185  
Main Line: 212-736-4444  
Fax: 212-629-4249

-----  
ben192.168.1.103  
12/16/2011 9:09:41 AM  
-----

Ben, if you have enough soil volume, I'd like to add a few more TCLPs:

For lead:

B-1 (4-6) - AC63111-034  
B-1 (8-10) - AC63111-035  
B-1 (10-12) - AC63111-036

And, for Arsenic:

# PROJECT MODIFICATIONS

Client: URS-NYC

HCV Project #: 1120830

Project: 544 Union Ave

---

B-7 (6-8)  
B-7 (8-10)  
B-7 (10-12)

Robert Wolff  
Principal Environmental Scientist  
Certified URS Project Manager  
One Penn Plaza  
Suite 600  
New York, NY 10119-0698  
Direct Line: 212-896-0185  
Main Line: 212-736-4444  
Fax: 212-629-4249

Above activated with results due on 12/27/11. BR 12/16/11.

-----  
ben192.168.1.103  
1/11/2012 5:38:50 PM  
-----

Bob,

I have activated the samples below for TCLP analysis on 1 week TAT. Results should be available on 1/18/12. We will note the TCLP Hg hold time in the non-conformance.

Thanks and please let me know if you need anything else.  
Ben

-----Original Message-----

From: Wolff, Robert [mailto:robert.wolff@urs.com]  
Sent: Wednesday, January 11, 2012 1:59 PM  
To: bRao@hampton-clarke.com  
Subject: RE: 544 Union Ave

Ben, go ahead and analyze anyway...just note that it exceeded the hold time.

Thanks, Bob

From: Ben Rao [mailto:bRao@hampton-clarke.com]  
Sent: Wednesday, January 11, 2012 1:47 PM  
To: Wolff, Robert  
Subject: RE: 544 Union Ave

Hi Bob,

We checked the volume and we do have enough to perform TCLP on the samples below. I'll activate.

The sample requested for TCLP mercury below, B-16 (12-14) is past hold for TCLP Mercury. Should we proceed with it past hold or should we only analyze for TCLP Arsenic and Pb. TCLP Mercury needed to be tumbled within 28 days. Other metals is 6 months.

Thanks.  
Ben

-----Original Message-----

From: Wolff, Robert [mailto:robert.wolff@urs.com]  
Sent: Wednesday, January 11, 2012 11:17 AM  
To: bRao@hampton-clarke.com  
Subject: RE: 544 Union Ave

# PROJECT MODIFICATIONS

**Client:** URS-NYC

**HCV Project #:** 1120830

**Project:** 544 Union Ave

---

Ben, the client would like to run a few more TCLPs (if you have enough sample volume) for the following samples:

B-2 (8' to 10') for lead - AC63111-039

B-14 (4' to 6') for lead - AC63081-028

B-15 (10' to 12') for arsenic and lead - AC63111-003

B-16 (12' to 14') for mercury, arsenic and lead - AC63081-047

Please provide the quickest TAT possible.

Also you will be receiving four groundwater samples on Monday.

Finally, please issue the final report for the December samples.

Thanks, Bob

Above activated on 1 week TAT. BR 1/11/12.

**CONDITION UPON RECEIPT**

Batch Number AC63111

Entered By: children

Date Entered 12/8/2011 6:32:00 PM

---

- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 Yes Are the COC seals intact?
- 4 Yes Please specify the Temperature inside the container (in degC)  
2.6
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 Yes Do the contents match the COC? If no, specify
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 NA Other comments ...Specify
- 14 NA Corrective actions (Specify item number and corrective action taken).

## PRESERVATION DOCUMENT

Batch Number AC63111

Entered By: children

Date Entered 12/8/2011 6:33:00 PM

Lab#:	Container Siz	Container Typ	Paramete	Preservative	PH
AC63111-001	NA	NA	NA	NA	NA
AC63111-002	NA	NA	NA	NA	NA
AC63111-003	NA	NA	NA	NA	NA
AC63111-004	NA	NA	NA	NA	NA
AC63111-005	NA	NA	NA	NA	NA
AC63111-006	NA	NA	NA	NA	NA
AC63111-007	NA	NA	NA	NA	NA
AC63111-008	NA	NA	NA	NA	NA
AC63111-009	NA	NA	NA	NA	NA
AC63111-010	NA	NA	NA	NA	NA
AC63111-011	NA	NA	NA	NA	NA
AC63111-012	NA	NA	NA	NA	NA
AC63111-013	NA	NA	NA	NA	NA
AC63111-014	NA	NA	NA	NA	NA
AC63111-015	NA	NA	NA	NA	NA
AC63111-016	NA	NA	NA	NA	NA
AC63111-017	NA	NA	NA	NA	NA
AC63111-018	NA	NA	NA	NA	NA
AC63111-019	NA	NA	NA	NA	NA
AC63111-020	NA	NA	NA	NA	NA
AC63111-021	NA	NA	NA	NA	NA
AC63111-022	NA	NA	NA	NA	NA
AC63111-023	NA	NA	NA	NA	NA
AC63111-024	NA	NA	NA	NA	NA
AC63111-025	NA	NA	NA	NA	NA
AC63111-026	NA	NA	NA	NA	NA
AC63111-027	NA	NA	NA	NA	NA
AC63111-028	NA	NA	NA	NA	NA
AC63111-029	NA	NA	NA	NA	NA
AC63111-030	NA	NA	NA	NA	NA
AC63111-031	NA	NA	NA	NA	NA
AC63111-032	NA	NA	NA	NA	NA
AC63111-033	NA	NA	NA	NA	NA
AC63111-034	NA	NA	NA	NA	NA
AC63111-035	NA	NA	NA	NA	NA
AC63111-036	NA	NA	NA	NA	NA
AC63111-037	NA	NA	NA	NA	NA
AC63111-038	NA	NA	NA	NA	NA
AC63111-039	NA	NA	NA	NA	NA
AC63111-040	NA	NA	NA	NA	NA
AC63111-041	NA	NA	NA	NA	NA
AC63111-042	NA	NA	NA	NA	NA
AC63111-043	NA	NA	NA	NA	NA
AC63111-044	NA	NA	NA	NA	NA
AC63111-045	NA	NA	NA	NA	NA
AC63111-046	NA	NA	NA	NA	NA
AC63111-047	1L	P	METALS	HNO3	1
AC63111-048	1L	P	METALS	HNO3	1

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63111-001	12/08/11 12:29	CHILD	0	M	Received
AC63111-001	12/08/11 18:32	CHILD	0	M	Login
AC63111-001	12/08/11 23:19	PA	1	A	mixing
AC63111-001	12/08/11 23:20	R12	1	A	NONE
AC63111-001	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-001	12/11/11 17:54	R12	1	A	NONE
AC63111-001	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-001	12/12/11 21:25	R12	1	A	NONE
AC63111-002	12/08/11 12:29	CHILD	0	M	Received
AC63111-002	12/08/11 18:32	CHILD	0	M	Login
AC63111-002	12/08/11 23:19	PA	1	A	mixing
AC63111-002	12/08/11 23:20	R12	1	A	NONE
AC63111-002	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-002	12/11/11 17:54	R12	1	A	NONE
AC63111-002	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-002	12/12/11 21:25	R12	1	A	NONE
AC63111-003	12/08/11 12:29	CHILD	0	M	Received
AC63111-003	12/08/11 18:32	CHILD	0	M	Login
AC63111-003	01/12/12 12:14	CJA	1	A	TCLP-EXT
AC63111-003	01/12/12 17:27	R12	1	A	NONE
AC63111-003	12/08/11 23:19	PA	1	A	mixing
AC63111-003	12/08/11 23:20	R12	1	A	NONE
AC63111-003	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-003	12/11/11 17:54	R12	1	A	NONE
AC63111-003	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-003	12/12/11 21:25	R12	1	A	NONE
AC63111-004	12/08/11 12:29	CHILD	0	M	Received
AC63111-004	12/08/11 18:32	CHILD	0	M	Login
AC63111-004	12/08/11 23:19	PA	1	A	mixing
AC63111-004	12/08/11 23:20	R12	1	A	NONE
AC63111-004	12/16/11 09:30	DW	1	M	% SOLIDS
AC63111-004	12/16/11 12:54	R12	1	A	NONE
AC63111-004	12/16/11 19:19	JU	1	A	tdsi-hg
AC63111-004	12/17/11 00:24	R12	1	A	NONE
AC63111-005	12/08/11 12:29	CHILD	0	M	Received
AC63111-005	12/08/11 18:32	CHILD	0	M	Login
AC63111-005	12/08/11 23:19	PA	1	A	mixing
AC63111-005	12/08/11 23:20	R12	1	A	NONE
AC63111-005	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-005	12/11/11 17:54	R12	1	A	NONE
AC63111-005	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-005	12/12/11 21:25	R12	1	A	NONE
AC63111-006	12/08/11 12:29	CHILD	0	M	Received
AC63111-006	12/08/11 18:32	CHILD	0	M	Login
AC63111-006	12/08/11 23:19	PA	1	A	mixing
AC63111-006	12/08/11 23:20	R12	1	A	NONE
AC63111-006	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-006	12/11/11 17:54	R12	1	A	NONE
AC63111-006	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-006	12/12/11 21:25	R12	1	A	NONE
AC63111-006	12/13/11 12:07	OA	1	A	tdshg
AC63111-006	12/13/11 12:25	R12	1	A	NONE
AC63111-007	12/08/11 12:29	CHILD	0	M	Received
AC63111-007	12/08/11 18:32	CHILD	0	M	Login
AC63111-007	12/08/11 23:19	PA	1	A	mixing
AC63111-007	12/08/11 23:20	R12	1	A	NONE
AC63111-007	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-007	12/11/11 17:54	R12	1	A	NONE
AC63111-007	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-007	12/12/11 21:25	R12	1	A	NONE
AC63111-008	12/08/11 12:29	CHILD	0	M	Received
AC63111-008	12/08/11 18:32	CHILD	0	M	Login
AC63111-008	12/08/11 23:19	PA	1	A	mixing
AC63111-008	12/08/11 23:20	R12	1	A	NONE
AC63111-008	12/16/11 09:30	DW	1	M	% SOLIDS
AC63111-008	12/16/11 12:54	R12	1	A	NONE
AC63111-008	12/16/11 19:19	JU	1	A	tdsi-hg
AC63111-008	12/17/11 00:24	R12	1	A	NONE
AC63111-009	12/08/11 12:29	CHILD	0	M	Received
AC63111-009	12/08/11 18:32	CHILD	0	M	Login
AC63111-009	12/08/11 23:19	PA	1	A	mixing
AC63111-009	12/08/11 23:20	R12	1	A	NONE
AC63111-009	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-009	12/11/11 17:54	R12	1	A	NONE
AC63111-009	12/12/11 08:06	SDL	1	A	% SOLIDS

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63111-009	12/12/11 21:25	R12	1	A	NONE
AC63111-010	12/08/11 12:29	CHILD	0	M	Received
AC63111-010	12/08/11 18:32	CHILD	0	M	Login
AC63111-010	12/08/11 23:19	PA	1	A	mixing
AC63111-010	12/08/11 23:20	R12	1	A	NONE
AC63111-010	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-010	12/11/11 17:54	R12	1	A	NONE
AC63111-010	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-010	12/12/11 21:25	R12	1	A	NONE
AC63111-011	12/08/11 12:29	CHILD	0	M	Received
AC63111-011	12/08/11 18:32	CHILD	0	M	Login
AC63111-011	12/08/11 23:19	PA	1	A	mixing
AC63111-011	12/08/11 23:20	R12	1	A	NONE
AC63111-011	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-011	12/11/11 17:54	R12	1	A	NONE
AC63111-011	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-011	12/12/11 21:25	R12	1	A	NONE
AC63111-012	12/08/11 12:29	CHILD	0	M	Received
AC63111-012	12/08/11 18:32	CHILD	0	M	Login
AC63111-012	12/08/11 23:19	PA	1	A	mixing
AC63111-012	12/08/11 23:20	R12	1	A	NONE
AC63111-012	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-012	12/11/11 17:54	R12	1	A	NONE
AC63111-012	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-012	12/12/11 21:25	R12	1	A	NONE
AC63111-012	12/08/11 12:29	CHILD	0	M	Received
AC63111-012	12/08/11 18:32	CHILD	0	M	Login
AC63111-012	12/08/11 23:19	PA	1	A	mixing
AC63111-012	12/08/11 23:20	R12	1	A	NONE
AC63111-013	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-013	12/11/11 17:54	R12	1	A	NONE
AC63111-013	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-013	12/12/11 21:25	R12	1	A	NONE
AC63111-014	12/08/11 12:29	CHILD	0	M	Received
AC63111-014	12/08/11 18:32	CHILD	0	M	Login
AC63111-014	12/08/11 23:19	PA	1	A	mixing
AC63111-014	12/08/11 23:20	R12	1	A	NONE
AC63111-014	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-014	12/11/11 17:54	R12	1	A	NONE
AC63111-014	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-014	12/12/11 21:25	R12	1	A	NONE
AC63111-015	12/08/11 12:29	CHILD	0	M	Received
AC63111-015	12/08/11 18:32	CHILD	0	M	Login
AC63111-015	12/08/11 23:19	PA	1	A	mixing
AC63111-015	12/08/11 23:20	R12	1	A	NONE
AC63111-015	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-015	12/11/11 17:54	R12	1	A	NONE
AC63111-015	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-015	12/12/11 21:25	R12	1	A	NONE
AC63111-016	12/08/11 12:29	CHILD	0	M	Received
AC63111-016	12/08/11 18:32	CHILD	0	M	Login
AC63111-016	12/08/11 23:19	PA	1	A	mixing
AC63111-016	12/08/11 23:20	R12	1	A	NONE
AC63111-017	12/08/11 12:29	CHILD	0	M	Received
AC63111-017	12/08/11 18:32	CHILD	0	M	Login
AC63111-017	12/08/11 23:19	PA	1	A	mixing
AC63111-017	12/08/11 23:20	R12	1	A	NONE
AC63111-017	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-017	12/11/11 17:54	R12	1	A	NONE
AC63111-017	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-017	12/12/11 21:25	R12	1	A	NONE
AC63111-018	12/08/11 12:29	CHILD	0	M	Received
AC63111-018	12/08/11 18:32	CHILD	0	M	Login
AC63111-018	12/08/11 23:19	PA	1	A	mixing
AC63111-018	12/08/11 23:20	R12	1	A	NONE
AC63111-018	12/12/11 13:19	CJA	1	A	TCLP-EXT
AC63111-018	12/12/11 18:55	R12	1	A	NONE
AC63111-019	12/08/11 12:29	CHILD	0	M	Received
AC63111-019	12/08/11 18:32	CHILD	0	M	Login
AC63111-019	12/08/11 23:19	PA	1	A	mixing
AC63111-019	12/08/11 23:20	R12	1	A	NONE
AC63111-019	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-019	12/11/11 17:54	R12	1	A	NONE
AC63111-019	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-019	12/12/11 21:25	R12	1	A	NONE

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Internal Chain of Custody

1120830 0115

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AC63111-019	12/08/11 23:19	PA	2	A	mixing
AC63111-019	12/08/11 23:20	R12	2	A	NONE
AC63111-019	12/12/11 13:19	CJA	2	A	TCLP-EXT
AC63111-019	12/12/11 18:55	R12	2	A	NONE
AC63111-020	12/08/11 12:29	CHILD	0	M	Received
AC63111-020	12/08/11 18:32	CHILD	0	M	Login
AC63111-020	12/08/11 23:19	PA	1	A	mixing
AC63111-020	12/08/11 23:20	R12	1	A	NONE
AC63111-020	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-020	12/11/11 17:54	R12	1	A	NONE
AC63111-020	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-020	12/12/11 21:25	R12	1	A	NONE
AC63111-020	12/08/11 23:19	PA	2	A	mixing
AC63111-020	12/08/11 23:20	R12	2	A	NONE
AC63111-020	12/12/11 13:19	CJA	2	A	TCLP-EXT
AC63111-020	12/12/11 18:55	R12	2	A	NONE
AC63111-021	12/08/11 12:29	CHILD	0	M	Received
AC63111-021	12/08/11 18:32	CHILD	0	M	Login
AC63111-021	12/08/11 23:19	PA	1	A	mixing
AC63111-021	12/08/11 23:20	R12	1	A	NONE
AC63111-021	12/08/11 23:19	PA	2	A	mixing
AC63111-021	12/08/11 23:20	R12	2	A	NONE
AC63111-021	12/16/11 09:30	DW	2	M	% SOLIDS
AC63111-021	12/16/11 12:54	R12	2	A	NONE
AC63111-021	12/16/11 19:19	JU	2	A	tdsi-hg
AC63111-021	12/17/11 00:24	R12	2	A	NONE
AC63111-022	12/08/11 12:29	CHILD	0	M	Received
AC63111-022	12/08/11 18:32	CHILD	0	M	Login
AC63111-022	12/08/11 23:19	PA	1	A	mixing
AC63111-022	12/08/11 23:20	R12	1	A	NONE
AC63111-022	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-022	12/11/11 17:54	R12	1	A	NONE
AC63111-022	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-022	12/12/11 21:25	R12	1	A	NONE
AC63111-023	12/08/11 12:29	CHILD	0	M	Received
AC63111-023	12/08/11 18:32	CHILD	0	M	Login
AC63111-023	12/08/11 23:19	PA	1	A	mixing
AC63111-023	12/08/11 23:20	R12	1	A	NONE
AC63111-023	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-023	12/11/11 17:54	R12	1	A	NONE
AC63111-023	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-023	12/12/11 21:25	R12	1	A	NONE
AC63111-024	12/08/11 12:29	CHILD	0	M	Received
AC63111-024	12/08/11 18:32	CHILD	0	M	Login
AC63111-024	12/08/11 23:19	PA	1	A	mixing
AC63111-024	12/08/11 23:20	R12	1	A	NONE
AC63111-024	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-024	12/11/11 17:54	R12	1	A	NONE
AC63111-024	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-024	12/12/11 21:25	R12	1	A	NONE
AC63111-025	12/08/11 12:29	CHILD	0	M	Received
AC63111-025	12/08/11 18:32	CHILD	0	M	Login
AC63111-025	12/08/11 23:19	PA	1	A	mixing
AC63111-025	12/08/11 23:20	R12	1	A	NONE
AC63111-026	12/08/11 12:29	CHILD	0	M	Received
AC63111-026	12/08/11 18:32	CHILD	0	M	Login
AC63111-026	12/08/11 23:19	PA	1	A	mixing
AC63111-026	12/08/11 23:20	R12	1	A	NONE
AC63111-026	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-026	12/11/11 17:54	R12	1	A	NONE
AC63111-026	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-026	12/12/11 21:25	R12	1	A	NONE
AC63111-027	12/08/11 12:29	CHILD	0	M	Received
AC63111-027	12/08/11 18:32	CHILD	0	M	Login
AC63111-027	12/08/11 23:19	PA	1	A	mixing
AC63111-027	12/08/11 23:20	R12	1	A	NONE
AC63111-027	12/11/11 15:25	JU	1	A	tdsi-hg
AC63111-027	12/11/11 17:54	R12	1	A	NONE
AC63111-027	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-027	12/12/11 21:25	R12	1	A	NONE
AC63111-028	12/08/11 12:29	CHILD	0	M	Received
AC63111-028	12/08/11 18:32	CHILD	0	M	Login
AC63111-028	12/08/11 23:19	PA	1	A	mixing
AC63111-028	12/08/11 23:20	R12	1	A	NONE
AC63111-028	12/11/11 09:08	PH	1	A	TDSI-HG

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AC63111-028	12/11/11 10:12	R12	1	A	NONE
AC63111-028	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-028	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-028	12/12/11 21:25	R12	1	A	NONE
AC63111-029	12/08/11 12:29	CHILD	0	M	Received
AC63111-029	12/08/11 18:32	CHILD	0	M	Login
AC63111-029	12/08/11 23:19	PA	1	A	mixing
AC63111-029	12/08/11 23:20	R12	1	A	NONE
AC63111-029	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-029	12/11/11 10:12	R12	1	A	NONE
AC63111-030	12/08/11 12:29	CHILD	0	M	Received
AC63111-030	12/08/11 18:32	CHILD	0	M	Login
AC63111-030	12/08/11 23:19	PA	1	A	mixing
AC63111-030	12/08/11 23:20	R12	1	A	NONE
AC63111-030	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-030	12/11/11 10:12	R12	1	A	NONE
AC63111-030	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-030	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-030	12/12/11 21:25	R12	1	A	NONE
AC63111-031	12/08/11 12:29	CHILD	0	M	Received
AC63111-031	12/08/11 18:32	CHILD	0	M	Login
AC63111-031	12/08/11 23:19	PA	1	A	mixing
AC63111-031	12/08/11 23:20	R12	1	A	NONE
AC63111-031	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-031	12/11/11 10:12	R12	1	A	NONE
AC63111-031	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-031	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-031	12/12/11 21:25	R12	1	A	NONE
AC63111-032	12/08/11 12:29	CHILD	0	M	Received
AC63111-032	12/08/11 18:32	CHILD	0	M	Login
AC63111-032	12/08/11 23:19	PA	1	A	mixing
AC63111-032	12/08/11 23:20	R12	1	A	NONE
AC63111-032	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-032	12/11/11 10:12	R12	1	A	NONE
AC63111-032	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-032	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-032	12/12/11 21:25	R12	1	A	NONE
AC63111-033	12/08/11 12:29	CHILD	0	M	Received
AC63111-033	12/08/11 18:32	CHILD	0	M	Login
AC63111-033	12/08/11 23:19	PA	1	A	mixing
AC63111-033	12/08/11 23:20	R12	1	A	NONE
AC63111-034	12/08/11 12:29	CHILD	0	M	Received
AC63111-034	12/08/11 18:32	CHILD	0	M	Login
AC63111-034	12/08/11 23:19	PA	1	A	mixing
AC63111-034	12/08/11 23:20	R12	1	A	NONE
AC63111-034	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-034	12/11/11 10:12	R12	1	A	NONE
AC63111-034	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-034	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-034	12/12/11 21:25	R12	1	A	NONE
AC63111-034	12/19/11 12:20	CJA	1	A	tclp-ext
AC63111-034	12/19/11 20:40	R12	1	A	NONE
AC63111-035	12/08/11 12:29	CHILD	0	M	Received
AC63111-035	12/08/11 18:32	CHILD	0	M	Login
AC63111-035	12/08/11 23:19	PA	1	A	mixing
AC63111-035	12/08/11 23:20	R12	1	A	NONE
AC63111-035	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-035	12/11/11 10:12	R12	1	A	NONE
AC63111-035	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-035	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-035	12/12/11 21:25	R12	1	A	NONE
AC63111-035	12/19/11 12:20	CJA	1	A	tclp-ext
AC63111-035	12/19/11 20:40	R12	1	A	NONE
AC63111-036	12/08/11 12:29	CHILD	0	M	Received
AC63111-036	12/08/11 18:32	CHILD	0	M	Login
AC63111-036	12/08/11 23:19	PA	1	A	mixing
AC63111-036	12/08/11 23:20	R12	1	A	NONE
AC63111-036	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-036	12/11/11 10:12	R12	1	A	NONE
AC63111-036	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-036	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-036	12/12/11 21:25	R12	1	A	NONE
AC63111-036	12/19/11 12:20	CJA	1	A	tclp-ext
AC63111-036	12/19/11 20:40	R12	1	A	NONE
AC63111-037	12/08/11 12:29	CHILD	0	M	Received

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

Internal Chain of Custody

1120830 0116

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63111-037	12/08/11 18:32	CHILD	0	M	Login
AC63111-037	12/08/11 23:19	PA	1	A	mixing
AC63111-037	12/08/11 23:20	R12	1	A	NONE
AC63111-037	12/15/11 16:10	CJA	1	A	TCLP-EXT
AC63111-037	12/15/11 18:21	R12	1	A	NONE
AC63111-037	12/16/11 09:30	DW	1	M	% SOLIDS
AC63111-037	12/16/11 12:54	R12	1	A	NONE
AC63111-037	12/16/11 19:19	JU	1	A	tdsi-hg
AC63111-037	12/17/11 00:24	R12	1	A	NONE
AC63111-038	12/08/11 12:29	CHILD	0	M	Received
AC63111-038	12/08/11 18:32	CHILD	0	M	Login
AC63111-038	12/08/11 23:19	PA	1	A	mixing
AC63111-038	12/08/11 23:20	R12	1	A	NONE
AC63111-038	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-038	12/11/11 10:12	R12	1	A	NONE
AC63111-038	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-038	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-039	12/08/11 12:29	CHILD	0	M	Received
AC63111-039	12/08/11 18:32	CHILD	0	M	Login
AC63111-039	01/12/12 12:14	CJA	1	A	TCLP-EXT
AC63111-039	01/12/12 17:27	R12	1	A	NONE
AC63111-039	12/08/11 23:19	PA	1	A	mixing
AC63111-039	12/08/11 23:20	R12	1	A	NONE
AC63111-039	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-039	12/11/11 10:12	R12	1	A	NONE
AC63111-039	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-039	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-039	12/12/11 21:25	R12	1	A	NONE
AC63111-040	12/08/11 12:29	CHILD	0	M	Received
AC63111-040	12/08/11 18:32	CHILD	0	M	Login
AC63111-040	12/08/11 23:19	PA	1	A	mixing
AC63111-040	12/08/11 23:20	R12	1	A	NONE
AC63111-040	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-040	12/11/11 10:12	R12	1	A	NONE
AC63111-040	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-040	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-040	12/12/11 21:25	R12	1	A	NONE
AC63111-041	12/08/11 12:29	CHILD	0	M	Received
AC63111-041	12/08/11 18:32	CHILD	0	M	Login
AC63111-041	12/08/11 23:19	PA	1	A	mixing
AC63111-041	12/08/11 23:20	R12	1	A	NONE
AC63111-042	12/08/11 12:29	CHILD	0	M	Received
AC63111-042	12/08/11 18:32	CHILD	0	M	Login
AC63111-042	12/08/11 23:19	PA	1	A	mixing
AC63111-042	12/08/11 23:20	R12	1	A	NONE
AC63111-042	12/11/11 09:08	PH	1	A	TDSI-HG
AC63111-042	12/11/11 10:12	R12	1	A	NONE
AC63111-042	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-042	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-042	12/12/11 21:25	R12	1	A	NONE
AC63111-043	12/08/11 12:29	CHILD	0	M	Received
AC63111-043	12/08/11 18:32	CHILD	0	M	Login
AC63111-043	12/08/11 23:19	PA	1	A	mixing
AC63111-043	12/08/11 23:20	R12	1	A	NONE
AC63111-043	12/12/11 13:19	CJA	1	A	TCLP-EXT
AC63111-043	12/12/11 18:55	R12	1	A	NONE
AC63111-044	12/08/11 12:29	CHILD	0	M	Received
AC63111-044	12/08/11 18:32	CHILD	0	M	Login
AC63111-044	12/09/11 22:06	PA	1	A	mixing
AC63111-044	12/09/11 22:07	R12	1	A	NONE
AC63111-044	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-044	12/12/11 11:00	PH	1	M	tdsi-hg
AC63111-044	12/12/11 21:25	R12	1	A	NONE
AC63111-044	12/08/11 23:19	PA	2	A	mixing
AC63111-044	12/08/11 23:20	R12	2	A	NONE
AC63111-044	12/11/11 09:08	PH	2	A	TDSI-HG
AC63111-044	12/11/11 10:12	R12	2	A	NONE
AC63111-044	12/12/11 13:19	CJA	2	A	TCLP-EXT
AC63111-044	12/12/11 18:55	R12	2	A	NONE
AC63111-045	12/08/11 12:29	CHILD	0	M	Received
AC63111-045	12/08/11 18:32	CHILD	0	M	Login
AC63111-045	12/08/11 23:19	PA	1	A	mixing
AC63111-045	12/08/11 23:20	R12	1	A	NONE
AC63111-045	12/12/11 08:06	SDL	1	A	% SOLIDS
AC63111-045	12/12/11 11:00	PH	1	M	tdsi-hg

Lab#:	DateTime:	Loc or User	Bot Nu	A/M	Analysis
AC63111-045	12/12/11 21:25	R12	1	A	NONE
AC63111-045	12/08/11 23:19	PA	2	A	mixing
AC63111-045	12/08/11 23:20	R12	2	A	NONE
AC63111-045	12/11/11 09:08	PH	2	A	TDSI-HG
AC63111-045	12/11/11 10:12	R12	2	A	NONE
AC63111-045	12/12/11 13:19	CJA	2	A	TCLP-EXT
AC63111-045	12/12/11 18:55	R12	2	A	NONE
AC63111-046	12/08/11 12:29	CHILD	0	M	Received
AC63111-046	12/08/11 18:32	CHILD	0	M	Login
AC63111-046	12/08/11 23:19	PA	2	A	mixing
AC63111-046	12/08/11 23:20	R12	2	A	NONE
AC63111-047	12/08/11 12:29	CHILD	0	M	Received
AC63111-047	12/08/11 18:32	CHILD	0	M	Login
AC63111-047	12/09/11 13:50	SRB	1	M	TDSW
AC63111-047	12/09/11 14:04	R12	1	A	NONE
AC63111-047	12/10/11 17:55	OA	1	A	tdwhg
AC63111-047	12/10/11 18:21	R12	1	A	NONE
AC63111-048	12/08/11 12:29	CHILD	0	M	Received
AC63111-048	12/08/11 18:32	CHILD	0	M	Login
AC63111-048	12/09/11 13:50	SRB	1	M	TDSW
AC63111-048	12/09/11 14:04	R12	1	A	NONE
AC63111-048	12/10/11 17:55	OA	1	A	tdwhg
AC63111-048	12/10/11 18:21	R12	1	A	NONE

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

## **Metal Data**

**Metal Data  
Sample Data**

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-001  
 Client Id: B-15 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 67  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	14	1	0.5	50	12/12/11	11689	S13383A3	22	P	PEICP3A
7439-92-1	Lead	7.5	1000	1	0.5	50	12/12/11	11689	S13383A3	22	P	PEICP3A
7439-97-6	Mercury	1.2	45	10	0.15	25	12/13/11	11689	H13383Sc	19	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-002  
 Client Id: B-15 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 72  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	9.4	1	0.5	50	12/12/11	11689	S13383A3	23	P	PEICP3A
7439-92-1	Lead	6.9	500	1	0.5	50	12/12/11	11689	S13383A3	23	P	PEICP3A
7439-97-6	Mercury	0.12	4.5	1	0.15	25	12/12/11	11689	H13383S	19	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-003  
 Client Id: B-15 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 67  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	130	1	0.5	50	12/12/11	11689	S13383A3	24	P	PEICP3A
7439-92-1	Lead	7.5	2400	1	0.5	50	12/12/11	11689	S13383A3	24	P	PEICP3A
7439-97-6	Mercury	0.62	15	5	0.15	25	12/13/11	11689	H13383Sc	20	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-004	% Solid: 72	Lab Name: Veritech	Nras No:
Client Id: B-15 12-14	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	32	1	0.5	50	12/19/11	11720	S13410A3	22	P	PEICP3A
7439-92-1	Lead	6.9	250	1	0.5	50	12/19/11	11720	S13410A3	22	P	PEICP3A
7439-97-6	Mercury	0.12	2.0	1	0.15	25	12/17/11	11720	H13410S	18	CV	HGCV2A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-005  
 Client Id: B-13 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 68  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	7.4	1	0.5	50	12/12/11	11689	S13383A3	25	P	PEICP3A
7439-92-1	Lead	7.4	180	1	0.5	50	12/12/11	11689	S13383A3	25	P	PEICP3A
7439-97-6	Mercury	0.12	0.76	1	0.15	25	12/12/11	11689	H13383S	23	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-006	% Solid: 83	Lab Name: Veritech	Nras No:
Client Id: B-13 8-10	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	8.3	1	0.5	50	12/12/11	11689	S13383A3	14	P	PEICP3A
7439-92-1	Lead	6.0	280	1	0.5	50	12/12/11	11689	S13383A3	14	P	PEICP3A

Comments: \_\_\_\_\_  
\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - Cold Vapor

MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-006  
Client Id: B-13 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 83  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.20	2.7	2	0.15	25	12/13/11	11706	H13383Sc	23	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-007	% Solid: 77	Lab Name: Veritech	Nras No:
Client Id: B-13 10-12	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	29	1	0.5	50	12/12/11	11689	S13383A3	26	P	PEICP3A
7439-92-1	Lead	6.5	320	1	0.5	50	12/12/11	11689	S13383A3	26	P	PEICP3A
7439-97-6	Mercury	0.11	2.4	1	0.15	25	12/12/11	11689	H13383S	24	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-008  
 Client Id: B-13 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 79  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	17	1	0.5	50	12/19/11	11720	S13410A3	23	P	PEICP3A
7439-92-1	Lead	6.3	380	1	0.5	50	12/19/11	11720	S13410A3	23	P	PEICP3A
7439-97-6	Mercury	0.11	1.3	1	0.15	25	12/17/11	11720	H13410S	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-009	% Solid: 78	Lab Name: Veritech	Nras No:
Client Id: B-17 4-6	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	6.2	1	0.5	50	12/12/11	11689	S13383A3	31	P	PEICP3A
7439-92-1	Lead	6.4	1700	1	0.5	50	12/12/11	11689	S13383A3	31	P	PEICP3A
7439-97-6	Mercury	0.11	0.59	1	0.15	25	12/12/11	11689	H13383S	25	CV	HGCV1A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-010  
Client Id: B-17 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 71  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	11	1	0.5	50	12/12/11	11689	S13383A3	32	P	PEICP3A
7439-92-1	Lead	7.0	1200	1	0.5	50	12/12/11	11689	S13383A3	32	P	PEICP3A
7439-97-6	Mercury	0.12	1.7	1	0.15	25	12/12/11	11689	H13383S	26	CV	HGCV1A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-011	% Solid: 67	Lab Name: Veritech	Nras No:
Client Id: B-17 10-12	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.0	16	1	0.5	50	12/12/11	11689	S13383A3	33	P	PEICP3A
7439-92-1	Lead	7.5	820	1	0.5	50	12/12/11	11689	S13383A3	33	P	PEICP3A
7439-97-6	Mercury	0.12	2.4	1	0.15	25	12/12/11	11689	H13383S	27	CV	HGCV1A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-012  
Client Id: B-17 12-14  
Matrix: SOIL  
Level: LOW

% Solid: 77  
Units: MG/KG  
Date Rec: 12/14/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	8.5	1	0.5	50	12/19/11	11720	S13410A3	24	P	PEICP3A
7439-92-1	Lead	6.5	140	1	0.5	50	12/19/11	11720	S13410A3	24	P	PEICP3A
7439-97-6	Mercury	0.11	0.33	1	0.15	25	12/17/11	11720	H13410S	20	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-013  
 Client Id: B-18 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 85  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	8.6	1	0.5	50	12/12/11	11689	S13383A3	34	P	PEICP3A
7439-92-1	Lead	5.9	240	1	0.5	50	12/12/11	11689	S13383A3	34	P	PEICP3A
7439-97-6	Mercury	0.098	1.0	1	0.15	25	12/12/11	11689	H13383S	28	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-014	% Solid: 78	Lab Name: Veritech	Nras No:
Client Id: B-18 8-10	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	11	1	0.5	50	12/12/11	11689	S13383A3	35	P	PEICP3A
7439-92-1	Lead	6.4	450	1	0.5	50	12/12/11	11689	S13383A3	35	P	PEICP3A
7439-97-6	Mercury	0.11	1.6	1	0.15	25	12/12/11	11689	H13383S	29	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-015  
 Client Id: B-18 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 79  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	3.4	1	0.5	50	12/12/11	11689	S13383A3	36	P	PEICP3A
7439-92-1	Lead	6.3	59	1	0.5	50	12/12/11	11689	S13383A3	36	P	PEICP3A
7439-97-6	Mercury	0.11	0.23	1	0.15	25	12/12/11	11689	H13383S	30	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-017	% Solid: 69	Lab Name: Veritech	Nras No:
Client Id: B-12 4-6	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	17	1	0.5	50	12/12/11	11689	S13383A3	37	P	PEICP3A
7439-92-1	Lead	7.2	710	1	0.5	50	12/12/11	11689	S13383A3	37	P	PEICP3A
7439-97-6	Mercury	0.12	0.75	1	0.15	25	12/12/11	11689	H13383S	31	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-019  
 Client Id: B-12 8'-10'  
 Matrix: SOIL  
 Level: LOW

% Solid: 81  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.4	1	0.5	50	12/12/11	11689	S13383A3	40	P	PEICP3A
7439-92-1	Lead	6.2	93	1	0.5	50	12/12/11	11689	S13383A3	40	P	PEICP3A
7439-97-6	Mercury	0.10	0.42	1	0.15	25	12/12/11	11689	H13383S	32	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-020  
Client Id: B-12 10'-12'  
Matrix: SOIL  
Level: LOW

% Solid: 40  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	5.0	ND	1	0.5	50	12/12/11	11689	S13383A3	41	P	PEICP3A
7439-92-1	Lead	12	1200	1	0.5	50	12/12/11	11689	S13383A3	41	P	PEICP3A
7439-97-6	Mercury	0.21	0.68	1	0.15	25	12/12/11	11689	H13383S	35	CV	HGCV1A

Comments: \_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

## Form1

### Inorganic Analysis Data Sheet

Sample ID: AC63111-021  
 Client Id: B-12 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 65  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.1	22	1	0.5	50	12/19/11	11720	S13410A3	25	P	PEICP3A
7439-92-1	Lead	7.7	590	1	0.5	50	12/19/11	11720	S13410A3	25	P	PEICP3A
7439-97-6	Mercury	0.51	12	4	0.15	25	12/17/11	11720	H13410Sb	11	CV	HGCV2A

Comments: \_\_\_\_\_

#### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-022  
 Client Id: B-11 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 86  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.3	6.1	1	0.5	50	12/12/11	11689	S13383A3	42	P	PEICP3A
7439-92-1	Lead	5.8	230	1	0.5	50	12/12/11	11689	S13383A3	42	P	PEICP3A
7439-97-6	Mercury	0.097	4.5	1	0.15	25	12/12/11	11689	H13383S	36	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-023  
Client Id: B-11 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 83  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	6.0	1	0.5	50	12/12/11	11689	S13383A3	43	P	PEICP3A
7439-92-1	Lead	6.0	220	1	0.5	50	12/12/11	11689	S13383A3	43	P	PEICP3A
7439-97-6	Mercury	0.10	2.9	1	0.15	25	12/12/11	11689	H13383S	37	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-024  
 Client Id: B-11 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 77  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	15	1	0.5	50	12/12/11	11689	S13383A3	44	P	PEICP3A
7439-92-1	Lead	6.5	520	1	0.5	50	12/12/11	11689	S13383A3	44	P	PEICP3A
7439-97-6	Mercury	0.11	1.1	1	0.15	25	12/12/11	11689	H13383S	38	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-026  
 Client Id: B-10 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 89  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.2	14	1	0.5	50	12/12/11	11689	S13383A3	45	P	PEICP3A
7439-92-1	Lead	5.6	490	1	0.5	50	12/12/11	11689	S13383A3	45	P	PEICP3A
7439-97-6	Mercury	0.094	2.5	1	0.15	25	12/12/11	11689	H13383S	39	CV	HGCV1A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-027  
 Client Id: B-10 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 69  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	12	1	0.5	50	12/12/11	11689	S13383A3	46	P	PEICP3A
7439-92-1	Lead	7.2	820	1	0.5	50	12/12/11	11689	S13383A3	46	P	PEICP3A
7439-97-6	Mercury	0.12	5.4	1	0.15	25	12/12/11	11689	H13383S	40	CV	HGCV1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-028  
 Client Id: B-10 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 82  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	12	1	0.5	50	12/12/11	11690	S13384A3	22	P	PEICP3A
7439-92-1	Lead	6.1	250	1	0.5	50	12/12/11	11690	S13384A3	22	P	PEICP3A
7439-97-6	Mercury	0.10	1.5	1	0.15	25	12/12/11	11690	H13384S	18	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-030  
 Client Id: B-9 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 79  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	8.3	1	0.5	50	12/12/11	11690	S13384A3	23	P	PEICP3A
7439-92-1	Lead	6.3	280	1	0.5	50	12/12/11	11690	S13384A3	23	P	PEICP3A
7439-97-6	Mercury	0.11	3.5	1	0.15	25	12/12/11	11690	H13384S	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-031  
 Client Id: B-9 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 59  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.4	21	1	0.5	50	12/12/11	11690	S13384A3	24	P	PEICP3A
7439-92-1	Lead	8.5	200	1	0.5	50	12/12/11	11690	S13384A3	24	P	PEICP3A
7439-97-6	Mercury	0.14	1.6	1	0.15	25	12/12/11	11690	H13384S	20	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-032	% Solid: 81	Lab Name: Veritech	Nras No:
Client Id: B-9 10-12	Units: MG/KG	Lab Code:	Sdg No:
Matrix: SOIL	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	7.3	1	0.5	50	12/12/11	11690	S13384A3	25	P	PEICP3A
7439-92-1	Lead	6.2	270	1	0.5	50	12/12/11	11690	S13384A3	25	P	PEICP3A
7439-97-6	Mercury	0.10	2.7	1	0.15	25	12/12/11	11690	H13384S	23	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-034  
Client Id: B-1 4-6  
Matrix: SOIL  
Level: LOW

% Solid: 83  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	8.8	1	0.5	50	12/12/11	11690	S13384A3	30	P	PEICP3A
7439-92-1	Lead	6.0	510	1	0.5	50	12/12/11	11690	S13384A3	30	P	PEICP3A
7439-97-6	Mercury	0.10	3.4	1	0.15	25	12/12/11	11690	H13384S	24	CV	HGCV2A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-035  
Client Id: B-1 8-10  
Matrix: SOIL  
Level: LOW

% Solid: 65  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.1	22	1	0.5	50	12/12/11	11690	S13384A3	31	P	PEICP3A
7439-92-1	Lead	7.7	1400	1	0.5	50	12/12/11	11690	S13384A3	31	P	PEICP3A
7439-97-6	Mercury	0.13	4.7	1	0.15	25	12/12/11	11690	H13384S	25	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-036  
 Client Id: B-1 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 60  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	3.3	7.2	1	0.5	50	12/12/11	11690	S13384A3	32	P	PEICP3A
7439-92-1	Lead	8.3	340	1	0.5	50	12/12/11	11690	S13384A3	32	P	PEICP3A
7439-97-6	Mercury	0.14	6.0	1	0.15	25	12/12/11	11690	H13384S	26	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-037  
 Client Id: B-1 12-14  
 Matrix: SOIL  
 Level: LOW

% Solid: 82  
 Units: MG/KG  
 Date Rec: 12/14/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.4	7.6	1	0.5	50	12/19/11	11720	S13410A3	26	P	PEICP3A
7439-92-1	Lead	6.1	250	1	0.5	50	12/19/11	11720	S13410A3	26	P	PEICP3A
7439-97-6	Mercury	0.10	1.8	1	0.15	25	12/17/11	11720	H13410S	24	CV	HGCV2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-038  
Client Id: B-2 4-6  
Matrix: SOIL  
Level: LOW

% Solid: 71  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.8	10	1	0.5	50	12/12/11	11690	S13384A3	33	P	PEICP3A
7439-92-1	Lead	7.0	550	1	0.5	50	12/12/11	11690	S13384A3	33	P	PEICP3A
7439-97-6	Mercury	0.12	0.47	1	0.15	25	12/12/11	11690	H13384S	27	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-039  
 Client Id: B-2 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 76  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	28	1	0.5	50	12/12/11	11690	S13384A3	34	P	PEICP3A
7439-92-1	Lead	6.6	5100	1	0.5	50	12/12/11	11690	S13384A3	34	P	PEICP3A
7439-97-6	Mercury	0.11	4.3	1	0.15	25	12/12/11	11690	H13384S	28	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-040  
 Client Id: B-2 10-12  
 Matrix: SOIL  
 Level: LOW

% Solid: 81  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	4.9	1	0.5	50	12/12/11	11690	S13384A3	35	P	PEICP3A
7439-92-1	Lead	6.2	250	1	0.5	50	12/12/11	11690	S13384A3	35	P	PEICP3A
7439-97-6	Mercury	0.10	0.81	1	0.15	25	12/12/11	11690	H13384S	29	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-042  
 Client Id: B-8 4-6  
 Matrix: SOIL  
 Level: LOW

% Solid: 80  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.5	14	1	0.5	50	12/12/11	11690	S13384A3	38	P	PEICP3A
7439-92-1	Lead	6.2	240	1	0.5	50	12/12/11	11690	S13384A3	38	P	PEICP3A
7439-97-6	Mercury	0.10	2.8	1	0.15	25	12/12/11	11690	H13384S	30	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-044  
 Client Id: B-8 8-10  
 Matrix: SOIL  
 Level: LOW

% Solid: 68  
 Units: MG/KG  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.9	11	1	0.5	50	12/12/11	11690	S13384A3	39	P	PEICP3A
7439-92-1	Lead	7.4	390	1	0.5	50	12/12/11	11690	S13384A3	39	P	PEICP3A
7439-97-6	Mercury	1.2	41	10	0.15	25	12/13/11	11690	H13384Sb	11	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-045  
Client Id: B-8 10-12  
Matrix: SOIL  
Level: LOW

% Solid: 76  
Units: MG/KG  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	2.6	9.9	1	0.5	50	12/12/11	11690	S13384A3	40	P	PEICP3A
7439-92-1	Lead	6.6	270	1	0.5	50	12/12/11	11690	S13384A3	40	P	PEICP3A
7439-97-6	Mercury	0.11	1.5	1	0.15	25	12/12/11	11690	H13384S	32	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-047  
Client Id: B-2  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	77000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-36-0	Antimony	12	180	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-38-2	Arsenic	7.5	560	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-39-3	Barium	50	5500	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-41-7	Beryllium	4.0	5.3	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-43-9	Cadmium	3.5	21	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-70-2	Calcium	2000	310000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-47-3	Chromium	50	310	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-48-4	Cobalt	20	81	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-50-8	Copper	50	4200	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-89-6	Iron	280	230000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-92-1	Lead	4.0	29000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-95-4	Magnesium	2000	60000	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-96-5	Manganese	40	2500	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7439-97-6	Mercury	14	370	20	25	25	12/12/11	11681	H13377SWf	18	CV	HGCV1A
7440-02-0	Nickel	50	180	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-09-7	Potassium	5000	56000	1	50	50	12/10/11	11681	SW13377A	29	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-23-5	Sodium	5000	110000	1	50	50	12/10/11	11681	SW13377A	29	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-62-2	Vanadium	50	260	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A
7440-66-6	Zinc	50	5600	1	50	50	12/13/11	11681	W13377D2	16	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-048  
 Client Id: B-12  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	200000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-36-0	Antimony	24	35	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-38-2	Arsenic	15	370	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-39-3	Barium	50	3700	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-41-7	Beryllium	4.0	12	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-43-9	Cadmium	3.5	14	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-70-2	Calcium	4000	950000	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-47-3	Chromium	50	620	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-48-4	Cobalt	20	180	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-50-8	Copper	100	1800	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7439-89-6	Iron	280	440000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7439-92-1	Lead	8.0	10000	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7439-95-4	Magnesium	2000	78000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7439-96-5	Manganese	40	7100	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7439-97-6	Mercury	1.4	38	2	25	25	12/12/11	11681	H13377SWf	17	CV	HGCV1A
7440-02-0	Nickel	50	360	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-09-7	Potassium	5000	69000	1	50	50	12/10/11	11681	SW13377A	30	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-22-4	Silver	40	ND	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-23-5	Sodium	5000	74000	1	50	50	12/10/11	11681	SW13377A	30	P	PEICPRAD1A
7440-28-0	Thallium	20	ND	2	50	50	12/13/11	11681	W13377D2	18	P	PEICP2A
7440-62-2	Vanadium	50	670	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A
7440-66-6	Zinc	50	6000	1	50	50	12/13/11	11681	W13377D2	17	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS

**Metal Data**  
**QC Data**

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/10/11  
 Data File: SW13377A  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICPRAD1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V-	CCV V-	CCV V-	CCV V-												
		128235 (2)-6	128659- 18	128659- 24	128659- 33	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec
Potassium	100/50	104.18900	104	52.58330	105	50.16470	100	50.63330	101								
Sodium	100/50	101.24200	101	51.82030	104	50.55010	101	51.02490	102								

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: S13384A3  
 Prep Batch: 11690  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VH G LABS

Analyte	ICV/CCV Amt	ICV (2) V- 128235- 7	Rec	CCV V- 129808- 19	Rec	CCV V- 129808- 28	Rec	CCV V- 129808- 36	Rec	CCV V- 129808- 47	Rec	Rec	Rec	Rec
Antimony	1/5	0.99741	100	0.51109	102	0.49076	98	0.50240	100	0.49415	99			
Arsenic	1/5	0.98748	99	0.50419	101	0.49120	98	0.49006	98	0.48424	97			
Barium	1/5	1.00474	100	0.50644	101	0.50178	100	0.50201	100	0.49663	99			
Beryllium	1/5	0.98907	99	0.49785	100	0.49553	99	0.48897	98	0.48810	98			
Cadmium	1/5	0.99472	99	0.50758	102	0.48946	98	0.49402	99	0.48979	98			
Chromium	1/5	0.99267	99	0.50284	101	0.49297	99	0.49647	99	0.48888	98			
Cobalt	1/5	0.99856	100	0.51559	103	0.50488	101	0.50473	101	0.49993	100			
Copper	1/5	1.00607	101	0.50577	101	0.50265	101	0.50537	101	0.49793	100			
Lead	1/5	0.98107	98	0.50516	101	0.48978	98	0.49101	98	0.48946	98			
Manganese	1/5	0.98648	99	0.50095	100	0.49446	99	0.49502	99	0.48902	98			
Molybdenum	1/5	0.99849	100	0.51228	102	0.49637	99	0.50044	100	0.49592	99			
Nickel	1/5	0.99304	99	0.51154	102	0.50247	100	0.50341	101	0.49809	100			
Selenium	1/5	1.00210	100	0.51210	102	0.49828	100	0.49599	99	0.48748	97			
Silver	0.2/0.1	0.20103	101	0.10027	100	0.09955	100	0.10046	100	0.09821	98			
Thallium	1/5	1.04159	104	0.53587	107	0.51968	104	0.53014	106	0.51935	104			
Vanadium	1/5	0.98090	98	0.49972	100	0.49480	99	0.49440	99	0.48848	98			
Zinc	1/5	0.98488	98	0.50579	101	0.49380	99	0.49263	99	0.48885	98			

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: S13383A3  
 Prep Batch: 11689  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)	CCV V-	CCV V-	CCV V-	CCV V-										
		V- 128235- 7	129808- 19	129808- 29	129808- 38	129808- 49	Rec									
<b>Arsenic</b>	1/.5	1.01920	0.49225	0.49763	0.48037	0.49849	102	98	100	96	100					
<b>Lead</b>	1/.5	1.01025	0.49252	0.49371	0.48743	0.49508	101	99	99	97	99					

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: SW13377B2  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV V-128234 (2)-7 Rec	CCV V-128233-19 Rec	CCV V-128233-27 Rec	Rec	Rec	Rec	Rec	Rec	Rec									
Aluminum	10/5	9.51451	95	5.04126	101	5.06128	101												
Antimony	1/5	0.96003	96	0.50706	101	0.51297	103												
Arsenic	1/5	0.96138	96	0.50915	102	0.51689	103												
Barium	1/5	0.96131	96	0.51424	103	0.51501	103												
Beryllium	1/5	0.97363	97	0.50755	102	0.50836	102												
Cadmium	1/5	0.95267	95	0.50699	101	0.50792	102												
Calcium	100/50	97.64900	98	51.56700	103	51.70740	103												
Chromium	1/5	0.95516	96	0.51031	102	0.51258	103												
Cobalt	1/5	0.96045	96	0.52093	104	0.52097	104												
Copper	1/5	0.95321	95	0.50376	101	0.50404	101												
Iron	10/5	9.44588	94	5.07249	101	5.06691	101												
Magnesium	100/50	94.23550	94	51.36120	103	51.55960	103												
Manganese	1/5	0.94237	94	0.50974	102	0.50997	102												
Nickel	1/5	0.95033	95	0.51788	104	0.51888	104												
Selenium	1/5	0.96801	97	0.52042	104	0.52512	105												
Silver	0.2/0.1	0.18783	94	0.09922	99	0.09939	99												
Thallium	1/5	1.00693	101	0.54236	108	0.54430	109												
Vanadium	1/5	0.94841	95	0.50931	102	0.50919	102												
Zinc	1/5	0.94614	95	0.52503	105	0.52180	104												

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/13/11  
 Data File: SW13377D2  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 128234 (2)-7	Rec	CCV V- 128233- 11	Rec	CCV V- 128233- 23	Rec	CCV V- 128233- 28	Rec	CCV V- 128233- 40	Rec	Rec	Rec	Rec
Aluminum	10/5	9.90756	99	4.87485	97	4.93795	99	4.93274	99	4.89647	98			
Antimony	1/5	0.97717	98	0.47951	96	0.48538	97	0.48874	98	0.48325	97			
Arsenic	1/5	0.98499	98	0.47883	96	0.48634	97	0.48699	97	0.48429	97			
Barium	1/5	1.00674	101	0.49708	99	0.50777	102	0.50685	101	0.50425	101			
Beryllium	1/5	0.99097	99	0.48788	98	0.49621	99	0.49324	99	0.49707	99			
Cadmium	1/5	1.00152	100	0.48884	98	0.49725	99	0.49758	100	0.49427	99			
Calcium	100/50	99.50980	100	49.40950	99	50.37090	101	50.12840	100	50.59590	101			
Chromium	1/5	1.00013	100	0.49308	99	0.50283	101	0.50195	100	0.49972	100			
Cobalt	1/5	1.00264	100	0.49629	99	0.50696	101	0.50764	102	0.50562	101			
Copper	1/5	0.99350	99	0.48917	98	0.49542	99	0.49487	99	0.49171	98			
Iron	10/5	9.89326	99	4.88165	98	4.94360	99	4.94044	99	4.92368	98			
Lead	1/5	0.99138	99	0.49191	98	0.50091	100	0.50241	100	0.50458	101			
Magnesium	100/50	99.52410	100	49.46070	99	50.54720	101	50.42010	101	51.02380	102			
Manganese	1/5	0.98937	99	0.48935	98	0.49813	100	0.49758	100	0.49477	99			
Nickel	1/5	1.00112	100	0.49551	99	0.50808	102	0.50639	101	0.50484	101			
Selenium	1/5	0.99746	100	0.48534	97	0.49524	99	0.50133	100	0.50323	101			
Silver	0.2/0.1	0.19571	98	0.09538	95	0.09764	98	0.09681	97	0.09625	96			
Thallium	1/5	1.02577	103	0.51859	104	0.52609	105	0.52723	105	0.52331	105			
Vanadium	1/5	0.99080	99	0.49070	98	0.49951	100	0.49875	100	0.49497	99			
Zinc	1/5	0.99727	100	0.49171	98	0.50460	101	0.50450	101	0.50356	101			

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/19/11  
 Data File: S13410A3  
 Prep Batch: 11720  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)	CCV V-													
		V- 129810- 7	129808- 19	129808- 31	129808- 39	129808- 49	129808- 59	129808- 69	129808- 79	129808- 89	129808- 99	129808- A0	129808- A1	129808- A2	129808- A3	129808- A4
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec
Antimony	1/5	1.01631	102	0.50405	101	0.51395	103	0.51574	103	0.51131	102					
Arsenic	1/5	1.00311	100	0.49352	99	0.49940	100	0.51100	102	0.50971	102					
Barium	1/5	1.02027	102	0.52830	106	0.52174	104	0.52114	104	0.51329	103					
Beryllium	1/5	1.02021	102	0.50099	100	0.51036	102	0.50597	101	0.50615	101					
Cadmium	1/5	1.00391	100	0.52251	105	0.51716	103	0.51593	103	0.50793	102					
Chromium	1/5	1.00095	100	0.51533	103	0.50969	102	0.51027	102	0.50409	101					
Cobalt	1/5	1.00863	101	0.53232	106	0.52652	105	0.52528	105	0.51822	104					
Copper	1/5	1.02215	102	0.52692	105	0.52211	104	0.52135	104	0.51034	102					
Lead	1/5	0.99702	100	0.49867	100	0.50401	101	0.50521	101	0.50920	102					
Manganese	1/5	1.00142	100	0.51904	104	0.51259	103	0.51197	102	0.50326	101					
Nickel	1/5	1.01264	101	0.52580	105	0.52079	104	0.51809	104	0.51260	103					
Selenium	1/5	1.01516	102	0.49676	99	0.50215	100	0.51003	102	0.51653	103					
Silver	0.2/0.1	0.20088	100	0.10426	104	0.10359	104	0.10293	103	0.10078	101					
Thallium	1/5	1.04348	104	0.54462	109	0.53618	107	0.54376	109	0.53563	107					
Vanadium	1/5	0.99407	99	0.51574	103	0.50981	102	0.50710	101	0.50018	100					
Zinc	1/5	0.99621	100	0.52410	105	0.51813	104	0.51764	104	0.51372	103					

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/09/11  
 Data File: H13377SWc  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-21		CCV-24		Rec								
		Rec	Rec	Rec	Rec	Rec	Rec									Rec
Mercury	20/10	20.69810	103	10.60035	106	10.37060	104									

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV - 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: H13377SWf  
 Prep Batch: 11681  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-19		Rec									
	ICV/CC V Amt	Rec	Rec	Rec										
Mercury	20/10	20.27993	101	9.71393	97									

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV - 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: H13384S  
 Prep Batch: 11690  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-21		CCV-33		CCV-38		Rec	Rec	Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Mercury	20/10	20.35000	102	10.32000	103	10.16000	102	10.16000	102						

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:**  
 ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/13/11  
 Data File: H13384Sb  
 Prep Batch: 11690  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-12		Rec								
		Rec	Rec	Rec	Rec									
Mercury	20/10	20.27000	101	10.31000	103									

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/17/11  
 Data File: H13410S  
 Prep Batch: 11720  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-21		CCV-33		CCV-41		Rec	Rec	Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Mercury	20/10	19.91000	100	10.63000	106	10.43000	104	10.55000	106						

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/17/11  
 Data File: H13410Sb  
 Prep Batch: 11720  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-12		Rec								
		Rec	Rec	Rec	Rec									
Mercury	20/10	19.91000	100	10.43000	104									

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:**  
 ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/12/11  
 Data File: H13383S  
 Prep Batch: 11689  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-21		CCV-33		CCV-41		Rec	Rec	Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Mercury	20/10	20.41428	102	10.58647	106	10.78625	108	11.11871	111						

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:**  
 ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/13/11  
 Data File: H13383Sc  
 Prep Batch: 11689  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-21		Rec									
	ICV/CC	V Amt	Rec	Rec										
Mercury	20/10	20.88104	104	10.22973	102									

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:**  
 ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

Rec

Rec

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/13/11  
 Data File: H13383Sc  
 Prep Batch: 11706  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV (2)-9		CCV-21		CCV-27		Rec								
		Rec	Rec	Rec	Rec	Rec	Rec									Rec
Mercury	20/10	20.88104	104	10.22973	102	10.30253	103									

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/10/11  
 Data File: SW13377A  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICPRAD1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-129815-7	CCB-19	CCB-25	CCB-34	MB 11681 (1)-10			
Potassium	5 U	5 U	5 U	5 U	5 U			
Sodium	5 U	5 U	5 U	5 U	5 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11

Data File: SW13377B2

Prep Batch: 11681

Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICP2A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120830

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-128658- 8	CCB-20	CCB-28	MB 11681 (1)- 11				
Aluminum	.18 U	.18 U	.18 U	.18 U				
Antimony	.012 U	.012 U	.012 U	.012 U				
Arsenic	.0075 U	.0075 U	.0075 U	.0075 U				
Barium	.05 U	.05 U	.05 U	.05 U				
Beryllium	.004 U	.004 U	.004 U	.004 U				
Cadmium	.0035 U	.0035 U	.0035 U	.0035 U				
Calcium	2 U	2 U	2 U	2 U				
Chromium	.05 U	.05 U	.05 U	.05 U				
Cobalt	.02 U	.02 U	.02 U	.02 U				
Copper	.05 U	.05 U	.05 U	.05 U				
Iron	.275 U	.275 U	.275 U	.28 U				
Magnesium	2 U	2 U	2 U	2 U				
Manganese	.04 U	.04 U	.04 U	.04 U				
Nickel	.05 U	.05 U	.05 U	.05 U				
Selenium	.04 U	.04 U	.04 U	.04 U				
Silver	.02 U	.02 U	.02 U	.02 U				
Thallium	.01 U	.01 U	.01 U	.01 U				
Vanadium	.05 U	.05 U	.05 U	.05 U				
Zinc	.05 U	.05 U	.05 U	.05 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11  
 Data File: S13384A3  
 Prep Batch: 11690  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-129815-8	CCB V-129815-20	CCB V-129815-29	CCB V-129815-37	CCB V-129815-48	MB 11690 (100)-11
Antimony	.02 U	.02 U	.02 U	.02 U	.02 U	2 U
Arsenic	.02 U	.02 U	.02 U	.02 U	.02 U	2 U
Barium	.1 U	.1 U	.1 U	.1 U	.1 U	10 U
Beryllium	.006 U	.006 U	.006 U	.006 U	.006 U	.6 U
Cadmium	.006 U	.006 U	.006 U	.006 U	.006 U	.6 U
Chromium	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Cobalt	.025 U	.025 U	.025 U	.025 U	.025 U	2.5 U
Copper	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Lead	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Manganese	.1 U	.1 U	.1 U	.1 U	.1 U	10 U
Molybdenum	.025 U	.025 U	.025 U	.025 U	.025 U	2.5 U
Nickel	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Selenium	.018 U	.018 U	.018 U	.018 U	.018 U	1.8 U
Silver	.015 U	.015 U	.015 U	.015 U	.015 U	1.5 U
Thallium	.012 U	.012 U	.012 U	.012 U	.012 U	1.2 U
Vanadium	.1 U	.1 U	.1 U	.1 U	.1 U	10 U
Zinc	.1 U	.1 U	.1 U	.1 U	.1 U	10 U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11  
 Data File: S13383A3  
 Prep Batch: 11689  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-129815-8	CCB V-129815-20	CCB V-129815-30	CCB V-129815-39	CCB V-129815-50	MB 11689 (100)-11		
Arsenic	.02 U	.02 U	.02 U	.02 U	.02 U	2 U		
Lead	.05 U	.05 U	.05 U	.05 U	.05 U	5 U		

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/13/11  
 Data File: SW13377D2  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-128658-8	CCB-12	CCB-24	CCB-29	CCB-41	MB 11681 (1)-25
Aluminum	.18 U	.18 U	.18 U	.18 U	.18 U	.18 U
Antimony	.012 U	.012 U	.012 U	.012 U	.012 U	.012 U
Arsenic	.0075 U	.0075 U	.0075 U	.0075 U	.0075 U	.0075 U
Barium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Beryllium	.004 U	.004 U	.004 U	.004 U	.004 U	.004 U
Cadmium	.0035 U	.0035 U	.0035 U	.0035 U	.0035 U	.0035 U
Calcium	2 U	2 U	2 U	2 U	2 U	2 U
Chromium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Cobalt	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U
Copper	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Iron	.275 U	.275 U	.275 U	.275 U	.275 U	.28 U
Lead	.004 U	.004 U	.004 U	.004 U	.004 U	.004 U
Magnesium	2 U	2 U	2 U	2 U	2 U	2 U
Manganese	.04 U	.04 U	.04 U	.04 U	.04 U	.04 U
Nickel	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Selenium	.04 U	.04 U	.04 U	.04 U	.04 U	.04 U
Silver	.02 U	.02 U	.02 U	.02 U	.02 U	.02 U
Thallium	.01 U	.01 U	.01 U	.01 U	.01 U	.01 U
Vanadium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Zinc	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/19/11  
 Data File: S13410A3  
 Prep Batch: 11720  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-129815- 8	CCB V-129815- 20	CCB V-129815- 32	CCB V-129815- 40	CCB V-129815- 50	MB 11720 (100)-11
Antimony	.02 U	.02 U	.02 U	.02 U	.02 U	2 U
Arsenic	.02 U	.02 U	.02 U	.02 U	.02 U	2 U
Barium	.1 U	.1 U	.1 U	.1 U	.1 U	10 U
Beryllium	.006 U	.006 U	.006 U	.006 U	.006 U	.6 U
Cadmium	.006 U	.006 U	.006 U	.006 U	.006 U	.6 U
Chromium	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Cobalt	.025 U	.025 U	.025 U	.025 U	.025 U	2.5 U
Copper	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Lead	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Manganese	.1 U	.1 U	.1 U	.1 U	.1 U	10 U
Nickel	.05 U	.05 U	.05 U	.05 U	.05 U	5 U
Selenium	.018 U	.018 U	.018 U	.018 U	.018 U	1.8 U
Silver	.015 U	.015 U	.015 U	.015 U	.015 U	1.5 U
Thallium	.012 U	.012 U	.012 U	.012 U	.012 U	1.2 U
Vanadium	.1 U	.1 U	.1 U	.1 U	.1 U	10 U
Zinc	.1 U	.1 U	.1 U	.1 U	.1 U	10 U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/09/11  
 Data File: H13377SWc  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	CCB-25	MB 11681 (1)- 11
Mercury	.7 U	.7 U	.7 U	.7 U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

**FORM 3**  
**(ICB/CCB/MB Summary)**

Date Analyzed: 12/12/11  
Data File: H13377SWf  
Prep Batch: 11681  
Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
Instrument: HGCV1A  
Units: All units in ppm except Hg and icp-ms in ppb  
Project Number: 1120830

Lab Name: Veritech  
Lab Code:  
Contract:  
Nras No:  
Sdg No:  
Case No:

Analyte	ICB-10	CCB-20						
Mercury	.7 U	.7 U						

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11  
 Data File: H13384S  
 Prep Batch: 11690  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	CCB-34	CCB-39	MB 11690 (167)-11			
Mercury	.5 U	.5 U	.5 U	.5 U	83 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/13/11  
 Data File: H13384Sb  
 Prep Batch: 11690  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-13				
Mercury	.5 U	.5 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/17/11  
 Data File: H13410S  
 Prep Batch: 11720  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	CCB-34	CCB-42	MB 11720 (167)-11		
Mercury	.5 U	.5 U	.5 U	.5 U	83 U		

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

FORM 3  
(ICB/CCB/MB Summary)

Date Analyzed: 12/17/11  
Data File: H13410Sb  
Prep Batch: 11720  
Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
Instrument: HGCV2A  
Units: All units in ppm except Hg and icp-ms in ppb  
Project Number: 1120830

Lab Name: Veritech  
Lab Code:  
Contract:  
Nras No:  
Sdg No:  
Case No:

Analyte	ICB-10	CCB-13					
Mercury	.5 U	.5 U					

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/12/11  
 Data File: H13383S  
 Prep Batch: 11689  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	CCB-34	CCB-42	MB 11689 (167)-11		
Mercury	.5 U	.5 U	.5 U	.5 U	83 U		

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/13/11  
 Data File: H13383Sc  
 Prep Batch: 11689  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and ICP-MS in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22						
Mercury	.5 U	.5 U						

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/13/11  
 Data File: H13383Sc  
 Prep Batch: 11706  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-22	CCB-28	MB 11706 (167)-11			
Mercury	.5 U	.5 U	.5 U	83 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/10/11  
 Data File: SW13377A  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICPRAD1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-128666-8		ICSAB V-128667-9		ICSA V-128666-22		ICSAB V-128667-23		ICSA V-128666-31		ICSAB V-128667-32		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	493.439	99	500.48500	100	509.817	102	506.69300	101	511.202	102	510.74300	102		
Calcium	500	495.375	99	502.67400	101	510.589	102	508.27400	102	514.275	103	512.59200	103		
Iron	200	188.301	94	188.71000	94	194.184	97	191.33700	96	195.732	98	192.69600	96		
Magnesium	500	499.806	100	505.96900	101	514.785	103	512.41500	102	517.845	104	517.41300	103		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

Rec

Rec

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/12/11  
 Data File: SW13377B2  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-127386-9		ICSAB V-127387-10		ICSA V-127386-25		ICSAB V-127387-26		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	496.394	99	495.06400	99	504.924	101	502.52000	101				
Antimony	1	U		0.97111	97	-0.1451b		0.99798	100				
Arsenic	1	U		1.01214	101	U		1.03193	103				
Barium	.5	U		0.51272	103	U		0.51480	103				
Beryllium	.5	U		0.50613	101	U		0.50978	102				
Cadmium	1	U		1.02877	103	U		1.03704	104				
Calcium	500	484.896	97	482.84000	97	496.237	99	493.01200	99				
Chromium	.5	U		0.50893	102	U		0.51259	103				
Cobalt	.5	U		0.47291	95	U		0.47971	96				
Copper	.5	U		0.51573	103	U		0.51815	104				
Iron	200	187.134	94	187.51900	94	191.867	96	189.82300	95				
Magnesium	500	495.993	99	502.61700	101	509.762	102	505.47700	101				
Manganese	.5	U		0.48738	97	U		0.49078	98				
Nickel	1	U		0.93257	93	U		0.94102	94				
Selenium	1	U		1.00548	101	U		1.02749	103				
Silver	1	U		1.05510	106	U		1.06987	107				
Thallium	1	U		0.97890	98	U		0.98100	98				
Vanadium	.5	U		0.48499	97	U		0.48759	98				
Zinc	1	U		0.97251	97	U		0.99063	99				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

F.00

F.00

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/12/11  
 Data File: S13384A3  
 Prep Batch: 11690  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-129812-9		ICSAB V-128667-10		ICSA V-129812-26		ICSAB V-128667-27		ICSA V-129812-45		ICSAB V-128667-46		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	505.71	101	490.18800	98	495.605	99	493.54100	99	503.546	101	500.53700	100		
Antimony	1	U		1.02261	102	U		1.02151	102	U		1.01939	102		
Arsenic	1	U		1.02168	102	U		1.02172	102	U		1.02922	103		
Barium	.5	U		0.53182	106	U		0.52736	105	U		0.53125	106		
Beryllium	.5	U		0.50524	101	U		0.50978	102	U		0.51507	103		
Cadmium	1	U		1.02332	102	U		1.02063	102	U		1.02697	103		
Calcium	500	495.3	99	488.93800	98	493.333	99	495.89400	99	497.505	100	495.35000	99		
Chromium	.5	U		0.48740	97	U		0.48743	97	U		0.49170	98		
Cobalt	.5	U		0.49104	98	U		0.48917	98	U		0.49260	99		
Copper	.5	U		0.53461	107	U		0.53219	106	U		0.53264	107		
Iron	200	194.54	97	188.78700	94	190.852	95	189.98100	95	193.396	97	192.07000	96		
Lead	1	U		0.95835	96	U		0.94949	95	U		0.95728	96		
Magnesium	500	525.002	105	507.78500	102	513.747	103	510.19600	102	520.048	104	515.39500	103		
Manganese	.5	U		0.50052	100	U		0.49804	100	U		0.49854	100		
Nickel	1	U		0.95394	95	U		0.95196	95	U		0.95962	96		
Selenium	1	U		1.01070	101	U		1.00246	100	U		1.01346	101		
Silver	1	.0189826b		1.09146	109	.0178717b		1.08231	108	.0188109b		1.07795	108		
Thallium	1	U		0.98586	99	U		0.97973	98	U		1.00059	100		
Vanadium	.5	U		0.49651	99	U		0.49493	99	U		0.49274	99		
Zinc	1	U		0.97844	98	U		0.97429	97	U		0.97858	98		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/12/11  
 Data File: S13383A3  
 Prep Batch: 11689  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-129812-9		ICSAB V-128667-10		ICSA V-129812-27		ICSAB V-128667-28		ICSA V-129812-47		ICSAB V-128667-48		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	487.904	98	502.86200	101	499.98	100	492.35100	98	499.808	100	495.20600	99		
Arsenic	1	U		1.05233	105	U		1.03247	103	U		1.04603	105		
Calcium	500	492.578	99	504.41700	101	504.646	101	494.39800	99	494.064	99	506.62300	101		
Iron	200	187.645	94	193.35900	97	191.533	96	188.53500	94	191.553	96	190.01200	95		
Lead	1	U		0.98630	99	U		0.96626	97	U		0.98343	98		
Magnesium	500	511.38	102	526.63000	105	520.903	104	511.54700	102	520.947	104	515.26900	103		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/13/11  
 Data File: SW13377D2  
 Prep Batch: 11681  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-127386-9		ICSAB V-127387-10		ICSA V-127386-21		ICSAB V-127387-22		ICSA V-127386-38		ICSAB V-127387-39		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Aluminum	500	476.332	95	473.46600	95	478.59	96	480.51100	96	482.892	97	477.57900	96		
Antimony	1	U		0.95746	96	U		0.96680	97	U		0.96351	96		
Arsenic	1	U		0.95979	96	U		0.98023	98	U		0.98506	99		
Barium	.5	U		0.48460	97	U		0.49912	100	U		0.50047	100		
Beryllium	.5	U		0.48618	97	U		0.49035	98	U		0.48884	98		
Cadmium	1	U		0.97046	97	U		0.99908	100	U		0.99886	100		
Calcium	500	465.679	93	463.29800	93	468.244	94	472.50900	95	475.39	95	469.02800	94		
Chromium	.5	U		0.47881	96	U		0.49251	99	U		0.49331	99		
Cobalt	.5	U		0.46404	93	U		0.47604	95	U		0.47531	95		
Copper	.5	U		0.48612	97	U		0.49689	99	U		0.49828	100		
Iron	200	183.681	92	184.70100	92	184.207	92	186.39100	93	189.649	95	185.97800	93		
Lead	1	U		0.91667	92	.0040696b		0.93791	94	.004913b		0.93889	94		
Magnesium	500	488.66	98	492.35800	98	491.742	98	498.76100	100	508.396	102	497.28100	99		
Manganese	.5	U		0.46752	94	U		0.48045	96	U		0.48152	96		
Nickel	1	U		0.90691	91	U		0.93569	94	U		0.93448	93		
Selenium	1	U		0.95768	96	U		0.99167	99	U		0.97676	98		
Silver	1	U		0.98017	98	U		0.99922	100	U		1.00213	100		
Thallium	1	U		0.92031	92	U		0.93809	94	U		0.93645	94		
Vanadium	.5	U		0.46793	94	U		0.48011	96	U		0.48076	96		
Zinc	1	U		0.92546	93	U		0.96124	96	U		0.95877	96		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/19/11  
 Data File: S13410A3  
 Prep Batch: 11720  
 Reporting Limits Used: SOIL,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-129812-9		ICSAB V-129814-10		ICSA V-129812-29		ICSAB V-129814-30		ICSA V-129812-47		ICSAB V-129814-48		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	484.217	97	496.36400	99	486.781	97	502.93500	101	499.493	100	484.17800	97		
Antimony	1	U		1.03031	103	U		1.04175	104	U		1.01753	102		
Arsenic	1	U		1.03536	104	U		1.04509	105	U		1.02196	102		
Barium	.5	U		0.53131	106	U		0.52921	106	U		0.53134	106		
Beryllium	.5	U		0.51668	103	U		0.51731	103	U		0.50424	101		
Cadmium	1	U		1.02808	103	U		1.03994	104	U		1.01192	101		
Calcium	500	509.028	102	502.64400	101	511.957	102	513.11900	103	517.18	103	492.33400	98		
Chromium	.5	U		0.49415	99	U		0.49285	99	U		0.49305	99		
Cobalt	.5	U		0.48511	97	U		0.48915	98	U		0.47756	96		
Copper	.5	U		0.53095	106	U		0.53265	107	U		0.52419	105		
Iron	200	189.739	95	189.39900	95	190.665	95	189.25800	95	188.439	94	185.25300	93		
Lead	1	U		0.95672	96	U		0.96044	96	U		0.95109	95		
Magnesium	500	524.294	105	522.95700	105	526.14	105	521.94500	104	522.275	104	514.18100	103		
Manganese	.5	U		0.49804	100	U		0.49571	99	U		0.49633	99		
Nickel	1	U		0.95657	96	U		0.94908	95	U		0.92834	93		
Selenium	1	U		1.01068	101	U		1.03430	103	U		1.01524	102		
Silver	1	U		1.07333	107	U		1.08071	108	U		1.06413	106		
Thallium	1	U		0.98562	99	U		0.99156	99	U		0.96470	96		
Vanadium	.5	U		0.46308	93	U		0.46140	92	U		0.45874	92		
Zinc	1	U		0.99806	100	U		0.98765	99	U		0.97450	97		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits in the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 11681

1120830 0197

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCS	Matrix: AQUEOUS	SampleID: LCSW 11681
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	11681	1	SW13377	12	4.6585	5.00	93		75	125
Antimony	11681	1	SW13377	12	0.4572	0.500	91		75	125
Arsenic	11681	1	SW13377	12	0.4637	0.500	93		75	125
Barium	11681	1	SW13377	12	0.4752	0.500	95		75	125
Beryllium	11681	1	SW13377	12	0.4692	0.500	94		75	125
Cadmium	11681	1	SW13377	12	0.4626	0.500	93		75	125
Calcium	11681	1	SW13377	12	48.8649	50.00	98		75	125
Chromium	11681	1	SW13377	12	0.4707	0.500	94		75	125
Cobalt	11681	1	SW13377	12	0.4812	0.500	96		75	125
Copper	11681	1	SW13377	12	0.4707	0.500	94		75	125
Iron	11681	1	SW13377	12	4.6963	5.00	94		75	125
Lead	11681	1	SW13377	26	0.4693	0.500	94		75	125
Magnesium	11681	1	SW13377	12	47.3124	50.00	95		75	125
Manganese	11681	1	SW13377	12	0.4677	0.500	94		75	125
Mercury	11681	1	H13377S	12	10.4721	10	105		75	125
Nickel	11681	1	SW13377	12	0.4768	0.500	95		75	125
Potassium	11681	1	SW13377	11	49.2059	50.00	98		75	125
Selenium	11681	1	SW13377	12	0.4663	0.500	93		75	125
Silver	11681	1	SW13377	12	0.0896	0.100	90		75	125
Sodium	11681	1	SW13377	11	49.8270	50.00	100		75	125
Thallium	11681	1	SW13377	12	0.4990	0.500	100		75	125
Vanadium	11681	1	SW13377	12	0.4679	0.500	94		75	125
Zinc	11681	1	SW13377	12	0.4741	0.500	95		75	125

TxtQcType: LCSMR	Matrix: AQUEOUS	SampleID: LCSW MR 11681
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	11681	1	SW13377	13	4.7174	5.00	94		75	125
Antimony	11681	1	SW13377	13	0.4756	0.500	95		75	125
Arsenic	11681	1	SW13377	13	0.4784	0.500	96		75	125
Barium	11681	1	SW13377	13	0.4824	0.500	96		75	125
Beryllium	11681	1	SW13377	13	0.4806	0.500	96		75	125
Cadmium	11681	1	SW13377	13	0.4709	0.500	94		75	125
Calcium	11681	1	SW13377	13	50.0612	50.00	100		75	125
Chromium	11681	1	SW13377	13	0.4780	0.500	96		75	125
Cobalt	11681	1	SW13377	13	0.4887	0.500	98		75	125
Copper	11681	1	SW13377	13	0.4776	0.500	96		75	125
Iron	11681	1	SW13377	13	4.7625	5.00	95		75	125
Lead	11681	1	SW13377	27	0.4812	0.500	96		75	125
Magnesium	11681	1	SW13377	13	48.5396	50.00	97		75	125
Manganese	11681	1	SW13377	13	0.4750	0.500	95		75	125
Mercury	11681	1	H13377S	13	10.5586	10	106		75	125
Nickel	11681	1	SW13377	13	0.4841	0.500	97		75	125
Potassium	11681	1	SW13377	12	50.7708	50.00	102		75	125
Selenium	11681	1	SW13377	13	0.4816	0.500	96		75	125
Silver	11681	1	SW13377	13	0.0912	0.100	91		75	125
Sodium	11681	1	SW13377	12	50.9648	50.00	102		75	125
Thallium	11681	1	SW13377	13	0.5189	0.500	104		75	125
Vanadium	11681	1	SW13377	13	0.4762	0.500	95		75	125
Zinc	11681	1	SW13377	13	0.4816	0.500	96		75	125

TxtQcType: MS	Matrix: AQUEOUS	SampleID: AC63077-001
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Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11681	1	H13377S	16	H13377S	14	10.2614	.70U	10	103		75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11681

1120830 0198

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: MS		Matrix: AQUEOUS			SampleID: AC63081-011								
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	11681	1	SW13377	16	SW13377	14	197.9810	195.0130	5.0	59	b	75	125
Antimony	11681	1	SW13377	16	SW13377	14	0.3273	0.0367	.5	58	a	75	125
Arsenic	11681	1	SW13377	16	SW13377	14	0.7647	0.3602	.5	81		75	125
Barium	11681	1	SW13377	16	SW13377	14	5.8337	6.0157	.5	-36	b	75	125
Beryllium	11681	1	SW13377	16	SW13377	14	0.4530	0.0145	.5	88		75	125
Cadmium	11681	1	SW13377	16	SW13377	14	0.4586	0.0163	.5	88		75	125
Calcium	11681	1	SW13377	16	SW13377	14	389.9530	352.9150	50.0	74	b	75	125
Chromium	11681	1	SW13377	16	SW13377	14	0.8938	0.4951	.5	80		75	125
Cobalt	11681	1	SW13377	16	SW13377	14	0.6181	0.2008	.5	83		75	125
Copper	11681	1	SW13377	16	SW13377	14	3.1000	3.2454	.5	-29	b	75	125
Iron	11681	1	SW13377	16	SW13377	14	441.6240	492.4340	5.0	-1000	b	75	125
Lead	11681	1	SW13377	32	SW13377	30	15.7475	17.2145	.5	-290	b	75	125
Magnesium	11681	1	SW13377	16	SW13377	14	95.7445	55.7988	50	80		75	125
Manganese	11681	1	SW13377	16	SW13377	14	6.4842	6.6038	.5	-24	b	75	125
Nickel	11681	1	SW13377	16	SW13377	14	0.8180	0.4298	.5	78		75	125
Potassium	11681	1	SW13377	15	SW13377	13	107.4860	53.7086	50.00	108		75	125
Selenium	11681	1	SW13377	16	SW13377	14	0.4077	0.040U	.5	82		75	125
Silver	11681	1	SW13377	16	SW13377	14	0.0922	0.02U	.1	92		75	125
Sodium	11681	1	SW13377	15	SW13377	13	99.1586	48.5541	50.00	101		75	125
Thallium	11681	1	SW13377	16	SW13377	14	0.4186	0.010U	.5	84		75	125
Vanadium	11681	1	SW13377	16	SW13377	14	1.1126	0.7373	.5	75		75	125
Zinc	11681	1	SW13377	16	SW13377	14	5.6356	5.8342	.5	-40	b	75	125

TxtQcType: MSD		Matrix: AQUEOUS			SampleID: AC63077-001								
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11681	1	H13377S	17	H13377S	14	9.9198	.70U	10	99		75	125

TxtQcType: MSD		Matrix: AQUEOUS			SampleID: AC63081-011								
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	11681	1	SW13377	17	SW13377	14	197.2790	195.0130	5.0	45	b	75	125
Antimony	11681	1	SW13377	17	SW13377	14	0.3351	0.0367	.5	60	a	75	125
Arsenic	11681	1	SW13377	17	SW13377	14	0.7546	0.3602	.5	79		75	125
Barium	11681	1	SW13377	17	SW13377	14	5.7198	6.0157	.5	-59	b	75	125
Beryllium	11681	1	SW13377	17	SW13377	14	0.4484	0.0145	.5	87		75	125
Cadmium	11681	1	SW13377	17	SW13377	14	0.4493	0.0163	.5	87		75	125
Calcium	11681	1	SW13377	17	SW13377	14	388.6930	352.9150	50.0	72	b	75	125
Chromium	11681	1	SW13377	17	SW13377	14	0.8909	0.4951	.5	79		75	125
Cobalt	11681	1	SW13377	17	SW13377	14	0.6090	0.2008	.5	82		75	125
Copper	11681	1	SW13377	17	SW13377	14	2.9907	3.2454	.5	-51	b	75	125
Iron	11681	1	SW13377	17	SW13377	14	440.3990	492.4340	5.0	-1000	b	75	125
Lead	11681	1	SW13377	33	SW13377	30	15.0252	17.2145	.5	-440	b	75	125
Magnesium	11681	1	SW13377	17	SW13377	14	95.4530	55.7988	50	79		75	125
Manganese	11681	1	SW13377	17	SW13377	14	6.4606	6.6038	.5	-29	b	75	125
Nickel	11681	1	SW13377	17	SW13377	14	0.8217	0.4298	.5	78		75	125
Potassium	11681	1	SW13377	16	SW13377	13	106.2070	53.7086	50.0	105		75	125
Selenium	11681	1	SW13377	17	SW13377	14	0.4069	0.040U	.5	81		75	125
Silver	11681	1	SW13377	17	SW13377	14	0.0905	0.02U	.1	90		75	125
Sodium	11681	1	SW13377	16	SW13377	13	99.6160	48.5541	50	102		75	125
Thallium	11681	1	SW13377	17	SW13377	14	0.4100	0.010U	.5	82		75	125
Vanadium	11681	1	SW13377	17	SW13377	14	1.1062	0.7373	.5	74	a	75	125
Zinc	11681	1	SW13377	17	SW13377	14	5.5747	5.8342	.5	-52	b	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 11681

1120830 0199

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICMS and Hg in ppb

TxtQcType: PS		Matrix: AQUEOUS		SampleID: AC63081-011								
Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Aluminum	1	SW13377	18	SW13377	14	193.4470	195.0130	5.000	-31	b	75	125
Antimony	1	SW13377	18	SW13377	14	0.4667	0.0367	.5000	86		75	125
Arsenic	1	SW13377	18	SW13377	14	0.7820	0.3602	.5000	84		75	125
Barium	1	SW13377	18	SW13377	14	6.2249	6.0157	.5	42	b	75	125
Beryllium	1	SW13377	18	SW13377	14	0.4432	0.0145	.5000	86		75	125
Cadmium	1	SW13377	18	SW13377	14	0.4501	0.0163	.5000	87		75	125
Calcium	1	SW13377	18	SW13377	14	381.8520	352.9150	50.0	58	b	75	125
Chromium	1	SW13377	18	SW13377	14	0.9009	0.4951	.5000	81		75	125
Cobalt	1	SW13377	18	SW13377	14	0.6182	0.2008	.5000	83		75	125
Copper	1	SW13377	18	SW13377	14	3.6051	3.2454	0.5	72	b	75	125
Iron	1	SW13377	18	SW13377	14	481.3400	492.4340	5.000	-220	b	75	125
Lead	1	SW13377	34	SW13377	30	17.3195	17.2145	.500	21	b	75	125
Magnesium	1	SW13377	18	SW13377	14	95.5295	55.7988	50.0	79		75	125
Manganese	1	SW13377	18	SW13377	14	6.8050	6.6038	.5000	40	b	75	125
Nickel	1	SW13377	18	SW13377	14	0.8312	0.4298	.5000	80		75	125
Potassium	1	SW13377	17	SW13377	13	105.4350	53.7086	50.00	103		75	125
Selenium	1	SW13377	18	SW13377	14	0.4521	0.040U	.5000	90		75	125
Silver	1	SW13377	18	SW13377	14	0.0901	0.02U	0.100	90		75	125
Sodium	1	SW13377	17	SW13377	13	96.6888	48.5541	50.00	96		75	125
Thallium	1	SW13377	18	SW13377	14	0.4174	0.010U	.5000	83		75	125
Vanadium	1	SW13377	18	SW13377	14	1.1294	0.7373	.5000	78		75	125
Zinc	1	SW13377	18	SW13377	14	6.0060	5.8342	0.500	34	b	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 11690

1120830 0200

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS 11690 MR							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11690	1	S13384A3	13	1.6263	1.61	101		81	119	
Lead	11690	1	S13384A3	13	1.0429	1.03	101		82	117	
Mercury	11690	1	H13384S	13	24.0900	22.34	108		69	131	

TxtQcType: LCS		Matrix: SOIL		SampleID: LCS 11690							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11690	1	S13384A3	12	1.5446	1.61	96		81	119	
Lead	11690	1	S13384A3	12	0.9875	1.03	96		82	117	
Mercury	11690	1	H13384S	12	22.4700	22.34	101		69	131	

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63091-001									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11690	1	S13384A3	17	S13384A3	14	0.4735	0.0408	0.5	87		75	125
Lead	11690	1	S13384A3	17	S13384A3	14	1.0666	0.4080	0.5	132	a	75	125
Mercury	11690	1	H13384S	17	H13384S	14	11.0400	.5U	10	110		75	125

TxtQcType: MS		Matrix: SOIL		SampleID: AC63091-001									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11690	1	S13384A3	16	S13384A3	14	0.4764	0.0408	0.5	87		75	125
Lead	11690	1	S13384A3	16	S13384A3	14	0.8935	0.4080	0.5	97		75	125
Mercury	11690	1	H13384S	16	H13384S	14	10.5400	.5U	10	105		75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11690

1120830 0201

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: SOIL		SampleID: AC63091-001								
Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	1	S13384A3	18	S13384A3	14	0.5149	0.0408	.5	95		75	125
Lead	1	S13384A3	18	S13384A3	14	0.8751	0.4080	.5	93		75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11689

1120830 0202

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS 11689 MR							
Analyte	Batchld	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11689	1	S13383A3	13	1.5497	1.61	96		81	119	
Lead	11689	1	S13383A3	13	0.9944	1.03	97		82	117	
Mercury	11689	1	H13383S	13	22.2881	22.34	100		69	131	

TxtQcType: LCS		Matrix: SOIL		SampleID: LCS 11689							
Analyte	Batchld	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11689	1	S13383A3	12	1.5359	1.61	95		81	119	
Lead	11689	1	S13383A3	12	0.9877	1.03	96		82	117	
Mercury	11689	1	H13383S	12	22.4811	22.34	101		69	131	

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63111-006									
Analyte	Batchld	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11689	1	S13383A3	17	S13383A3	14	0.5517	0.0686	0.5	97		75	125
Lead	11689	1	S13383A3	17	S13383A3	14	3.5028	2.2967	0.5	241	b	75	125

TxtQcType: MS		Matrix: SOIL		SampleID: AC63111-006									
Analyte	Batchld	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11689	1	S13383A3	16	S13383A3	14	0.5163	0.0686	0.5	90		75	125
Lead	11689	1	S13383A3	16	S13383A3	14	3.4360	2.2967	0.5	228	b	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11689

1120830 0203

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: SOIL		SampleID: AC63111-006								
Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	1	S13383A3	18	S13383A3	14	0.5316	0.0686	.5	93		75	125
Lead	1	S13383A3	18	S13383A3	14	2.6897	2.2967	.5	79		75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

# FORM5/FORM7

## SPIKE RECOVERY DATA

PREP BATCH: 11706

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR	Matrix: SOIL	SampleID: LCS MR 11706
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11706	1	H13383Sc	13	23.1416	22.34	104	69	131	

TxtQcType: LCS	Matrix: SOIL	SampleID: LCS 11706
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11706	1	H13383Sc	16	24.3590	22.34	109	69	131	

TxtQcType: MSD	Matrix: SOIL	SampleID: AC63111-006
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Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11706	2	H13383Sc	26	H13383Sc	23	9.1851	6.6962	10	50	a	75	125

TxtQcType: MS	Matrix: SOIL	SampleID: AC63111-006
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Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11706	2	H13383Sc	25	H13383Sc	23	13.7520	6.6962	10	141	a	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11720

1120830 0205

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS 11720 MR								
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:		Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11720	1	S13410A3	13	1.5508		1.61	96		81	119	
Lead	11720	1	S13410A3	13	0.9957		1.03	97		82	117	
Mercury	11720	1	H13410S	13	22.5000		22.34	101		69	131	

TxtQcType: LCS		Matrix: SOIL		SampleID: LCS 11720								
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:		Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	11720	1	S13410A3	12	1.5703		1.61	98		81	119	
Lead	11720	1	S13410A3	12	1.0345		1.03	100		82	117	
Mercury	11720	1	H13410S	12	20.6500		22.34	92		69	131	

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63230-001									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11720	1	S13410A3	17	S13410A3	14	0.4868	0.0262	0.5	92		75	125
Lead	11720	1	S13410A3	17	S13410A3	14	0.6918	0.2396	0.5	90		75	125
Mercury	11720	1	H13410S	17	H13410S	14	10.4500	.5U	10	104		75	125

TxtQcType: MS		Matrix: SOIL		SampleID: AC63230-001									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	11720	1	S13410A3	16	S13410A3	14	0.4701	0.0262	0.5	89		75	125
Lead	11720	1	S13410A3	16	S13410A3	14	0.7068	0.2396	0.5	93		75	125
Mercury	11720	1	H13410S	16	H13410S	14	10.6000	.5U	10	106		75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11720

1120830 0206

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: SOIL		SampleID: AC63230-001									
Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	1	S13410A3	18	S13410A3	14	0.4807	0.0262	.5	91		75	125	
Lead	1	S13410A3	18	S13410A3	14	0.6896	0.2396	.5	90		75	125	

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11681

1120830 0207

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: AQUEOUS		SampleID: LCSW MR 11681					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	11681	SW13377	13	SW13377	12	4.7174	4.6585	1.3	20
Antimony	11681	SW13377	13	SW13377	12	0.4756	0.4572	3.9	20
Arsenic	11681	SW13377	13	SW13377	12	0.4784	0.4637	3.1	20
Barium	11681	SW13377	13	SW13377	12	0.4824	0.4752	1.5	20
Beryllium	11681	SW13377	13	SW13377	12	0.4806	0.4692	2.4	20
Cadmium	11681	SW13377	13	SW13377	12	0.4709	0.4626	1.8	20
Calcium	11681	SW13377	13	SW13377	12	50.0612	48.8649	2.4	20
Chromium	11681	SW13377	13	SW13377	12	0.4780	0.4707	1.5	20
Cobalt	11681	SW13377	13	SW13377	12	0.4887	0.4812	1.6	20
Copper	11681	SW13377	13	SW13377	12	0.4776	0.4707	1.4	20
Iron	11681	SW13377	13	SW13377	12	4.7625	4.6963	1.4	20
Lead	11681	SW13377	27	SW13377	26	0.4812	0.4693	2.5	20
Magnesium	11681	SW13377	13	SW13377	12	48.5396	47.3124	2.6	20
Manganese	11681	SW13377	13	SW13377	12	0.4750	0.4677	1.5	20
Mercury	11681	H13377S	13	H13377S	12	10.5586	10.4721	.82	20
Nickel	11681	SW13377	13	SW13377	12	0.4841	0.4768	1.5	20
Potassium	11681	SW13377	12	SW13377	11	50.7708	49.2059	3.1	20
Selenium	11681	SW13377	13	SW13377	12	0.4816	0.4663	3.2	20
Silver	11681	SW13377	13	SW13377	12	0.0912	0.0896	1.8	20
Sodium	11681	SW13377	12	SW13377	11	50.9648	49.8270	2.3	20
Thallium	11681	SW13377	13	SW13377	12	0.5189	0.4990	3.9	20
Vanadium	11681	SW13377	13	SW13377	12	0.4762	0.4679	1.8	20
Zinc	11681	SW13377	13	SW13377	12	0.4816	0.4741	1.6	20

TxtQcType: MR		Matrix: AQUEOUS		SampleID: AC63077-001					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11681	H13377S	15	H13377S	14	.70U	.70U	---	20

TxtQcType: MR		Matrix: AQUEOUS		SampleID: AC63081-011					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	11681	SW13377	15	SW13377	14	175.7260	195.0130	10	20
Antimony	11681	SW13377	15	SW13377	14	0.0377	0.0367	2.9	20
Arsenic	11681	SW13377	15	SW13377	14	0.3360	0.3602	7	20
Barium	11681	SW13377	15	SW13377	14	5.5452	6.0157	8.1	20
Beryllium	11681	SW13377	15	SW13377	14	0.0135	0.0145	7.3	20
Cadmium	11681	SW13377	15	SW13377	14	0.0151	0.0163	7.6	20
Calcium	11681	SW13377	15	SW13377	14	351.4650	352.9150	0.41	20
Chromium	11681	SW13377	15	SW13377	14	0.4522	0.4951	9.1	20
Cobalt	11681	SW13377	15	SW13377	14	0.1813	0.2008	10	20
Copper	11681	SW13377	15	SW13377	14	2.8181	3.2454	14	20
Iron	11681	SW13377	15	SW13377	14	447.9400	492.4340	9.5	20
Lead	11681	SW13377	31	SW13377	30	15.4359	17.2145	11	20
Magnesium	11681	SW13377	15	SW13377	14	52.8077	55.7988	5.5	20
Manganese	11681	SW13377	15	SW13377	14	6.1287	6.6038	7.5	20
Nickel	11681	SW13377	15	SW13377	14	0.3798	0.4298	12	20
Potassium	11681	SW13377	14	SW13377	13	51.6311	53.7086	3.9	20
Selenium	11681	SW13377	15	SW13377	14	0.040U	0.040U	---	20
Silver	11681	SW13377	15	SW13377	14	0.02U	0.02U	---	20
Sodium	11681	SW13377	14	SW13377	13	47.7809	48.5541	1.6	20
Thallium	11681	SW13377	15	SW13377	14	0.010U	0.010U	---	20
Vanadium	11681	SW13377	15	SW13377	14	0.6843	0.7373	7.5	20
Zinc	11681	SW13377	15	SW13377	14	5.4220	5.8342	7.3	20

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11681

1120830 0208

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: MSD		Matrix: AQUEOUS		SampleID: AC63077-001					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11681	H13377S	17	H13377S	16	9.9198	10.2614	3.4	20

TxtQcType: MSD		Matrix: AQUEOUS		SampleID: AC63081-011					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Aluminum	11681	SW13377	17	SW13377	16	197.2790	197.9810	.36	20
Antimony	11681	SW13377	17	SW13377	16	0.3351	0.3273	2.4	20
Arsenic	11681	SW13377	17	SW13377	16	0.7546	0.7647	1.3	20
Barium	11681	SW13377	17	SW13377	16	5.7198	5.8337	2	20
Beryllium	11681	SW13377	17	SW13377	16	0.4484	0.4530	1	20
Cadmium	11681	SW13377	17	SW13377	16	0.4493	0.4586	2	20
Calcium	11681	SW13377	17	SW13377	16	388.6930	389.9530	.32	20
Chromium	11681	SW13377	17	SW13377	16	0.8909	0.8938	.32	20
Cobalt	11681	SW13377	17	SW13377	16	0.6090	0.6181	1.5	20
Copper	11681	SW13377	17	SW13377	16	2.9907	3.1000	3.6	20
Iron	11681	SW13377	17	SW13377	16	440.3990	441.6240	.28	20
Lead	11681	SW13377	33	SW13377	32	15.0252	15.7475	4.7	20
Magnesium	11681	SW13377	17	SW13377	16	95.4530	95.7445	.3	20
Manganese	11681	SW13377	17	SW13377	16	6.4606	6.4842	.37	20
Nickel	11681	SW13377	17	SW13377	16	0.8217	0.8180	.44	20
Potassium	11681	SW13377	16	SW13377	15	106.2070	107.4860	1.2	20
Selenium	11681	SW13377	17	SW13377	16	0.4069	0.4077	.2	20
Silver	11681	SW13377	17	SW13377	16	0.0905	0.0922	1.9	20
Sodium	11681	SW13377	16	SW13377	15	99.6160	99.1586	.46	20
Thallium	11681	SW13377	17	SW13377	16	0.4100	0.4186	2.1	20
Vanadium	11681	SW13377	17	SW13377	16	1.1062	1.1126	.57	20
Zinc	11681	SW13377	17	SW13377	16	5.5747	5.6356	1.1	20

TxtQcType: SD		Matrix: AQUEOUS		SampleID: AC63081-011					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq# DF	Result 1	Result 2	%Diff	Limit
Aluminum	11681	SW13377	21	SW13377	14 5	43.0252	195.0130	10	10
Antimony	11681	SW13377	21	SW13377	14 5	0.0104	0.0367	41 c	10
Arsenic	11681	SW13377	21	SW13377	14 5	0.0842	0.3602	17 a	10
Barium	11681	SW13377	21	SW13377	14 5	1.3582	6.0157	13 a	10
Beryllium	11681	SW13377	21	SW13377	14 5	0.0034	0.0145	17 a	10
Cadmium	11681	SW13377	21	SW13377	14 5	0.0050	0.0163	54 a	10
Calcium	11681	SW13377	21	SW13377	14 5	82.4583	352.9150	17 a	10
Chromium	11681	SW13377	21	SW13377	14 5	0.1129	0.4951	14 a	10
Cobalt	11681	SW13377	21	SW13377	14 5	0.0468	0.2008	17 a	10
Copper	11681	SW13377	21	SW13377	14 5	0.7031	3.2454	8.3	10
Iron	11681	SW13377	21	SW13377	14 5	118.6450	492.4340	20 a	10
Lead	11681	SW13377	35	SW13377	30 5	4.0163	17.2145	17 a	10
Magnesium	11681	SW13377	21	SW13377	14 5	12.8436	55.7988	15 a	10
Manganese	11681	SW13377	21	SW13377	14 5	1.5067	6.6038	14 a	10
Nickel	11681	SW13377	21	SW13377	14 5	0.0995	0.4298	16 a	10
Potassium	11681	SW13377	20	SW13377	13 5	11.0101	53.7086	2.5	10
Selenium	11681	SW13377	21	SW13377	14 5	0.0105	0.0231	128 c	10
Silver	11681	SW13377	21	SW13377	14 5	0.0033	0.0065	149 c	10
Sodium	11681	SW13377	20	SW13377	13 5	9.7553	48.5541	0.46	10
Thallium	11681	SW13377	21	SW13377	14 5	-0.0026	-0.0134	---	10
Vanadium	11681	SW13377	21	SW13377	14 5	0.1665	0.7373	13 a	10
Zinc	11681	SW13377	21	SW13377	14 5	1.3355	5.8342	14 a	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11690

1120830 0209

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR      Matrix: SOIL      SampleID: LCS 11690 MR

Analyte	Batchld	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11690	S13384A3	13	S13384A3	12	1.6263	1.5446	5.2	20
Lead	11690	S13384A3	13	S13384A3	12	1.0429	0.9875	5.5	20
Mercury	11690	H13384S	13	H13384S	12	24.0900	22.4700	7	20

TxtQcType: MR      Matrix: SOIL      SampleID: AC63091-001

Analyte	Batchld	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11690	S13384A3	15	S13384A3	14	0.0340	0.0408	18	20
Lead	11690	S13384A3	15	S13384A3	14	0.3260	0.4080	22 a	20
Mercury	11690	H13384S	15	H13384S	14	.5U	.5U	---	20

TxtQcType: MSD      Matrix: SOIL      SampleID: AC63091-001

Analyte	Batchld	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11690	S13384A3	17	S13384A3	16	0.4735	0.4764	.61	20
Lead	11690	S13384A3	17	S13384A3	16	1.0666	0.8935	18	20
Mercury	11690	H13384S	17	H13384S	16	11.0400	10.5400	4.6	20

TxtQcType: SD      Matrix: SOIL      SampleID: AC63091-001

Analyte	Batchld	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	11690	S13384A3	21	S13384A3	14	5	0.0095	0.0408	17 c	10
Lead	11690	S13384A3	21	S13384A3	14	5	0.0861	0.4080	5.6	10

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11689

1120830 0210

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS 11689 MR					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11689	S13383A3	13	S13383A3	12	1.5497	1.5359	.9	20
Lead	11689	S13383A3	13	S13383A3	12	0.9944	0.9877	.68	20
Mercury	11689	H13383S	13	H13383S	12	22.2881	22.4811	.86	20

TxtQcType: MR		Matrix: SOIL		SampleID: AC63111-006					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11689	S13383A3	15	S13383A3	14	0.0861	0.0686	23 b	20
Lead	11689	S13383A3	15	S13383A3	14	4.3855	2.2967	63 a	20

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63111-006					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11689	S13383A3	17	S13383A3	16	0.5517	0.5163	6.6	20
Lead	11689	S13383A3	17	S13383A3	16	3.5028	3.4360	1.9	20

TxtQcType: SD		Matrix: SOIL		SampleID: AC63111-006					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq# DF	Result 1	Result 2	%Diff	Limit
Arsenic	11689	S13383A3	21	S13383A3	14 5	0.0133	0.0686	3.2	10
Lead	11689	S13383A3	21	S13383A3	14 5	0.4701	2.2967	2.3	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11706

1120830 0211

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS MR 11706					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11706	H13383Sc	13	H13383Sc	16	23.1416	24.3590	5.1	20

TxtQcType: MR		Matrix: SOIL		SampleID: AC63111-006					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11706	H13383Sc	24	H13383Sc	23	8.2404	6.6962	21 a	20

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63111-006					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11706	H13383Sc	26	H13383Sc	25	9.1851	13.7520	40 a	20

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11720

1120830 0212

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: SOIL		SampleID: LCS 11720 MR					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11720	S13410A3	13	S13410A3	12	1.5508	1.5703	1.3	20
Lead	11720	S13410A3	13	S13410A3	12	0.9957	1.0345	3.8	20
Mercury	11720	H13410S	13	H13410S	12	22.5000	20.6500	8.6	20

TxtQcType: MR		Matrix: SOIL		SampleID: AC63230-001					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11720	S13410A3	15	S13410A3	14	0.0269	0.0262	2.6	20
Lead	11720	S13410A3	15	S13410A3	14	0.2261	0.2396	5.8	20
Mercury	11720	H13410S	15	H13410S	14	.5U	.5U	---	20

TxtQcType: MSD		Matrix: SOIL		SampleID: AC63230-001					
Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	11720	S13410A3	17	S13410A3	16	0.4868	0.4701	3.5	20
Lead	11720	S13410A3	17	S13410A3	16	0.6918	0.7068	2.2	20
Mercury	11720	H13410S	17	H13410S	16	10.4500	10.6000	1.4	20

TxtQcType: SD		Matrix: SOIL		SampleID: AC63230-001						
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	11720	S13410A3	21	S13410A3	14	5	0.0043	0.0262	---	10
Lead	11720	S13410A3	21	S13410A3	14	5	0.0465	0.2396	2.9	10

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**Metal Data**  
**Verification of Instrument Parameters**

**INTERELEMENT CORRECTION SUMMARY**  
**PEICP2**

**Interfering Elements**

	Al	Ca	Fe	Mg	Mn	Mo	Ti	Zn
<b>Interfered Elements</b>								
Al	N/A	0	0	0	0	22.7	-3.1	0
Sb	-0.141	-0.00598	-0.16	0	0	-0.379	0.152	0.179
As	0	0.00919	-0.151	0	0	0.809	0	0
Ba	0	0	0	0	0	0	0	0
Be	0	0	0	0	0	0	0.715	0
Cd	0	0	0.0164	0	0	0	0	0
Ca	0	N/A	0	0	0	0	0	0
Cr	0	0	-0.0341	0	-0.624	-6.23	0	0
Co	-0.0142	0	0	0	0	-3.05	1.93	0
Cu	0.0128	0.0115	0	0.013	0	0	0.39	0
Fe	0	0	N/A	-0.4	0	0	0	0
Pb	-0.183	0.00705	0.0604	0.0138	0	-1.28	0	0
Mg	0	0	0	N/A	0	0	0	0
Mn	0	0	-0.0453	0	N/A	-0.256	0	0
Mo	-0.0122	0.0219	0	0	0	N/A	0	0
Ni	0	0	0	0	0	-0.89	0	0
Se	0.0826	0	-0.156	-0.00818	0.8	0	0.753	0
Ag	0	-0.00654	-0.0486	0	0.271	0.641	0	0
Sr	0	0.0108	0	0.00248	0	0	0	0
Tl	-0.014	-0.01	-0.00768	0	0.671	1.46	-4.68	0
Sn	0.0201	-0.00991	0.0434	0	0	0	0.753	0
Ti	0	0	0	0	0	0	N/A	0
V	0	0	0.0272	0.062	0	-1.46	-0.699	0
Zn	0	0	0	0.0313	0	0	0	N/A

**LINEAR RANGES**  
**PE ICP 2**  
**Axial**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Sb	18
As	45
Ba	45
Be	4.5
Cd	45
Ca	810
Cr	45
Co	45
Cu	45
Fe	540
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	1.8
Tl	45
Sn	45
Ti	36
V	45
Zn	45

**LINEAR RANGES  
PE ICP 1  
RADIAL**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Ca	900
Fe	900
Mg	900
Mn	45
K	900
Na	900
Ti	45

**INTERELEMENT CORRECTION SUMMARY**  
**PEICP3**

**Interfering Elements**

	Al	Ca	Fe	Mg	Mn	Mo	Ti	Zn	Ni	Cr
<b>Interfered Elements</b>										
Al	N/A	0	0	0	0	25.72	0	0	0	0
Sb	0.0227	0.00574	-0.00979	0.00601	0	-15.53	-1.96	0	0	-3.39
As	0.0526	-0.00883	-0.102	-0.00873	0.0177	0	0.308	0.207	0	-3.55
Ba	0	0	0	0	0	0	0	0	0	0
Be	0	0	0	0	0	0	0	0	0	0
Cd	0	0	0	0	0	0	0	0	-1.49	0
Ca	0	N/A	0	0	0	0	0	0	0	0
Cr	0	0	0	0	0	-1.06	0	0	0	N/A
Co	0	0	0	0	0	-1.58	2.30	0	0	0.355
Cu	0	-0.0392	-0.0494	0	0	0	-2.35	0	0	0
Fe	0	0	N/A	0	0	0	0	0	0	0
Pb	0.651	0.0124	0.0341	0	0	-2.26	0.364	-0.557	0	-0.209
Mg	0	0	0	N/A	0	-20.86	0	0	0	0
Mn	0	0	0	0.0174	N/A	-0.381	0	0	0	0
Mo	0	0	0	0	0	N/A	0	-0.205	0	0
Ni	0	0	0	0	0	-2.78	0	0	N/A	0
Se	-0.0201	-0.0435	-0.235	0	1.43	0	0	0	0	0
Ag	0	-0.0231	-0.204	0	0	0	0	0	0	0
Tl	0.00646	0	0	0	0.391	0.458	-4.71	0	0	0.228
Sn	0	0	-0.101	0	0	0	-0.623	0	0	0
Ti	0	0	0	0	0	0	N/A	0	0	0.245
V	0	0	0.0525	0.167	0	-0.611	0	0	0	0
Zn	0	0	0	0.0331	0	0	0	N/A	0	-1.47

IEC'S ANALYZED ON 09/12/11.

MODIFIED Sb,Se,As,Zn,Cd,Co,Tl,Ti,Pb,V 09/13/11.

MODIFIED Sb,Se,Tl,Pb 09/19/11.

MODIFIED Se 09/21/11.

MODIFIED Tl 10/27/11.

MODIFIED Se 11/29/11.

MODIFIED Pb 12/05/2011.

MODIFIED Ag 12/08/2011.

**LINEAR RANGES**  
**PE ICP 3**  
**Axial**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Sb	9
As	45
Ba	45
Be	9
Cd	45
Ca	630
Cr	45
Co	45
Cu	45
Fe	450
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	3.6
Tl	45
Sn	45
Ti	45
V	45
Zn	45

**Metal Data**  
**Raw Data**

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 11690 (100)  
 Client Id: MB 11690 (100)  
 Matrix: SOIL  
 Level: LOW

% Solid: 0  
 Units: MG/KG

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	200	ND	1	0.5	50	12/12/11	11690	S13384B3	10	P	PEICPRAD3A
7440-36-0	Antimony	2.0	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-38-2	Arsenic	2.0	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-39-3	Barium	10	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-41-7	Beryllium	0.60	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-43-9	Cadmium	0.60	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-70-2	Calcium	1000	ND	1	0.5	50	12/12/11	11690	S13384B3	10	P	PEICPRAD3A
7440-47-3	Chromium	5.0	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-48-4	Cobalt	2.5	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-50-8	Copper	5.0	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7439-89-6	Iron	200	ND	1	0.5	50	12/12/11	11690	S13384B3	10	P	PEICPRAD3A
7439-92-1	Lead	5.0	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7439-95-4	Magnesium	500	ND	1	0.5	50	12/12/11	11690	S13384B3	10	P	PEICPRAD3A
7439-96-5	Manganese	10	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7439-98-7	Molybdenum	2.5	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-02-0	Nickel	5.0	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-09-7	Potassium	500	ND	1	0.5	50	12/12/11	11690	S13384B3	10	P	PEICPRAD3A
7782-49-2	Selenium	1.8	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-22-4	Silver	1.5	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-23-5	Sodium	250	ND	1	0.5	50	12/12/11	11690	S13384B3	10	P	PEICPRAD3A
7440-28-0	Thallium	1.2	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-31-5	Tin	5.7	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-32-6	Titanium	35	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-62-2	Vanadium	10	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A
7440-66-6	Zinc	10	ND	1	0.5	50	12/12/11	11690	S13384A3	11	P	PEICP3A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 11690 (167)      % Solid: 0      Lab Name: Veritech  
 Client Id: MB 11690 (167)      Units: MG/KG      Lab Code:  
 Matrix: SOIL  
 Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.083	ND	1	0.15	25	12/12/11	11690	H13384S	11	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 11720 (100)  
 Client Id: MB 11720 (100)  
 Matrix: SOIL  
 Level: LOW

% Solid: 0  
 Units: MG/KG

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	200	ND	1	0.5	50	12/20/11	11720	S13410B3	10	P	PEICPRAD3A
7440-36-0	Antimony	2.0	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-38-2	Arsenic	2.0	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-39-3	Barium	10	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-41-7	Beryllium	0.60	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-43-9	Cadmium	0.60	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-70-2	Calcium	1000	ND	1	0.5	50	12/20/11	11720	S13410B3	10	P	PEICPRAD3A
7440-47-3	Chromium	5.0	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-48-4	Cobalt	2.5	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-50-8	Copper	5.0	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7439-89-6	Iron	200	ND	1	0.5	50	12/20/11	11720	S13410B3	10	P	PEICPRAD3A
7439-92-1	Lead	5.0	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7439-95-4	Magnesium	500	ND	1	0.5	50	12/20/11	11720	S13410B3	10	P	PEICPRAD3A
7439-96-5	Manganese	10	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7439-98-7	Molybdenum	2.5	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-02-0	Nickel	5.0	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-09-7	Potassium	500	ND	1	0.5	50	12/20/11	11720	S13410B3	10	P	PEICPRAD3A
7782-49-2	Selenium	1.8	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-22-4	Silver	1.5	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-23-5	Sodium	250	ND	1	0.5	50	12/20/11	11720	S13410B3	10	P	PEICPRAD3A
7440-28-0	Thallium	1.2	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-31-5	Tin	5.7	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-32-6	Titanium	35	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-62-2	Vanadium	10	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A
7440-66-6	Zinc	10	ND	1	0.5	50	12/19/11	11720	S13410A3	11	P	PEICP3A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: MB 11720 (167)  
Client Id: MB 11720 (167)  
Matrix: SOIL  
Level: LOW

% Solid: 0  
Units: MG/KG

Lab Name: Veritech  
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.083	ND	1	0.15	25	12/17/11	11720	H13410S	11	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 11689 (100)  
 Client Id: MB 11689 (100)  
 Matrix: SOIL  
 Level: LOW

% Solid: 0  
 Units: MG/KG

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	200	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-36-0	Antimony	2.0	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-38-2	Arsenic	2.0	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-39-3	Barium	10	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-41-7	Beryllium	0.60	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-43-9	Cadmium	0.60	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-70-2	Calcium	1000	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-47-3	Chromium	5.0	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-48-4	Cobalt	2.5	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-50-8	Copper	5.0	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7439-89-6	Iron	200	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7439-92-1	Lead	5.0	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7439-95-4	Magnesium	500	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7439-96-5	Manganese	10	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7439-98-7	Molybdenum	2.5	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-02-0	Nickel	5.0	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7782-49-2	Selenium	1.8	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-22-4	Silver	1.5	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-28-0	Thallium	1.2	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-31-5	Tin	5.7	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-32-6	Titanium	35	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-62-2	Vanadium	10	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A
7440-66-6	Zinc	10	ND	1	0.5	50	12/12/11	11689	S13383A3	11	P	PEICP3A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: MB 11689 (167)      % Solid: 0      Lab Name: Veritech  
Client Id: MB 11689 (167)      Units: MG/KG      Lab Code:  
Matrix: SOIL  
Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.083	ND	1	0.15	25	12/12/11	11689	H13383S	11	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 11706 (167)      % Solid: 0      Lab Name: Veritech  
Client Id: MB 11706 (167)      Units: MG/KG      Lab Code:  
Matrix: SOIL  
Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.083	ND	1	0.15	25	12/13/11	11706	H13383Sc	11	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 11681 (1)  
Client Id: MB 11681 (1)  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L

Lab Name: Veritech  
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-36-0	Antimony	12	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-38-2	Arsenic	7.5	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICR2A
7440-39-3	Barium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICR2A
7440-41-7	Beryllium	4.0	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-43-9	Cadmium	3.5	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-70-2	Calcium	2000	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-48-4	Cobalt	20	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-89-6	Iron	280	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	12/13/11	11681	SW13377D2	25	P	PEICP2A
7439-95-4	Magnesium	2000	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	12/09/11	11681	H13377SWc	11	CV	HGCV1A
7439-98-7	Molybdenum	20	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-02-0	Nickel	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-09-7	Potassium	5000	ND	1	50	50	12/10/11	11681	SW13377A	10	P	PEICPRAD1A
7782-49-2	Selenium	40	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-23-5	Sodium	5000	ND	1	50	50	12/10/11	11681	SW13377A	10	P	PEICPRAD1A
7440-28-0	Thallium	10	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-31-5	Tin	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-32-6	Titanium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-62-2	Vanadium	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	12/12/11	11681	SW13377B2	11	P	PEICP2A

Comments: \_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV - ColdVapor

MS - ICP-MS

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130233



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5675	Mercury	.125 ml	1000 mg/l	
6444	Nitric Acid	12.5 ml	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130234



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-130312



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ ICV 20 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130234	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130313



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ CCV 10 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130234	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130314



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard blk		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 0 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130315



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .2 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130316



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .5 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
V-130233	Hg Intermediate Standard	.05 ml	.25 ppm	

## Veritech Lot Number: V-130317



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 1 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130318



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 2 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130319



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 5 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130320



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 10 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233	Hg Intermediate Standard	1 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130321



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 25 ppb		BatchNumber: B-11552	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130233 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5675									
Description Mercury							ApprovedBy: shiamala ApproveDate: 11/10/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L
Veritech Control/Receipt Number: 5715									
Description Mercury							ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6444									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K44023	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130461



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11563	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5675	Mercury	.125 ml	1000 mg/l	
6445	Nitric Acid	12.5 ml	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130462



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11563	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-130484



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ ICV 20 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130462	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130485



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ CCV 10 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130462	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130486



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard blk		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 0 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130487



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .2 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130461	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130488



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .5 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
V-130461	Hg Intermediate Standard	.05 ml	.25 ppm	

## Veritech Lot Number: V-130489



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 1 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130461	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130490



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 2 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130461	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130491



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 5 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130461	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130492



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 10 ppb		BatchNumber: B-11566	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130461	Hg Intermediate Standard	1 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130493



Prepared By: Adelarthey, Olufemi	Department: Metals	ApprovedBy: shiamala		
Description: Hg AQ standard 25 ppb	BatchNumber: B-11566	ApproveDate: 01/03/12		
Prep Date: 12/10/2011	Concentration: 25 ppb	Checked: Yes		
Expiration Date: 12/10/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130461 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126648



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Persulfate		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5202	Potassium Persulfate	500 g	neat neat	

## Veritech Lot Number: V-126650



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: Hydroxylamine Hydrochloride		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6130	di H2O			
5586	Sodium Chloride	1200 g	neat neat	
5925	HYDROXYLAMINE HYDROCHLORIDE	1200 g	NEAT neat	

## Veritech Lot Number: V-127383



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6334	Nitric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Lot Number: V-127384



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	50 ml	neat neat	
6334	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-127386



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6334	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-127387



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 10/26/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 1/25/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5821	ICSAB	10 ml	NEAT ug/ml	
6334	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

Veritech Lot Number: V-128167



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Permanganate		BatchNumber:	ApproveDate: 11/22/11	
Prep Date: 11/4/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 2/3/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
4429	POTASSIUM PERMANGANATE	500 g	NEAT neat	

Veritech Lot Number: V-128233



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: melissa	
Description: CCV		BatchNumber:	ApproveDate: 11/29/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6334	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128234



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6334	Nitric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6334	Nitric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-128237



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6334	Nitric Acid	25 ml	neat neat	
6244	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128658



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-128659



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Lot Number: V-128660



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-128664



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	25 ml	neat neat	
6244	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128666



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
5821	ICSAB	10 ml	NEAT ug/ml	
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-128668



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Lot Number: V-129415



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/23/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 5/25/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6335	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130234



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11544	ApproveDate: 01/03/12	
Prep Date: 12/8/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/8/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6444	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6373	Di H2O			

## Veritech Lot Number: V-130395



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6507	Hydrochloric Acid	900	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130396



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/9/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-130395	3% HCL		reagent I	1000 ml

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130462



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11563	ApproveDate: 01/03/12	
Prep Date: 12/10/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/10/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6373	Di H2O			

Veritech Lot Number: V-130565



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-130395	3% HCL		reagent I	1000 ml

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 4429										
Description							ApprovedBy: gael			
POTASSIUM PERMANGANATE							ApproveDate: 09/13/10			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
FISHER	P279-212	091544	09/29/09	09/30/12	Miller, Gael E.	1	2.5K	NEAT	NEAT	
Veritech Control/Receipt Number: 5202										
Description							ApprovedBy: gael			
Potassium Persulfate							ApproveDate: 12/01/10			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	P282-500	092677	08/27/10	08/26/13	Miller, Gael E.	2	500g	neat	neat	
Veritech Control/Receipt Number: 5403										
Description							ApprovedBy: melissa			
ICSA							ApproveDate: 01/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT	
Veritech Control/Receipt Number: 5404										
Description							ApprovedBy: melissa			
ICSB							ApproveDate: 01/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MGL	
Veritech Control/Receipt Number: 5405										
Description							ApprovedBy: melissa			
ICSC							ApproveDate: 01/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MGL	
Veritech Control/Receipt Number: 5586										
Description							ApprovedBy: richq			
Sodium Chloride							ApproveDate: 02/01/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	S271-10	103356	01/31/11	01/30/15	Quimby, Richard	3	10Kg	neat	neat	
Veritech Control/Receipt Number: 5700										
Description							ApprovedBy: shiamala			
Arsenic							ApproveDate: 03/24/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	

## Veritech Standard Receipt Log

<b>Veritech Control/Receipt Number: 5703</b>										
Description Beryllium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5704</b>										
Description Cadmium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5715</b>										
Description Mercury							ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5716</b>										
Description Lead							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5728</b>										
Description Thallium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5821</b>										
Description ICSAB							ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL	
<b>Veritech Control/Receipt Number: 5925</b>										
Description HYDROXYLAMINE HYDROCHLORIDE							ApprovedBy: shiamala ApproveDate: 08/25/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
LabChem Inc	LC15515-1	A124-12	05/11/11	05/10/12	Kalin, Gabrielle	1	500g	NEAT	NEAT	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6047									
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6130									
Description di H2O							ApprovedBy: shiamala ApproveDate: 07/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1			
Veritech Control/Receipt Number: 6140									
Description Stannous Chloride							ApprovedBy: shiamala ApproveDate: 07/13/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT
Veritech Control/Receipt Number: 6144									
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6335									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 10/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K33031	09/27/11	09/26/12	Lopez, Jose	12	4L	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6444									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K44023	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6445									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6047									
Description ICV1							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

Veritech Control/Receipt Number: 6048									
Description ICV2							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

Veritech Control/Receipt Number: 6386									
Description Sulfuric Acid							 ApprovedBy: shiamala ApproveDate: 10/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A510SK-212	3110100	10/19/11	12/30/13	Lopez, Jose	12	2.5L	neat	neat

Veritech Control/Receipt Number: 6433									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

Veritech Control/Receipt Number: 6445									
Description Nitric Acid							 ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

Veritech Control/Receipt Number: 6454									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130563

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11577	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	12.5 ml	neat neat	
5675	Mercury	.125 ml	1000 mg/l	
6373	Di H2O			

## Veritech Lot Number: V-130564

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11577	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-130573

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Aquaregia		BatchNumber: B-11578	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: 0 neat	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 48 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	10 ml	neat neat	
6507	Hydrochloric Acid	30 ml	neat neat	

## Veritech Lot Number: V-130574

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Soil ICV Soil		BatchNumber: B-11578	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130564	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130575

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil CCV 10ppb		BatchNumber: B-11578	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130564	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130576



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: Hg soil standard blk	BatchNumber: B-11578	ApproveDate: 12/21/11
Prep Date: 12/12/2011	Concentration: 0 ppm	Checked: Yes
Expiration Date: 12/12/2011	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

Veritech Lot Number: V-130577



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: Hg soil standard .2 ppb	BatchNumber: B-11578	ApproveDate: 12/21/11
Prep Date: 12/12/2011	Concentration: .2 ppb	Checked: Yes
Expiration Date: 12/12/2011	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130563 6373	Hg Intermediate Standard Di H2O	.02 ml	.25 ppm	

Veritech Lot Number: V-130578



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: Hg soil standard .5 ppb	BatchNumber: B-11578	ApproveDate: 12/21/11
Prep Date: 12/12/2011	Concentration: .5 ppb	Checked: Yes
Expiration Date: 12/12/2011	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130563 6373	Hg Intermediate Standard Di H2O	.05 ml	.25 ppm	

Veritech Lot Number: V-130579



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: Hg soil standard 1 ppb	BatchNumber: B-11578	ApproveDate: 12/21/11
Prep Date: 12/12/2011	Concentration: 1 ppb	Checked: Yes
Expiration Date: 12/12/2011	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130563 6373	Hg Intermediate Standard Di H2O	.1 ml	.25 ppm	

Veritech Lot Number: V-130580



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: Hg soil standard 2 ppb	BatchNumber: B-11578	ApproveDate: 12/21/11
Prep Date: 12/12/2011	Concentration: 2 ppb	Checked: Yes
Expiration Date: 12/12/2011	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130563 6373	Hg Intermediate Standard Di H2O	.2 ml	.25 ppm	

Veritech Lot Number: V-130581



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: Hg soil standard 5 ppb	BatchNumber: B-11578	ApproveDate: 12/21/11
Prep Date: 12/12/2011	Concentration: 5 ppb	Checked: Yes
Expiration Date: 12/12/2011	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130563 6373	Hg Intermediate Standard Di H2O	.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

**Veritech Lot Number: V-130582**

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 10 ppb		BatchNumber: B-11578	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130563 6373	Hg Intermediate Standard Di H2O	1 ml	.25 ppm	

**Veritech Lot Number: V-130583**

Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 25 ppb		BatchNumber: B-11578	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130563 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126650



Prepared By: Aliano, Carmela	Department: Metals	ApprovedBy: shiamala
Description: Hydroxylamine Hydrochloride	BatchNumber:	ApproveDate: 10/21/11
Prep Date: 10/17/2011	Concentration: reagent	Checked: Yes
Expiration Date: 1/16/2012	Final Volume: 10 l	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6130	di H2O			
5586	Sodium Chloride	1200 g	neat neat	
5925	HYDROXYLAMINE HYDROCHLORIDE	1200 g	NEAT neat	

## Veritech Lot Number: V-128167



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: 5% Potassium Permanganate	BatchNumber:	ApproveDate: 11/22/11
Prep Date: 11/4/2011	Concentration: reagent	Checked: Yes
Expiration Date: 2/3/2012	Final Volume: 10 l	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
4429	POTASSIUM PERMANGANATE	500 g	NEAT neat	

## Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICV	BatchNumber:	ApproveDate: 12/05/11
Prep Date: 11/7/2011	Concentration: MULTI multi	Checked: Yes
Expiration Date: 2/6/2012	Final Volume: 500 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6334	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

## Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICS 1 INTERMEDIATE	BatchNumber:	ApproveDate: 11/15/11
Prep Date: 11/14/2011	Concentration: various mg/l	Checked: Yes
Expiration Date: 2/13/2012	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128661



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-128664



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	25 ml	neat neat	
6244	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
5821	ICSAB	10 ml	NEAT ug/ml	
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128669



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129808



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Lot Number: V-129812



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130365



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HNO3		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/9/2011		Concentration: Reagent reagent	Checked: Yes	
Expiration Date: 5/27/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	1000 ml	neat neat	
6373	Di H2O	1000 ml		

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130395



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6507	Hydrochloric Acid	900	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130564



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11577	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6373	Di H2O			

## Veritech Lot Number: V-130565



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-130395	3% HCL		reagent I	1000 ml

## Veritech Lot Number: V-130652



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/13/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-130395	3% HCL		reagent I	1000 ml

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 4429									
Description POTASSIUM PERMANGANATE							 ApprovedBy: gael ApproveDate: 09/13/10 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
FISHER	P279-212	091544	09/29/09	09/30/12	Miller, Gael E.	1	2.5K	NEAT	NEAT
Veritech Control/Receipt Number: 5403									
Description ICSA							 ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT
Veritech Control/Receipt Number: 5404									
Description ICSB							 ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MG/L
Veritech Control/Receipt Number: 5405									
Description ICSC							 ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MG/L
Veritech Control/Receipt Number: 5586									
Description Sodium Chloride							 ApprovedBy: richq ApproveDate: 02/01/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	S271-10	103356	01/31/11	01/30/15	Quimby, Richard	3	10Kg	neat	neat
Veritech Control/Receipt Number: 5700									
Description Arsenic							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5703									
Description Beryllium							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5704



Description
Cadmium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL

## Veritech Control/Receipt Number: 5715



Description
Mercury

ApprovedBy: shiamala
ApproveDate: 05/04/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5716



Description
Lead

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5728



Description
Thallium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5821



Description
ICSAB

ApprovedBy: SHIAMALA
ApproveDate: 08/11/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL

## Veritech Control/Receipt Number: 5925



Description
HYDROXYLAMINE HYDROCHLORIDE

ApprovedBy: shiamala
ApproveDate: 08/25/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
LabChem Inc	LC15515-1	A124-12	05/11/11	05/10/12	Kalin, Gabrielle	1	500g	NEAT	NEAT

## Veritech Control/Receipt Number: 6047



Description
ICV1

ApprovedBy: shiamala
ApproveDate: 06/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 6048



Description
ICV2

ApprovedBy: shiamala
ApproveDate: 06/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

## Veritech Control/Receipt Number: 6130



Description
di H2O

ApprovedBy: shiamala
ApproveDate: 07/15/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1			

## Veritech Control/Receipt Number: 6140



Description
Stannous Chloride

ApprovedBy: shiamala
ApproveDate: 07/13/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT

## Veritech Control/Receipt Number: 6144



Description
ICSA

ApprovedBy: shiamala
ApproveDate: 10/03/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT

## Veritech Control/Receipt Number: 6244



Description
Hydrochloric Acid

ApprovedBy: jean
ApproveDate: 08/16/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat

## Veritech Control/Receipt Number: 6334



Description
Nitric Acid

ApprovedBy: shiamala
ApproveDate: 10/12/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat

## Veritech Control/Receipt Number: 6373



Description
Di H2O

ApprovedBy: shiamala
ApproveDate: 10/18/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 6433



Description

Nitric Acid

ApprovedBy: shiamala

ApproveDate: 11/15/11

Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Control/Receipt Number: 6445



Description

Nitric Acid

ApprovedBy: jean

ApproveDate: 11/16/11

Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

## Veritech Control/Receipt Number: 6454



Description

Nitric Acid

ApprovedBy: shiamala

ApproveDate: 12/05/11

Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

## Veritech Control/Receipt Number: 6507



Description

Hydrochloric Acid

ApprovedBy: shiamala

ApproveDate: 12/05/11

Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5798									
Description Hydrogen Peroxide							ApprovedBy: shiamala ApproveDate: 09/07/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
fisher	h325-4	111136	03/28/11	03/27/12	Aliano, Carmela	4	4L	NEAT	NEAT
Veritech Control/Receipt Number: 6047									
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6387									
Description LCS-SOIL							ApprovedBy: shiamala ApproveDate: 11/22/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
ERA	540	D074-540	10/20/11	10/19/12	Kalin, Gabrielle	4	40g	NEAT	NEAT
Veritech Control/Receipt Number: 6445									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-131046



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11617	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	12.5 ml	neat neat	
5675	Mercury	.125 ml	1000 mg/l	
6528	DI H2O			

## Veritech Lot Number: V-131047



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11617	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-131138



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Aquaregia		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 0 neat	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 48 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	10 ml	neat neat	
6507	Hydrochloric Acid	30 ml	neat neat	

## Veritech Lot Number: V-131139



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg Soil ICV Soil		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131047	Hg intermediate Control	.5 ml	1.0 ppm	
6373	DI H2O			

## Veritech Lot Number: V-131140



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil CCV 10ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131047	Hg intermediate Control	.25 ml	1.0 ppm	
6373	DI H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-131141



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard blk		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 0 ppm	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

## Veritech Lot Number: V-131142



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .2 ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131046	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-131143



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .5 ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131046	Hg Intermediate Standard	.05 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-131144



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 1 ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131046	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-131145



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 2 ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131046	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-131146



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 5 ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131046	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-131147



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 10 ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131046 6373	Hg Intermediate Standard Di H2O	1 ml	.25 ppm	

Veritech Lot Number: V-131148



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 25 ppb		BatchNumber: B-11626	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-131046 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5675										
Description Mercury							ApprovedBy: shiamala ApproveDate: 11/10/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L	
Veritech Control/Receipt Number: 5715										
Description Mercury							ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
Veritech Control/Receipt Number: 6373										
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		.	
Veritech Control/Receipt Number: 6445										
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwell	4	2.5LT	neat	neat	
Veritech Control/Receipt Number: 6507										
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat	
Veritech Control/Receipt Number: 6528										
Description DI H2O							ApprovedBy: shiamala ApproveDate: 01/06/12 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1				

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126650



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: Hydroxylamine Hydrochloride		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6130	di H2O			
5586	Sodium Chloride	1200 g	neat neat	
5925	HYDROXYLAMINE HYDROCHLORIDE	1200 g	NEAT neat	

## Veritech Lot Number: V-128167



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Permanganate		BatchNumber:	ApproveDate: 11/22/11	
Prep Date: 11/4/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 2/3/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
4429	POTASSIUM PERMANGANATE	500 g	NEAT neat	

## Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

## Veritech Lot Number: V-128661



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-128669



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
6244	Nitric Acid	50 ml	neat neat	
v-128657	Hydrochloric Acid	50 ml	neat neat	
	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Lot Number: V-129804



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6507	Hydrochloric Acid	25 ml	neat neat	
6454	Nitric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Lot Number: V-129807



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129808



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129810

Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	25 ml	neat neat	
6454	Nitric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6048	ICV2	10 ml	NEAT neat	

## Veritech Lot Number: V-129812

Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-129814

Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5821	ICSAB	10 ml	NEAT ug/ml	
6454	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-129815

Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130365

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HNO3		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/9/2011		Concentration: Reagent reag	Checked: Yes	
Expiration Date: 5/27/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	1000 ml	neat neat	
6373	Di H2O	1000 ml		

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-131047



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11617	ApproveDate: 01/09/12	
Prep Date: 12/16/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/16/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6528	DI H2O			

Veritech Lot Number: V-131161



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/17/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6507	Hydrochloric Acid	900	neat neat	

Veritech Lot Number: V-131162



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/17/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/17/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-131161	3% HCL		reagent I	1000 ml

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 4429										
Description							ApprovedBy: gael			
POTASSIUM PERMANGANATE							ApproveDate: 09/13/10			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
FISHER	P279-212	091544	09/29/09	09/30/12	Miller, Gael E.	1	2.5K	NEAT	NEAT	
Veritech Control/Receipt Number: 5403										
Description							ApprovedBy: melissa			
ICSA							ApproveDate: 01/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT	
Veritech Control/Receipt Number: 5404										
Description							ApprovedBy: melissa			
ICSB							ApproveDate: 01/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MG/L	
Veritech Control/Receipt Number: 5405										
Description							ApprovedBy: melissa			
ICSC							ApproveDate: 01/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MG/L	
Veritech Control/Receipt Number: 5586										
Description							ApprovedBy: richq			
Sodium Chloride							ApproveDate: 02/01/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	S271-10	103356	01/31/11	01/30/15	Quimby, Richard	3	10Kg	neat	neat	
Veritech Control/Receipt Number: 5700										
Description							ApprovedBy: shiamala			
Arsenic							ApproveDate: 03/24/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
Veritech Control/Receipt Number: 5703										
Description							ApprovedBy: shiamala			
Beryllium							ApproveDate: 03/24/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5704									
Description Cadmium							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL
Veritech Control/Receipt Number: 5715									
Description Mercury							 ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes		
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5716									
Description Lead							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5728									
Description Thallium							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5821									
Description ICSAB							 ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes		
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL
Veritech Control/Receipt Number: 5925									
Description HYDROXYLAMINE HYDROCHLORIDE							 ApprovedBy: shiamala ApproveDate: 08/25/11 Checked: Yes		
LabChem Inc	LC15515-1	A124-12	05/11/11	05/10/12	Kalin, Gabrielle	1	500g	NEAT	NEAT
Veritech Control/Receipt Number: 6047									
Description ICV1							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6130									
Description di H2O							ApprovedBy: shiamala ApproveDate: 07/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1			
Veritech Control/Receipt Number: 6140									
Description Stannous Chloride							ApprovedBy: shiamala ApproveDate: 07/13/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT
Veritech Control/Receipt Number: 6144									
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6445									
Description Nitric Acid							 ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

Veritech Control/Receipt Number: 6454									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							 ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

Veritech Control/Receipt Number: 6528									
Description DI H2O							 ApprovedBy: shiamala ApproveDate: 01/06/12 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5798									
Description Hydrogen Peroxide							ApprovedBy: shiamala ApproveDate: 09/07/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
fisher	h325-4	111136	03/28/11	03/27/12	Aliano, Carmela	4	4L	NEAT	NEAT
Veritech Control/Receipt Number: 6387									
Description LCS-SOIL							ApprovedBy: shiamala ApproveDate: 11/22/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
ERA	540	D074-540	10/20/11	10/19/12	Kalin, Gabrielle	4	40g	NEAT	NEAT
Veritech Control/Receipt Number: 6445									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6495									
Description ICV 1							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6496									
Description ICV 2							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/ML
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130522



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11573	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5675	Mercury	.125 ml	1000 mg/l	
6445	Nitric Acid	12.5 ml	neat neat	
6373	Di H2O			

Veritech Lot Number: V-130523



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11573	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

Veritech Lot Number: V-130524



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Aquaregia		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 0 neat	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 48 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	10 ml	neat neat	
6507	Hydrochloric Acid	30 ml	neat neat	

Veritech Lot Number: V-130525



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg Soil ICV Soil		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130523	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

Veritech Lot Number: V-130526



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil CCV 10ppb		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130523	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130527

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard blk		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 0 ppm	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

## Veritech Lot Number: V-130528

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .2 ppb		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130522 6373	Hg Intermediate Standard Di H2O	.02 ml	.25 ppm	

## Veritech Lot Number: V-130529

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard .5 ppb		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130522 6373	Hg Intermediate Standard Di H2O	.05 ml	.25 ppm	

## Veritech Lot Number: V-130530

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 1 ppb		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130522 6373	Hg Intermediate Standard Di H2O	.1 ml	.25 ppm	

## Veritech Lot Number: V-130531

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 2 ppb		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130522 6373	Hg Intermediate Standard Di H2O	.2 ml	.25 ppm	

## Veritech Lot Number: V-130532

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 5 ppb		BatchNumber: B-11574	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130522 6373	Hg Intermediate Standard Di H2O	.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130533



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard 10 ppb	BatchNumber: B-11574	ApproveDate: 01/09/12		
Prep Date: 12/11/2011	Concentration: 10 ppb	Checked: Yes		
Expiration Date: 12/11/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130522 6373	Hg Intermediate Standard Di H2O	1 ml	.25 ppm	

Veritech Lot Number: V-130534



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard 25 ppb	BatchNumber: B-11574	ApproveDate: 01/09/12		
Prep Date: 12/11/2011	Concentration: 25 ppb	Checked: Yes		
Expiration Date: 12/11/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130522 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130674



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11585	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5675	Mercury	.125 ml	1000 mg/l	
6445	Nitric Acid	12.5 ml	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130675



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11585	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6373	Di H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-130676



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Aquaregia		BatchNumber: B-11586	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: 0 neat	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 48 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	10 ml	neat neat	
6507	Hydrochloric Acid	30 ml	neat neat	

## Veritech Lot Number: V-130677



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg Soil ICV Soil		BatchNumber: B-11586	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130675	Hg intermediate Control	.5 ml	1.0 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130678



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil CCV 10ppb		BatchNumber: B-11586	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130675	Hg intermediate Control	.25 ml	1.0 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130679



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard blk	BatchNumber: B-11586	ApproveDate: 01/09/12		
Prep Date: 12/13/2011	Concentration: 0 ppm	Checked: Yes		
Expiration Date: 12/13/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			

## Veritech Lot Number: V-130680



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard .2 ppb	BatchNumber: B-11586	ApproveDate: 01/09/12		
Prep Date: 12/13/2011	Concentration: .2 ppb	Checked: Yes		
Expiration Date: 12/13/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130674	Hg Intermediate Standard	.02 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130681



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard .5 ppb	BatchNumber: B-11586	ApproveDate: 01/09/12		
Prep Date: 12/13/2011	Concentration: .5 ppb	Checked: Yes		
Expiration Date: 12/13/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130674	Hg Intermediate Standard	.05 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130682



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard 1 ppb	BatchNumber: B-11586	ApproveDate: 01/09/12		
Prep Date: 12/13/2011	Concentration: 1 ppb	Checked: Yes		
Expiration Date: 12/13/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130674	Hg Intermediate Standard	.1 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130683



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard 2 ppb	BatchNumber: B-11586	ApproveDate: 01/09/12		
Prep Date: 12/13/2011	Concentration: 2 ppb	Checked: Yes		
Expiration Date: 12/13/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130674	Hg Intermediate Standard	.2 ml	.25 ppm	
6373	Di H2O			

## Veritech Lot Number: V-130684



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala		
Description: Hg soil standard 5 ppb	BatchNumber: B-11586	ApproveDate: 01/09/12		
Prep Date: 12/13/2011	Concentration: 5 ppb	Checked: Yes		
Expiration Date: 12/13/2011	Final Volume: 25 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130674	Hg Intermediate Standard	.5 ml	.25 ppm	
6373	Di H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130685



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 10 ppb		BatchNumber: B-11586	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130674 6373	Hg Intermediate Standard Di H2O	1 ml	.25 ppm	

Veritech Lot Number: V-130686



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg soil standard 25 ppb		BatchNumber: B-11586	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130674 6373	Hg Intermediate Standard Di H2O	2.5 ml	.25 ppm	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126650



Prepared By: Aliano, Carmela	Department: Metals	ApprovedBy: shiamala
Description: Hydroxylamine Hydrochloride	BatchNumber:	ApproveDate: 10/21/11
Prep Date: 10/17/2011	Concentration: reagent	Checked: Yes
Expiration Date: 1/16/2012	Final Volume: 10 l	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6130	di H2O			
5586	Sodium Chloride	1200 g	neat neat	
5925	HYDROXYLAMINE HYDROCHLORIDE	1200 g	NEAT neat	

## Veritech Lot Number: V-128167



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala
Description: 5% Potassium Permanganate	BatchNumber:	ApproveDate: 11/22/11
Prep Date: 11/4/2011	Concentration: reagent	Checked: Yes
Expiration Date: 2/3/2012	Final Volume: 10 l	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
4429	POTASSIUM PERMANGANATE	500 g	NEAT neat	

## Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICV	BatchNumber:	ApproveDate: 01/09/12
Prep Date: 11/7/2011	Concentration: MULTI multi	Checked: Yes
Expiration Date: 2/6/2012	Final Volume: 500 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6334	Nitric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6048	ICV2	10 ml	NEAT neat	

## Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICS 1 INTERMEDIATE	BatchNumber:	ApproveDate: 11/15/11
Prep Date: 11/14/2011	Concentration: various mg/l	Checked: Yes
Expiration Date: 2/13/2012	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128661



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-128664



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	25 ml	neat neat	
6433	Nitric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
5821	ICSAB	10 ml	NEAT ug/ml	
6433	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6244	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128669



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129808



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

## Veritech Lot Number: V-129812



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130365



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HNO3		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/9/2011		Concentration: Reagent reag	Checked: Yes	
Expiration Date: 5/27/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	1000 ml	neat neat	
6373	Di H2O	1000 ml		

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130395

Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6507	Hydrochloric Acid	900	neat neat	
6373	Di H2O			

## Veritech Lot Number: V-130523

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11573	ApproveDate: 01/09/12	
Prep Date: 12/11/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/11/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6373	Di H2O			

## Veritech Lot Number: V-130565

Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/12/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/12/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-130395	3% HCL		reagent I	1000 ml

## Veritech Lot Number: V-130652

Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 12/21/11	
Prep Date: 12/13/2011		Concentration: reagent I	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130395	3% HCL		reagent I	1000 ml
6140	Stannous Chloride		NEAT neat	13.2 g

## Veritech Lot Number: V-130675

Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11585	ApproveDate: 01/09/12	
Prep Date: 12/13/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/13/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
5715	Mercury	.1 ml	1000 ug/ml	
6373	Di H2O			

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5704										
Description Cadmium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL	
Veritech Control/Receipt Number: 5715										
Description Mercury							ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
Veritech Control/Receipt Number: 5716										
Description Lead							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
Veritech Control/Receipt Number: 5728										
Description Thallium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
Veritech Control/Receipt Number: 5821										
Description ICSAB							ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL	
Veritech Control/Receipt Number: 5925										
Description HYDROXYLAMINE HYDROCHLORIDE							ApprovedBy: shiamala ApproveDate: 08/25/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
LabChem Inc	LC15515-1	A124-12	05/11/11	05/10/12	Kalin, Gabrielle	1	500g	NEAT	NEAT	
Veritech Control/Receipt Number: 6047										
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6048									
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6130									
Description di H2O							ApprovedBy: shiamala ApproveDate: 07/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1			
Veritech Control/Receipt Number: 6140									
Description Stannous Chloride							ApprovedBy: shiamala ApproveDate: 07/13/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT
Veritech Control/Receipt Number: 6144									
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 6433



Description

Nitric Acid

ApprovedBy: shiamala  
ApproveDate: 11/15/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Control/Receipt Number: 6445



Description

Nitric Acid

ApprovedBy: jean  
ApproveDate: 11/16/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

## Veritech Control/Receipt Number: 6454



Description

Nitric Acid

ApprovedBy: shiamala  
ApproveDate: 12/05/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

## Veritech Control/Receipt Number: 6507



Description

Hydrochloric Acid

ApprovedBy: shiamala  
ApproveDate: 12/05/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5798									
Description Hydrogen Peroxide							ApprovedBy: shiamala ApproveDate: 09/07/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
fisher	h325-4	111136	03/28/11	03/27/12	Aliano, Carmela	4	4L	NEAT	NEAT
Veritech Control/Receipt Number: 6387									
Description LCS-SOIL							ApprovedBy: shiamala ApproveDate: 11/22/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
ERA	540	D074-540	10/20/11	10/19/12	Kalin, Gabrielle	4	40g	NEAT	NEAT
Veritech Control/Receipt Number: 6445									
Description Nitric Acid							ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6495									
Description ICV 1							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6496									
Description ICV 2							ApprovedBy: shiamala ApproveDate: 12/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/ML
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP3A\13384A3.txt

Analysis Date: 12/12/11

Instrument: PEICP3A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	15:43	1							V-129815(ICB/CCB)
Calib 1 V-128669	1	CAL	15:46	2							V-128669(ICS1 - Lowest std)
Calib 2 V-128664	1	CAL	15:49	3							V-128664(ICS2 - Low Std)
Calib 3 V-128661	1	CAL	15:53	4							V-128661(ICS3 - Middle Std)
Calib 4 V-129806	1	CAL	15:56	5							V-129806(ICS4 - High std)
ICS3 V-128661	1	ICS	16:01	6							V-128661(ICS3 - Middle Std)
ICV (2) V-128235	1	ICV	16:04	7							V-128235(ICV)
ICB V-129815	1	ICB	16:09	8							V-129815(ICB/CCB)
ICSA V-129812	1	ICSA	16:13	9							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	16:18	10							V-128667(ICSAB)
MB 11690 (100)	1	MB	16:23	11		SOIL	SOIL	SW846	11690		0
LCS 11690	1	LCS	16:26	12		SOIL	SOIL	SW846	11690		0
LCS 11690 MR	1	LCS	16:31	13		SOIL	SOIL	SW846	11690		0
AC63091-001	1	SMP	16:36	14	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
AC63091-001	1	MR	16:39	15	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
AC63091-001	1	MS	16:43	16	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
AC63091-001	1	MSD	16:46	17	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
AC63091-001	1	PS	16:50	18	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
CCV V-129808	1	CCV	16:54	19							V-129808(CCV)
CCB V-129815	1	CCB	16:57	20							V-129815(ICB/CCB)
AC63091-001	5	SD	17:00	21	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
AC63111-028	1	SMP	17:04	22	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-030	1	SMP	17:07	23	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-031	1	SMP	17:11	24	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-032	1	SMP	17:14	25	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
ICSA V-129812	1	ICSA	17:18	26							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	17:23	27							V-128667(ICSAB)
CCV V-129808	1	CCV	17:28	28							V-129808(CCV)
CCB V-129815	1	CCB	17:31	29							V-129815(ICB/CCB)
AC63111-034	1	SMP	17:35	30	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-035	1	SMP	17:38	31	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-036	1	SMP	17:42	32	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-038	1	SMP	17:45	33	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-039	1	SMP	17:49	34	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-040	1	SMP	17:54	35	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
CCV V-129808	1	CCV	17:58	36							V-129808(CCV)
CCB V-129815	1	CCB	18:01	37							V-129815(ICB/CCB)
AC63111-042	1	SMP	18:04	38	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-044	1	SMP	18:08	39	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-045	1	SMP	18:12	40	MET-2-SOIL	SOIL	SOIL	SW846	11690		0
AC63118-004	1	SMP	18:15	41	MET-RCRA-S	SOIL	SOIL	SW846	11690		0
AC63128-001	1	SMP	18:19	42	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
AC62992-003	1	SMP	18:24	43	METALS-TAL-S	SOIL	SOIL	SW846	11690		0
Fe V-130586	1	NA	18:27	44		SOIL	SOIL	SW846	11690		V-130586(Fe 200ppm)
ICSA V-129812	1	ICSA	18:31	45							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	18:36	46							V-128667(ICSAB)
CCV V-129808	1	CCV	18:41	47							V-129808(CCV)
CCB V-129815	1	CCB	18:44	48							V-129815(ICB/CCB)

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

gabriele  
192.168.1.85 12/13/2011 11:22:52 AM

RUN OK.

*gh* 12/14/11

# Run Log

1120830 0287

Data File: W:\METALS.FRM\ICPDATA\New\HGCV2A\H13384S.txt

Analysis Date: 12/12/11

Instrument: HGCV2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	19:11	1							0
.2 PPB	1	CAL	19:12	2							0
.5 PPB	1	CAL	19:13	3							0
1 PPB	1	CAL	19:15	4							0
2 PPB	1	CAL	19:16	5							0
5 PPB	1	CAL	19:17	6							0
10 PPB	1	CAL	19:19	7							0
25 PPB	1	CAL	19:20	8							0
ICV (2)	1	ICV	19:21	9							0
ICB	1	ICB	19:23	10							0
MB 11690 (167)	1	MB	19:24	11		SOIL	SOIL	SW846	11690		0
LCS 11690	1	LCS	19:25	12		SOIL	SOIL	SW846	11690		0
LCS MR 11690	1	LCS	19:27	13		SOIL	SOIL	SW846	11690		0
AC63091-001	1	SMP	19:28	14	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63091-001	1	MR	19:29	15	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63091-001	1	MS	19:31	16	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63091-001	1	MSD	19:32	17	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-028	1	SMP	19:33	18	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-030	1	SMP	19:35	19	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-031	1	SMP	19:36	20	HG-SOIL	SOIL	SOIL	SW846	11690		0
CCV	1	CCV	19:37	21							0
CCB	1	CCB	19:39	22							0
AC63111-032	1	SMP	19:40	23	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-034	1	SMP	19:41	24	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-035	1	SMP	19:43	25	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-036	1	SMP	19:44	26	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-038	1	SMP	19:45	27	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-039	1	SMP	19:46	28	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-040	1	SMP	19:48	29	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-042	1	SMP	19:49	30	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63111-044	1	NA	19:50	31	HG-SOIL	SOIL	SOIL	SW846	11690	sample concentration greater than that of highest standard	0
AC63111-045	1	SMP	19:52	32	HG-SOIL	SOIL	SOIL	SW846	11690		0
CCV	1	CCV	19:53	33							0
CCB	1	CCB	19:55	34							0
AC63118-004	1	SMP	19:56	35	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC63128-001	1	SMP	19:57	36	HG-SOIL	SOIL	SOIL	SW846	11690		0
AC62992-003	1	SMP	19:59	37	HG-SOIL	SOIL	SOIL	SW846	11690		0
CCV	1	CCV	20:00	38							0
CCB	1	CCB	20:01	39							0

Comments/Reviewed by:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/13/2011 10:54:02 AM

V-130565

RUN IS OK

*Shu* 12/13/11

# Run Log

1120830 0288

Data File: W:\METALS.FRM\ICPDATA\New\HGCV2A\H13384Sb.txt

Analysis Date: 12/13/11

Instrument: HGCV2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	11:12	1							0
.2 PPB	1	CAL	11:14	2							0
.5 PPB	1	CAL	11:15	3							0
1 PPB	1	CAL	11:16	4							0
2 PPB	1	CAL	11:18	5							0
5 PPB	1	CAL	11:19	6							0
10 PPB	1	CAL	11:20	7							0
25 PPB	1	CAL	11:21	8							0
ICV (2)	1	ICV	11:23	9							0
ICB	1	ICB	11:24	10							0
AC63111-044	10	SMP	11:25	11	HG-SOIL	SOIL	SOIL	SW846	11690		0
CCV	1	CCV	11:27	12							0
CCB	1	CCB	11:28	13							0

Comments/Reviewed by:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/13/2011 11:49:23 AM

V-130652

RUN IS OK

 12/13/11

*J. Kalin* 12.13.11

=====  
Analysis Begun

Start Time: 12/12/2011 3:43:09 PM Plasma On Time: 12/12/2011 9:37:29 AM  
Logged In Analyst: usermet Technique: ICP Continuous  
Spectrometer Model: Optima 7300 DV, S/N 077C0061602 Autosampler Model: S10

Sample Information File: C:\pe\Administrator\Sample Information\SOIL.sif  
Batch ID: SOIL  
Results Data Set: S13384A3  
Results Library: C:\pe\Administrator\Results\Results.mdb

13384  
(11690)  
*Sh* 12/14/11

=====  
Method Loaded

Method Name: PE3 7300DV AXIAL Method Last Saved: 12/9/2011 12:49:52 PM  
IEC File: IEC091211A.iec MSF File:  
Method Description: 200.7/6010B

=====  
Sequence No.: 1

Sample ID: Calib Blk 1 V-129815 Autosampler Location: 1  
Analyst: Date Collected: 12/12/2011 3:43:10 PM  
Initial Sample Wt: Data Type: Original  
Dilution: Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	496899.0	3811.36	0.77%	100	%
Y 371.029	193221.1	517.47	0.27%	100	%
Ag 328.068†	70.5	10.92	15.49%	[0.00]	mg/L
Al 308.215†	3540.3	61.64	1.74%	[0.00]	mg/L
As 188.979†	29.8	1.89	6.36%	[0.00]	mg/L
Ba 233.527†	-113.0	12.77	11.30%	[0.00]	mg/L
Be 313.107†	892.0	68.52	7.68%	[0.00]	mg/L
Ca 317.933†	1016.7	40.45	3.98%	[0.00]	mg/L
Cd 228.802†	369.7	15.13	4.09%	[0.00]	mg/L
Co 228.616†	657.9	18.31	2.78%	[0.00]	mg/L
Cr 267.716†	21.8	2.27	10.38%	[0.00]	mg/L
Cu 327.393†	703.9	6.14	0.87%	[0.00]	mg/L
Fe 273.955†	-169.9	19.29	11.35%	[0.00]	mg/L
K 404.721†	-21022.4	289.12	1.38%	[0.00]	mg/L
Mg 279.077†	115.6	12.29	10.63%	[0.00]	mg/L
Mn 257.610†	340.7	13.48	3.95%	[0.00]	mg/L
Mo 202.031†	33.2	8.74	26.36%	[0.00]	mg/L
Na 330.237†	-4188.1	8.85	0.21%	[0.00]	mg/L
Ni 231.604†	1720.4	33.88	1.97%	[0.00]	mg/L
Pb 220.353†	-0.3	0.33	101.72%	[0.00]	mg/L
Sb 206.836†	59.2	2.14	3.61%	[0.00]	mg/L
Se 196.026†	5.0	0.37	7.45%	[0.00]	mg/L
Sn 189.927†	-24.1	1.91	7.92%	[0.00]	mg/L
Ti 334.940†	-200.7	34.15	17.02%	[0.00]	mg/L
Tl 190.801†	-10.8	9.37	86.76%	[0.00]	mg/L
V 290.880†	2046.7	89.71	4.38%	[0.00]	mg/L
Zn 206.200†	-197.6	2.39	1.21%	[0.00]	mg/L

All elements reported  
except earth metals.

-----  
Sequence No.: 2

Autosampler Location: 10

Sample ID: Calib 1 V-128669

Date Collected: 12/12/2011 3:46:28 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:  
-----

Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	501768.3	11477.52	2.29%	101	%
Y 371.029	194125.1	4953.43	2.55%	100	%
As 188.979†	8.5	6.97	82.40%	[0.005]	mg/L
Be 313.107†	5607.7	76.96	1.37%	[0.003]	mg/L
Cd 228.802†	89.3	22.20	24.87%	[0.003]	mg/L
Pb 220.353†	20.3	19.75	97.47%	[0.004]	mg/L
Tl 190.801†	3.2	2.15	66.70%	[0.005]	mg/L

Sequence No.: 3  
 Sample ID: Calib 2 V-128664  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 9  
 Date Collected: 12/12/2011 3:49:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib 2 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	499460.3	1156.32	0.23%	101 %
Y 371.029	192957.5	56.32	0.03%	99.9 %
Ag 328.068†	169.1	28.69	16.96%	[0.002] mg/L
Al 308.215†	1714.3	50.62	2.95%	[0.10] mg/L
As 188.979†	12.7	1.61	12.69%	[0.010] mg/L
Ba 233.527†	1032.4	9.48	0.92%	[0.010] mg/L
Be 313.107†	18538.9	42.83	0.23%	[0.010] mg/L
Ca 317.933†	51960.1	38.93	0.07%	[1.0] mg/L
Cd 228.802†	283.4	15.02	5.30%	[0.010] mg/L
Co 228.616†	290.4	23.06	7.94%	[0.010] mg/L
Cr 267.716†	297.2	0.24	0.08%	[0.010] mg/L
Cu 327.393†	759.9	74.92	9.86%	[0.010] mg/L
Fe 273.955†	2163.0	15.29	0.71%	[0.10] mg/L
K 404.721†	-470.8	280.27	59.54%	[1.0] mg/L
Standard intensity and concentration values are not in the same order.				
Mg 279.077†	9396.7	21.65	0.23%	[1.0] mg/L
Mn 257.610†	3714.8	19.30	0.52%	[0.010] mg/L
Mo 202.031†	117.6	16.77	14.26%	[0.010] mg/L
Na 330.237†	339.5	39.17	11.54%	[1.0] mg/L
Ni 231.604†	274.3	10.95	3.99%	[0.010] mg/L
Pb 220.353†	37.3	12.63	33.84%	[0.010] mg/L
Sb 206.836†	5.9	4.21	71.82%	[0.010] mg/L
Se 196.026†	2.5	1.29	50.80%	[0.010] mg/L
Sn 189.927†	44.7	3.49	7.82%	[0.010] mg/L
Ti 334.940†	2956.6	15.55	0.53%	[0.010] mg/L
Tl 190.801†	7.9	0.74	9.35%	[0.010] mg/L
V 290.880†	1003.1	29.84	2.97%	[0.010] mg/L
Zn 206.200†	364.7	9.45	2.59%	[0.010] mg/L

Sequence No.: 4  
 Sample ID: Calib 3 V-128661  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/12/2011 3:53:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib 3 V-128661

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	474953.7	163.43	0.03%	95.6	%
Y 371.029	180853.3	6.39	0.00%	93.6	%
Ag 328.068†	9377.9	0.37	0.00%	[0.10]	mg/L
Al 308.215†	79236.1	137.70	0.17%	[5.0]	mg/L
As 188.979†	575.2	11.99	2.08%	[0.50]	mg/L
Ba 233.527†	49916.4	119.22	0.24%	[0.50]	mg/L
Be 313.107†	951176.7	1252.45	0.13%	[0.50]	mg/L
Ca 317.933†	2463430.2	2161.68	0.09%	[50]	mg/L
Cd 228.802†	14143.8	119.88	0.85%	[0.50]	mg/L
Co 228.616†	14089.9	75.06	0.53%	[0.50]	mg/L
Cr 267.716†	14938.5	97.27	0.65%	[0.50]	mg/L
Cu 327.393†	37818.5	95.07	0.25%	[0.50]	mg/L
Fe 273.955†	103503.1	246.37	0.24%	[5.0]	mg/L
K 404.721†	556.8	51.01	9.16%	[50]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	431535.4	867.73	0.20%	[50]	mg/L
Mn 257.610†	176234.9	425.89	0.24%	[0.50]	mg/L
Mo 202.031†	5687.1	69.02	1.21%	[0.50]	mg/L
Na 330.237†	22694.0	64.28	0.28%	[50]	mg/L
Ni 231.604†	13392.4	103.80	0.78%	[0.50]	mg/L
Pb 220.353†	2067.6	18.92	0.92%	[0.50]	mg/L
Sb 206.836†	683.9	10.03	1.47%	[0.50]	mg/L
Se 196.026†	356.9	1.20	0.34%	[0.50]	mg/L
Sn 189.927†	1828.2	13.00	0.71%	[0.50]	mg/L
Ti 334.940†	151613.7	681.99	0.45%	[0.50]	mg/L
Tl 190.801†	419.7	4.56	1.09%	[0.50]	mg/L
V 290.880†	44557.2	106.21	0.24%	[0.50]	mg/L
Zn 206.200†	17820.0	166.36	0.93%	[0.50]	mg/L

Sequence No.: 5  
 Sample ID: Calib 4 V-129806  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/12/2011 3:56:33 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: Calib 4 V-129806

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units
Sc 361.383	466724.2	3562.44	0.76%	93.9 %
Y 371.029	176850.2	1303.34	0.74%	91.5 %
Ag 328.068†	18747.5	74.80	0.40%	[0.20] mg/L
Al 308.215†	158843.4	307.15	0.19%	[10] mg/L
As 188.979†	1162.1	8.25	0.71%	[1.0] mg/L
Ba 233.527†	100191.7	178.80	0.18%	[1.0] mg/L
Be 313.107†	1921802.2	35828.19	1.86%	[1.0] mg/L
Ca 317.933†	4899368.4	125902.81	2.57%	[100] mg/L
Cd 228.802†	28196.4	47.91	0.17%	[1.0] mg/L
Co 228.616†	27794.7	74.23	0.27%	[1.0] mg/L
Cr 267.716†	29954.6	28.10	0.09%	[1.0] mg/L
Cu 327.393†	76048.6	17.51	0.02%	[1.0] mg/L
Fe 273.955†	207322.6	158.62	0.08%	[10] mg/L
K 404.721†	1862.4	351.07	18.85%	[100] mg/L
Standard intensity and concentration values are not in the same order.				
Mg 279.077†	861825.4	17447.87	2.02%	[100] mg/L
Mn 257.610†	352846.7	266.91	0.08%	[1.0] mg/L
Mo 202.031†	11297.9	32.51	0.29%	[1.0] mg/L
Na 330.237†	47803.4	133.11	0.28%	[100] mg/L
Ni 231.604†	26507.5	45.64	0.17%	[1.0] mg/L
Pb 220.353†	4127.5	11.81	0.29%	[1.0] mg/L
Sb 206.836†	1376.0	2.41	0.18%	[1.0] mg/L
Se 196.026†	732.0	10.21	1.39%	[1.0] mg/L
Sn 189.927†	3631.6	8.79	0.24%	[1.0] mg/L
Ti 334.940†	305138.1	2311.39	0.76%	[1.0] mg/L
Tl 190.801†	842.9	4.76	0.57%	[1.0] mg/L
V 290.880†	88721.6	122.51	0.14%	[1.0] mg/L
Zn 206.200†	35206.0	69.40	0.20%	[1.0] mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-7.6	93790	0.00000	1.000000	
Al 308.215	3	Lin, Calc Int	23.4	15870	0.00000	0.999999	
As 188.979	4	Lin, Calc Int	0.4	1159	0.00000	0.999983	
Ba 233.527	3	Lin, Calc Int	-18.8	100100	0.00000	0.999998	
Be 313.107	4	Lin, Calc Int	-1473.0	1920000	0.00000	0.999988	
Ca 317.933	3	Lin, Calc Int	3848.5	49000	0.00000	0.999996	
Cd 228.802	4	Lin, Calc Int	7.6	28210	0.00000	0.999999	
Co 228.616	3	Lin, Calc Int	40.7	27820	0.00000	0.999975	
Cr 267.716	3	Lin, Calc Int	-8.1	29950	0.00000	0.999999	
Cu 327.393	3	Lin, Calc Int	-37.7	76010	0.00000	0.999996	
Fe 273.955	3	Lin, Calc Int	12.0	20720	0.00000	1.000000	
K 404.721	3	Lin, Calc Int	-290.3	20.59	0.00000	0.972291	
Mg 279.077	3	Lin, Calc Int	466.7	8615	0.00000	1.000000	
Mn 257.610	3	Lin, Calc Int	50.3	352700	0.00000	1.000000	
Mo 202.031	3	Lin, Calc Int	9.0	11300	0.00000	0.999994	
Na 330.237	3	Lin, Calc Int	-282.7	476.6	0.00000	0.999673	
Ni 231.604	3	Lin, Calc Int	29.4	26530	0.00000	0.999986	
Pb 220.353	4	Lin, Calc Int	0.4	4129	0.00000	0.999998	
Sb 206.836	3	Lin, Calc Int	-4.3	1380	0.00000	0.999987	
Se 196.026	3	Lin, Calc Int	-3.8	733.0	0.00000	0.999921	
Sn 189.927	3	Lin, Calc Int	6.1	3629	0.00000	0.999994	
Ti 334.940	3	Lin, Calc Int	-216.9	305000	0.00000	0.999995	
Tl 190.801	4	Lin, Calc Int	-0.7	843.0	0.00000	0.999998	
V 290.880	3	Lin, Calc Int	88.4	88690	0.00000	0.999997	
Zn 206.200	3	Lin, Calc Int	45.2	35240	0.00000	0.999980	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-128661

Date Collected: 12/12/2011 4:01:24 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICS3 V-128661

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	479431.8		96.5 %	0.43			0.44%
Y 371.029	182232.9		94.3 %	0.19			0.20%
Ag 328.068†	9376.7	0.102261 mg/L		0.0000234	0.102261 mg/L	0.0000234	0.02%
QC value within limits for Ag			Recovery = 102.26%				
Al 308.215†	80247.0	5.04089 mg/L		0.001202	5.04089 mg/L	0.001202	0.02%
QC value within limits for Al			Recovery = 100.82%				
As 188.979†	570.3	0.494229 mg/L		0.0054413	0.494229 mg/L	0.0054413	1.10%
QC value within limits for As			Recovery = 98.85%				
Ba 233.527†	50662.9	0.506094 mg/L		0.0007184	0.506094 mg/L	0.0007184	0.14%
QC value within limits for Ba			Recovery = 101.22%				
Be 313.107†	960849.4	0.501291 mg/L		0.0006645	0.501291 mg/L	0.0006645	0.13%
QC value within limits for Be			Recovery = 100.26%				
Ca 317.933†	2496328.0	50.8644 mg/L		0.15117	50.8644 mg/L	0.15117	0.30%
QC value within limits for Ca			Recovery = 101.73%				
Cd 228.802†	14069.4	0.499294 mg/L		0.0076697	0.499294 mg/L	0.0076697	1.54%
QC value within limits for Cd			Recovery = 99.86%				
Co 228.616†	14045.2	0.502800 mg/L		0.0091046	0.502800 mg/L	0.0091046	1.81%
QC value within limits for Co			Recovery = 100.56%				
Cr 267.716†	14865.0	0.497145 mg/L		0.0082835	0.497145 mg/L	0.0082835	1.67%
QC value within limits for Cr			Recovery = 99.43%				
Cu 317.933†	38191.9	0.506375 mg/L		0.0000934	0.506375 mg/L	0.0000934	0.02%
QC value within limits for Cu			Recovery = 101.28%				
Fe 273.955†	105065.3	5.06903 mg/L		0.005226	5.06903 mg/L	0.005226	0.10%
QC value within limits for Fe			Recovery = 101.38%				
K 404.721†	465.3	36.6911 mg/L		4.88500	36.6911 mg/L	4.88500	13.31%
Mg 279.077†	437083.4	50.6904 mg/L		0.02061	50.6904 mg/L	0.02061	0.04%
QC value within limits for Mg			Recovery = 101.38%				
Mn 257.610†	178521.3	0.505306 mg/L		0.0000732	0.505306 mg/L	0.0000732	0.01%
QC value within limits for Mn			Recovery = 101.06%				
Mo 202.031†	5644.5	0.498715 mg/L		0.0069287	0.498715 mg/L	0.0069287	1.39%
QC value within limits for Mo			Recovery = 99.74%				
Na 330.237†	22957.6	48.7620 mg/L		0.00241	48.7620 mg/L	0.00241	0.00%
QC value within limits for Na			Recovery = 97.52%				
Ni 231.604†	13302.0	0.501720 mg/L		0.0099343	0.501720 mg/L	0.0099343	1.98%
QC value within limits for Ni			Recovery = 100.34%				
Pb 220.353†	2063.9	0.497044 mg/L		0.0118418	0.497044 mg/L	0.0118418	2.38%
QC value within limits for Pb			Recovery = 99.41%				
Sb 206.836†	675.6	0.502653 mg/L		0.0033473	0.502653 mg/L	0.0033473	0.67%
QC value within limits for Sb			Recovery = 100.53%				
Se 196.026†	359.8	0.498901 mg/L		0.0012663	0.498901 mg/L	0.0012663	0.25%
QC value within limits for Se			Recovery = 99.78%				
Sn 189.927†	1827.4	0.502668 mg/L		0.0119511	0.502668 mg/L	0.0119511	2.38%
QC value within limits for Sn			Recovery = 100.53%				
Ti 334.940†	153596.3	0.504155 mg/L		0.0002057	0.504155 mg/L	0.0002057	0.04%
QC value within limits for Ti			Recovery = 100.83%				
Tl 190.801†	420.9	0.501926 mg/L		0.0071661	0.501926 mg/L	0.0071661	1.43%
QC value within limits for Tl			Recovery = 100.39%				
V 290.880†	45264.2	0.500934 mg/L		0.0004863	0.500934 mg/L	0.0004863	0.10%
QC value within limits for V			Recovery = 100.19%				
Zn 206.200†	17764.6	0.501899 mg/L		0.0088345	0.501899 mg/L	0.0088345	1.76%
QC value within limits for Zn			Recovery = 100.38%				

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICV (2) V-128235

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 12/12/2011 4:04:56 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICV (2) V-128235

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	467842.6	94.2 %	0.33			0.35%
Y 371.029	177429.2	91.8 %	0.07			0.07%
Ag 328.068†	18444.9	0.201031 mg/L	0.0010111	0.201031 mg/L	0.0010111	0.50%
		QC value within limits for Ag	328.068 Recovery = 100.52%			
Al 308.215†	158271.1	9.94320 mg/L	0.003624	9.94320 mg/L	0.003624	0.04%
		QC value within limits for Al	308.215 Recovery = 99.43%			
As 188.979†	1139.1	0.987475 mg/L	0.0092083	0.987475 mg/L	0.0092083	0.93%
		QC value within limits for As	188.979 Recovery = 98.75%			
Ba 233.527†	100599.1	1.00474 mg/L	0.000139	1.00474 mg/L	0.000139	0.01%
		QC value within limits for Ba	233.527 Recovery = 100.47%			
Be 313.107†	1897242.3	0.989074 mg/L	0.0110250	0.989074 mg/L	0.0110250	1.11%
		QC value within limits for Be	313.107 Recovery = 98.91%			
Ca 317.933†	4857192.2	99.0430 mg/L	0.85491	99.0430 mg/L	0.85491	0.86%
		QC value within limits for Ca	317.933 Recovery = 99.04%			
Cd 228.802†	28022.5	0.994718 mg/L	0.0083749	0.994718 mg/L	0.0083749	0.84%
		QC value within limits for Cd	228.802 Recovery = 99.47%			
Co 228.616†	27853.4	0.998564 mg/L	0.0083049	0.998564 mg/L	0.0083049	0.83%
		QC value within limits for Co	228.616 Recovery = 99.86%			
Cr 267.716†	29689.5	0.992667 mg/L	0.0050378	0.992667 mg/L	0.0050378	0.51%
		QC value within limits for Cr	267.716 Recovery = 99.27%			
Cu 327.393†	75924.2	1.00607 mg/L	0.004120	1.00607 mg/L	0.004120	0.41%
		QC value within limits for Cu	327.393 Recovery = 100.61%			
Fe 273.955†	204249.9	9.85487 mg/L	0.008469	9.85487 mg/L	0.008469	0.09%
		QC value within limits for Fe	273.955 Recovery = 98.55%			
K 404.721†	2042.5	113.273 mg/L	8.2437	113.273 mg/L	8.2437	7.28%
Mg 279.077†	849035.2	98.5178 mg/L	1.35465	98.5178 mg/L	1.35465	1.38%
		QC value within limits for Mg	279.077 Recovery = 98.52%			
Mn 257.610†	348464.6	0.986484 mg/L	0.0011453	0.986484 mg/L	0.0011453	0.12%
		QC value within limits for Mn	257.610 Recovery = 98.65%			
Mo 202.031†	11292.0	0.998492 mg/L	0.0055793	0.998492 mg/L	0.0055793	0.56%
		QC value within limits for Mo	202.031 Recovery = 99.85%			
Na 330.237†	47347.4	99.9358 mg/L	0.21762	99.9358 mg/L	0.21762	0.22%
		QC value within limits for Na	330.237 Recovery = 99.94%			
Ni 231.604†	26298.6	0.993036 mg/L	0.0071238	0.993036 mg/L	0.0071238	0.72%
		QC value within limits for Ni	231.604 Recovery = 99.30%			
Pb 220.353†	4073.1	0.981073 mg/L	0.0079260	0.981073 mg/L	0.0079260	0.81%
		QC value within limits for Pb	220.353 Recovery = 98.11%			
Sb 206.836†	1344.7	0.997412 mg/L	0.0018735	0.997412 mg/L	0.0018735	0.19%
		QC value within limits for Sb	206.836 Recovery = 99.74%			
Se 196.026†	726.7	1.00210 mg/L	0.009668	1.00210 mg/L	0.009668	0.96%
		QC value within limits for Se	196.026 Recovery = 100.21%			
Sn 189.927†	3627.5	0.999446 mg/L	0.0085828	0.999446 mg/L	0.0085828	0.86%
		QC value within limits for Sn	189.927 Recovery = 99.94%			
Ti 334.940†	304910.8	1.00012 mg/L	0.003160	1.00012 mg/L	0.003160	0.32%
		QC value within limits for Ti	334.940 Recovery = 100.01%			
Tl 190.801†	874.3	1.04159 mg/L	0.013834	1.04159 mg/L	0.013834	1.33%
		QC value within limits for Tl	190.801 Recovery = 104.16%			
V 290.880†	88536.1	0.980895 mg/L	0.0009203	0.980895 mg/L	0.0009203	0.09%
		QC value within limits for V	290.880 Recovery = 98.09%			
Zn 206.200†	34814.1	0.984878 mg/L	0.0092174	0.984878 mg/L	0.0092174	0.94%
		QC value within limits for Zn	206.200 Recovery = 98.49%			

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-129815

Date Collected: 12/12/2011 4:09:45 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	492998.5	99.2 %	0.39			0.39%
Y 371.029	192406.9	99.6 %	0.13			0.13%
Ag 328.068†	7.1	0.0001537 mg/L	0.00044569	0.0001537 mg/L	0.00044569	289.92%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Al 308.215†	172.5	0.0094067 mg/L	0.00260952	0.0094067 mg/L	0.00260952	27.74%
QC value within limits for Al	308.215	Recovery = Not calculated				
As 188.979†	0.7	0.0002700 mg/L	0.00048312	0.0002700 mg/L	0.00048312	178.92%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527†	-0.5	0.0001829 mg/L	0.00069625	0.0001829 mg/L	0.00069625	380.68%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 313.107†	61.2	0.0007992 mg/L	0.00001188	0.0007992 mg/L	0.00001188	1.49%
QC value within limits for Be	313.107	Recovery = Not calculated				
Ca 317.933†	60.7	-0.0772994 mg/L	0.00003845	-0.0772994 mg/L	0.00003845	0.05%
QC value within limits for Ca	317.933	Recovery = Not calculated				
Cd 228.802†	30.3	0.0008047 mg/L	0.00023623	0.0008047 mg/L	0.00023623	29.36%
QC value within limits for Cd	228.802	Recovery = Not calculated				
Co 228.616†	6.5	-0.0012298 mg/L	0.00031884	-0.0012298 mg/L	0.00031884	25.93%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cr 267.716†	0.5	0.0002876 mg/L	0.00036590	0.0002876 mg/L	0.00036590	127.22%
QC value within limits for Cr	267.716	Recovery = Not calculated				
Cu 327.393†	14.2	0.0006812 mg/L	0.00129007	0.0006812 mg/L	0.00129007	189.38%
QC value within limits for Cu	327.393	Recovery = Not calculated				
Fe 273.955†	-19.7	-0.0015276 mg/L	0.00057033	-0.0015276 mg/L	0.00057033	37.33%
QC value within limits for Fe	273.955	Recovery = Not calculated				
K 404.721†	-517.9	-11.0518 mg/L	7.73944	-11.0518 mg/L	7.73944	70.03%
Mg 279.077†	56.9	-0.0475807 mg/L	0.00977271	-0.0475807 mg/L	0.00977271	20.54%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610†	-6.9	-0.0001615 mg/L	0.00001530	-0.0001615 mg/L	0.00001530	9.47%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031†	3.2	-0.0005146 mg/L	0.00021594	-0.0005146 mg/L	0.00021594	41.96%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Na 330.237†	-132.1	0.316085 mg/L	0.0373314	0.316085 mg/L	0.0373314	11.81%
QC value within limits for Na	330.237	Recovery = Not calculated				
Ni 231.604†	32.1	0.0000982 mg/L	0.00036095	0.0000982 mg/L	0.00036095	367.48%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Pb 220.353†	14.0	0.0032787 mg/L	0.00190530	0.0032787 mg/L	0.00190530	58.11%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Sb 206.836†	-2.9	0.0010402 mg/L	0.00141159	0.0010402 mg/L	0.00141159	135.71%
QC value within limits for Sb	206.836	Recovery = Not calculated				
Se 196.026†	-2.9	0.0012610 mg/L	0.01355720	0.0012610 mg/L	0.01355720	>999.9%
QC value within limits for Se	196.026	Recovery = Not calculated				
Sn 189.927†	12.9	0.0018764 mg/L	0.00081349	0.0018764 mg/L	0.00081349	43.35%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	-23.7	0.0006333 mg/L	0.00030547	0.0006333 mg/L	0.00030547	48.23%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	2.9	0.0042545 mg/L	0.00030922	0.0042545 mg/L	0.00030922	7.27%
QC value within limits for Tl	190.801	Recovery = Not calculated				
V 290.880†	73.9	-0.0001554 mg/L	0.00036875	-0.0001554 mg/L	0.00036875	237.34%
QC value within limits for V	290.880	Recovery = Not calculated				
Zn 206.200†	6.2	-0.0011062 mg/L	0.00028542	-0.0011062 mg/L	0.00028542	25.80%
QC value within limits for Zn	206.200	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-129812

Date Collected: 12/12/2011 4:13:04 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-129812

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	440419.9		88.6 %	0.72			0.81%
Y 371.029	166669.1		86.3 %	0.82			0.95%
Ag 328.068†	-3013.8	0.0189826	mg/L	0.00126196	0.0189826	mg/L	0.00126196 6.65%
Al 308.215†	8027759.0	505.710	mg/L	10.4194	505.710	mg/L	10.4194 2.06%
QC value within limits for Al 308.215 Recovery = 101.14%							
As 188.979†	4.9	0.0060693	mg/L	0.00009668	0.0060693	mg/L	0.00009668 1.59%
Ba 233.527†	673.1	0.0069093	mg/L	0.00031576	0.0069093	mg/L	0.00031576 4.57%
Be 313.107†	-1326.2	0.0000765	mg/L	0.00002397	0.0000765	mg/L	0.00002397 31.35%
Ca 317.933†	24274748.7	495.300	mg/L	6.6998	495.300	mg/L	6.6998 1.35%
QC value within limits for Ca 317.933 Recovery = 99.06%							
Cd 228.802†	71.4	0.0022641	mg/L	0.00046417	0.0022641	mg/L	0.00046417 20.50%
Co 228.616†	98.7	0.0020858	mg/L	0.00014492	0.0020858	mg/L	0.00014492 6.95%
Cr 267.716†	-79.4	-0.0023798	mg/L	0.00024734	-0.0023798	mg/L	0.00024734 10.39%
Cu 327.393†	-2221.1	0.0003066	mg/L	0.00123775	0.0003066	mg/L	0.00123775 403.71%
Fe 273.955†	4031761.3	194.540	mg/L	4.3093	194.540	mg/L	4.3093 2.22%
QC value within limits for Fe 273.955 Recovery = 97.27%							
K 404.721†	-2348.8	-99.9548	mg/L	9.05749	-99.9548	mg/L	9.05749 9.06%
Mg 279.077†	4523448.5	525.002	mg/L	12.8301	525.002	mg/L	12.8301 2.44%
QC value within limits for Mg 279.077 Recovery = 105.00%							
Mn 257.610†	978.3	-0.0064946	mg/L	0.00015132	-0.0064946	mg/L	0.00015132 2.33%
Mo 202.031†	1.5	-0.0006684	mg/L	0.00135622	-0.0006684	mg/L	0.00135622 202.91%
Na 330.237†	3795.1	8.55602	mg/L	0.087470	8.55602	mg/L	0.087470 1.02%
Ni 231.604†	67.9	0.0014483	mg/L	0.00026377	0.0014483	mg/L	0.00026377 18.21%
Pb 220.353†	1344.7	-0.0165376	mg/L	0.00564070	-0.0165376	mg/L	0.00564070 34.11%
Sb 206.836†	10.2	-0.0050634	mg/L	0.00225074	-0.0050634	mg/L	0.00225074 44.45%
Se 196.026†	-55.2	0.0074166	mg/L	0.00018081	0.0074166	mg/L	0.00018081 2.44%
Sn 189.927†	-23.9	0.0114160	mg/L	0.00076741	0.0114160	mg/L	0.00076741 6.72%
Ti 334.940†	-453.9	-0.0007764	mg/L	0.00009205	-0.0007764	mg/L	0.00009205 11.86%
Tl 190.801†	0.9	0.0051710	mg/L	0.00591782	0.0051710	mg/L	0.00591782 114.44%
V 290.880†	10633.7	0.0211811	mg/L	0.00151319	0.0211811	mg/L	0.00151319 7.14%
Zn 206.200†	-35.5	-0.0196852	mg/L	0.00000487	-0.0196852	mg/L	0.00000487 0.02%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-128667

Date Collected: 12/12/2011 4:18:06 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	447977.5	90.2 %	1.14			1.26%
Y 371.029	169396.9	87.7 %	0.81			0.93%
Ag 328.068†	97698.7	1.09146 mg/L	0.004798	1.09146 mg/L	0.004798	0.44%
QC value within limits for Ag		328.068 Recovery =	109.15%			
Al 308.215†	7781360.7	490.188 mg/L	8.1142	490.188 mg/L	8.1142	1.66%
QC value within limits for Al		308.215 Recovery =	98.04%			
As 188.979†	1180.5	1.02168 mg/L	0.007449	1.02168 mg/L	0.007449	0.73%
QC value within limits for As		188.979 Recovery =	102.17%			
Ba 233.527†	53238.9	0.531817 mg/L	0.0027611	0.531817 mg/L	0.0027611	0.52%
QC value within limits for Ba		233.527 Recovery =	106.36%			
Be 313.107†	968431.7	0.505240 mg/L	0.0088364	0.505240 mg/L	0.0088364	1.75%
QC value within limits for Be		313.107 Recovery =	101.05%			
Ca 317.933†	23962974.6	488.938 mg/L	5.5029	488.938 mg/L	5.5029	1.13%
QC value within limits for Ca		317.933 Recovery =	97.79%			
Cd 228.802†	28830.8	1.02332 mg/L	0.011119	1.02332 mg/L	0.011119	1.09%
QC value within limits for Cd		228.802 Recovery =	102.33%			
Co 228.616†	13707.7	0.491042 mg/L	0.0068323	0.491042 mg/L	0.0068323	1.39%
QC value within limits for Co		228.616 Recovery =	98.21%			
Cr 267.716†	14589.1	0.487403 mg/L	0.0082734	0.487403 mg/L	0.0082734	1.70%
QC value within limits for Cr		267.716 Recovery =	97.48%			
Cu 327.393†	38432.9	0.534611 mg/L	0.0018128	0.534611 mg/L	0.0018128	0.34%
QC value within limits for Cu		327.393 Recovery =	106.92%			
Fe 273.955†	3912540.7	188.787 mg/L	3.0515	188.787 mg/L	3.0515	1.62%
QC value within limits for Fe		273.955 Recovery =	94.39%			
K 404.721†	-1634.4	-65.2641 mg/L	14.52338	-65.2641 mg/L	14.52338	22.25%
Mg 279.077†	4375118.7	507.785 mg/L	8.3997	507.785 mg/L	8.3997	1.65%
QC value within limits for Mg		279.077 Recovery =	101.56%			
Mn 257.610†	179701.3	0.500515 mg/L	0.0019669	0.500515 mg/L	0.0019669	0.39%
QC value within limits for Mn		257.610 Recovery =	100.10%			
Mo 202.031†	-14.3	-0.0018571 mg/L	0.00105653	-0.0018571 mg/L	0.00105653	56.89%
Na 330.237†	4261.8	9.53520 mg/L	0.056010	9.53520 mg/L	0.056010	0.59%
Ni 231.604†	25335.1	0.953936 mg/L	0.0119415	0.953936 mg/L	0.0119415	1.25%
QC value within limits for Ni		231.604 Recovery =	95.39%			
Pb 220.353†	5323.9	0.958346 mg/L	0.0131682	0.958346 mg/L	0.0131682	1.37%
QC value within limits for Pb		220.353 Recovery =	95.83%			
Sb 206.836†	1425.0	1.02261 mg/L	0.002198	1.02261 mg/L	0.002198	0.21%
QC value within limits for Sb		206.836 Recovery =	102.26%			
Se 196.026†	682.1	1.01070 mg/L	0.008980	1.01070 mg/L	0.008980	0.89%
QC value within limits for Se		196.026 Recovery =	101.07%			
Sn 189.927†	-34.3	0.0079839 mg/L	0.00104930	0.0079839 mg/L	0.00104930	13.14%
Ti 334.940†	-448.6	-0.0008789 mg/L	0.00030740	-0.0008789 mg/L	0.00030740	34.97%
Tl 190.801†	828.0	0.985856 mg/L	0.0181101	0.985856 mg/L	0.0181101	1.84%
QC value within limits for Tl		190.801 Recovery =	98.59%			
V 290.880†	52511.6	0.496512 mg/L	0.0032122	0.496512 mg/L	0.0032122	0.65%
QC value within limits for V		290.880 Recovery =	99.30%			
Zn 206.200†	35091.3	0.978442 mg/L	0.0108584	0.978442 mg/L	0.0108584	1.11%
QC value within limits for Zn		206.200 Recovery =	97.84%			

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 11690 (100)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 12/12/2011 4:23:08 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11690 (100)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	501902.9	101	%	0.7				0.69%
Y 371.029	194235.4	101	%	0.8				0.80%
Ag 328.068†	37.1	0.0004962	mg/L	0.00044941	0.0004962	mg/L	0.00044941	90.57%
Al 308.215†	410.4	0.0244052	mg/L	0.00528713	0.0244052	mg/L	0.00528713	21.66%
As 188.979†	7.8	0.0063342	mg/L	0.00270160	0.0063342	mg/L	0.00270160	42.65%
Ba 233.527†	59.4	0.0007810	mg/L	0.00022707	0.0007810	mg/L	0.00022707	29.07%
Be 313.107†	-41.3	0.0007458	mg/L	0.00000772	0.0007458	mg/L	0.00000772	1.04%
Ca 317.933†	24994.2	0.431523	mg/L	0.0030472	0.431523	mg/L	0.0030472	0.71%
Cd 228.802†	36.7	0.0010331	mg/L	0.00168633	0.0010331	mg/L	0.00168633	163.23%
Co 228.616†	-5.9	-0.0016778	mg/L	0.00191080	-0.0016778	mg/L	0.00191080	113.89%
Cr 267.716†	35.9	0.0014682	mg/L	0.00037002	0.0014682	mg/L	0.00037002	25.20%
Cu 327.393†	26.9	0.0008720	mg/L	0.00039717	0.0008720	mg/L	0.00039717	45.55%
Fe 273.955†	1066.4	0.0508776	mg/L	0.05702402	0.0508776	mg/L	0.05702402	112.08%
K 404.721†	-210.3	3.88651	mg/L	5.824462	3.88651	mg/L	5.824462	149.86%
Mg 279.077†	480.8	0.0016105	mg/L	0.00025422	0.0016105	mg/L	0.00025422	15.79%
Mn 257.610†	244.2	0.0005496	mg/L	0.00051831	0.0005496	mg/L	0.00051831	94.32%
Mo 202.031†	-0.9	-0.0008803	mg/L	0.00072064	-0.0008803	mg/L	0.00072064	81.86%
Na 330.237†	94.4	0.791151	mg/L	0.1733552	0.791151	mg/L	0.1733552	21.91%
Ni 231.604†	45.9	0.0006199	mg/L	0.00149727	0.0006199	mg/L	0.00149727	241.55%
Pb 220.353†	17.4	0.0041003	mg/L	0.00509257	0.0041003	mg/L	0.00509257	124.20%
Sb 206.836†	-3.0	0.0009188	mg/L	0.00460655	0.0009188	mg/L	0.00460655	501.37%
Se 196.026†	0.3	0.0056927	mg/L	0.00839952	0.0056927	mg/L	0.00839952	147.55%
Sn 189.927†	49.1	0.0118525	mg/L	0.00121631	0.0118525	mg/L	0.00121631	10.26%
Ti 334.940†	-18.0	0.0006517	mg/L	0.00014854	0.0006517	mg/L	0.00014854	22.79%
Tl 190.801†	-0.2	0.0005772	mg/L	0.00023002	0.0005772	mg/L	0.00023002	39.85%
V 290.880†	-1.1	-0.0010116	mg/L	0.00081252	-0.0010116	mg/L	0.00081252	80.32%
Zn 206.200†	295.6	0.0071065	mg/L	0.00195535	0.0071065	mg/L	0.00195535	27.52%

Sequence No.: 12  
 Sample ID: LCS 11690  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 39  
 Date Collected: 12/12/2011 4:26:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCS 11690

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Calib. Units		Conc.	Units	Std.Dev.	
Sc 361.383	499188.3	100	%	0.3				0.28%
Y 371.029	226736.7	117	%	0.2				0.16%
Ag 328.068†	63936.7	0.705701	mg/L	0.0025012	0.705701	mg/L	0.0025012	0.35%
Al 308.215†	1069674.9	67.3539	mg/L	0.05846	67.3539	mg/L	0.05846	0.09%
As 188.979†	1775.8	1.54458	mg/L	0.004652	1.54458	mg/L	0.004652	0.30%
Ba 233.527†	370171.7	3.69662	mg/L	0.006250	3.69662	mg/L	0.006250	0.17%
Be 313.107†	2647645.6	1.37997	mg/L	0.000469	1.37997	mg/L	0.000469	0.03%
Ca 317.933†	3753401.5	76.5177	mg/L	0.17628	76.5177	mg/L	0.17628	0.23%
Cd 228.802†	40002.2	1.41997	mg/L	0.001242	1.41997	mg/L	0.001242	0.09%
Co 228.616†	29759.2	1.06347	mg/L	0.000160	1.06347	mg/L	0.000160	0.02%
Cr 267.716†	51564.3	1.72322	mg/L	0.001293	1.72322	mg/L	0.001293	0.08%
Cu 327.393†	122586.7	1.62759	mg/L	0.005875	1.62759	mg/L	0.005875	0.36%
Fe 273.955†	2255323.1	108.823	mg/L	0.0111	108.823	mg/L	0.0111	0.01%
K 404.721†	481.4	37.4744	mg/L	12.40171	37.4744	mg/L	12.40171	33.09%
Mg 279.077†	287705.8	33.3647	mg/L	0.03782	33.3647	mg/L	0.03782	0.11%
Mn 257.610†	1281377.6	3.63264	mg/L	0.001626	3.63264	mg/L	0.001626	0.04%
Mo 202.031†	12823.5	1.13449	mg/L	0.000025	1.13449	mg/L	0.000025	0.00%
Na 330.237†	3786.2	8.53726	mg/L	0.160332	8.53726	mg/L	0.160332	1.88%
Ni 231.604†	35630.2	1.34518	mg/L	0.003482	1.34518	mg/L	0.003482	0.26%
Pb 220.353†	4261.9	0.987546	mg/L	0.0049681	0.987546	mg/L	0.0049681	0.50%
Sb 206.836†	858.2	0.652540	mg/L	0.0050011	0.652540	mg/L	0.0050011	0.77%
Se 196.026†	1033.6	1.44046	mg/L	0.000061	1.44046	mg/L	0.000061	0.00%
Sn 189.927†	5599.3	1.55373	mg/L	0.004312	1.55373	mg/L	0.004312	0.28%
Ti 334.940†	775571.5	2.54300	mg/L	0.007736	2.54300	mg/L	0.007736	0.30%
Tl 190.801†	1271.6	1.51926	mg/L	0.003474	1.51926	mg/L	0.003474	0.23%
V 290.880†	98933.1	1.10387	mg/L	0.000128	1.10387	mg/L	0.000128	0.01%
Zn 206.200†	120573.5	3.42182	mg/L	0.001074	3.42182	mg/L	0.001074	0.03%

Sequence No.: 13  
 Sample ID: LCS 11690 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 40  
 Date Collected: 12/12/2011 4:31:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCS 11690 MR

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	494570.6	99.5 %	%	1.21			1.22%
Y 371.029	224977.7	116 %	%	1.1			0.98%
Ag 328.068†	68825.6	0.759060	mg/L	0.0010229	0.759060 mg/L	0.0010229	0.13%
Al 308.215†	1112730.1	70.0652	mg/L	0.30291	70.0652 mg/L	0.30291	0.43%
As 188.979†	1869.7	1.62627	mg/L	0.015639	1.62627 mg/L	0.015639	0.96%
Ba 233.527†	385047.4	3.84517	mg/L	0.010002	3.84517 mg/L	0.010002	0.26%
Be 313.107†	2753263.1	1.43499	mg/L	0.004827	1.43499 mg/L	0.004827	0.34%
Ca 317.933†	3872821.8	78.9547	mg/L	0.05137	78.9547 mg/L	0.05137	0.07%
Cd 228.802†	42475.9	1.50774	mg/L	0.002866	1.50774 mg/L	0.002866	0.19%
Co 228.616†	30840.5	1.10225	mg/L	0.013406	1.10225 mg/L	0.013406	1.22%
Cr 267.716†	53502.0	1.78796	mg/L	0.004501	1.78796 mg/L	0.004501	0.25%
Cu 327.393†	127431.3	1.69183	mg/L	0.001381	1.69183 mg/L	0.001381	0.08%
Fe 273.955†	2375237.5	114.609	mg/L	0.2874	114.609 mg/L	0.2874	0.25%
K 404.721†	428.1	34.8841	mg/L	12.10122	34.8841 mg/L	12.10122	34.69%
Mg 279.077†	299747.9	34.7633	mg/L	0.13951	34.7633 mg/L	0.13951	0.40%
Mn 257.610†	1332463.1	3.77746	mg/L	0.012108	3.77746 mg/L	0.012108	0.32%
Mo 202.031†	13245.3	1.17184	mg/L	0.013740	1.17184 mg/L	0.013740	1.17%
Na 330.237†	3938.3	8.85647	mg/L	0.259806	8.85647 mg/L	0.259806	2.93%
Ni 231.604†	36735.0	1.38693	mg/L	0.006939	1.38693 mg/L	0.006939	0.50%
Pb 220.353†	4498.2	1.04294	mg/L	0.014433	1.04294 mg/L	0.014433	1.38%
Sb 206.836†	916.3	0.695539	mg/L	0.0058261	0.695539 mg/L	0.0058261	0.84%
Se 196.026†	1091.6	1.52098	mg/L	0.023400	1.52098 mg/L	0.023400	1.54%
Sn 189.927†	5845.3	1.62212	mg/L	0.018175	1.62212 mg/L	0.018175	1.12%
Ti 334.940†	791168.5	2.59412	mg/L	0.026373	2.59412 mg/L	0.026373	1.02%
Tl 190.801†	1388.4	1.65802	mg/L	0.038601	1.65802 mg/L	0.038601	2.33%
V 290.880†	103285.8	1.15243	mg/L	0.002370	1.15243 mg/L	0.002370	0.21%
Zn 206.200†	124811.8	3.54214	mg/L	0.019368	3.54214 mg/L	0.019368	0.55%

Sequence No.: 14  
 Sample ID: 63091-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 12/12/2011 4:36:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63091-001

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	500642.7		101 %	0.0			0.02%	
Y 371.029	226588.2		117 %	0.1			0.10%	
Ag 328.068†	-2831.9	0.0167290	mg/L	0.00081013	0.0167290	mg/L	0.00081013	4.84%
Al 308.215†	1287767.1	81.1217	mg/L	0.06438	81.1217	mg/L	0.06438	0.08%
As 188.979†	25.2	0.0407781	mg/L	0.00214360	0.0407781	mg/L	0.00214360	5.26%
Ba 233.527†	101551.3	1.01425	mg/L	0.002255	1.01425	mg/L	0.002255	0.22%
Be 313.107†	14090.2	0.0081071	mg/L	0.00000796	0.0081071	mg/L	0.00000796	0.10%
Ca 317.933†	2107599.2	42.9316	mg/L	0.00809	42.9316	mg/L	0.00809	0.02%
Cd 228.802†	87.4	0.0031988	mg/L	0.00075337	0.0031988	mg/L	0.00075337	23.55%
Co 228.616†	3320.4	0.111746	mg/L	0.0011771	0.111746	mg/L	0.0011771	1.05%
Cr 267.716†	7044.9	0.235507	mg/L	0.0013231	0.235507	mg/L	0.0013231	0.56%
Cu 327.393†	8288.3	0.128537	mg/L	0.0012715	0.128537	mg/L	0.0012715	0.99%
Fe 273.955†	4666563.0	225.170	mg/L	0.0952	225.170	mg/L	0.0952	0.04%
K 404.721†	57.6	16.8947	mg/L	4.67744	16.8947	mg/L	4.67744	27.69%
Mg 279.077†	522540.7	60.5995	mg/L	0.15109	60.5995	mg/L	0.15109	0.25%
Mn 257.610†	1228948.9	3.48309	mg/L	0.001533	3.48309	mg/L	0.001533	0.04%
Mo 202.031†	55.5	0.0042696	mg/L	0.00106559	0.0042696	mg/L	0.00106559	24.96%
Na 330.237†	872.6	2.42408	mg/L	0.063082	2.42408	mg/L	0.063082	2.60%
Ni 231.604†	6623.0	0.248568	mg/L	0.0022713	0.248568	mg/L	0.0022713	0.91%
Pb 220.353†	1938.7	0.407950	mg/L	0.0023912	0.407950	mg/L	0.0023912	0.59%
Sb 206.836†	2.1	0.0104508	mg/L	0.00732753	0.0104508	mg/L	0.00732753	70.11%
Se 196.026†	-40.6	0.0013231	mg/L	0.01405862	0.0013231	mg/L	0.01405862	>999.9%
Sn 189.927†	148.2	0.0635873	mg/L	0.00040984	0.0635873	mg/L	0.00040984	0.64%
Ti 334.940†	802529.0	2.63175	mg/L	0.012847	2.63175	mg/L	0.012847	0.49%
Tl 190.801†	-16.1	-0.0067804	mg/L	0.00399445	-0.0067804	mg/L	0.00399445	58.91%
V 290.880†	21965.3	0.224744	mg/L	0.0007342	0.224744	mg/L	0.0007342	0.33%
Zn 206.200†	26918.9	0.760967	mg/L	0.0055224	0.760967	mg/L	0.0055224	0.73%

Sequence No.: 15

Autosampler Location: 42

Sample ID: 63091-001 MR

Date Collected: 12/12/2011 4:39:44 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63091-001 MR

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	493907.7	99.4	%	0.88			0.88%
Y 371.029	224148.3	116	%	0.9			0.75%
Ag 328.068†	-2845.8	0.0158880	mg/L	0.00037088	0.0158880	mg/L	0.00037088 2.33%
Al 308.215†	1304424.7	82.1711	mg/L	0.83535	82.1711	mg/L	0.83535 1.02%
As 188.979†	17.7	0.0339798	mg/L	0.00382374	0.0339798	mg/L	0.00382374 11.25%
Ba 233.527†	99218.9	0.990960	mg/L	0.0014137	0.990960	mg/L	0.0014137 0.14%
Be 313.107†	14721.2	0.0084359	mg/L	0.00009002	0.0084359	mg/L	0.00009002 1.07%
Ca 317.933†	1807689.3	36.8113	mg/L	0.03691	36.8113	mg/L	0.03691 0.10%
Cd 228.802†	92.0	0.0034063	mg/L	0.00082928	0.0034063	mg/L	0.00082928 24.35%
Co 228.616†	3630.0	0.123117	mg/L	0.0000223	0.123117	mg/L	0.0000223 0.02%
Cr 267.716†	6642.2	0.222058	mg/L	0.0014282	0.222058	mg/L	0.0014282 0.64%
Cu 327.393†	6040.3	0.0983434	mg/L	0.00065823	0.0983434	mg/L	0.00065823 0.67%
Fe 273.955†	4610357.1	222.458	mg/L	2.5492	222.458	mg/L	2.5492 1.15%
K 404.721†	33.7	15.7343	mg/L	13.92549	15.7343	mg/L	13.92549 88.50%
Mg 279.077†	562055.8	65.1861	mg/L	0.07881	65.1861	mg/L	0.07881 0.12%
Mn 257.610†	1053467.0	2.98549	mg/L	0.032542	2.98549	mg/L	0.032542 1.09%
Mo 202.031†	41.4	0.0030133	mg/L	0.00131803	0.0030133	mg/L	0.00131803 43.74%
Na 330.237†	706.8	2.07611	mg/L	0.070684	2.07611	mg/L	0.070684 3.40%
Ni 231.604†	7429.0	0.278949	mg/L	0.0011558	0.278949	mg/L	0.0011558 0.41%
Pb 220.353†	1602.5	0.326035	mg/L	0.0026291	0.326035	mg/L	0.0026291 0.81%
Sb 206.836†	0.7	0.0091431	mg/L	0.00092329	0.0091431	mg/L	0.00092329 10.10%
Se 196.026†	-44.0	-0.0034803	mg/L	0.00393349	-0.0034803	mg/L	0.00393349 113.02%
Sn 189.927†	36.1	0.0323687	mg/L	0.00000018	0.0323687	mg/L	0.00000018 0.00%
Ti 334.940†	770836.3	2.52785	mg/L	0.040606	2.52785	mg/L	0.040606 1.61%
Tl 190.801†	-20.9	-0.0127350	mg/L	0.00076258	-0.0127350	mg/L	0.00076258 5.99%
V 290.880†	20980.3	0.213015	mg/L	0.0001656	0.213015	mg/L	0.0001656 0.08%
Zn 206.200†	26421.1	0.746669	mg/L	0.0043390	0.746669	mg/L	0.0043390 0.58%

Sequence No.: 16  
 Sample ID: 63091-001 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 43  
 Date Collected: 12/12/2011 4:43:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63091-001 MS 1

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	487181.4	98.0	%	0.27			0.27%	
Y 371.029	213713.7	111	%	0.2			0.21%	
Ag 328.068†	5444.7	0.105882	mg/L	0.0004829	0.105882	mg/L	0.0004829	0.46%
Al 308.215†	1602349.0	100.928	mg/L	0.0356	100.928	mg/L	0.0356	0.04%
As 188.979†	529.0	0.476369	mg/L	0.0060840	0.476369	mg/L	0.0060840	1.28%
Ba 233.527†	146304.3	1.46114	mg/L	0.000092	1.46114	mg/L	0.000092	0.01%
Be 313.107†	866928.9	0.452366	mg/L	0.0002904	0.452366	mg/L	0.0002904	0.06%
Ca 317.933†	4127424.4	84.1505	mg/L	0.15880	84.1505	mg/L	0.15880	0.19%
Cd 228.802†	12760.5	0.453163	mg/L	0.0014287	0.453163	mg/L	0.0014287	0.32%
Co 228.616†	15997.8	0.566408	mg/L	0.0009353	0.566408	mg/L	0.0009353	0.17%
Cr 267.716†	20528.6	0.686169	mg/L	0.0040729	0.686169	mg/L	0.0040729	0.59%
Cu 327.393†	44854.6	0.612723	mg/L	0.0016705	0.612723	mg/L	0.0016705	0.27%
Fe 273.955†	4662150.3	224.957	mg/L	0.1950	224.957	mg/L	0.1950	0.09%
K 404.721†	1089.1	66.9785	mg/L	0.47986	66.9785	mg/L	0.47986	0.72%
Mg 279.077†	901647.1	104.613	mg/L	0.0175	104.613	mg/L	0.0175	0.02%
Mn 257.610†	1359347.1	3.85218	mg/L	0.001254	3.85218	mg/L	0.001254	0.03%
Mo 202.031†	4736.4	0.418515	mg/L	0.0015560	0.418515	mg/L	0.0015560	0.37%
Na 330.237†	21057.2	44.7746	mg/L	0.15741	44.7746	mg/L	0.15741	0.35%
Ni 231.604†	18221.1	0.686930	mg/L	0.0002197	0.686930	mg/L	0.0002197	0.03%
Pb 220.353†	3994.4	0.893528	mg/L	0.0016804	0.893528	mg/L	0.0016804	0.19%
Sb 206.836†	323.3	0.251552	mg/L	0.0009712	0.251552	mg/L	0.0009712	0.39%
Se 196.026†	249.8	0.399232	mg/L	0.0093462	0.399232	mg/L	0.0093462	2.34%
Sn 189.927†	1679.7	0.485949	mg/L	0.0022730	0.485949	mg/L	0.0022730	0.47%
Ti 334.940†	999314.1	3.27680	mg/L	0.011831	3.27680	mg/L	0.011831	0.36%
Tl 190.801†	360.5	0.442676	mg/L	0.0004815	0.442676	mg/L	0.0004815	0.11%
V 290.880†	60414.4	0.651175	mg/L	0.0007225	0.651175	mg/L	0.0007225	0.11%
Zn 206.200†	42951.9	1.21516	mg/L	0.000348	1.21516	mg/L	0.000348	0.03%

Sequence No.: 17

Autosampler Location: 44

Sample ID: 63091-001 MS 2

Date Collected: 12/12/2011 4:46:54 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63091-001 MS 2

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	492085.3	99.0	%	1.74				1.76%
Y 371.029	215985.1	112	%	1.8				1.64%
Ag 328.068†	5459.5	0.104746	mg/L	0.0017116	0.104746	mg/L	0.0017116	1.63%
Al 308.215†	1554962.8	97.9430	mg/L	2.75352	97.9430	mg/L	2.75352	2.81%
As 188.979†	526.3	0.473489	mg/L	0.0037698	0.473489	mg/L	0.0037698	0.80%
Ba 233.527†	145454.1	1.45265	mg/L	0.012382	1.45265	mg/L	0.012382	0.85%
Be 313.107†	855392.5	0.446356	mg/L	0.0119848	0.446356	mg/L	0.0119848	2.69%
Ca 317.933†	4063154.6	82.8389	mg/L	2.24367	82.8389	mg/L	2.24367	2.71%
Cd 228.802†	12705.9	0.451224	mg/L	0.0051105	0.451224	mg/L	0.0051105	1.13%
Co 228.616†	15807.1	0.559850	mg/L	0.0049550	0.559850	mg/L	0.0049550	0.89%
Cr 267.716†	20050.2	0.670202	mg/L	0.0062165	0.670202	mg/L	0.0062165	0.93%
Cu 327.393†	44287.7	0.604617	mg/L	0.0055715	0.604617	mg/L	0.0055715	0.92%
Fe 273.955†	4533561.7	218.753	mg/L	5.6111	218.753	mg/L	5.6111	2.57%
K 404.721†	1479.9	85.9555	mg/L	19.83035	85.9555	mg/L	19.83035	23.07%
Mg 279.077†	879842.1	102.082	mg/L	2.6153	102.082	mg/L	2.6153	2.56%
Mn 257.610†	1405304.8	3.98253	mg/L	0.103934	3.98253	mg/L	0.103934	2.61%
Mo 202.031†	4795.5	0.423742	mg/L	0.0055450	0.423742	mg/L	0.0055450	1.31%
Na 330.237†	21207.7	45.0905	mg/L	0.27813	45.0905	mg/L	0.27813	0.62%
Ni 231.604†	18124.6	0.683306	mg/L	0.0071371	0.683306	mg/L	0.0071371	1.04%
Pb 220.353†	4699.9	1.06663	mg/L	0.015251	1.06663	mg/L	0.015251	1.43%
Sb 206.836†	335.6	0.260309	mg/L	0.0030001	0.260309	mg/L	0.0030001	1.15%
Se 196.026†	249.1	0.396471	mg/L	0.0041076	0.396471	mg/L	0.0041076	1.04%
Sn 189.927†	1629.6	0.471445	mg/L	0.0051639	0.471445	mg/L	0.0051639	1.10%
Ti 334.940†	961902.7	3.15415	mg/L	0.083589	3.15415	mg/L	0.083589	2.65%
Tl 190.801†	359.6	0.440955	mg/L	0.0037484	0.440955	mg/L	0.0037484	0.85%
V 290.880†	60277.5	0.650381	mg/L	0.0053748	0.650381	mg/L	0.0053748	0.83%
Zn 206.200†	42670.5	1.20724	mg/L	0.009389	1.20724	mg/L	0.009389	0.78%

Sequence No.: 18

Autosampler Location: 45

Sample ID: 63091-001 PS

Date Collected: 12/12/2011 4:50:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63091-001 PS

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	485106.8		97.6 %	2.38			2.44%	
Y 371.029	218587.8		113 %	2.7			2.40%	
Ag 328.068†	5456.8	0.106121	mg/L	0.0008748	0.106121	mg/L	0.0008748	0.82%
Al 308.215†	1336547.5	84.1825	mg/L	3.03450	84.1825	mg/L	3.03450	3.60%
As 188.979†	572.5	0.514936	mg/L	0.0114500	0.514936	mg/L	0.0114500	2.22%
Ba 233.527†	147776.5	1.47584	mg/L	0.004350	1.47584	mg/L	0.004350	0.29%
Be 313.107†	919845.7	0.479931	mg/L	0.0162269	0.479931	mg/L	0.0162269	3.38%
Ca 317.933†	4376347.6	89.2303	mg/L	3.52390	89.2303	mg/L	3.52390	3.95%
Cd 228.802†	13630.5	0.484068	mg/L	0.0056986	0.484068	mg/L	0.0056986	1.18%
Co 228.616†	16907.1	0.599638	mg/L	0.0072928	0.599638	mg/L	0.0072928	1.22%
Cr 267.716†	21035.1	0.703145	mg/L	0.0043990	0.703145	mg/L	0.0043990	0.63%
Cu 327.393†	46023.7	0.627829	mg/L	0.0015068	0.627829	mg/L	0.0015068	0.24%
Fe 273.955†	4661454.9	224.924	mg/L	8.0517	224.924	mg/L	8.0517	3.58%
K 404.721†	1228.6	73.7562	mg/L	21.87394	73.7562	mg/L	21.87394	29.66%
Mg 279.077†	922551.1	107.040	mg/L	3.9557	107.040	mg/L	3.9557	3.70%
Mn 257.610†	1364423.3	3.86656	mg/L	0.138245	3.86656	mg/L	0.138245	3.58%
Mo 202.031†	5411.6	0.478258	mg/L	0.0076844	0.478258	mg/L	0.0076844	1.61%
Na 330.237†	22625.6	48.0654	mg/L	0.30273	48.0654	mg/L	0.30273	0.63%
Ni 231.604†	19282.2	0.727096	mg/L	0.0091392	0.727096	mg/L	0.0091392	1.26%
Pb 220.353†	3872.7	0.875109	mg/L	0.0081926	0.875109	mg/L	0.0081926	0.94%
Sb 206.836†	647.4	0.487408	mg/L	0.0058183	0.487408	mg/L	0.0058183	1.19%
Se 196.026†	305.5	0.475082	mg/L	0.0041815	0.475082	mg/L	0.0041815	0.88%
Sn 189.927†	1927.0	0.553966	mg/L	0.0060974	0.553966	mg/L	0.0060974	1.10%
Ti 334.940†	938268.5	3.07666	mg/L	0.084763	3.07666	mg/L	0.084763	2.76%
Tl 190.801†	398.3	0.486501	mg/L	0.0098495	0.486501	mg/L	0.0098495	2.02%
V 290.880†	62840.9	0.678167	mg/L	0.0002125	0.678167	mg/L	0.0002125	0.03%
Zn 206.200†	43434.6	1.22880	mg/L	0.013025	1.22880	mg/L	0.013025	1.06%

Sequence No.: 19  
 Sample ID: CCV V-129808  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 4:54:05 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	472331.2	95.1 %	0.72			0.76%
Y 371.029	180005.0	93.2 %	0.71			0.77%
Ag 328.068†	9193.2	0.100266 mg/L	0.0000947	0.100266 mg/L	0.0000947	0.09%
	QC value within limits for Ag	328.068	Recovery = 100.27%			
Al 308.215†	79441.0	4.98977 mg/L	0.004796	4.98977 mg/L	0.004796	0.10%
	QC value within limits for Al	308.215	Recovery = 99.80%			
As 188.979†	581.9	0.504193 mg/L	0.0016721	0.504193 mg/L	0.0016721	0.33%
	QC value within limits for As	188.979	Recovery = 100.84%			
Ba 233.527†	50697.4	0.506438 mg/L	0.0006412	0.506438 mg/L	0.0006412	0.13%
	QC value within limits for Ba	233.527	Recovery = 101.29%			
Be 313.107†	954249.2	0.497852 mg/L	0.0002698	0.497852 mg/L	0.0002698	0.05%
	QC value within limits for Be	313.107	Recovery = 99.57%			
Ca 317.933†	2455836.2	50.0381 mg/L	0.31306	50.0381 mg/L	0.31306	0.63%
	QC value within limits for Ca	317.933	Recovery = 100.08%			
Cd 228.802†	14302.8	0.507583 mg/L	0.0003044	0.507583 mg/L	0.0003044	0.06%
	QC value within limits for Cd	228.802	Recovery = 101.52%			
Co 228.616†	14400.9	0.515589 mg/L	0.0017423	0.515589 mg/L	0.0017423	0.34%
	QC value within limits for Co	228.616	Recovery = 103.12%			
Cr 267.716†	15035.3	0.502844 mg/L	0.0018701	0.502844 mg/L	0.0018701	0.37%
	QC value within limits for Cr	267.716	Recovery = 100.57%			
Cu 327.393†	38147.6	0.505771 mg/L	0.0000893	0.505771 mg/L	0.0000893	0.02%
	QC value within limits for Cu	327.393	Recovery = 101.15%			
Fe 273.955†	103182.0	4.97815 mg/L	0.009304	4.97815 mg/L	0.009304	0.19%
	QC value within limits for Fe	273.955	Recovery = 99.56%			
K 404.721†	691.1	47.6533 mg/L	2.66254	47.6533 mg/L	2.66254	5.59%
Mg 279.077†	431085.0	49.9944 mg/L	0.02544	49.9944 mg/L	0.02544	0.05%
	QC value within limits for Mg	279.077	Recovery = 99.99%			
Mn 257.610†	176978.0	0.500947 mg/L	0.0002564	0.500947 mg/L	0.0002564	0.05%
	QC value within limits for Mn	257.610	Recovery = 100.19%			
Mo 202.031†	5797.8	0.512278 mg/L	0.0010172	0.512278 mg/L	0.0010172	0.20%
	QC value within limits for Mo	202.031	Recovery = 102.46%			
Na 330.237†	22707.4	48.2370 mg/L	0.07677	48.2370 mg/L	0.07677	0.16%
	QC value within limits for Na	330.237	Recovery = 96.47%			
Ni 231.604†	13561.5	0.511539 mg/L	0.0002439	0.511539 mg/L	0.0002439	0.05%
	QC value within limits for Ni	231.604	Recovery = 102.31%			
Pb 220.353†	2097.1	0.505161 mg/L	0.0015602	0.505161 mg/L	0.0015602	0.31%
	QC value within limits for Pb	220.353	Recovery = 101.03%			
Sb 206.836†	686.9	0.511090 mg/L	0.0015004	0.511090 mg/L	0.0015004	0.29%
	QC value within limits for Sb	206.836	Recovery = 102.22%			
Se 196.026†	369.5	0.512095 mg/L	0.0019572	0.512095 mg/L	0.0019572	0.38%
	QC value within limits for Se	196.026	Recovery = 102.42%			
Sn 189.927†	1874.6	0.515667 mg/L	0.0010587	0.515667 mg/L	0.0010587	0.21%
	QC value within limits for Sn	189.927	Recovery = 103.13%			
Ti 334.940†	155468.1	0.510291 mg/L	0.0002293	0.510291 mg/L	0.0002293	0.04%
	QC value within limits for Ti	334.940	Recovery = 102.06%			
Tl 190.801†	449.5	0.535868 mg/L	0.0026054	0.535868 mg/L	0.0026054	0.49%
	QC value within limits for Tl	190.801	Recovery = 107.17%			
V 290.880†	45145.1	0.499721 mg/L	0.0016708	0.499721 mg/L	0.0016708	0.33%
	QC value within limits for V	290.880	Recovery = 99.94%			
Zn 206.200†	17900.5	0.505787 mg/L	0.0001225	0.505787 mg/L	0.0001225	0.02%
	QC value within limits for Zn	206.200	Recovery = 101.16%			

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/12/2011 4:57:28 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	500343.4	101	%	0.5				0.53%
Y 371.029	195052.4	101	%	0.6				0.59%
Ag 328.068†	28.9	0.0003867	mg/L	0.00031147	0.0003867	mg/L	0.00031147	80.54%
QC value within limits for Ag	328.068	Recovery =	Not calculated					
Al 308.215†	78.4	0.0034654	mg/L	0.00470888	0.0034654	mg/L	0.00470888	135.88%
QC value within limits for Al	308.215	Recovery =	Not calculated					
As 188.979†	0.7	0.0002177	mg/L	0.00274557	0.0002177	mg/L	0.00274557	>999.9%
QC value within limits for As	188.979	Recovery =	Not calculated					
Ba 233.527†	31.5	0.0005022	mg/L	0.00041130	0.0005022	mg/L	0.00041130	81.90%
QC value within limits for Ba	233.527	Recovery =	Not calculated					
Be 313.107†	-9.4	0.0007624	mg/L	0.00005495	0.0007624	mg/L	0.00005495	7.21%
QC value within limits for Be	313.107	Recovery =	Not calculated					
Ca 317.933†	-28.4	-0.0791164	mg/L	0.00110331	-0.0791164	mg/L	0.00110331	1.39%
QC value within limits for Ca	317.933	Recovery =	Not calculated					
Cd 228.802†	-1.9	-0.0003396	mg/L	0.00016888	-0.0003396	mg/L	0.00016888	49.73%
QC value within limits for Cd	228.802	Recovery =	Not calculated					
Co 228.616†	6.6	-0.0012242	mg/L	0.00049457	-0.0012242	mg/L	0.00049457	40.40%
QC value within limits for Co	228.616	Recovery =	Not calculated					
Cr 267.716†	-0.1	0.0002676	mg/L	0.00017864	0.0002676	mg/L	0.00017864	66.76%
QC value within limits for Cr	267.716	Recovery =	Not calculated					
Cu 327.393†	-52.9	-0.0002017	mg/L	0.00093885	-0.0002017	mg/L	0.00093885	465.40%
QC value within limits for Cu	327.393	Recovery =	Not calculated					
Fe 273.955†	7.5	-0.0002153	mg/L	0.00209230	-0.0002153	mg/L	0.00209230	971.84%
QC value within limits for Fe	273.955	Recovery =	Not calculated					
K 404.721†	-265.0	1.22899	mg/L	14.978107	1.22899	mg/L	14.978107	>999.9%
Mg 279.077†	29.4	-0.0507626	mg/L	0.00556054	-0.0507626	mg/L	0.00556054	10.95%
QC value within limits for Mg	279.077	Recovery =	Not calculated					
Mn 257.610†	24.5	-0.0000723	mg/L	0.00000146	-0.0000723	mg/L	0.00000146	2.02%
QC value within limits for Mn	257.610	Recovery =	Not calculated					
Mo 202.031†	10.5	0.0001326	mg/L	0.00083618	0.0001326	mg/L	0.00083618	630.46%
QC value within limits for Mo	202.031	Recovery =	Not calculated					
Na 330.237†	-56.3	0.475141	mg/L	0.0094078	0.475141	mg/L	0.0094078	1.98%
QC value within limits for Na	330.237	Recovery =	Not calculated					
Ni 231.604†	-36.1	-0.0024703	mg/L	0.00033566	-0.0024703	mg/L	0.00033566	13.59%
QC value within limits for Ni	231.604	Recovery =	Not calculated					
Pb 220.353†	-6.2	-0.0016095	mg/L	0.00133508	-0.0016095	mg/L	0.00133508	82.95%
QC value within limits for Pb	220.353	Recovery =	Not calculated					
Sb 206.836†	-9.3	-0.0036194	mg/L	0.00233741	-0.0036194	mg/L	0.00233741	64.58%
QC value within limits for Sb	206.836	Recovery =	Not calculated					
Se 196.026†	-0.9	0.0040054	mg/L	0.00423063	0.0040054	mg/L	0.00423063	105.62%
QC value within limits for Se	196.026	Recovery =	Not calculated					
Sn 189.927†	12.7	0.0018387	mg/L	0.00125190	0.0018387	mg/L	0.00125190	68.08%
QC value within limits for Sn	189.927	Recovery =	Not calculated					
Ti 334.940†	-95.7	0.0003975	mg/L	0.00016689	0.0003975	mg/L	0.00016689	41.99%
QC value within limits for Ti	334.940	Recovery =	Not calculated					
Tl 190.801†	1.2	0.0022196	mg/L	0.00373901	0.0022196	mg/L	0.00373901	168.46%
QC value within limits for Tl	190.801	Recovery =	Not calculated					
V 290.880†	96.8	0.0001034	mg/L	0.00032221	0.0001034	mg/L	0.00032221	311.73%
QC value within limits for V	290.880	Recovery =	Not calculated					
Zn 206.200†	10.9	-0.0009733	mg/L	0.00026574	-0.0009733	mg/L	0.00026574	27.30%
QC value within limits for Zn	206.200	Recovery =	Not calculated					

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63091-001 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 12/12/2011 5:00:48 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63091-001 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	495070.4	99.6	%	1.33				1.33%
Y 371.029	197342.8	102	%	1.1				1.13%
Ag 328.068†	-549.3	0.0037187	mg/L	0.00033157	0.0037187	mg/L	0.00033157	8.92%
Al 308.215†	257407.2	16.2140	mg/L	0.05372	16.2140	mg/L	0.05372	0.33%
As 188.979†	6.9	0.0095284	mg/L	0.00120810	0.0095284	mg/L	0.00120810	12.68%
Ba 233.527†	20280.7	0.202706	mg/L	0.0006820	0.202706	mg/L	0.0006820	0.34%
Be 313.107†	2664.5	0.0021553	mg/L	0.00007286	0.0021553	mg/L	0.00007286	3.38%
Ca 317.933†	428074.3	8.65724	mg/L	0.113818	8.65724	mg/L	0.113818	1.31%
Cd 228.802†	24.2	0.0006598	mg/L	0.00081090	0.0006598	mg/L	0.00081090	122.89%
Co 228.616†	659.0	0.0210184	mg/L	0.00106276	0.0210184	mg/L	0.00106276	5.06%
Cr 267.716†	1497.7	0.0502797	mg/L	0.00089450	0.0502797	mg/L	0.00089450	1.78%
Cu 327.393†	1644.2	0.0259362	mg/L	0.00042990	0.0259362	mg/L	0.00042990	1.66%
Fe 273.955†	946024.4	45.6469	mg/L	0.11440	45.6469	mg/L	0.11440	0.25%
K 404.721†	-85.5	9.94341	mg/L	13.806224	9.94341	mg/L	13.806224	138.85%
Mg 279.077†	106464.7	12.3037	mg/L	0.05298	12.3037	mg/L	0.05298	0.43%
Mn 257.610†	247520.9	0.701408	mg/L	0.0017047	0.701408	mg/L	0.0017047	0.24%
Mo 202.031†	10.9	0.0001966	mg/L	0.00040939	0.0001966	mg/L	0.00040939	208.19%
Na 330.237†	185.4	0.982176	mg/L	0.1469372	0.982176	mg/L	0.1469372	14.96%
Ni 231.604†	1343.0	0.0495180	mg/L	0.00212591	0.0495180	mg/L	0.00212591	4.29%
Pb 220.353†	406.9	0.0861484	mg/L	0.00085557	0.0861484	mg/L	0.00085557	0.99%
Sb 206.836†	-7.4	-0.0010873	mg/L	0.00358822	-0.0010873	mg/L	0.00358822	330.02%
Se 196.026†	-11.6	-0.0001770	mg/L	0.00125101	-0.0001770	mg/L	0.00125101	706.80%
Sn 189.927†	35.5	0.0130412	mg/L	0.00037117	0.0130412	mg/L	0.00037117	2.85%
Ti 334.940†	157077.4	0.515678	mg/L	0.0023567	0.515678	mg/L	0.0023567	0.46%
Tl 190.801†	-6.4	-0.0044830	mg/L	0.00288341	-0.0044830	mg/L	0.00288341	64.32%
V 290.880†	4639.5	0.0468667	mg/L	0.00148484	0.0468667	mg/L	0.00148484	3.17%
Zn 206.200†	5503.6	0.154566	mg/L	0.0022125	0.154566	mg/L	0.0022125	1.43%

Sequence No.: 22  
 Sample ID: 63111-028  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 12/12/2011 5:04:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-028

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	491175.0	98.8	%	0.36				0.36%
Y 371.029	197905.8	102	%	0.1				0.08%
Ag 328.068†	-2305.7	0.0146561	mg/L	0.00071187	0.0146561	mg/L	0.00071187	4.86%
Al 308.215†	289237.8	18.2190	mg/L	0.07790	18.2190	mg/L	0.07790	0.43%
As 188.979†	94.0	0.0988587	mg/L	0.00151494	0.0988587	mg/L	0.00151494	1.53%
Ba 233.527†	34853.2	0.348222	mg/L	0.0011353	0.348222	mg/L	0.0011353	0.33%
Be 313.107†	2723.9	0.0021862	mg/L	0.00002102	0.0021862	mg/L	0.00002102	0.96%
Ca 317.933†	4470343.7	91.1485	mg/L	2.02290	91.1485	mg/L	2.02290	2.22%
Cd 228.802†	167.9	0.0058139	mg/L	0.00021543	0.0058139	mg/L	0.00021543	3.71%
Co 228.616†	1177.0	0.0386611	mg/L	0.00081534	0.0386611	mg/L	0.00081534	2.11%
Cr 267.716†	1955.9	0.0655864	mg/L	0.00073201	0.0655864	mg/L	0.00073201	1.12%
Cu 327.393†	149081.8	1.97657	mg/L	0.015444	1.97657	mg/L	0.015444	0.78%
Fe 273.955†	3771475.2	181.980	mg/L	3.2328	181.980	mg/L	3.2328	1.78%
K 404.721†	-723.9	-21.0523	mg/L	18.05430	-21.0523	mg/L	18.05430	85.76%
Mg 279.077†	62516.3	7.20248	mg/L	0.035185	7.20248	mg/L	0.035185	0.49%
Mn 257.610†	479314.9	1.35868	mg/L	0.007668	1.35868	mg/L	0.007668	0.56%
Mo 202.031†	69.8	0.0056416	mg/L	0.00137867	0.0056416	mg/L	0.00137867	24.44%
Na 330.237†	2240.1	5.29321	mg/L	0.105397	5.29321	mg/L	0.105397	1.99%
Ni 231.604†	2358.7	0.0878219	mg/L	0.00025713	0.0878219	mg/L	0.00025713	0.29%
Pb 220.353†	8653.1	2.07702	mg/L	0.023079	2.07702	mg/L	0.023079	1.11%
Sb 206.836†	12.4	0.0150739	mg/L	0.00196187	0.0150739	mg/L	0.00196187	13.02%
Se 196.026†	-34.1	0.0039597	mg/L	0.00192068	0.0039597	mg/L	0.00192068	48.51%
Sn 189.927†	1029.0	0.300864	mg/L	0.0027048	0.300864	mg/L	0.0027048	0.90%
Ti 334.940†	286847.5	0.941126	mg/L	0.0043575	0.941126	mg/L	0.0043575	0.46%
Tl 190.801†	-8.9	-0.0056817	mg/L	0.00276447	-0.0056817	mg/L	0.00276447	48.66%
V 290.880†	8307.8	0.0819273	mg/L	0.00081259	0.0819273	mg/L	0.00081259	0.99%
Zn 206.200†	44860.7	1.27164	mg/L	0.011876	1.27164	mg/L	0.011876	0.93%

Sequence No.: 23  
 Sample ID: 63111-030  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 12/12/2011 5:07:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-030

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	485784.3	97.8	%	3.25				3.33%
Y 371.029	201024.1	104	%	2.5				2.37%
Ag 328.068†	-2338.7	0.0163615	mg/L	0.00022815	0.0163615	mg/L	0.00022815	1.39%
Al 308.215†	392045.2	24.6953	mg/L	0.90877	24.6953	mg/L	0.90877	3.68%
As 188.979†	54.4	0.0654384	mg/L	0.00146119	0.0654384	mg/L	0.00146119	2.23%
Ba 233.527†	71485.9	0.714027	mg/L	0.0252211	0.714027	mg/L	0.0252211	3.53%
Be 313.107†	2749.5	0.0021996	mg/L	0.00003911	0.0021996	mg/L	0.00003911	1.78%
Ca 317.933†	2531348.5	51.5791	mg/L	1.77759	51.5791	mg/L	1.77759	3.45%
Cd 228.802†	142.5	0.0048958	mg/L	0.00081548	0.0048958	mg/L	0.00081548	16.66%
Co 228.616†	1363.4	0.0446711	mg/L	0.00287789	0.0446711	mg/L	0.00287789	6.44%
Cr 267.716†	2552.3	0.0855033	mg/L	0.00258363	0.0855033	mg/L	0.00258363	3.02%
Cu 327.393†	49678.4	0.668708	mg/L	0.0221745	0.668708	mg/L	0.0221745	3.32%
Fe 273.955†	4073612.3	196.559	mg/L	7.2250	196.559	mg/L	7.2250	3.68%
K 404.721†	-1157.9	-42.1259	mg/L	39.78932	-42.1259	mg/L	39.78932	94.45%
Mg 279.077†	76210.5	8.79209	mg/L	0.316643	8.79209	mg/L	0.316643	3.60%
Mn 257.610†	645615.0	1.83014	mg/L	0.066617	1.83014	mg/L	0.066617	3.64%
Mo 202.031†	102.4	0.0085480	mg/L	0.00086248	0.0085480	mg/L	0.00086248	10.09%
Na 330.237†	1647.0	4.04877	mg/L	0.182693	4.04877	mg/L	0.182693	4.51%
Ni 231.604†	2048.3	0.0761296	mg/L	0.00639078	0.0761296	mg/L	0.00639078	8.39%
Pb 220.353†	9306.8	2.23111	mg/L	0.081905	2.23111	mg/L	0.081905	3.67%
Sb 206.836†	8.5	0.0131435	mg/L	0.00323280	0.0131435	mg/L	0.00323280	24.60%
Se 196.026†	-34.1	0.0051328	mg/L	0.00330212	0.0051328	mg/L	0.00330212	64.33%
Sn 189.927†	6057.2	1.68798	mg/L	0.059212	1.68798	mg/L	0.059212	3.51%
Ti 334.940†	378119.6	1.24036	mg/L	0.039900	1.24036	mg/L	0.039900	3.22%
Tl 190.801†	-11.2	-0.0072218	mg/L	0.00393916	-0.0072218	mg/L	0.00393916	54.55%
V 290.880†	13835.6	0.143223	mg/L	0.0055500	0.143223	mg/L	0.0055500	3.88%
Zn 206.200†	48660.9	1.37946	mg/L	0.055187	1.37946	mg/L	0.055187	4.00%

Sequence No.: 24

Autosampler Location: 49

Sample ID: 63111-031

Date Collected: 12/12/2011 5:11:10 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63111-031

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	506363.2	102	%	1.1				1.11%
Y 371.029	210014.7	109	%	0.1				0.11%
Ag 328.068†	-1048.5	0.0079198	mg/L	0.00062956	0.0079198	mg/L	0.00062956	7.95%
Al 308.215†	452380.7	28.4958	mg/L	0.31664	28.4958	mg/L	0.31664	1.11%
As 188.979†	132.8	0.122062	mg/L	0.0007735	0.122062	mg/L	0.0007735	0.63%
Ba 233.527†	142860.1	1.42675	mg/L	0.013643	1.42675	mg/L	0.013643	0.96%
Be 313.107†	5422.7	0.0035921	mg/L	0.00000936	0.0035921	mg/L	0.00000936	0.26%
Ca 317.933†	1539619.9	31.3407	mg/L	0.04490	31.3407	mg/L	0.04490	0.14%
Cd 228.802†	166.1	0.0057212	mg/L	0.00032434	0.0057212	mg/L	0.00032434	5.67%
Co 228.616†	1008.8	0.0333941	mg/L	0.00105130	0.0333941	mg/L	0.00105130	3.15%
Cr 267.716†	1542.7	0.0518093	mg/L	0.00028604	0.0518093	mg/L	0.00028604	0.55%
Cu 327.393†	15911.6	0.216948	mg/L	0.0032173	0.216948	mg/L	0.0032173	1.48%
Fe 273.955†	1862023.8	89.8457	mg/L	0.06660	89.8457	mg/L	0.06660	0.07%
K 404.721†	463.9	36.6225	mg/L	2.16930	36.6225	mg/L	2.16930	5.92%
Mg 279.077†	30372.9	3.47185	mg/L	0.046782	3.47185	mg/L	0.046782	1.35%
Mn 257.610†	194719.7	0.551871	mg/L	0.0051432	0.551871	mg/L	0.0051432	0.93%
Mo 202.031†	283.3	0.0243870	mg/L	0.00051442	0.0243870	mg/L	0.00051442	2.11%
Na 330.237†	1691.0	4.14110	mg/L	0.181195	4.14110	mg/L	0.181195	4.38%
Ni 231.604†	1829.3	0.0679158	mg/L	0.00061460	0.0679158	mg/L	0.00061460	0.90%
Pb 220.353†	4921.1	1.17003	mg/L	0.011279	1.17003	mg/L	0.011279	0.96%
Sb 206.836†	0.6	0.0053978	mg/L	0.00007178	0.0053978	mg/L	0.00007178	1.33%
Se 196.026†	-5.4	0.0201464	mg/L	0.00619802	0.0201464	mg/L	0.00619802	30.76%
Sn 189.927†	283.8	0.0860079	mg/L	0.00004294	0.0860079	mg/L	0.00004294	0.05%
Ti 334.940†	188329.8	0.618138	mg/L	0.0066553	0.618138	mg/L	0.0066553	1.08%
Tl 190.801†	-8.0	-0.0058492	mg/L	0.01045276	-0.0058492	mg/L	0.01045276	178.70%
V 290.880†	13311.4	0.143808	mg/L	0.0018246	0.143808	mg/L	0.0018246	1.27%
Zn 206.200†	20131.0	0.569959	mg/L	0.0057765	0.569959	mg/L	0.0057765	1.01%

Sequence No.: 25  
 Sample ID: 63111-032  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 50  
 Date Collected: 12/12/2011 5:14:43 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-032

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	496268.4		99.9 %	0.08				0.08%
Y 371.029	204780.0		106 %	0.2				0.17%
Ag 328.068†	-1220.8	0.0079493	mg/L	0.00037558	0.0079493	mg/L	0.00037558	4.72%
Al 308.215†	413141.0	26.0242	mg/L	0.03354	26.0242	mg/L	0.03354	0.13%
As 188.979†	59.2	0.0595215	mg/L	0.00138156	0.0595215	mg/L	0.00138156	2.32%
Ba 233.527†	63562.2	0.634903	mg/L	0.0008540	0.634903	mg/L	0.0008540	0.13%
Be 313.107†	3669.9	0.0026790	mg/L	0.00005646	0.0026790	mg/L	0.00005646	2.11%
Ca 317.933†	2365041.8	48.1852	mg/L	0.16062	48.1852	mg/L	0.16062	0.33%
Cd 228.802†	90.7	0.0030358	mg/L	0.00113156	0.0030358	mg/L	0.00113156	37.27%
Co 228.616†	1008.6	0.0321944	mg/L	0.00024621	0.0321944	mg/L	0.00024621	0.76%
Cr 267.716†	2069.2	0.0693737	mg/L	0.00072645	0.0693737	mg/L	0.00072645	1.05%
Cu 327.393†	19155.5	0.261836	mg/L	0.0008457	0.261836	mg/L	0.0008457	0.32%
Fe 273.955†	2012485.0	97.1057	mg/L	0.12646	97.1057	mg/L	0.12646	0.13%
K 404.721†	-44.8	11.9234	mg/L	6.43600	11.9234	mg/L	6.43600	53.98%
Mg 279.077†	68713.3	7.92189	mg/L	0.016150	7.92189	mg/L	0.016150	0.20%
Mn 257.610†	436931.4	1.23850	mg/L	0.002733	1.23850	mg/L	0.002733	0.22%
Mo 202.031†	125.2	0.0103741	mg/L	0.00017464	0.0103741	mg/L	0.00017464	1.68%
Na 330.237†	1353.7	3.43348	mg/L	0.105568	3.43348	mg/L	0.105568	3.07%
Ni 231.604†	1621.2	0.0600346	mg/L	0.00142751	0.0600346	mg/L	0.00142751	2.38%
Pb 220.353†	9028.0	2.16569	mg/L	0.008510	2.16569	mg/L	0.008510	0.39%
Sb 206.836†	-0.8	0.0052262	mg/L	0.00273891	0.0052262	mg/L	0.00273891	52.41%
Se 196.026†	-13.5	0.0105578	mg/L	0.00269439	0.0105578	mg/L	0.00269439	25.52%
Sn 189.927†	4441.5	1.23266	mg/L	0.004514	1.23266	mg/L	0.004514	0.37%
Ti 334.940†	342627.9	1.12400	mg/L	0.007053	1.12400	mg/L	0.007053	0.63%
Tl 190.801†	-7.6	-0.0032015	mg/L	0.00773537	-0.0032015	mg/L	0.00773537	241.62%
V 290.880†	11501.8	0.122274	mg/L	0.0008674	0.122274	mg/L	0.0008674	0.71%
Zn 206.200†	17252.7	0.488157	mg/L	0.0014428	0.488157	mg/L	0.0014428	0.30%

Sequence No.: 26

Autosampler Location: 7

Sample ID: ICSA V-129812

Date Collected: 12/12/2011 5:18:16 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSA V-129812

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	445384.6	89.6 %		1.69			1.88%
Y 371.029	168810.2	87.4 %		1.70			1.94%
Ag 328.068†	-3043.3	0.0178717 mg/L		0.00165809	0.0178717 mg/L	0.00165809	9.28%
Al 308.215†	7867353.0	495.605 mg/L		10.9506	495.605 mg/L	10.9506	2.21%
QC value within limits for Al 308.215 Recovery = 99.12%							
As 188.979†	0.8	0.0025418 mg/L		0.00085023	0.0025418 mg/L	0.00085023	33.45%
Ba 233.527†	671.5	0.0068936 mg/L		0.00008699	0.0068936 mg/L	0.00008699	1.26%
Be 313.107†	-1250.6	0.0001159 mg/L		0.00006952	0.0001159 mg/L	0.00006952	60.01%
Ca 317.933†	24178377.4	493.333 mg/L		10.8921	493.333 mg/L	10.8921	2.21%
QC value within limits for Ca 317.933 Recovery = 98.67%							
Cd 228.802†	86.7	0.0028021 mg/L		0.00031403	0.0028021 mg/L	0.00031403	11.21%
Co 228.616†	104.7	0.0023032 mg/L		0.00051331	0.0023032 mg/L	0.00051331	22.29%
Cr 267.716†	-83.1	-0.0025044 mg/L		0.00027145	-0.0025044 mg/L	0.00027145	10.84%
Cu 327.393†	-2220.7	0.0000523 mg/L		0.00177077	0.0000523 mg/L	0.00177077	>999.9%
Fe 273.955†	3955340.1	190.852 mg/L		4.4462	190.852 mg/L	4.4462	2.33%
QC value within limits for Fe 273.955 Recovery = 95.43%							
K 404.721†	-1642.6	-65.6644 mg/L		28.56645	-65.6644 mg/L	28.56645	43.50%
Mg 279.077†	4426480.9	513.747 mg/L		12.6767	513.747 mg/L	12.6767	2.47%
QC value within limits for Mg 279.077 Recovery = 102.75%							
Mn 257.610†	967.1	-0.0063308 mg/L		0.00016799	-0.0063308 mg/L	0.00016799	2.65%
Mo 202.031†	4.4	-0.0004093 mg/L		0.00098707	-0.0004093 mg/L	0.00098707	241.14%
Na 330.237†	3734.1	8.42793 mg/L		0.060019	8.42793 mg/L	0.060019	0.71%
Ni 231.604†	22.9	-0.0002466 mg/L		0.00016206	-0.0002466 mg/L	0.00016206	65.71%
Pb 220.353†	1313.1	-0.0174548 mg/L		0.00530023	-0.0174548 mg/L	0.00530023	30.37%
Sb 206.836†	15.5	-0.0009661 mg/L		0.00684447	-0.0009661 mg/L	0.00684447	708.44%
Se 196.026†	-59.6	0.0002311 mg/L		0.01405835	0.0002311 mg/L	0.01405835	>999.9%
Sn 189.927†	-27.8	0.0099685 mg/L		0.00100185	0.0099685 mg/L	0.00100185	10.05%
Ti 334.940†	-474.5	-0.0008441 mg/L		0.00025754	-0.0008441 mg/L	0.00025754	30.51%
Tl 190.801†	-2.3	0.0012433 mg/L		0.01095487	0.0012433 mg/L	0.01095487	881.10%
V 290.880†	10376.2	0.0203475 mg/L		0.00180564	0.0203475 mg/L	0.00180564	8.87%
Zn 206.200†	-54.3	-0.0198477 mg/L		0.00044149	-0.0198477 mg/L	0.00044149	2.22%

All analyte(s) passed QC.

Sequence No.: 27  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 5:23:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	443658.1	89.3 %	0.49			0.54%
Y 371.029	167810.2	86.8 %	0.81			0.93%
Ag 328.068†	96802.2	1.08231 mg/L	0.004324	1.08231 mg/L	0.004324	0.40%
	QC value within limits for Ag 328.068	Recovery = 108.23%				
Al 308.215†	7834596.9	493.541 mg/L	3.0965	493.541 mg/L	3.0965	0.63%
	QC value within limits for Al 308.215	Recovery = 98.71%				
As 188.979†	1180.5	1.02172 mg/L	0.001093	1.02172 mg/L	0.001093	0.11%
	QC value within limits for As 188.979	Recovery = 102.17%				
Ba 233.527†	52792.4	0.527359 mg/L	0.0004522	0.527359 mg/L	0.0004522	0.09%
	QC value within limits for Ba 233.527	Recovery = 105.47%				
Be 313.107†	977149.2	0.509781 mg/L	0.0028454	0.509781 mg/L	0.0028454	0.56%
	QC value within limits for Be 313.107	Recovery = 101.96%				
Ca 317.933†	24303833.8	495.894 mg/L	0.3448	495.894 mg/L	0.3448	0.07%
	QC value within limits for Ca 317.933	Recovery = 99.18%				
Cd 228.802†	28754.9	1.02063 mg/L	0.000609	1.02063 mg/L	0.000609	0.06%
	QC value within limits for Cd 228.802	Recovery = 102.06%				
Co 228.616†	13655.4	0.489166 mg/L	0.0011362	0.489166 mg/L	0.0011362	0.23%
	QC value within limits for Co 228.616	Recovery = 97.83%				
Cr 267.716†	14590.0	0.487434 mg/L	0.0005319	0.487434 mg/L	0.0005319	0.11%
	QC value within limits for Cr 267.716	Recovery = 97.49%				
Cu 327.393†	38223.7	0.532191 mg/L	0.0010707	0.532191 mg/L	0.0010707	0.20%
	QC value within limits for Cu 327.393	Recovery = 106.44%				
Fe 273.955†	3937289.8	189.981 mg/L	1.2170	189.981 mg/L	1.2170	0.64%
	QC value within limits for Fe 273.955	Recovery = 94.99%				
K 404.721†	-1634.2	-65.2563 mg/L	4.25749	-65.2563 mg/L	4.25749	6.52%
Mg 279.077†	4395892.1	510.196 mg/L	2.5915	510.196 mg/L	2.5915	0.51%
	QC value within limits for Mg 279.077	Recovery = 102.04%				
Mn 257.610†	178841.6	0.498036 mg/L	0.0000186	0.498036 mg/L	0.0000186	0.00%
	QC value within limits for Mn 257.610	Recovery = 99.61%				
Mo 202.031†	2.0	-0.0004208 mg/L	0.00189879	-0.0004208 mg/L	0.00189879	451.24%
Na 330.237†	4185.7	9.37544 mg/L	0.156933	9.37544 mg/L	0.156933	1.67%
Ni 231.604†	25282.6	0.951960 mg/L	0.0009061	0.951960 mg/L	0.0009061	0.10%
	QC value within limits for Ni 231.604	Recovery = 95.20%				
Pb 220.353†	5296.9	0.949494 mg/L	0.0024412	0.949494 mg/L	0.0024412	0.26%
	QC value within limits for Pb 220.353	Recovery = 94.95%				
Sb 206.836†	1423.6	1.02151 mg/L	0.000682	1.02151 mg/L	0.000682	0.07%
	QC value within limits for Sb 206.836	Recovery = 102.15%				
Se 196.026†	675.6	1.00246 mg/L	0.010312	1.00246 mg/L	0.010312	1.03%
	QC value within limits for Se 196.026	Recovery = 100.25%				
Sn 189.927†	-26.6	0.0102115 mg/L	0.00032070	0.0102115 mg/L	0.00032070	3.14%
Ti 334.940†	-500.7	-0.0010500 mg/L	0.00021066	-0.0010500 mg/L	0.00021066	20.06%
Tl 190.801†	822.8	0.979734 mg/L	0.0028125	0.979734 mg/L	0.0028125	0.29%
	QC value within limits for Tl 190.801	Recovery = 97.97%				
V 290.880†	52412.7	0.494933 mg/L	0.0007994	0.494933 mg/L	0.0007994	0.16%
	QC value within limits for V 290.880	Recovery = 98.99%				
Zn 206.200†	34947.9	0.974294 mg/L	0.0017344	0.974294 mg/L	0.0017344	0.18%
	QC value within limits for Zn 206.200	Recovery = 97.43%				

All analyte(s) passed QC.

Sequence No.: 28

Sample ID: CCV V-129808

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/12/2011 5:28:19 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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 Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	481824.2	97.0 %	0.99			1.02%
Y 371.029	181937.0	94.2 %	0.40			0.42%
Ag 328.068†	9127.0	0.0995533 mg/L	0.00186258	0.0995533 mg/L	0.00186258	1.87%
QC value within limits for Ag		328.068	Recovery = 99.55%			
Al 308.215†	78738.8	4.94594 mg/L	0.055063	4.94594 mg/L	0.055063	1.11%
QC value within limits for Al		308.215	Recovery = 98.92%			
As 188.979†	566.8	0.491203 mg/L	0.0118319	0.491203 mg/L	0.0118319	2.41%
QC value within limits for As		188.979	Recovery = 98.24%			
Ba 233.527†	50231.3	0.501784 mg/L	0.0060791	0.501784 mg/L	0.0060791	1.21%
QC value within limits for Ba		233.527	Recovery = 100.36%			
Be 313.107†	949797.4	0.495533 mg/L	0.0004042	0.495533 mg/L	0.0004042	0.08%
QC value within limits for Be		313.107	Recovery = 99.11%			
Ca 317.933†	2462624.1	50.1766 mg/L	0.26052	50.1766 mg/L	0.26052	0.52%
QC value within limits for Ca		317.933	Recovery = 100.35%			
Cd 228.802†	13791.9	0.489457 mg/L	0.0066281	0.489457 mg/L	0.0066281	1.35%
QC value within limits for Cd		228.802	Recovery = 97.89%			
Co 228.616†	14103.1	0.504884 mg/L	0.0063529	0.504884 mg/L	0.0063529	1.26%
QC value within limits for Co		228.616	Recovery = 100.98%			
Cr 267.716†	14740.0	0.492968 mg/L	0.0068317	0.492968 mg/L	0.0068317	1.39%
QC value within limits for Cr		267.716	Recovery = 98.59%			
Cu 327.393†	37911.4	0.502646 mg/L	0.0073713	0.502646 mg/L	0.0073713	1.47%
QC value within limits for Cu		327.393	Recovery = 100.53%			
Fe 273.955†	102157.6	4.92873 mg/L	0.064214	4.92873 mg/L	0.064214	1.30%
QC value within limits for Fe		273.955	Recovery = 98.57%			
K 404.721†	1022.8	63.7604 mg/L	8.18794	63.7604 mg/L	8.18794	12.84%
Mg 279.077†	429042.6	49.7570 mg/L	0.09639	49.7570 mg/L	0.09639	0.19%
QC value within limits for Mg		279.077	Recovery = 99.51%			
Mn 257.610†	174689.8	0.494458 mg/L	0.0067463	0.494458 mg/L	0.0067463	1.36%
QC value within limits for Mn		257.610	Recovery = 98.89%			
Mo 202.031†	5618.0	0.496368 mg/L	0.0089925	0.496368 mg/L	0.0089925	1.81%
QC value within limits for Mo		202.031	Recovery = 99.27%			
Na 330.237†	22219.9	47.2142 mg/L	0.63512	47.2142 mg/L	0.63512	1.35%
QC value within limits for Na		330.237	Recovery = 94.43%			
Ni 231.604†	13322.0	0.502465 mg/L	0.0075326	0.502465 mg/L	0.0075326	1.50%
QC value within limits for Ni		231.604	Recovery = 100.49%			
Pb 220.353†	2033.6	0.489776 mg/L	0.0019744	0.489776 mg/L	0.0019744	0.40%
QC value within limits for Pb		220.353	Recovery = 97.96%			
Sb 206.836†	659.3	0.490759 mg/L	0.0062825	0.490759 mg/L	0.0062825	1.28%
QC value within limits for Sb		206.836	Recovery = 98.15%			
Se 196.026†	359.4	0.498284 mg/L	0.0095898	0.498284 mg/L	0.0095898	1.92%
QC value within limits for Se		196.026	Recovery = 99.66%			
Sn 189.927†	1818.9	0.500316 mg/L	0.0101251	0.500316 mg/L	0.0101251	2.02%
QC value within limits for Sn		189.927	Recovery = 100.06%			
Ti 334.940†	152864.4	0.501757 mg/L	0.0061853	0.501757 mg/L	0.0061853	1.23%
QC value within limits for Ti		334.940	Recovery = 100.35%			
Tl 190.801†	435.8	0.519680 mg/L	0.0119205	0.519680 mg/L	0.0119205	2.29%
QC value within limits for Tl		190.801	Recovery = 103.94%			
V 290.880†	44705.4	0.494795 mg/L	0.0070297	0.494795 mg/L	0.0070297	1.42%
QC value within limits for V		290.880	Recovery = 98.96%			
Zn 206.200†	17478.4	0.493800 mg/L	0.0065484	0.493800 mg/L	0.0065484	1.33%
QC value within limits for Zn		206.200	Recovery = 98.76%			

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/12/2011 5:31:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	498942.2	100 %		0.2			0.16%
Y 371.029	194542.9	101 %		0.0			0.03%
Ag 328.068†	-7.6	-0.0000001 mg/L		0.00012603	-0.0000001 mg/L	0.00012603	>999.9%
QC value within limits for Ag		328.068	Recovery = Not calculated				
Al 308.215†	64.5	0.0026189 mg/L		0.00309973	0.0026189 mg/L	0.00309973	118.36%
QC value within limits for Al		308.215	Recovery = Not calculated				
As 188.979†	4.1	0.0032026 mg/L		0.00025962	0.0032026 mg/L	0.00025962	8.11%
QC value within limits for As		188.979	Recovery = Not calculated				
Ba 233.527†	18.0	0.0003677 mg/L		0.00013719	0.0003677 mg/L	0.00013719	37.31%
QC value within limits for Ba		233.527	Recovery = Not calculated				
Be 313.107†	7.6	0.0007713 mg/L		0.00003224	0.0007713 mg/L	0.00003224	4.18%
QC value within limits for Be		313.107	Recovery = Not calculated				
Ca 317.933†	77.7	-0.0769523 mg/L		0.00187260	-0.0769523 mg/L	0.00187260	2.43%
QC value within limits for Ca		317.933	Recovery = Not calculated				
Cd 228.802†	9.1	0.0000488 mg/L		0.00049213	0.0000488 mg/L	0.00049213	>999.9%
QC value within limits for Cd		228.802	Recovery = Not calculated				
Co 228.616†	3.8	-0.0013275 mg/L		0.00018849	-0.0013275 mg/L	0.00018849	14.20%
QC value within limits for Co		228.616	Recovery = Not calculated				
Cr 267.716†	-2.3	0.0001921 mg/L		0.00017850	0.0001921 mg/L	0.00017850	92.90%
QC value within limits for Cr		267.716	Recovery = Not calculated				
Cu 327.393†	-32.8	0.0000636 mg/L		0.00057096	0.0000636 mg/L	0.00057096	897.50%
QC value within limits for Cu		327.393	Recovery = Not calculated				
Fe 273.955†	221.6	0.0101135 mg/L		0.01244737	0.0101135 mg/L	0.01244737	123.08%
QC value within limits for Fe		273.955	Recovery = Not calculated				
K 404.721†	84.9	18.2174 mg/L		1.80779	18.2174 mg/L	1.80779	9.92%
Mg 279.077†	42.1	-0.0493050 mg/L		0.00169715	-0.0493050 mg/L	0.00169715	3.44%
QC value within limits for Mg		279.077	Recovery = Not calculated				
Mn 257.610†	41.2	-0.0000254 mg/L		0.00000068	-0.0000254 mg/L	0.00000068	2.68%
QC value within limits for Mn		257.610	Recovery = Not calculated				
Mo 202.031†	-2.4	-0.0010087 mg/L		0.00054317	-0.0010087 mg/L	0.00054317	53.85%
QC value within limits for Mo		202.031	Recovery = Not calculated				
Na 330.237†	68.0	0.735758 mg/L		0.1362734	0.735758 mg/L	0.1362734	18.52%
QC value within limits for Na		330.237	Recovery = Not calculated				
Ni 231.604†	-14.7	-0.0016663 mg/L		0.00059571	-0.0016663 mg/L	0.00059571	35.75%
QC value within limits for Ni		231.604	Recovery = Not calculated				
Pb 220.353†	0.2	-0.0000636 mg/L		0.00130116	-0.0000636 mg/L	0.00130116	>999.9%
QC value within limits for Pb		220.353	Recovery = Not calculated				
Sb 206.836†	-0.7	0.0025946 mg/L		0.00380208	0.0025946 mg/L	0.00380208	146.54%
QC value within limits for Sb		206.836	Recovery = Not calculated				
Se 196.026†	3.2	0.0096372 mg/L		0.00028885	0.0096372 mg/L	0.00028885	3.00%
QC value within limits for Se		196.026	Recovery = Not calculated				
Sn 189.927†	8.7	0.0007298 mg/L		0.00040542	0.0007298 mg/L	0.00040542	55.55%
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940†	-30.5	0.0006110 mg/L		0.00028991	0.0006110 mg/L	0.00028991	47.45%
QC value within limits for Ti		334.940	Recovery = Not calculated				
Tl 190.801†	2.8	0.0041101 mg/L		0.00122033	0.0041101 mg/L	0.00122033	29.69%
QC value within limits for Tl		190.801	Recovery = Not calculated				
V 290.880†	55.6	-0.0003618 mg/L		0.00067793	-0.0003618 mg/L	0.00067793	187.39%
QC value within limits for V		290.880	Recovery = Not calculated				
Zn 206.200†	1.9	-0.0012265 mg/L		0.00013110	-0.0012265 mg/L	0.00013110	10.69%
QC value within limits for Zn		206.200	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 30  
 Sample ID: 63111-034  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 51  
 Date Collected: 12/12/2011 5:35:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-034

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	494258.7	99.5 %	1.33				1.34%
Y 371.029	216976.5	112 %	1.7				1.47%
Ag 328.068†	-2071.3	0.0160325 mg/L	0.00030806	0.0160325 mg/L	0.00030806		1.92%
Al 308.215†	794461.9	50.0454 mg/L	0.27012	50.0454 mg/L	0.27012		0.54%
As 188.979†	67.0	0.0730795 mg/L	0.00011506	0.0730795 mg/L	0.00011506		0.16%
Ba 233.527†	124738.4	1.24579 mg/L	0.003847	1.24579 mg/L	0.003847		0.31%
Be 313.107†	5539.1	0.0036527 mg/L	0.00000773	0.0036527 mg/L	0.00000773		0.21%
Ca 317.933†	5145767.1	104.932 mg/L	1.5907	104.932 mg/L	1.5907		1.52%
Cd 228.802†	243.9	0.0085302 mg/L	0.00045158	0.0085302 mg/L	0.00045158		5.29%
Co 228.616†	1526.2	0.0479774 mg/L	0.00190709	0.0479774 mg/L	0.00190709		3.97%
Cr 267.716†	5114.9	0.171079 mg/L	0.0024232	0.171079 mg/L	0.0024232		1.42%
Cu 327.393†	104342.9	1.39148 mg/L	0.005230	1.39148 mg/L	0.005230		0.38%
Fe 273.955†	3624817.6	174.904 mg/L	0.8613	174.904 mg/L	0.8613		0.49%
K 404.721†	190.3	23.3369 mg/L	7.57229	23.3369 mg/L	7.57229		32.45%
Mg 279.077†	135317.0	15.6531 mg/L	0.03417	15.6531 mg/L	0.03417		0.22%
Mn 257.610†	992980.1	2.81486 mg/L	0.014796	2.81486 mg/L	0.014796		0.53%
Mo 202.031†	228.8	0.0198956 mg/L	0.00152157	0.0198956 mg/L	0.00152157		7.65%
Na 330.237†	2409.8	5.64928 mg/L	0.094725	5.64928 mg/L	0.094725		1.68%
Ni 231.604†	2771.3	0.103414 mg/L	0.0032379	0.103414 mg/L	0.0032379		3.13%
Pb 220.353†	17480.9	4.19469 mg/L	0.062685	4.19469 mg/L	0.062685		1.49%
Sb 206.836†	7.6	0.0139840 mg/L	0.00212805	0.0139840 mg/L	0.00212805		15.22%
Se 196.026†	-30.3	0.0066257 mg/L	0.00527896	0.0066257 mg/L	0.00527896		79.67%
Sn 189.927†	1231.0	0.356661 mg/L	0.0008496	0.356661 mg/L	0.0008496		0.24%
Ti 334.940†	713692.2	2.34051 mg/L	0.008740	2.34051 mg/L	0.008740		0.37%
Tl 190.801†	-19.9	-0.0126224 mg/L	0.00253953	-0.0126224 mg/L	0.00253953		20.12%
V 290.880†	16731.4	0.175871 mg/L	0.0014476	0.175871 mg/L	0.0014476		0.82%
Zn 206.200†	78277.0	2.21981 mg/L	0.007452	2.21981 mg/L	0.007452		0.34%

Sequence No.: 31  
 Sample ID: 63111-035  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 52  
 Date Collected: 12/12/2011 5:38:48 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-035

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	487375.6		98.1 %	0.49				0.50%
Y 371.029	208522.5		108 %	0.5				0.48%
Ag 328.068†	-787.5	0.0136810	mg/L	0.00016791	0.0136810	mg/L	0.00016791	1.23%
Al 308.215†	542853.1	34.1952	mg/L	0.00121	34.1952	mg/L	0.00121	0.00%
As 188.979†	156.0	0.142555	mg/L	0.0035593	0.142555	mg/L	0.0035593	2.50%
Ba 233.527†	306356.4	3.05938	mg/L	0.011196	3.05938	mg/L	0.011196	0.37%
Be 313.107†	5351.6	0.0035551	mg/L	0.00005887	0.0035551	mg/L	0.00005887	1.66%
Ca 317.933†	13327094.9	271.890	mg/L	0.2804	271.890	mg/L	0.2804	0.10%
Cd 228.802†	244.0	0.0084943	mg/L	0.00020302	0.0084943	mg/L	0.00020302	2.39%
Co 228.616†	1109.6	0.0359813	mg/L	0.00079144	0.0359813	mg/L	0.00079144	2.20%
Cr 267.716†	3326.9	0.111379	mg/L	0.0013757	0.111379	mg/L	0.0013757	1.24%
Cu 327.393†	20358.1	0.285291	mg/L	0.0003332	0.285291	mg/L	0.0003332	0.12%
Fe 273.955†	1600694.4	77.2360	mg/L	0.32258	77.2360	mg/L	0.32258	0.42%
K 404.721†	34.7	15.7814	mg/L	10.25453	15.7814	mg/L	10.25453	64.98%
Mg 279.077†	116050.3	13.4167	mg/L	0.03528	13.4167	mg/L	0.03528	0.26%
Mn 257.610†	377345.2	1.06947	mg/L	0.002572	1.06947	mg/L	0.002572	0.24%
Mo 202.031†	260.7	0.0225499	mg/L	0.00146637	0.0225499	mg/L	0.00146637	6.50%
Na 330.237†	4543.9	10.1271	mg/L	0.17118	10.1271	mg/L	0.17118	1.69%
Ni 231.604†	2029.8	0.0754709	mg/L	0.00339241	0.0754709	mg/L	0.00339241	4.49%
Pb 220.353†	36498.6	8.81270	mg/L	0.147854	8.81270	mg/L	0.147854	1.68%
Sb 206.836†	2.0	0.0057175	mg/L	0.00175220	0.0057175	mg/L	0.00175220	30.65%
Se 196.026†	13.5	0.0528737	mg/L	0.00307006	0.0528737	mg/L	0.00307006	5.81%
Sn 189.927†	3534.4	0.980652	mg/L	0.0161954	0.980652	mg/L	0.0161954	1.65%
Ti 334.940†	322228.9	1.05711	mg/L	0.012349	1.05711	mg/L	0.012349	1.17%
Tl 190.801†	-12.4	-0.0091070	mg/L	0.00158175	-0.0091070	mg/L	0.00158175	17.37%
V 290.880†	13869.6	0.149105	mg/L	0.0003533	0.149105	mg/L	0.0003533	0.24%
Zn 206.200†	49262.7	1.39642	mg/L	0.019424	1.39642	mg/L	0.019424	1.39%

Sequence No.: 32  
 Sample ID: 63111-036  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 53  
 Date Collected: 12/12/2011 5:42:25 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-036

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	496592.2	99.9	%	1.73				1.73%
Y 371.029	207493.8	107	%	1.5				1.38%
Ag 328.068†	-1118.5	0.0086910	mg/L	0.00020035	0.0086910	mg/L	0.00020035	2.31%
Al 308.215†	360927.6	22.7352	mg/L	0.30661	22.7352	mg/L	0.30661	1.35%
As 188.979†	40.3	0.0432077	mg/L	0.00005746	0.0432077	mg/L	0.00005746	0.13%
Ba 233.527†	134616.9	1.34444	mg/L	0.020559	1.34444	mg/L	0.020559	1.53%
Be 313.107†	2511.7	0.0020757	mg/L	0.00005480	0.0020757	mg/L	0.00005480	2.64%
Ca 317.933†	2211282.9	45.0475	mg/L	0.22022	45.0475	mg/L	0.22022	0.49%
Cd 228.802†	83.2	0.0027562	mg/L	0.00010531	0.0027562	mg/L	0.00010531	3.82%
Co 228.616†	791.6	0.0242550	mg/L	0.00081312	0.0242550	mg/L	0.00081312	3.35%
Cr 267.716†	2327.3	0.0779862	mg/L	0.00152521	0.0779862	mg/L	0.00152521	1.96%
Cu 327.393†	21547.7	0.293249	mg/L	0.0029220	0.293249	mg/L	0.0029220	1.00%
Fe 273.955†	1984256.3	95.7436	mg/L	0.51905	95.7436	mg/L	0.51905	0.54%
K 404.721†	35.7	15.8296	mg/L	11.77368	15.8296	mg/L	11.77368	74.38%
Mg 279.077†	79032.4	9.11955	mg/L	0.144328	9.11955	mg/L	0.144328	1.58%
Mn 257.610†	378904.5	1.07396	mg/L	0.015543	1.07396	mg/L	0.015543	1.45%
Mo 202.031†	61.6	0.0048133	mg/L	0.00061149	0.0048133	mg/L	0.00061149	12.70%
Na 330.237†	1802.7	4.37558	mg/L	0.324131	4.37558	mg/L	0.324131	7.41%
Ni 231.604†	1407.2	0.0519522	mg/L	0.00073155	0.0519522	mg/L	0.00073155	1.41%
Pb 220.353†	8439.5	2.02551	mg/L	0.037884	2.02551	mg/L	0.037884	1.87%
Sb 206.836†	-0.4	0.0056018	mg/L	0.00111381	0.0056018	mg/L	0.00111381	19.88%
Se 196.026†	-17.4	0.0049410	mg/L	0.00532348	0.0049410	mg/L	0.00532348	107.74%
Sn 189.927†	826.7	0.236535	mg/L	0.0054142	0.236535	mg/L	0.0054142	2.29%
Ti 334.940†	359827.4	1.18039	mg/L	0.011894	1.18039	mg/L	0.011894	1.01%
Tl 190.801†	-6.9	-0.0021284	mg/L	0.00205159	-0.0021284	mg/L	0.00205159	96.39%
V 290.880†	10138.3	0.106770	mg/L	0.0022637	0.106770	mg/L	0.0022637	2.12%
Zn 206.200†	27707.6	0.784823	mg/L	0.0137267	0.784823	mg/L	0.0137267	1.75%

Sequence No.: 33  
 Sample ID: 63111-038  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 54  
 Date Collected: 12/12/2011 5:45:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-038

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	501912.0		101 %	0.5				0.48%
Y 371.029	223529.8		116 %	0.3				0.26%
Ag 328.068†	-855.7	0.0064727	mg/L	0.00006967	0.0064727	mg/L	0.00006967	1.08%
Al 308.215†	686807.0	43.2634	mg/L	0.05657	43.2634	mg/L	0.05657	0.13%
As 188.979†	77.4	0.0715094	mg/L	0.00011550	0.0715094	mg/L	0.00011550	0.16%
Ba 233.527†	206474.0	2.06198	mg/L	0.001447	2.06198	mg/L	0.001447	0.07%
Be 313.107†	7989.7	0.0049293	mg/L	0.00009449	0.0049293	mg/L	0.00009449	1.92%
Ca 317.933†	4053157.7	82.6349	mg/L	0.30059	82.6349	mg/L	0.30059	0.36%
Cd 228.802†	108.6	0.0037228	mg/L	0.00037867	0.0037228	mg/L	0.00037867	10.17%
Co 228.616†	1553.1	0.0514347	mg/L	0.00045918	0.0514347	mg/L	0.00045918	0.89%
Cr 267.716†	3257.6	0.109071	mg/L	0.0001734	0.109071	mg/L	0.0001734	0.16%
Cu 327.393†	21838.4	0.297338	mg/L	0.0000177	0.297338	mg/L	0.0000177	0.01%
Fe 273.955†	1385183.5	66.8372	mg/L	0.43254	66.8372	mg/L	0.43254	0.65%
K 404.721†	551.9	40.8968	mg/L	2.71503	40.8968	mg/L	2.71503	6.64%
Mg 279.077†	59702.1	6.87628	mg/L	0.006160	6.87628	mg/L	0.006160	0.09%
Mn 257.610†	630357.2	1.78692	mg/L	0.000141	1.78692	mg/L	0.000141	0.01%
Mo 202.031†	322.8	0.0279520	mg/L	0.00149392	0.0279520	mg/L	0.00149392	5.34%
Na 330.237†	2606.8	6.06259	mg/L	0.143465	6.06259	mg/L	0.143465	2.37%
Ni 231.604†	2567.6	0.0957564	mg/L	0.00082186	0.0957564	mg/L	0.00082186	0.86%
Pb 220.353†	16133.3	3.87632	mg/L	0.003495	3.87632	mg/L	0.003495	0.09%
Sb 206.836†	-0.3	0.0053479	mg/L	0.00294725	0.0053479	mg/L	0.00294725	55.11%
Se 196.026†	-10.1	0.0090963	mg/L	0.01651386	0.0090963	mg/L	0.01651386	181.54%
Sn 189.927†	483.4	0.139085	mg/L	0.0025370	0.139085	mg/L	0.0025370	1.82%
Ti 334.940†	388106.1	1.27309	mg/L	0.013999	1.27309	mg/L	0.013999	1.10%
Tl 190.801†	-14.7	-0.0110298	mg/L	0.00141623	-0.0110298	mg/L	0.00141623	12.84%
V 290.880†	18242.6	0.200048	mg/L	0.0003087	0.200048	mg/L	0.0003087	0.15%
Zn 206.200†	32765.7	0.928484	mg/L	0.0010578	0.928484	mg/L	0.0010578	0.11%

Sequence No.: 34  
 Sample ID: 63111-039  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 55  
 Date Collected: 12/12/2011 5:49:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-039

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	498217.8		100 %	0.7			0.73%	
Y 371.029	219309.8		114 %	0.6			0.50%	
Ag 328.068†	-1708.0	0.0158957	mg/L	0.00005627	0.0158957	mg/L	0.00005627	0.35%
Al 308.215†	824923.7	51.9648	mg/L	0.12260	51.9648	mg/L	0.12260	0.24%
As 188.979†	231.6	0.212803	mg/L	0.0027638	0.212803	mg/L	0.0027638	1.30%
Ba 233.527†	115654.5	1.15508	mg/L	0.004359	1.15508	mg/L	0.004359	0.38%
Be 313.107†	5748.1	0.0037616	mg/L	0.00002683	0.0037616	mg/L	0.00002683	0.71%
Ca 317.933†	5915929.9	120.649	mg/L	1.3791	120.649	mg/L	1.3791	1.14%
Cd 228.802†	296.2	0.0103454	mg/L	0.00007050	0.0103454	mg/L	0.00007050	0.68%
Co 228.616†	1371.2	0.0429093	mg/L	0.00031446	0.0429093	mg/L	0.00031446	0.73%
Cr 267.716†	3371.5	0.112849	mg/L	0.0010306	0.112849	mg/L	0.0010306	0.91%
Cu 327.393†	182176.4	2.41448	mg/L	0.000994	2.41448	mg/L	0.000994	0.04%
Fe 273.955†	3179779.2	153.430	mg/L	0.5882	153.430	mg/L	0.5882	0.38%
K 404.721†	168.8	22.2913	mg/L	4.51255	22.2913	mg/L	4.51255	20.24%
Mg 279.077†	152074.8	17.5979	mg/L	0.09841	17.5979	mg/L	0.09841	0.56%
Mn 257.610†	1054427.9	2.98904	mg/L	0.009163	2.98904	mg/L	0.009163	0.31%
Mo 202.031†	49.2	0.0039977	mg/L	0.00101444	0.0039977	mg/L	0.00101444	25.38%
Na 330.237†	2417.2	5.66486	mg/L	0.109709	5.66486	mg/L	0.109709	1.94%
Ni 231.604†	2040.7	0.0758291	mg/L	0.00167382	0.0758291	mg/L	0.00167382	2.21%
Pb 220.353†	161333.8	39.0377	mg/L	0.23928	39.0377	mg/L	0.23928	0.61%
Sb 206.836†	916.9	0.671936	mg/L	0.0059867	0.671936	mg/L	0.0059867	0.89%
Se 196.026†	-32.7	-0.0012640	mg/L	0.00304778	-0.0012640	mg/L	0.00304778	241.12%
Sn 189.927†	61049.4	16.8365	mg/L	0.09187	16.8365	mg/L	0.09187	0.55%
Ti 334.940†	646557.8	2.12043	mg/L	0.010902	2.12043	mg/L	0.010902	0.51%
Tl 190.801†	-19.7	-0.0133803	mg/L	0.00043568	-0.0133803	mg/L	0.00043568	3.26%
V 290.880†	17166.8	0.181573	mg/L	0.0002724	0.181573	mg/L	0.0002724	0.15%
Zn 206.200†	76973.4	2.18267	mg/L	0.017099	2.18267	mg/L	0.017099	0.78%

Sequence No.: 35  
 Sample ID: 63111-040  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 56  
 Date Collected: 12/12/2011 5:54:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-040

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	496877.3	100.0	%	0.66			0.66%	
Y 371.029	222343.3	115	%	0.6			0.54%	
Ag 328.068†	-1455.7	0.0093820	mg/L	0.00062297	0.0093820	mg/L	0.00062297	6.64%
Al 308.215†	576520.8	36.3165	mg/L	0.23932	36.3165	mg/L	0.23932	0.66%
As 188.979†	35.1	0.0395837	mg/L	0.00249095	0.0395837	mg/L	0.00249095	6.29%
Ba 233.527†	140970.4	1.40788	mg/L	0.010508	1.40788	mg/L	0.010508	0.75%
Be 313.107†	4316.9	0.0030161	mg/L	0.00000489	0.0030161	mg/L	0.00000489	0.16%
Ca 317.933†	5580758.0	113.809	mg/L	0.1742	113.809	mg/L	0.1742	0.15%
Cd 228.802†	68.4	0.0022324	mg/L	0.00037724	0.0022324	mg/L	0.00037724	16.90%
Co 228.616†	1141.7	0.0341754	mg/L	0.00055440	0.0341754	mg/L	0.00055440	1.62%
Cr 267.716†	1845.6	0.0619027	mg/L	0.00036927	0.0619027	mg/L	0.00036927	0.60%
Cu 327.393†	32397.4	0.442069	mg/L	0.0031303	0.442069	mg/L	0.0031303	0.71%
Fe 273.955†	2259182.5	109.009	mg/L	0.6829	109.009	mg/L	0.6829	0.63%
K 404.721†	178.5	22.7628	mg/L	11.38215	22.7628	mg/L	11.38215	50.00%
Mg 279.077†	133264.0	15.4145	mg/L	0.12015	15.4145	mg/L	0.12015	0.78%
Mn 257.610†	871556.7	2.47061	mg/L	0.015229	2.47061	mg/L	0.015229	0.62%
Mo 202.031†	85.7	0.0069170	mg/L	0.00160941	0.0069170	mg/L	0.00160941	23.27%
Na 330.237†	2030.2	4.85278	mg/L	0.022748	4.85278	mg/L	0.022748	0.47%
Ni 231.604†	1419.3	0.0524142	mg/L	0.00125418	0.0524142	mg/L	0.00125418	2.39%
Pb 220.353†	8614.1	2.05714	mg/L	0.011686	2.05714	mg/L	0.011686	0.57%
Sb 206.836†	4.3	0.0106381	mg/L	0.00719700	0.0106381	mg/L	0.00719700	67.65%
Se 196.026†	-27.7	-0.0047693	mg/L	0.00305377	-0.0047693	mg/L	0.00305377	64.03%
Sn 189.927†	1945.3	0.546822	mg/L	0.0039655	0.546822	mg/L	0.0039655	0.73%
Ti 334.940†	713737.0	2.34069	mg/L	0.018410	2.34069	mg/L	0.018410	0.79%
Tl 190.801†	-13.3	-0.0047038	mg/L	0.00076231	-0.0047038	mg/L	0.00076231	16.21%
V 290.880†	16497.7	0.176726	mg/L	0.0018455	0.176726	mg/L	0.0018455	1.04%
Zn 206.200†	22783.1	0.644841	mg/L	0.0027873	0.644841	mg/L	0.0027873	0.43%

Sequence No.: 36

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/12/2011 5:58:04 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	475285.6	95.7 %	1.23			1.28%
Y 371.029	181898.1	94.1 %	0.17			0.18%
Ag 328.068†	9214.4	0.100457 mg/L	0.0020317	0.100457 mg/L	0.0020317	2.02%
QC value within limits for Ag		328.068	Recovery = 100.46%			
Al 308.215†	79106.5	4.96900 mg/L	0.082199	4.96900 mg/L	0.082199	1.65%
QC value within limits for Al		308.215	Recovery = 99.38%			
As 188.979†	565.5	0.490057 mg/L	0.0112553	0.490057 mg/L	0.0112553	2.30%
QC value within limits for As		188.979	Recovery = 98.01%			
Ba 233.527†	50254.0	0.502010 mg/L	0.0080538	0.502010 mg/L	0.0080538	1.60%
QC value within limits for Ba		233.527	Recovery = 100.40%			
Be 313.107†	937196.4	0.488969 mg/L	0.0004507	0.488969 mg/L	0.0004507	0.09%
QC value within limits for Be		313.107	Recovery = 97.79%			
Ca 317.933†	2401152.2	48.9222 mg/L	0.30264	48.9222 mg/L	0.30264	0.62%
QC value within limits for Ca		317.933	Recovery = 97.84%			
Cd 228.802†	13920.4	0.494015 mg/L	0.0069199	0.494015 mg/L	0.0069199	1.40%
QC value within limits for Cd		228.802	Recovery = 98.80%			
Co 228.616†	14098.6	0.504726 mg/L	0.0084442	0.504726 mg/L	0.0084442	1.67%
QC value within limits for Co		228.616	Recovery = 100.95%			
Cr 267.716†	14844.6	0.496466 mg/L	0.0097428	0.496466 mg/L	0.0097428	1.96%
QC value within limits for Cr		267.716	Recovery = 99.29%			
Cu 327.393†	38121.9	0.505367 mg/L	0.0073803	0.505367 mg/L	0.0073803	1.46%
QC value within limits for Cu		327.393	Recovery = 101.07%			
Fe 273.955†	102132.2	4.92750 mg/L	0.081991	4.92750 mg/L	0.081991	1.66%
QC value within limits for Fe		273.955	Recovery = 98.55%			
K 404.721†	1312.5	77.8300 mg/L	6.78474	77.8300 mg/L	6.78474	8.72%
Mg 279.077†	421340.9	48.8631 mg/L	0.09766	48.8631 mg/L	0.09766	0.20%
QC value within limits for Mg		279.077	Recovery = 97.73%			
Mn 257.610†	174883.4	0.495024 mg/L	0.0076806	0.495024 mg/L	0.0076806	1.55%
QC value within limits for Mn		257.610	Recovery = 99.00%			
Mo 202.031†	5664.0	0.500437 mg/L	0.0040524	0.500437 mg/L	0.0040524	0.81%
QC value within limits for Mo		202.031	Recovery = 100.09%			
Na 330.237†	22513.1	47.8293 mg/L	0.83114	47.8293 mg/L	0.83114	1.74%
QC value within limits for Na		330.237	Recovery = 95.66%			
Ni 231.604†	13346.8	0.503411 mg/L	0.0088958	0.503411 mg/L	0.0088958	1.77%
QC value within limits for Ni		231.604	Recovery = 100.68%			
Pb 220.353†	2038.7	0.491008 mg/L	0.0067048	0.491008 mg/L	0.0067048	1.37%
QC value within limits for Pb		220.353	Recovery = 98.20%			
Sb 206.836†	675.2	0.502404 mg/L	0.0112429	0.502404 mg/L	0.0112429	2.24%
QC value within limits for Sb		206.836	Recovery = 100.48%			
Se 196.026†	357.7	0.495986 mg/L	0.0029281	0.495986 mg/L	0.0029281	0.59%
QC value within limits for Se		196.026	Recovery = 99.20%			
Sn 189.927†	1848.1	0.508368 mg/L	0.0076008	0.508368 mg/L	0.0076008	1.50%
QC value within limits for Sn		189.927	Recovery = 101.67%			
Ti 334.940†	152940.6	0.502006 mg/L	0.0083518	0.502006 mg/L	0.0083518	1.66%
QC value within limits for Ti		334.940	Recovery = 100.40%			
Tl 190.801†	444.7	0.530139 mg/L	0.0019292	0.530139 mg/L	0.0019292	0.36%
QC value within limits for Tl		190.801	Recovery = 106.03%			
V 290.880†	44657.3	0.494404 mg/L	0.0087140	0.494404 mg/L	0.0087140	1.76%
QC value within limits for V		290.880	Recovery = 98.88%			
Zn 206.200†	17436.0	0.492633 mg/L	0.0073833	0.492633 mg/L	0.0073833	1.50%
QC value within limits for Zn		206.200	Recovery = 98.53%			

All analyte(s) passed QC.

Sequence No.: 37

Autosampler Location: 2

Sample ID: CCB V-129815

Date Collected: 12/12/2011 6:01:34 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	493243.5	99.3 %		1.64			1.65%
Y 371.029	191932.7	99.3 %		1.65			1.66%
Ag 328.068†	-15.9	-0.0000902 mg/L	0.00078676	-0.0000902 mg/L	0.00078676	872.58%	
QC value within limits for Ag	328.068	Recovery = Not calculated					
Al 308.215†	107.9	0.0053061 mg/L	0.00401870	0.0053061 mg/L	0.00401870	75.74%	
QC value within limits for Al	308.215	Recovery = Not calculated					
As 188.979†	0.6	0.0001062 mg/L	0.00233492	0.0001062 mg/L	0.00233492	>999.9%	
QC value within limits for As	188.979	Recovery = Not calculated					
Ba 233.527†	-5.2	0.0001362 mg/L	0.00009758	0.0001362 mg/L	0.00009758	71.65%	
QC value within limits for Ba	233.527	Recovery = Not calculated					
Be 313.107†	76.2	0.0008070 mg/L	0.00005677	0.0008070 mg/L	0.00005677	7.03%	
QC value within limits for Be	313.107	Recovery = Not calculated					
Ca 317.933†	67.9	-0.0771522 mg/L	0.00106732	-0.0771522 mg/L	0.00106732	1.38%	
QC value within limits for Ca	317.933	Recovery = Not calculated					
Cd 228.802†	6.8	-0.0000325 mg/L	0.00067527	-0.0000325 mg/L	0.00067527	>999.9%	
QC value within limits for Cd	228.802	Recovery = Not calculated					
Co 228.616†	-10.1	-0.0018275 mg/L	0.00059315	-0.0018275 mg/L	0.00059315	32.46%	
QC value within limits for Co	228.616	Recovery = Not calculated					
Cr 267.716†	2.2	0.0003450 mg/L	0.00033218	0.0003450 mg/L	0.00033218	96.28%	
QC value within limits for Cr	267.716	Recovery = Not calculated					
Cu 327.393†	-47.4	-0.0001279 mg/L	0.00026925	-0.0001279 mg/L	0.00026925	210.58%	
QC value within limits for Cu	327.393	Recovery = Not calculated					
Fe 273.955†	44.4	0.0015639 mg/L	0.00133543	0.0015639 mg/L	0.00133543	85.39%	
QC value within limits for Fe	273.955	Recovery = Not calculated					
K 404.721†	146.3	21.2000 mg/L	14.52788	21.2000 mg/L	14.52788	68.53%	
Mg 279.077†	34.3	-0.0501711 mg/L	0.00221521	-0.0501711 mg/L	0.00221521	4.42%	
QC value within limits for Mg	279.077	Recovery = Not calculated					
Mn 257.610†	58.6	0.0000249 mg/L	0.00002195	0.0000249 mg/L	0.00002195	88.28%	
QC value within limits for Mn	257.610	Recovery = Not calculated					
Mo 202.031†	18.8	0.0008661 mg/L	0.00000739	0.0008661 mg/L	0.00000739	0.85%	
QC value within limits for Mo	202.031	Recovery = Not calculated					
Na 330.237†	-77.4	0.430786 mg/L	0.0371467	0.430786 mg/L	0.0371467	8.62%	
QC value within limits for Na	330.237	Recovery = Not calculated					
Ni 231.604†	-10.9	-0.0015193 mg/L	0.00091811	-0.0015193 mg/L	0.00091811	60.43%	
QC value within limits for Ni	231.604	Recovery = Not calculated					
Pb 220.353†	9.6	0.0022137 mg/L	0.00026803	0.0022137 mg/L	0.00026803	12.11%	
QC value within limits for Pb	220.353	Recovery = Not calculated					
Sb 206.836†	-9.4	-0.0036776 mg/L	0.00209275	-0.0036776 mg/L	0.00209275	56.91%	
QC value within limits for Sb	206.836	Recovery = Not calculated					
Se 196.026†	-6.0	-0.0029887 mg/L	0.01123135	-0.0029887 mg/L	0.01123135	375.80%	
QC value within limits for Se	196.026	Recovery = Not calculated					
Sn 189.927†	22.3	0.0044629 mg/L	0.00146756	0.0044629 mg/L	0.00146756	32.88%	
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	12.7	0.0007527 mg/L	0.00004802	0.0007527 mg/L	0.00004802	6.38%	
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	-0.3	0.0004194 mg/L	0.00043157	0.0004194 mg/L	0.00043157	102.90%	
QC value within limits for Tl	190.801	Recovery = Not calculated					
V 290.880†	123.0	0.0003997 mg/L	0.00071474	0.0003997 mg/L	0.00071474	178.83%	
QC value within limits for V	290.880	Recovery = Not calculated					
Zn 206.200†	-3.3	-0.0013760 mg/L	0.00062683	-0.0013760 mg/L	0.00062683	45.55%	
QC value within limits for Zn	206.200	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 38  
 Sample ID: 63111-042  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 57  
 Date Collected: 12/12/2011 6:04:54 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-042

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	507067.9	102	%	1.3				1.25%
Y 371.029	222655.2	115	%	1.1				0.98%
Ag 328.068†	-1382.2	0.0131841	mg/L	0.00025375	0.0131841	mg/L	0.00025375	1.92%
Al 308.215†	828711.2	52.2029	mg/L	0.14728	52.2029	mg/L	0.14728	0.28%
As 188.979†	118.7	0.112775	mg/L	0.0026619	0.112775	mg/L	0.0026619	2.36%
Ba 233.527†	104324.5	1.04194	mg/L	0.004296	1.04194	mg/L	0.004296	0.41%
Be 313.107†	6754.3	0.0042857	mg/L	0.00000669	0.0042857	mg/L	0.00000669	0.16%
Ca 317.933†	1742531.1	35.4816	mg/L	0.19311	35.4816	mg/L	0.19311	0.54%
Cd 228.802†	163.5	0.0056580	mg/L	0.00008174	0.0056580	mg/L	0.00008174	1.44%
Co 228.616†	1544.7	0.0488509	mg/L	0.00146119	0.0488509	mg/L	0.00146119	2.99%
Cr 267.716†	3680.4	0.123182	mg/L	0.0018044	0.123182	mg/L	0.0018044	1.46%
Cu 327.393†	38242.4	0.516871	mg/L	0.0017133	0.516871	mg/L	0.0017133	0.33%
Fe 273.955†	2750187.3	132.701	mg/L	0.4870	132.701	mg/L	0.4870	0.37%
K 404.721†	444.4	35.6772	mg/L	1.73353	35.6772	mg/L	1.73353	4.86%
Mg 279.077†	93419.9	10.7899	mg/L	0.06790	10.7899	mg/L	0.06790	0.63%
Mn 257.610†	765520.8	2.17006	mg/L	0.006504	2.17006	mg/L	0.006504	0.30%
Mo 202.031†	245.8	0.0210963	mg/L	0.00209387	0.0210963	mg/L	0.00209387	9.93%
Na 330.237†	955.8	2.59857	mg/L	0.155562	2.59857	mg/L	0.155562	5.99%
Ni 231.604†	2352.9	0.0876467	mg/L	0.00323913	0.0876467	mg/L	0.00323913	3.70%
Pb 220.353†	8014.1	1.90175	mg/L	0.033835	1.90175	mg/L	0.033835	1.78%
Sb 206.836†	1.2	0.0090030	mg/L	0.00097984	0.0090030	mg/L	0.00097984	10.88%
Se 196.026†	-15.7	0.0145698	mg/L	0.00584451	0.0145698	mg/L	0.00584451	40.11%
Sn 189.927†	1635.9	0.463918	mg/L	0.0064654	0.463918	mg/L	0.0064654	1.39%
Ti 334.940†	688814.7	2.25896	mg/L	0.022329	2.25896	mg/L	0.022329	0.99%
Tl 190.801†	-15.6	-0.0076369	mg/L	0.00137587	-0.0076369	mg/L	0.00137587	18.02%
V 290.880†	19397.1	0.208952	mg/L	0.0003128	0.208952	mg/L	0.0003128	0.15%
Zn 206.200†	25871.0	0.732714	mg/L	0.0133771	0.732714	mg/L	0.0133771	1.83%

Sequence No.: 39  
 Sample ID: 63111-044  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 58  
 Date Collected: 12/12/2011 6:08:18 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-044

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	492426.8		99.1 %	0.60			0.61%
Y 371.029	204338.0		106 %	0.3			0.32%
Ag 328.068†	-1084.9	0.0091755	mg/L	0.00004874	0.0091755	mg/L	0.00004874 0.53%
Al 308.215†	422793.8	26.6323	mg/L	0.17026	26.6323	mg/L	0.17026 0.64%
As 188.979†	79.2	0.0764375	mg/L	0.00236689	0.0764375	mg/L	0.00236689 3.10%
Ba 233.527†	130772.9	1.30605	mg/L	0.011461	1.30605	mg/L	0.011461 0.88%
Be 313.107†	3950.9	0.0028254	mg/L	0.00004629	0.0028254	mg/L	0.00004629 1.64%
Ca 317.933†	5625575.1	114.723	mg/L	0.6076	114.723	mg/L	0.6076 0.53%
Cd 228.802†	125.1	0.0042522	mg/L	0.00081986	0.0042522	mg/L	0.00081986 19.28%
Co 228.616†	944.7	0.0293692	mg/L	0.00041049	0.0293692	mg/L	0.00041049 1.40%
Cr 267.716†	3385.7	0.113330	mg/L	0.0022721	0.113330	mg/L	0.0022721 2.00%
Cu 327.393†	46901.5	0.629562	mg/L	0.0031175	0.629562	mg/L	0.0031175 0.50%
Fe 273.955†	1833632.0	88.4757	mg/L	0.16579	88.4757	mg/L	0.16579 0.19%
K 404.721†	213.6	24.4702	mg/L	7.61154	24.4702	mg/L	7.61154 31.11%
Mg 279.077†	87383.9	10.0890	mg/L	0.10455	10.0890	mg/L	0.10455 1.04%
Mn 257.610†	461676.5	1.30862	mg/L	0.009528	1.30862	mg/L	0.009528 0.73%
Mo 202.031†	107.2	0.0088679	mg/L	0.00000571	0.0088679	mg/L	0.00000571 0.06%
Na 330.237†	2514.4	5.86872	mg/L	0.214930	5.86872	mg/L	0.214930 3.66%
Ni 231.604†	1572.9	0.0582084	mg/L	0.00070035	0.0582084	mg/L	0.00070035 1.20%
Pb 220.353†	11091.2	2.66465	mg/L	0.020371	2.66465	mg/L	0.020371 0.76%
Sb 206.836†	2.1	0.0073427	mg/L	0.00043568	0.0073427	mg/L	0.00043568 5.93%
Se 196.026†	-18.5	0.0044905	mg/L	0.00665391	0.0044905	mg/L	0.00665391 148.18%
Sn 189.927†	2343.2	0.653752	mg/L	0.0046880	0.653752	mg/L	0.0046880 0.72%
Ti 334.940†	410323.1	1.34593	mg/L	0.008067	1.34593	mg/L	0.008067 0.60%
Tl 190.801†	-10.4	-0.0055814	mg/L	0.00001146	-0.0055814	mg/L	0.00001146 0.21%
V 290.880†	12377.6	0.132239	mg/L	0.0003672	0.132239	mg/L	0.0003672 0.28%
Zn 206.200†	31646.7	0.896628	mg/L	0.0100212	0.896628	mg/L	0.0100212 1.12%

Sequence No.: 40  
 Sample ID: 63111-045  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 59  
 Date Collected: 12/12/2011 6:12:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63111-045

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	497428.8	100	%	1.0				0.99%
Y 371.029	209359.2	108	%	0.7				0.69%
Ag 328.068†	-1217.1	0.0090581	mg/L	0.00002484	0.0090581	mg/L	0.00002484	0.27%
Al 308.215†	432725.8	27.2580	mg/L	0.25817	27.2580	mg/L	0.25817	0.95%
As 188.979†	76.9	0.0752543	mg/L	0.00063442	0.0752543	mg/L	0.00063442	0.84%
Ba 233.527†	130898.6	1.30731	mg/L	0.021968	1.30731	mg/L	0.021968	1.68%
Be 313.107†	4253.7	0.0029831	mg/L	0.00004088	0.0029831	mg/L	0.00004088	1.37%
Ca 317.933†	2282801.5	46.5070	mg/L	0.27268	46.5070	mg/L	0.27268	0.59%
Cd 228.802†	124.9	0.0042499	mg/L	0.00020472	0.0042499	mg/L	0.00020472	4.82%
Co 228.616†	997.6	0.0314389	mg/L	0.00032500	0.0314389	mg/L	0.00032500	1.03%
Cr 267.716†	2713.1	0.0908731	mg/L	0.00004106	0.0908731	mg/L	0.00004106	0.05%
Cu 327.393†	33423.8	0.450112	mg/L	0.0081322	0.450112	mg/L	0.0081322	1.81%
Fe 273.955†	2125247.8	102.547	mg/L	0.7296	102.547	mg/L	0.7296	0.71%
K 404.721†	434.3	35.1831	mg/L	15.53816	35.1831	mg/L	15.53816	44.16%
Mg 279.077†	91312.5	10.5451	mg/L	0.17238	10.5451	mg/L	0.17238	1.63%
Mn 257.610†	473191.8	1.34126	mg/L	0.016068	1.34126	mg/L	0.016068	1.20%
Mo 202.031†	128.1	0.0107350	mg/L	0.00049394	0.0107350	mg/L	0.00049394	4.60%
Na 330.237†	1456.9	3.64998	mg/L	0.013864	3.64998	mg/L	0.013864	0.38%
Ni 231.604†	1662.6	0.0615953	mg/L	0.00049007	0.0615953	mg/L	0.00049007	0.80%
Pb 220.353†	8626.9	2.06779	mg/L	0.003114	2.06779	mg/L	0.003114	0.15%
Sb 206.836†	6.5	0.0108711	mg/L	0.00135505	0.0108711	mg/L	0.00135505	12.46%
Se 196.026†	-15.8	0.0085010	mg/L	0.00097877	0.0085010	mg/L	0.00097877	11.51%
Sn 189.927†	2276.7	0.636825	mg/L	0.0010326	0.636825	mg/L	0.0010326	0.16%
Ti 334.940†	389543.4	1.27781	mg/L	0.009206	1.27781	mg/L	0.009206	0.72%
Tl 190.801†	-10.0	-0.0053669	mg/L	0.00341982	-0.0053669	mg/L	0.00341982	63.72%
V 290.880†	12585.5	0.133770	mg/L	0.0027998	0.133770	mg/L	0.0027998	2.09%
Zn 206.200†	34216.4	0.969502	mg/L	0.0184628	0.969502	mg/L	0.0184628	1.90%

Sequence No.: 41  
 Sample ID: 63118-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 60  
 Date Collected: 12/12/2011 6:15:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63118-004

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	493074.4		99.2 %	0.81			0.82%
Y 371.029	218249.0		113 %	0.5			0.42%
Ag 328.068†	-1396.9	0.0096907	mg/L	0.00059491	0.0096907	mg/L	0.00059491 6.14%
Al 308.215†	718334.7	45.2501	mg/L	0.09184	45.2501	mg/L	0.09184 0.20%
As 188.979†	40.4	0.0444327	mg/L	0.00043031	0.0444327	mg/L	0.00043031 0.97%
Ba 233.527†	63259.2	0.631877	mg/L	0.0014416	0.631877	mg/L	0.0014416 0.23%
Be 313.107†	5947.7	0.0038656	mg/L	0.00006286	0.0038656	mg/L	0.00006286 1.63%
Ca 317.933†	2436489.1	49.6433	mg/L	1.01795	49.6433	mg/L	1.01795 2.05%
Cd 228.802†	76.7	0.0026199	mg/L	0.00038764	0.0026199	mg/L	0.00038764 14.80%
Co 228.616†	1327.8	0.0431471	mg/L	0.00097598	0.0431471	mg/L	0.00097598 2.26%
Cr 267.716†	4190.3	0.140191	mg/L	0.0008647	0.140191	mg/L	0.0008647 0.62%
Cu 327.393†	14387.5	0.200534	mg/L	0.0006282	0.200534	mg/L	0.0006282 0.31%
Fe 273.955†	2377293.3	114.708	mg/L	1.4551	114.708	mg/L	1.4551 1.27%
K 404.721†	-16.4	13.3002	mg/L	18.87057	13.3002	mg/L	18.87057 141.88%
Mg 279.077†	230411.1	26.6908	mg/L	0.09388	26.6908	mg/L	0.09388 0.35%
Mn 257.610†	677757.8	1.92096	mg/L	0.004642	1.92096	mg/L	0.004642 0.24%
Mo 202.031†	72.3	0.0056927	mg/L	0.00009246	0.0056927	mg/L	0.00009246 1.62%
Na 330.237†	1918.0	4.61747	mg/L	0.064759	4.61747	mg/L	0.064759 1.40%
Ni 231.604†	3088.0	0.115315	mg/L	0.0016864	0.115315	mg/L	0.0016864 1.46%
Pb 220.353†	1941.6	0.436000	mg/L	0.0051088	0.436000	mg/L	0.0051088 1.17%
Sb 206.836†	-0.2	0.0058500	mg/L	0.00485250	0.0058500	mg/L	0.00485250 82.95%
Se 196.026†	-20.4	0.0047861	mg/L	0.00768486	0.0047861	mg/L	0.00768486 160.56%
Sn 189.927†	188.3	0.0626626	mg/L	0.00162083	0.0626626	mg/L	0.00162083 2.59%
Ti 334.940†	407250.0	1.33585	mg/L	0.001829	1.33585	mg/L	0.001829 0.14%
Tl 190.801†	-13.3	-0.0091277	mg/L	0.00101934	-0.0091277	mg/L	0.00101934 11.17%
V 290.880†	13540.2	0.141202	mg/L	0.0002459	0.141202	mg/L	0.0002459 0.17%
Zn 206.200†	16315.8	0.461053	mg/L	0.0045061	0.461053	mg/L	0.0045061 0.98%

Sequence No.: 42  
 Sample ID: 63128-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 61  
 Date Collected: 12/12/2011 6:19:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63128-001

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	505275.8	102	%	0.0				0.04%
Y 371.029	203948.5	106	%	0.1				0.13%
Ag 328.068†	-631.4	0.0102978	mg/L	0.00070651	0.0102978	mg/L	0.00070651	6.86%
Al 308.215†	667335.8	42.0363	mg/L	0.00009	42.0363	mg/L	0.00009	0.00%
As 188.979†	12.1	0.0255824	mg/L	0.00375214	0.0255824	mg/L	0.00375214	14.67%
Ba 233.527†	798915.3	7.97794	mg/L	0.001951	7.97794	mg/L	0.001951	0.02%
Be 313.107†	1760.3	0.0016843	mg/L	0.00004335	0.0016843	mg/L	0.00004335	2.57%
Ca 317.933†	2675162.5	54.5139	mg/L	0.32176	54.5139	mg/L	0.32176	0.59%
Cd 228.802†	2766.4	0.0978624	mg/L	0.00020064	0.0978624	mg/L	0.00020064	0.21%
Co 228.616†	4082.8	0.142244	mg/L	0.0000725	0.142244	mg/L	0.0000725	0.05%
Cr 267.716†	104162.6	3.47834	mg/L	0.014023	3.47834	mg/L	0.014023	0.40%
Cu 327.393†	25222.4	0.340190	mg/L	0.0006508	0.340190	mg/L	0.0006508	0.19%
Fe 273.955†	1597088.5	77.0620	mg/L	0.02368	77.0620	mg/L	0.02368	0.03%
K 404.721†	196.5	23.6373	mg/L	7.21547	23.6373	mg/L	7.21547	30.53%
Mg 279.077†	60694.3	6.99193	mg/L	0.016601	6.99193	mg/L	0.016601	0.24%
Mn 257.610†	85232.4	0.241404	mg/L	0.0003548	0.241404	mg/L	0.0003548	0.15%
Mo 202.031†	577.9	0.0530629	mg/L	0.00182594	0.0530629	mg/L	0.00182594	3.44%
Na 330.237†	6863.1	14.9932	mg/L	0.09374	14.9932	mg/L	0.09374	0.63%
Ni 231.604†	956.9	0.0351026	mg/L	0.00038544	0.0351026	mg/L	0.00038544	1.10%
Pb 220.353†	95983.2	23.2260	mg/L	0.06440	23.2260	mg/L	0.06440	0.28%
Sb 206.836†	192.3	0.156121	mg/L	0.0022403	0.156121	mg/L	0.0022403	1.43%
Se 196.026†	-3.9	0.0208875	mg/L	0.00090794	0.0208875	mg/L	0.00090794	4.35%
Sn 189.927†	135.4	0.0439449	mg/L	0.00011275	0.0439449	mg/L	0.00011275	0.26%
Ti 334.940†	249444.7	0.817664	mg/L	0.0097857	0.817664	mg/L	0.0097857	1.20%
Tl 190.801†	-9.1	-0.0067298	mg/L	0.00038776	-0.0067298	mg/L	0.00038776	5.76%
V 290.880†	11429.1	0.122686	mg/L	0.0015708	0.122686	mg/L	0.0015708	1.28%
Zn 206.200†	469283.1	13.3210	mg/L	0.04528	13.3210	mg/L	0.04528	0.34%

Sequence No.: 43  
 Sample ID: 62992-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 62  
 Date Collected: 12/12/2011 6:24:00 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 62992-003

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	505028.0		102 %	0.3			0.33%	
Y 371.029	223219.3		116 %	0.5			0.44%	
Ag 328.068†	-3284.4	0.0177037	mg/L	0.00100719	0.0177037	mg/L	0.00100719	5.69%
Al 308.215†	2312460.5	145.672	mg/L	0.1156	145.672	mg/L	0.1156	0.08%
As 188.979†	26.1	0.0411081	mg/L	0.00092883	0.0411081	mg/L	0.00092883	2.26%
Ba 233.527†	69026.7	0.689469	mg/L	0.0006620	0.689469	mg/L	0.0006620	0.10%
Be 313.107†	6656.3	0.0042347	mg/L	0.00005295	0.0042347	mg/L	0.00005295	1.25%
Ca 317.933†	1265570.4	25.7482	mg/L	0.04143	25.7482	mg/L	0.04143	0.16%
Cd 228.802†	120.8	0.0042265	mg/L	0.00061784	0.0042265	mg/L	0.00061784	14.62%
Co 228.616†	2340.8	0.0760341	mg/L	0.00092049	0.0760341	mg/L	0.00092049	1.21%
Cr 267.716†	8006.0	0.267608	mg/L	0.0031334	0.267608	mg/L	0.0031334	1.17%
Cu 327.393†	25441.2	0.355547	mg/L	0.0007739	0.355547	mg/L	0.0007739	0.22%
Fe 273.955†	5297091.8	255.594	mg/L	0.5958	255.594	mg/L	0.5958	0.23%
K 404.721†	292.1	28.2809	mg/L	7.07497	28.2809	mg/L	7.07497	25.02%
Mg 279.077†	403322.8	46.7615	mg/L	0.07299	46.7615	mg/L	0.07299	0.16%
Mn 257.610†	619855.9	1.75645	mg/L	0.002346	1.75645	mg/L	0.002346	0.13%
Mo 202.031†	170.3	0.0144261	mg/L	0.00079243	0.0144261	mg/L	0.00079243	5.49%
Na 330.237†	5411.2	11.9468	mg/L	0.02258	11.9468	mg/L	0.02258	0.19%
Ni 231.604†	3835.7	0.143525	mg/L	0.0006391	0.143525	mg/L	0.0006391	0.45%
Pb 220.353†	1564.0	0.274289	mg/L	0.0038003	0.274289	mg/L	0.0038003	1.39%
Sb 206.836†	-0.4	0.0083780	mg/L	0.00180501	0.0083780	mg/L	0.00180501	21.54%
Se 196.026†	-46.2	0.0038981	mg/L	0.00631802	0.0038981	mg/L	0.00631802	162.08%
Sn 189.927†	22.4	0.0321333	mg/L	0.00263559	0.0321333	mg/L	0.00263559	8.20%
Ti 334.940†	869893.6	2.85259	mg/L	0.008626	2.85259	mg/L	0.008626	0.30%
Tl 190.801†	-20.4	-0.0097906	mg/L	0.00195277	-0.0097906	mg/L	0.00195277	19.95%
V 290.880†	38068.3	0.407016	mg/L	0.0011276	0.407016	mg/L	0.0011276	0.28%
Zn 206.200†	26758.4	0.756920	mg/L	0.0051281	0.756920	mg/L	0.0051281	0.68%

Sequence No.: 44  
 Sample ID: Fe V-130586  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 12  
 Date Collected: 12/12/2011 6:27:34 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: Fe V-130586

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	497382.3	100	%	1.5				1.47%
Y 371.029	188955.4	97.8	%	0.38				0.39%
Ag 328.068†	-2400.4	0.0130400	mg/L	0.00030222	0.0130400	mg/L	0.00030222	2.32%
Al 308.215†	336.7	0.0197682	mg/L	0.00217018	0.0197682	mg/L	0.00217018	10.98%
As 188.979†	-14.7	0.0062948	mg/L	0.00520085	0.0062948	mg/L	0.00520085	82.62%
Ba 233.527†	520.5	0.0053855	mg/L	0.00043153	0.0053855	mg/L	0.00043153	8.01%
Be 313.107†	-360.9	0.0005793	mg/L	0.00000947	0.0005793	mg/L	0.00000947	1.64%
Ca 317.933†	1054.6	-0.0570171	mg/L	0.00078805	-0.0570171	mg/L	0.00078805	1.38%
Cd 228.802†	15.1	0.0002561	mg/L	0.00051944	0.0002561	mg/L	0.00051944	202.79%
Co 228.616†	59.6	0.0006770	mg/L	0.00089964	0.0006770	mg/L	0.00089964	132.89%
Cr 267.716†	-14.3	-0.0002078	mg/L	0.00010743	-0.0002078	mg/L	0.00010743	51.70%
Cu 327.393†	-840.4	-0.0012094	mg/L	0.00096676	-0.0012094	mg/L	0.00096676	79.94%
Fe 273.955†	3923687.9	189.325	mg/L	1.3636	189.325	mg/L	1.3636	0.72%
K 404.721†	-209.1	3.94334	mg/L	6.125403	3.94334	mg/L	6.125403	155.34%
Mg 279.077†	1244.3	0.0902289	mg/L	0.00634104	0.0902289	mg/L	0.00634104	7.03%
Mn 257.610†	-24.4	-0.0002138	mg/L	0.00001195	-0.0002138	mg/L	0.00001195	5.59%
Mo 202.031†	-4.6	-0.0012054	mg/L	0.00019785	-0.0012054	mg/L	0.00019785	16.41%
Na 330.237†	146.3	0.900198	mg/L	0.1741434	0.900198	mg/L	0.1741434	19.35%
Ni 231.604†	-115.1	-0.0054511	mg/L	0.00192185	-0.0054511	mg/L	0.00192185	35.26%
Pb 220.353†	31.2	0.0009788	mg/L	0.00216885	0.0009788	mg/L	0.00216885	221.57%
Sb 206.836†	-3.0	0.0028072	mg/L	0.00206553	0.0028072	mg/L	0.00206553	73.58%
Se 196.026†	-33.6	0.0038811	mg/L	0.00251508	0.0038811	mg/L	0.00251508	64.80%
Sn 189.927†	-45.0	0.0050891	mg/L	0.00067862	0.0050891	mg/L	0.00067862	13.33%
Ti 334.940†	-67.4	0.0004902	mg/L	0.00003447	0.0004902	mg/L	0.00003447	7.03%
Tl 190.801†	-6.2	-0.0065441	mg/L	0.00248834	-0.0065441	mg/L	0.00248834	38.02%
V 290.880†	1253.7	0.0031898	mg/L	0.00083618	0.0031898	mg/L	0.00083618	26.21%
Zn 206.200†	414.4	0.0104736	mg/L	0.00081817	0.0104736	mg/L	0.00081817	7.81%

Sequence No.: 45  
 Sample ID: ICESA V-129812  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/12/2011 6:31:07 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICESA V-129812

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	439270.9		88.4 %	0.21			0.23%
Y 371.029	165778.5		85.8 %	0.08			0.09%
Ag 328.068†	-3012.8	0.0188109	mg/L	0.00033499	0.0188109	mg/L	0.00033499 1.78%
Al 308.215†	7993408.0	503.546	mg/L	5.0646	503.546	mg/L	5.0646 1.01%
QC value within limits for Al 308.215 Recovery = 100.71%							
As 188.979†	-1.0	0.0009455	mg/L	0.00286538	0.0009455	mg/L	0.00286538 303.07%
Ba 233.527†	685.4	0.0070319	mg/L	0.00000293	0.0070319	mg/L	0.00000293 0.04%
Be 313.107†	-1276.5	0.0001024	mg/L	0.00006727	0.0001024	mg/L	0.00006727 65.71%
Ca 317.933†	24382775.5	497.505	mg/L	5.3188	497.505	mg/L	5.3188 1.07%
QC value within limits for Ca 317.933 Recovery = 99.50%							
Cd 228.802†	92.6	0.0030135	mg/L	0.00047095	0.0030135	mg/L	0.00047095 15.63%
Co 228.616†	95.1	0.0019593	mg/L	0.00084543	0.0019593	mg/L	0.00084543 43.15%
Cr 267.716†	-87.4	-0.0026477	mg/L	0.00009554	-0.0026477	mg/L	0.00009554 3.61%
Cu 327.393†	-2168.5	0.0010272	mg/L	0.00006898	0.0010272	mg/L	0.00006898 6.72%
Fe 273.955†	4008057.6	193.396	mg/L	1.9623	193.396	mg/L	1.9623 1.01%
QC value within limits for Fe 273.955 Recovery = 96.70%							
K 404.721†	-2058.5	-85.8588	mg/L	0.85659	-85.8588	mg/L	0.85659 1.00%
Mg 279.077†	4480766.8	520.048	mg/L	5.5047	520.048	mg/L	5.5047 1.06%
QC value within limits for Mg 279.077 Recovery = 104.01%							
Mn 257.610†	942.1	-0.0065111	mg/L	0.00023615	-0.0065111	mg/L	0.00023615 3.63%
Mo 202.031†	6.8	-0.0001943	mg/L	0.00000287	-0.0001943	mg/L	0.00000287 1.48%
Na 330.237†	3865.2	8.70311	mg/L	0.096629	8.70311	mg/L	0.096629 1.11%
Ni 231.604†	63.8	0.0012955	mg/L	0.00099270	0.0012955	mg/L	0.00099270 76.63%
Pb 220.353†	1327.0	-0.0193941	mg/L	0.00673656	-0.0193941	mg/L	0.00673656 34.74%
Sb 206.836†	6.3	-0.0078394	mg/L	0.00515992	-0.0078394	mg/L	0.00515992 65.82%
Se 196.026†	-55.6	0.0066427	mg/L	0.00362100	0.0066427	mg/L	0.00362100 54.51%
Sn 189.927†	-35.7	0.0080500	mg/L	0.00176619	0.0080500	mg/L	0.00176619 21.94%
Ti 334.940†	-634.6	-0.0013687	mg/L	0.00016012	-0.0013687	mg/L	0.00016012 11.70%
Tl 190.801†	0.3	0.0044414	mg/L	0.00621424	0.0044414	mg/L	0.00621424 139.92%
V 290.880†	10484.8	0.0203891	mg/L	0.00285432	0.0203891	mg/L	0.00285432 14.00%
Zn 206.200†	-44.4	-0.0197759	mg/L	0.00014776	-0.0197759	mg/L	0.00014776 0.75%

All analyte(s) passed QC.

Sequence No.: 46

Autosampler Location: 8

Sample ID: ICSAB V-128667

Date Collected: 12/12/2011 6:36:08 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	438180.3	88.2 %	0.33			0.37%
Y 371.029	165946.8	85.9 %	0.15			0.17%
Ag 328.068†	96354.2	1.07795 mg/L	0.000254	1.07795 mg/L	0.000254	0.02%
QC value within limits for Ag	328.068	Recovery = 107.79%				
Al 308.215†	7945650.8	500.537 mg/L	2.1393	500.537 mg/L	2.1393	0.43%
QC value within limits for Al	308.215	Recovery = 100.11%				
As 188.979†	1189.3	1.02922 mg/L	0.010606	1.02922 mg/L	0.010606	1.03%
QC value within limits for As	188.979	Recovery = 102.92%				
Ba 233.527†	53182.0	0.531249 mg/L	0.0076665	0.531249 mg/L	0.0076665	1.44%
QC value within limits for Ba	233.527	Recovery = 106.25%				
Be 313.107†	987301.8	0.515070 mg/L	0.0023749	0.515070 mg/L	0.0023749	0.46%
QC value within limits for Be	313.107	Recovery = 103.01%				
Ca 317.933†	24277207.1	495.350 mg/L	3.8854	495.350 mg/L	3.8854	0.78%
QC value within limits for Ca	317.933	Recovery = 99.07%				
Cd 228.802†	28933.3	1.02697 mg/L	0.003602	1.02697 mg/L	0.003602	0.35%
QC value within limits for Cd	228.802	Recovery = 102.70%				
Co 228.616†	13751.2	0.492604 mg/L	0.0019197	0.492604 mg/L	0.0019197	0.39%
QC value within limits for Co	228.616	Recovery = 98.52%				
Cr 267.716†	14717.8	0.491702 mg/L	0.0011839	0.491702 mg/L	0.0011839	0.24%
QC value within limits for Cr	267.716	Recovery = 98.34%				
Cu 327.393†	38251.5	0.532640 mg/L	0.0039485	0.532640 mg/L	0.0039485	0.74%
QC value within limits for Cu	327.393	Recovery = 106.53%				
Fe 273.955†	3980586.6	192.070 mg/L	0.7466	192.070 mg/L	0.7466	0.39%
QC value within limits for Fe	273.955	Recovery = 96.04%				
K 404.721†	-1925.4	-79.3944 mg/L	5.14695	-79.3944 mg/L	5.14695	6.48%
Mg 279.077†	4440685.1	515.395 mg/L	1.6299	515.395 mg/L	1.6299	0.32%
QC value within limits for Mg	279.077	Recovery = 103.08%				
Mn 257.610†	179050.6	0.498538 mg/L	0.0029583	0.498538 mg/L	0.0029583	0.59%
QC value within limits for Mn	257.610	Recovery = 99.71%				
Mo 202.031†	-0.8	-0.0006704 mg/L	0.00207534	-0.0006704 mg/L	0.00207534	309.57%
Na 330.237†	4243.3	9.49630 mg/L	0.098069	9.49630 mg/L	0.098069	1.03%
Ni 231.604†	25485.9	0.959624 mg/L	0.0050566	0.959624 mg/L	0.0050566	0.53%
QC value within limits for Ni	231.604	Recovery = 95.96%				
Pb 220.353†	5348.1	0.957277 mg/L	0.0050349	0.957277 mg/L	0.0050349	0.53%
QC value within limits for Pb	220.353	Recovery = 95.73%				
Sb 206.836†	1420.9	1.01939 mg/L	0.004108	1.01939 mg/L	0.004108	0.40%
QC value within limits for Sb	206.836	Recovery = 101.94%				
Se 196.026†	683.2	1.01346 mg/L	0.006229	1.01346 mg/L	0.006229	0.61%
QC value within limits for Se	196.026	Recovery = 101.35%				
Sn 189.927†	-29.9	0.0095102 mg/L	0.00163455	0.0095102 mg/L	0.00163455	17.19%
Ti 334.940†	-191.0	-0.0000356 mg/L	0.00113343	-0.0000356 mg/L	0.00113343	>999.9%
Tl 190.801†	840.4	1.00059 mg/L	0.003000	1.00059 mg/L	0.003000	0.30%
QC value within limits for Tl	190.801	Recovery = 100.06%				
V 290.880†	52304.4	0.492735 mg/L	0.0020501	0.492735 mg/L	0.0020501	0.42%
QC value within limits for V	290.880	Recovery = 98.55%				
Zn 206.200†	35104.8	0.978582 mg/L	0.0057065	0.978582 mg/L	0.0057065	0.58%
QC value within limits for Zn	206.200	Recovery = 97.86%				

All analyte(s) passed QC.

Sequence No.: 47  
 Sample ID: CCV V-129808  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 6:41:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	480022.2	96.6 %	0.65			0.67%
Y 371.029	181203.3	93.8 %	0.21			0.22%
Ag 328.068†	9004.2	0.0982141 mg/L	0.00206872	0.0982141 mg/L	0.00206872	2.11%
QC value within limits for Ag	328.068	Recovery = 98.21%				
Al 308.215†	78597.5	4.93705 mg/L	0.065008	4.93705 mg/L	0.065008	1.32%
QC value within limits for Al	308.215	Recovery = 98.74%				
As 188.979†	558.8	0.484239 mg/L	0.0062520	0.484239 mg/L	0.0062520	1.29%
QC value within limits for As	188.979	Recovery = 96.85%				
Ba 233.527†	49715.1	0.496629 mg/L	0.0083429	0.496629 mg/L	0.0083429	1.68%
QC value within limits for Ba	233.527	Recovery = 99.33%				
Be 313.107†	935529.5	0.488101 mg/L	0.0068927	0.488101 mg/L	0.0068927	1.41%
QC value within limits for Be	313.107	Recovery = 97.62%				
Ca 317.933†	2419847.2	49.3037 mg/L	0.35528	49.3037 mg/L	0.35528	0.72%
QC value within limits for Ca	317.933	Recovery = 98.61%				
Cd 228.802†	13861.4	0.489788 mg/L	0.0046395	0.489788 mg/L	0.0046395	0.95%
QC value within limits for Cd	228.802	Recovery = 97.96%				
Co 228.616†	13964.9	0.499929 mg/L	0.0101451	0.499929 mg/L	0.0101451	2.03%
QC value within limits for Co	228.616	Recovery = 99.99%				
Cr 267.716†	14617.5	0.488879 mg/L	0.0077686	0.488879 mg/L	0.0077686	1.59%
QC value within limits for Cr	267.716	Recovery = 97.78%				
Cu 327.393†	37556.7	0.497931 mg/L	0.0059404	0.497931 mg/L	0.0059404	1.19%
QC value within limits for Cu	327.393	Recovery = 99.59%				
Fe 273.955†	101175.8	4.88135 mg/L	0.077833	4.88135 mg/L	0.077833	1.59%
QC value within limits for Fe	273.955	Recovery = 97.63%				
K 404.721†	1145.7	69.7299 mg/L	1.50895	69.7299 mg/L	1.50895	2.16%
Mg 279.077†	422669.6	49.0173 mg/L	0.68135	49.0173 mg/L	0.68135	1.39%
QC value within limits for Mg	279.077	Recovery = 98.03%				
Mn 257.610†	172767.8	0.489021 mg/L	0.0082204	0.489021 mg/L	0.0082204	1.68%
QC value within limits for Mn	257.610	Recovery = 97.80%				
Mo 202.031†	5612.9	0.495916 mg/L	0.0034221	0.495916 mg/L	0.0034221	0.69%
QC value within limits for Mo	202.031	Recovery = 99.18%				
Na 330.237†	22305.3	47.3934 mg/L	0.52137	47.3934 mg/L	0.52137	1.10%
QC value within limits for Na	330.237	Recovery = 94.79%				
Ni 231.604†	13206.0	0.498093 mg/L	0.0092448	0.498093 mg/L	0.0092448	1.86%
QC value within limits for Ni	231.604	Recovery = 99.62%				
Pb 220.353†	2032.3	0.489462 mg/L	0.0017210	0.489462 mg/L	0.0017210	0.35%
QC value within limits for Pb	220.353	Recovery = 97.89%				
Sb 206.836†	664.0	0.494153 mg/L	0.0054863	0.494153 mg/L	0.0054863	1.11%
QC value within limits for Sb	206.836	Recovery = 98.83%				
Se 196.026†	351.5	0.487478 mg/L	0.0133214	0.487478 mg/L	0.0133214	2.73%
QC value within limits for Se	196.026	Recovery = 97.50%				
Sn 189.927†	1816.1	0.499544 mg/L	0.0059465	0.499544 mg/L	0.0059465	1.19%
QC value within limits for Sn	189.927	Recovery = 99.91%				
Ti 334.940†	151443.6	0.497100 mg/L	0.0093442	0.497100 mg/L	0.0093442	1.88%
QC value within limits for Ti	334.940	Recovery = 99.42%				
Tl 190.801†	435.6	0.519351 mg/L	0.0047508	0.519351 mg/L	0.0047508	0.91%
QC value within limits for Tl	190.801	Recovery = 103.87%				
V 290.880†	44134.2	0.488481 mg/L	0.0076277	0.488481 mg/L	0.0076277	1.56%
QC value within limits for V	290.880	Recovery = 97.70%				
Zn 206.200†	17303.4	0.488853 mg/L	0.0095759	0.488853 mg/L	0.0095759	1.96%
QC value within limits for Zn	206.200	Recovery = 97.77%				

All analyte(s) passed QC.

Sequence No.: 48  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/12/2011 6:44:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	484854.3	97.6 %		0.79			0.81%
Y 371.029	188920.0	97.8 %		0.86			0.87%
Ag 328.068†	-8.7	-0.0000133 mg/L		0.00032289	-0.0000133 mg/L	0.00032289	>999.9%
QC value within limits for Ag	328.068	Recovery =	Not calculated				
Al 308.215†	246.2	0.0140349 mg/L		0.00074828	0.0140349 mg/L	0.00074828	5.33%
QC value within limits for Al	308.215	Recovery =	Not calculated				
As 188.979†	4.2	0.0032123 mg/L		0.00087006	0.0032123 mg/L	0.00087006	27.09%
QC value within limits for As	188.979	Recovery =	Not calculated				
Ba 233.527†	-4.7	0.0001412 mg/L		0.00015043	0.0001412 mg/L	0.00015043	106.57%
QC value within limits for Ba	233.527	Recovery =	Not calculated				
Be 313.107†	59.3	0.0007982 mg/L		0.00001523	0.0007982 mg/L	0.00001523	1.91%
QC value within limits for Be	313.107	Recovery =	Not calculated				
Ca 317.933†	203.3	-0.0743901 mg/L		0.00157138	-0.0743901 mg/L	0.00157138	2.11%
QC value within limits for Ca	317.933	Recovery =	Not calculated				
Cd 228.802†	1.6	-0.0002124 mg/L		0.00077879	-0.0002124 mg/L	0.00077879	366.70%
QC value within limits for Cd	228.802	Recovery =	Not calculated				
Co 228.616†	7.5	-0.0011952 mg/L		0.00033092	-0.0011952 mg/L	0.00033092	27.69%
QC value within limits for Co	228.616	Recovery =	Not calculated				
Cr 267.716†	3.3	0.0003823 mg/L		0.00000424	0.0003823 mg/L	0.00000424	1.11%
QC value within limits for Cr	267.716	Recovery =	Not calculated				
Cu 327.393†	12.5	0.0006593 mg/L		0.00130794	0.0006593 mg/L	0.00130794	198.40%
QC value within limits for Cu	327.393	Recovery =	Not calculated				
Fe 273.955†	41.8	0.0014385 mg/L		0.00057846	0.0014385 mg/L	0.00057846	40.21%
QC value within limits for Fe	273.955	Recovery =	Not calculated				
K 404.721†	-557.0	-12.9498 mg/L		5.26877	-12.9498 mg/L	5.26877	40.69%
Mg 279.077†	-3.0	-0.0545268 mg/L		0.00376855	-0.0545268 mg/L	0.00376855	6.91%
QC value within limits for Mg	279.077	Recovery =	Not calculated				
Mn 257.610†	87.0	0.0001050 mg/L		0.00003904	0.0001050 mg/L	0.00003904	37.19%
QC value within limits for Mn	257.610	Recovery =	Not calculated				
Mo 202.031†	9.4	0.0000332 mg/L		0.00105290	0.0000332 mg/L	0.00105290	>999.9%
QC value within limits for Mo	202.031	Recovery =	Not calculated				
Na 330.237†	-81.2	0.422776 mg/L		0.1643242	0.422776 mg/L	0.1643242	38.87%
QC value within limits for Na	330.237	Recovery =	Not calculated				
Ni 231.604†	24.2	-0.0001961 mg/L		0.00085360	-0.0001961 mg/L	0.00085360	435.23%
QC value within limits for Ni	231.604	Recovery =	Not calculated				
Pb 220.353†	-6.5	-0.0016744 mg/L		0.00038010	-0.0016744 mg/L	0.00038010	22.70%
QC value within limits for Pb	220.353	Recovery =	Not calculated				
Sb 206.836†	-5.5	-0.0008692 mg/L		0.00125315	-0.0008692 mg/L	0.00125315	144.17%
QC value within limits for Sb	206.836	Recovery =	Not calculated				
Se 196.026†	-2.1	0.0023925 mg/L		0.00037343	0.0023925 mg/L	0.00037343	15.61%
QC value within limits for Se	196.026	Recovery =	Not calculated				
Sn 189.927†	7.1	0.0002834 mg/L		0.00135318	0.0002834 mg/L	0.00135318	477.40%
QC value within limits for Sn	189.927	Recovery =	Not calculated				
Ti 334.940†	-57.5	0.0005225 mg/L		0.00006714	0.0005225 mg/L	0.00006714	12.85%
QC value within limits for Ti	334.940	Recovery =	Not calculated				
Tl 190.801†	-2.2	-0.0017958 mg/L		0.00270124	-0.0017958 mg/L	0.00270124	150.42%
QC value within limits for Tl	190.801	Recovery =	Not calculated				
V 290.880†	120.2	0.0003683 mg/L		0.00043911	0.0003683 mg/L	0.00043911	119.22%
QC value within limits for V	290.880	Recovery =	Not calculated				
Zn 206.200†	7.6	-0.0010666 mg/L		0.00060344	-0.0010666 mg/L	0.00060344	56.58%
QC value within limits for Zn	206.200	Recovery =	Not calculated				

All analyte(s) passed QC.

*1st Review of 12/13/2011**V-130565*

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100Technique: AA FIMS-MHS  
Autosampler Model: AS-90*sh 12/13/11*Sample Information File: C:\data-AA\johns\Sample Information\H13384S.sif  
Batch ID: H13384S  
Results Data Set: H13384S  
Results Library: C:\data-AA\johns\Results\Results.mdb=====  
Method LoadedMethod Name: HGCV2 Soil (7471A)  
Method Description: HgCV2 Soil (7471A)

Method Last Saved: 12/8/2011 8:31:32 PM

Sequence No.: 1  
Sample ID: Calibration Blank  
Analyst:Autosampler Location: 1  
Date Collected: 12/12/2011 7:11:13 PM  
Data Type: Original=====  
Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	-0.0000	-0.0009	-0.0000	19:11:59	Yes
2		[0.00]	0.0000	-0.0003	0.0000	19:12:31	Yes
Mean:		[0.00]	-0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	>999.9%				

Auto-zero performed.

Sequence No.: 2  
Sample ID: .2 PPB  
Analyst:Autosampler Location: 2  
Date Collected: 12/12/2011 7:12:33 PM  
Data Type: Original=====  
Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0009	0.0052	0.0009	19:13:18	Yes
2		[0.2]	0.0010	0.0052	0.0010	19:13:50	Yes
Mean:		[0.2]	0.0009				
SD:		0.0	0.0000				
%RSD:		0.0	1.13				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00473 Intercept: 0.00000

Sequence No.: 3  
Sample ID: .5 PPB  
Analyst:Autosampler Location: 3  
Date Collected: 12/12/2011 7:13:52 PM  
Data Type: Original=====  
Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0025	0.0083	0.0025	19:14:37	Yes
2		[0.5]	0.0026	0.0103	0.0026	19:15:09	Yes
Mean:		[0.5]	0.0026				
SD:		0.0	0.0001				
%RSD:		0.0	2.70				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999382 Slope: 0.00514 Intercept: -0.00003

Sequence No.: 4  
Sample ID: 1 PPB  
Analyst:Autosampler Location: 4  
Date Collected: 12/12/2011 7:15:11 PM  
Data Type: Original=====  
Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.062	0.00	>999.9%
.2 PPB	0.0009	0.2	0.126	0.00	1.1
.5 PPB	0.0026	0.5	0.449	0.00	2.7
1 PPB	0.0055	1.0	1.031	0.00	2.7
2 PPB	0.0108	2.0	2.094	0.00	1.2
5 PPB	0.0257	5.0	5.058	0.00	0.2
10 PPB	0.0507	10.0	10.039	0.00	0.1
25 PPB	0.1255	25.0	24.966	0.00	1.0

Correlation Coef.: 0.999973 Slope: 0.00502 Intercept: 0.00031

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/12/2011 7:21:46 PM

Analyst:

Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.23	20.23	0.1018	0.4038	0.1018	19:22:35	Yes
2	20.46	20.46	0.1029	0.3972	0.1029	19:23:07	Yes
Mean:	20.35	20.35	0.1024				
SD:	0.163	0.163	0.0008				
%RSD:	0.801	0.801	0.80				

QC value within limits for Hg 253.7 Recovery = 101.74%  
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/12/2011 7:23:09 PM

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.132	0.132	0.0010	0.0084	0.0010	19:23:55	Yes
2	0.007	0.007	0.0003	0.0028	0.0003	19:24:27	Yes
Mean:	0.069	0.069	0.0007				
SD:	0.088	0.088	0.0004				
%RSD:	127.3	127.3	67.12				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11690 (167)

Date Collected: 12/12/2011 7:24:28 PM

Analyst:

Data Type: Original

## Replicate Data: MB 11690 (167)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.036	-0.036	0.0001	0.0000	0.0001	19:25:15	Yes
2	-0.062	-0.062	0.0000	-0.0022	0.0000	19:25:47	Yes
Mean:	-0.049	-0.049	0.0001				
SD:	0.018	0.018	0.0001				
%RSD:	36.83	36.83	133.57				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCS 11690

Date Collected: 12/12/2011 7:25:48 PM

Analyst:

Data Type: Original

## Replicate Data: LCS 11690

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	22.40	22.40	0.1127	0.4280	0.1127	19:26:33	Yes
2	22.54	22.54	0.1133	0.4260	0.1133	19:27:06	Yes
Mean:	22.47	22.47	0.1130				

SD: 0.094 0.094 0.0005  
 %RSD: 0.419 0.419 0.42

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCS MR 11690 Date Collected: 12/12/2011 7:27:07 PM  
 Analyst: Data Type: Original

## Replicate Data: LCS MR 11690

Repl #	SampleConc ug/L	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	24.17	24.17	0.1215	0.4579	0.1215	19:27:53	Yes
2	24.01	24.01	0.1207	0.4488	0.1207	19:28:25	Yes
Mean:	24.09	24.09	0.1211				
SD:	0.110	0.110	0.0006				
%RSD:	0.458	0.458	0.46				

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63091-001 Date Collected: 12/12/2011 7:28:26 PM  
 Analyst: Data Type: Original

## Replicate Data: 63091-001

Repl #	SampleConc ug/L	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.436	0.436	0.0025	0.0150	0.0025	19:29:11	Yes
2	0.348	0.348	0.0021	0.0100	0.0021	19:29:44	Yes
Mean:	0.392	0.392	0.0023				
SD:	0.062	0.062	0.0003				
%RSD:	15.79	15.79	13.62				

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63091-001 MR Date Collected: 12/12/2011 7:29:45 PM  
 Analyst: Data Type: Original

## Replicate Data: 63091-001 MR

Repl #	SampleConc ug/L	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.253	0.253	0.0016	0.0067	0.0016	19:30:30	Yes
2	0.254	0.254	0.0016	0.0067	0.0016	19:31:03	Yes
Mean:	0.254	0.254	0.0016				
SD:	0.001	0.001	0.0000				
%RSD:	0.331	0.331	0.27				

Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63091-001 MS1 Date Collected: 12/12/2011 7:31:04 PM  
 Analyst: Data Type: Original

## Replicate Data: 63091-001 MS1

Repl #	SampleConc ug/L	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.58	10.58	0.0534	0.1934	0.0534	19:31:49	Yes
2	10.49	10.49	0.0529	0.1922	0.0529	19:32:22	Yes
Mean:	10.54	10.54	0.0532				
SD:	0.068	0.068	0.0003				
%RSD:	0.648	0.648	0.64				

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63091-001 MS2 Date Collected: 12/12/2011 7:32:23 PM  
 Analyst: Data Type: Original

## Replicate Data: 63091-001 MS2

Repl #	SampleConc ug/L	StdConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	11.00	11.00	0.0555	0.2014	0.0555	19:33:09	Yes
2	11.08	11.08	0.0559	0.1982	0.0559	19:33:41	Yes
Mean:	11.04	11.04	0.0557				
SD:	0.058	0.058	0.0003				

%RSD: 0.523 0.523 0.52

Sequence No.: 18  
Sample ID: 63111-028  
Analyst:

Autosampler Location: 18  
Date Collected: 12/12/2011 7:33:42 PM  
Data Type: Original

## Replicate Data: 63111-028

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.587	7.587	0.0384	0.1377	0.0384	19:34:28	Yes
2	7.417	7.417	0.0375	0.1336	0.0375	19:35:00	Yes
Mean:	7.502	7.502	0.0379				
SD:	0.120	0.120	0.0006				
%RSD:	1.604	1.604	1.59				

Sequence No.: 19  
Sample ID: 63111-030  
Analyst:

Autosampler Location: 19  
Date Collected: 12/12/2011 7:35:01 PM  
Data Type: Original

## Replicate Data: 63111-030

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	16.68	16.68	0.0840	0.2994	0.0840	19:35:50	Yes
2	16.95	16.95	0.0853	0.2990	0.0853	19:36:23	Yes
Mean:	16.81	16.81	0.0846				
SD:	0.188	0.188	0.0009				
%RSD:	1.121	1.121	1.12				

Sequence No.: 20  
Sample ID: 63111-031  
Analyst:

Autosampler Location: 20  
Date Collected: 12/12/2011 7:36:24 PM  
Data Type: Original

## Replicate Data: 63111-031

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.548	5.548	0.0281	0.0975	0.0281	19:37:09	Yes
2	5.529	5.529	0.0280	0.0964	0.0280	19:37:42	Yes
Mean:	5.539	5.539	0.0281				
SD:	0.014	0.014	0.0001				
%RSD:	0.246	0.246	0.24				

Sequence No.: 21  
Sample ID: CCV  
Analyst:

Autosampler Location: 9  
Date Collected: 12/12/2011 7:37:43 PM  
Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.38	10.38	0.0524	0.1833	0.0524	19:38:29	Yes
2	10.25	10.25	0.0517	0.1806	0.0517	19:39:01	Yes
Mean:	10.32	10.32	0.0520				
SD:	0.093	0.093	0.0005				
%RSD:	0.902	0.902	0.90				

QC value within limits for Hg 253.7 Recovery = 103.15%  
All analyte(s) passed QC.

Sequence No.: 22  
Sample ID: CCB  
Analyst:

Autosampler Location: 1  
Date Collected: 12/12/2011 7:39:02 PM  
Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0003	0.0017	0.0003	19:39:48	Yes
2	-0.016	-0.016	0.0002	0.0012	0.0002	19:40:20	Yes
Mean:	-0.014	-0.014	0.0002				

SD: 0.003 0.003 0.0000  
 %RSD: 18.60 18.60 5.50

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: 63111-032  
 Analyst:

Autosampler Location: 21  
 Date Collected: 12/12/2011 7:40:21 PM  
 Data Type: Original

## Replicate Data: 63111-032

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.18	13.18	0.0664	0.2321	0.0664	19:41:08	Yes
2	12.96	12.96	0.0653	0.2252	0.0653	19:41:41	Yes
Mean:	13.07	13.07	0.0658				
SD:	0.158	0.158	0.0008				
%RSD:	1.206	1.206	1.20				

Sequence No.: 24  
 Sample ID: 63111-034  
 Analyst:

Autosampler Location: 22  
 Date Collected: 12/12/2011 7:41:42 PM  
 Data Type: Original

## Replicate Data: 63111-034

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	17.13	17.13	0.0862	0.3000	0.0862	19:42:27	Yes
2	17.19	17.19	0.0865	0.2982	0.0865	19:42:59	Yes
Mean:	17.16	17.16	0.0864				
SD:	0.047	0.047	0.0002				
%RSD:	0.274	0.274	0.27				

Sequence No.: 25  
 Sample ID: 63111-035  
 Analyst:

Autosampler Location: 23  
 Date Collected: 12/12/2011 7:43:00 PM  
 Data Type: Original

## Replicate Data: 63111-035

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	18.42	18.42	0.0927	0.3216	0.0927	19:43:46	Yes
2	18.53	18.53	0.0933	0.3206	0.0933	19:44:18	Yes
Mean:	18.48	18.48	0.0930				
SD:	0.081	0.081	0.0004				
%RSD:	0.436	0.436	0.43				

Sequence No.: 26  
 Sample ID: 63111-036  
 Analyst:

Autosampler Location: 24  
 Date Collected: 12/12/2011 7:44:19 PM  
 Data Type: Original

## Replicate Data: 63111-036

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	21.52	21.52	0.1082	0.3738	0.1082	19:45:05	Yes
2	21.65	21.65	0.1089	0.3696	0.1089	19:45:37	Yes
Mean:	21.58	21.58	0.1086				
SD:	0.087	0.087	0.0004				
%RSD:	0.405	0.405	0.40				

Sequence No.: 27  
 Sample ID: 63111-038  
 Analyst:

Autosampler Location: 25  
 Date Collected: 12/12/2011 7:45:38 PM  
 Data Type: Original

## Replicate Data: 63111-038

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.015	2.015	0.0104	0.0377	0.0104	19:46:23	Yes
2	1.971	1.971	0.0102	0.0350	0.0102	19:46:56	Yes

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Mean: 1.993 1.993 0.0103  
 SD: 0.031 0.031 0.0002  
 %RSD: 1.563 1.563 1.52

Sequence No.: 28  
 Sample ID: 63111-039  
 Analyst:

Autosampler Location: 26  
 Date Collected: 12/12/2011 7:46:57 PM  
 Data Type: Original

## Replicate Data: 63111-039

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.84	19.84	0.0998	0.3390	0.0998	19:47:43	Yes
2	19.73	19.73	0.0993	0.3359	0.0993	19:48:15	Yes
Mean:	19.78	19.78	0.0995				
SD:	0.079	0.079	0.0004				
%RSD:	0.400	0.400	0.40				

Sequence No.: 29  
 Sample ID: 63111-040  
 Analyst:

Autosampler Location: 27  
 Date Collected: 12/12/2011 7:48:16 PM  
 Data Type: Original

## Replicate Data: 63111-040

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.959	3.959	0.0202	0.0691	0.0202	19:49:02	Yes
2	3.939	3.939	0.0201	0.0674	0.0201	19:49:34	Yes
Mean:	3.949	3.949	0.0201				
SD:	0.015	0.015	0.0001				
%RSD:	0.371	0.371	0.36				

Sequence No.: 30  
 Sample ID: 63111-042  
 Analyst:

Autosampler Location: 28  
 Date Collected: 12/12/2011 7:49:35 PM  
 Data Type: Original

## Replicate Data: 63111-042

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.77	13.77	0.0694	0.2347	0.0694	19:50:24	Yes
2	13.53	13.53	0.0682	0.2309	0.0682	19:50:56	Yes
Mean:	13.65	13.65	0.0688				
SD:	0.167	0.167	0.0008				
%RSD:	1.223	1.223	1.22				

Sequence No.: 31  
 Sample ID: 63111-044  
 Analyst:

Autosampler Location: 29  
 Date Collected: 12/12/2011 7:50:57 PM  
 Data Type: Original

## Replicate Data: 63111-044

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	136.4	136.4	0.6842	2.4944	0.6842	19:51:42	Yes
2	136.2	136.2	0.6836	2.4953	0.6836	19:52:15	Yes
Mean:	136.3	136.3	0.6839				
SD:	0.079	0.079	0.0004				
%RSD:	0.058	0.058	0.06				

Sample concentration is greater than that of the highest standard.

Sample concentration is greater than that of the highest standard.

Sequence No.: 32  
 Sample ID: 63111-045  
 Analyst:

Autosampler Location: 30  
 Date Collected: 12/12/2011 7:52:37 PM  
 Data Type: Original

## Replicate Data: 63111-045

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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1	6.743	6.743	0.0341	0.1190	0.0341	19:53:23	Yes
2	6.716	6.716	0.0340	0.1173	0.0340	19:53:56	Yes
Mean:	6.729	6.729	0.0341				
SD:	0.019	0.019	0.0001				
%RSD:	0.286	0.286	0.28				

Sequence No.: 33

Autosampler Location: 9

Sample ID: CCV

Date Collected: 12/12/2011 7:53:57 PM

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.15	10.15	0.0512	0.1749	0.0512	19:54:44	Yes
2	10.16	10.16	0.0513	0.1729	0.0513	19:55:16	Yes
Mean:	10.16	10.16	0.0512				
SD:	0.005	0.005	0.0000				
%RSD:	0.052	0.052	0.05				

QC value within limits for Hg 253.7 Recovery = 101.55%  
All analyte(s) passed QC.

Sequence No.: 34

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/12/2011 7:55:17 PM

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	0.0003	0.0020	0.0003	19:56:03	Yes
2	-0.015	-0.015	0.0002	0.0016	0.0002	19:56:35	Yes
Mean:	-0.013	-0.013	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	21.33	21.33	5.63				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 35

Autosampler Location: 31

Sample ID: 63118-004

Date Collected: 12/12/2011 7:56:37 PM

Analyst:

Data Type: Original

Replicate Data: 63118-004

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.802	1.802	0.0093	0.0317	0.0093	19:57:25	Yes
2	1.797	1.797	0.0093	0.0314	0.0093	19:57:57	Yes
Mean:	1.799	1.799	0.0093				
SD:	0.004	0.004	0.0000				
%RSD:	0.201	0.201	0.19				

Sequence No.: 36

Autosampler Location: 32

Sample ID: 63128-001

Date Collected: 12/12/2011 7:57:58 PM

Analyst:

Data Type: Original

Replicate Data: 63128-001

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.072	1.072	0.0057	0.0193	0.0057	19:58:44	Yes
2	1.074	1.074	0.0057	0.0188	0.0057	19:59:16	Yes
Mean:	1.073	1.073	0.0057				
SD:	0.001	0.001	0.0000				
%RSD:	0.095	0.095	0.09				

Sequence No.: 37

Autosampler Location: 33

Sample ID: 62992-003

Date Collected: 12/12/2011 7:59:17 PM

Analyst:

Data Type: Original

## Replicate Data: 62992-003

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.174	0.174	0.0012	0.0028	0.0012	20:00:03	Yes
2	0.192	0.192	0.0013	0.0039	0.0013	20:00:35	Yes
Mean:	0.183	0.183	0.0012				
SD:	0.012	0.012	0.0001				
%RSD:	6.627	6.627	4.94				

Sequence No.: 38

Sample ID: CCV

Analyst:

Autosampler Location: 9

Date Collected: 12/12/2011 8:00:36 PM

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.17	10.17	0.0513	0.1707	0.0513	20:01:25	Yes
2	10.14	10.14	0.0512	0.1699	0.0512	20:01:57	Yes
Mean:	10.16	10.16	0.0512				
SD:	0.020	0.020	0.0001				
%RSD:	0.193	0.193	0.19				

QC value within limits for Hg 253.7 Recovery = 101.55%

All analyte(s) passed QC.

Sequence No.: 39

Sample ID: CCB

Analyst:

Autosampler Location: 1

Date Collected: 12/12/2011 8:01:58 PM

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	0.0001	-0.0000	0.0001	20:02:44	Yes
2	-0.037	-0.037	0.0001	-0.0000	0.0001	20:03:16	Yes
Mean:	-0.038	-0.038	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.739	2.739	4.18				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

*Lst Review OA 12/13/2011*

*V-130652*

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100

Technique: AA FIMS-MHS  
Autosampler Model: AS-90

*sh 12/13/11*

Sample Information File: C:\data-AA\johns\Sample Information\H13384S.sif  
Batch ID: H13384S  
Results Data Set: H13384Sb  
Results Library: C:\data-AA\johns\Results\Results.mdb

Method Loaded

Method Name: HGCV2 Soil (7471A)

Method Last Saved: 12/8/2011 8:31:32 PM

Method Description: HgCV2 Soil (7471A)

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calibration Blank

Date Collected: 12/13/2011 11:12:44 AM

Analyst:

Data Type: Original

Replicate Data: Calibration Blank

Repl #	Sample Conc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	-0.0000	-0.0015	-0.0000	11:13:30	Yes
2		[0.00]	-0.0000	-0.0021	-0.0000	11:14:03	Yes
Mean:		[0.00]	-0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	2.42				

Auto-zero performed.

Sequence No.: 2

Autosampler Location: 2

Sample ID: .2 PPB

Date Collected: 12/13/2011 11:14:04 AM

Analyst:

Data Type: Original

Replicate Data: .2 PPB

Repl #	Sample Conc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0009	0.0012	0.0009	11:14:49	Yes
2		[0.2]	0.0011	0.0030	0.0011	11:15:22	Yes
Mean:		[0.2]	0.0010				
SD:		0.0	0.0001				
%RSD:		0.0	9.58				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00509 Intercept: 0.00000

Sequence No.: 3

Autosampler Location: 3

Sample ID: .5 PPB

Date Collected: 12/13/2011 11:15:23 AM

Analyst:

Data Type: Original

Replicate Data: .5 PPB

Repl #	Sample Conc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0026	0.0084	0.0026	11:16:08	Yes
2		[0.5]	0.0026	0.0084	0.0026	11:16:41	Yes
Mean:		[0.5]	0.0026				
SD:		0.0	0.0000				
%RSD:		0.0	0.23				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999908 Slope: 0.00526 Intercept: -0.00001

Sequence No.: 4

Autosampler Location: 4

Sample ID: 1 PPB

Date Collected: 12/13/2011 11:16:42 AM

Analyst:

Data Type: Original

Replicate Data: 1 PPB

Repl #	Sample Conc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Method: HGCV2 Soil (7471A)

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Date: 12/13/2011 11:23:18 AM

1 [1] 0.0054 0.0200 0.0054 11:17:27 Yes  
 2 [1] 0.0054 0.0193 0.0054 11:18:00 Yes  
 Mean: [1] 0.0054  
 SD: 0 0.0000  
 %RSD: 0 0.04  
 Standard number 3 applied. [1]  
 Correlation Coef.: 0.999849 Slope: 0.00542 Intercept: -0.00004

=====  
 Sequence No.: 5 Autosampler Location: 5  
 Sample ID: 2 PPB Date Collected: 12/13/2011 11:18:01 AM  
 Analyst: Data Type: Original

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0106	0.0363	0.0106	11:18:47	Yes
2		[2]	0.0107	0.0370	0.0107	11:19:19	Yes
Mean:		[2]	0.0107				
SD:		0	0.0001				
%RSD:		0	0.78				

Standard number 4 applied. [2]  
 Correlation Coef.: 0.999950 Slope: 0.00537 Intercept: -0.00002

=====  
 Sequence No.: 6 Autosampler Location: 6  
 Sample ID: 5 PPB Date Collected: 12/13/2011 11:19:20 AM  
 Analyst: Data Type: Original

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0266	0.0882	0.0265	11:20:06	Yes
2		[5]	0.0267	0.0883	0.0267	11:20:38	Yes
Mean:		[5]	0.0266				
SD:		0	0.0001				
%RSD:		0	0.28				

Standard number 5 applied. [5]  
 Correlation Coef.: 0.999990 Slope: 0.00533 Intercept: -0.00000

=====  
 Sequence No.: 7 Autosampler Location: 7  
 Sample ID: 10 PPB Date Collected: 12/13/2011 11:20:39 AM  
 Analyst: Data Type: Original

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0533	0.1753	0.0533	11:21:25	Yes
2		[10]	0.0536	0.1748	0.0536	11:21:57	Yes
Mean:		[10]	0.0535				
SD:		0	0.0002				
%RSD:		0	0.39				

Standard number 6 applied. [10]  
 Correlation Coef.: 0.999997 Slope: 0.00535 Intercept: -0.00002

=====  
 Sequence No.: 8 Autosampler Location: 8  
 Sample ID: 25 PPB Date Collected: 12/13/2011 11:21:58 AM  
 Analyst: Data Type: Original

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1321	0.4349	0.1321	11:22:44	Yes
2		[25]	0.1318	0.4316	0.1318	11:23:16	Yes
Mean:		[25]	0.1320				
SD:		0	0.0002				
%RSD:		0	0.18				

Standard number 7 applied. [25]  
 Correlation Coef.: 0.999986 Slope: 0.00528 Intercept: 0.00012



SD: 0.013 0.013 0.0001  
%RSD: 0.129 0.129 0.13

QC value within limits for Hg 253.7 Recovery = 103.13%  
All analyte(s) passed QC.

=====

Sequence No.: 13

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/13/2011 11:28:44 AM

Analyst:

Data Type: Original

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Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0000	-0.0015	-0.0000	11:29:30	Yes
2	-0.020	-0.020	0.0000	-0.0021	-0.0000	11:30:02	Yes
Mean:	-0.019	-0.019	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	10.74	10.74	62.67				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP3A\13410A3.txt

Analysis Date: 12/19/11

Instrument: PEICP3A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	19:13	1							V-129815(ICB/CCB)
Calib 1 V-128669	1	CAL	19:16	2							V-128669(ICS1 - Lowest std)
Calib 2 V-129804	1	CAL	19:20	3							V-129804(ICS2- Low Std)
Calib 3 V-128661	1	CAL	19:23	4							V-128661(ICS3 - Middle Std)
Calib 4 V-129807	1	CAL	19:27	5							V-129807(ICS4 - High std)
ICS3 V-128661	1	ICS	19:31	6							V-128661(ICS3 - Middle Std)
ICV (2) V-129810	1	ICV	19:35	7							V-129810(ICV)
ICB V-129815	1	ICB	19:40	8							V-129815(ICB/CCB)
ICSA V-129812	1	ICSA	19:43	9							V-129812(ICSA)
ICSAB V-129814	1	ICSAB	19:48	10							V-129814(ICSAB)
MB 11720 (100)	1	MB	19:53	11		SOIL	SOIL	SW846	11720		0
LCS 11720	1	LCS	19:56	12		SOIL	SOIL	SW846	11720		0
LCS 11720 MR	1	LCS	20:01	13		SOIL	SOIL	SW846	11720		0
AC63230-001	1	SMP	20:06	14	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-001	1	MR	20:10	15	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-001	1	MS	20:13	16	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-001	1	MSD	20:17	17	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-001	1	PS	20:21	18	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
CCV V-129808	1	CCV	20:24	19							V-129808(CCV)
CCB V-129815	1	CCB	20:28	20							V-129815(ICB/CCB)
AC63230-001	5	SD	20:31	21	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63111-004	1	SMP	20:35	22	MET-2-SOIL	SOIL	SOIL	SW846	11720		0
AC63111-008	1	SMP	20:38	23	MET-2-SOIL	SOIL	SOIL	SW846	11720		0
AC63111-012	1	SMP	20:42	24	MET-2-SOIL	SOIL	SOIL	SW846	11720		0
AC63111-021	1	SMP	20:45	25	MET-2-SOIL	SOIL	SOIL	SW846	11720		0
AC63111-037	1	SMP	20:49	26	MET-2-SOIL	SOIL	SOIL	SW846	11720		0
AC63224-001	1	SMP	20:53	27	SRSMETALS-S	SOIL	SOIL	SW846	11720		0
AC63230-002	1	SMP	20:56	28	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
ICSA V-129812	1	ICSA	21:00	29							V-129812(ICSA)
ICSAB V-129814	1	ICSAB	21:05	30							V-129814(ICSAB)
CCV V-129808	1	CCV	21:10	31							V-129808(CCV)
CCB V-129815	1	CCB	21:13	32							V-129815(ICB/CCB)
AC63230-003	1	SMP	21:17	33	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-004	1	SMP	21:20	34	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-005	1	SMP	21:24	35	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-006	1	SMP	21:28	36	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-007	1	SMP	21:31	37	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-008	1	SMP	21:35	38	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
CCV V-129808	1	CCV	21:38	39							V-129808(CCV)
CCB V-129815	1	CCB	21:42	40							V-129815(ICB/CCB)
AC63230-009	1	SMP	21:45	41	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-010	1	SMP	21:49	42	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-011	1	SMP	21:52	43	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-012	1	SMP	21:56	44	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-013	1	SMP	22:00	45	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
AC63230-014	1	SMP	22:03	46	METALS-TAL-S	SOIL	SOIL	SW846	11720		0
ICSA V-129812	1	ICSA	22:07	47							V-129812(ICSA)
ICSAB V-129814	1	ICSAB	22:12	48							V-129814(ICSAB)
CCV V-129808	1	CCV	22:17	49							V-129808(CCV)
CCB V-129815	1	CCB	22:21	50							V-129815(ICB/CCB)

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

gabriele  
192.168.1.85 12/20/2011 12:51:52 PM

RUN OK.

*Sh* 12/21/11

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\HGCV2A\H13410S.txt

Analysis Date: 12/17/11

Instrument: HGCV2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	18:25	1							0
.2 PPB	1	CAL	18:27	2							0
.5 PPB	1	CAL	18:28	3							0
1 PPB	1	CAL	18:29	4							0
2 PPB	1	CAL	18:31	5							0
5 PPB	1	CAL	18:32	6							0
10 PPB	1	CAL	18:33	7							0
25 PPB	1	CAL	18:35	8							0
ICV (2)	1	ICV	18:36	9							0
ICB	1	ICB	18:37	10							0
MB 11720 (167)	1	MB	18:39	11	HG-SOIL	SOIL	SOIL	SW846	11720		0
LCS 11720	1	LCS	18:40	12	HG-SOIL	SOIL	SOIL	SW846	11720		0
LCS MR 11720	1	LCS	18:41	13	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-001	1	SMP	18:43	14	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-001	1	MR	18:44	15	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-001	1	MS	18:45	16	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-001	1	MSD	18:46	17	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63111-004	1	SMP	18:48	18	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63111-008	1	SMP	18:49	19	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63111-012	1	SMP	18:50	20	HG-SOIL	SOIL	SOIL	SW846	11720		0
CCV	1	CCV	18:52	21							0
CCB	1	CCB	18:53	22							0
AC63111-021	1	NA	18:54	23	HG-SOIL	SOIL	SOIL	SW846	11720	sample concentration greater than that of highest standard	0
AC63111-037	1	SMP	18:56	24	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63224-001	1	SMP	18:57	25	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-002	1	SMP	18:58	26	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-003	1	SMP	19:00	27	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-004	1	SMP	19:01	28	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-005	1	SMP	19:02	29	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-006	1	SMP	19:04	30	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-007	1	SMP	19:05	31	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-008	1	SMP	19:06	32	HG-SOIL	SOIL	SOIL	SW846	11720		0
CCV	1	CCV	19:08	33							0
CCB	1	CCB	19:09	34							0
AC63230-009	1	SMP	19:10	35	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-010	1	SMP	19:12	36	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-011	1	SMP	19:13	37	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-012	1	SMP	19:14	38	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-013	1	SMP	19:16	39	HG-SOIL	SOIL	SOIL	SW846	11720		0
AC63230-014	1	SMP	19:17	40	HG-SOIL	SOIL	SOIL	SW846	11720		0
CCV	1	CCV	19:18	41							0
CCB	1	CCB	19:20	42							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufermi  
192.168.1.89 12/19/2011 4:31:27 PM

V-131162

RUN IS OK

*Shu* 12/21/11

# Run Log

Page 1 of 1  
1120830 0352

Data File: W:\METALS.FRM\ICPDATA\New\HGCV2A\H13410Sb.txt

Analysis Date: 12/17/11

Instrument: HGCV2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	20:37	1							0
.2 PPB	1	CAL	20:38	2							0
.5 PPB	1	CAL	20:39	3							0
1 PPB	1	CAL	20:41	4							0
2 PPB	1	CAL	20:42	5							0
5 PPB	1	CAL	20:43	6							0
10 PPB	1	CAL	20:45	7							0
25 PPB	1	CAL	20:46	8							0
ICV (2)	1	ICV	20:47	9							0
ICB	1	ICB	20:49	10							0
AC63111-021	4	SMP	20:50	11	HG-SOIL	SOIL	SOIL	SW846	11720		0
CCV	1	CCV	20:51	12							0
CCB	1	CCB	20:53	13							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/19/2011 4:36:44 PM

V-131162

RUN IS OK

*olufemi*

*J. Kalin* 12/20/11

=====  
Analysis Begun

Start Time: 12/19/2011 7:13:27 PM Plasma On Time: 12/19/2011 1:30:20 PM  
 Logged In Analyst: usermet Technique: ICP Continuous  
 Spectrometer Model: Optima 7300 DV, S/N 077C0061602 Autosampler Model: S10

Sample Information File: C:\pe\Administrator\Sample Information\SOIL.sif  
 Batch ID: SOIL  
 Results Data Set: S13410A3  
 Results Library: C:\pe\Administrator\Results\Results.mdb

13410  
(11720)  
*Shu* 12/21/11

=====  
Method Loaded

Method Name: PE3 7300DV AXIAL Method Last Saved: 12/13/2011 12:42:48 PM  
 IEC File: IEC091211A.iec MSF File:  
 Method Description: 200.7/6010B

=====  
Sequence No.: 1

Sample ID: Calib Blk 1 V-129815 Autosampler Location: 1  
 Analyst: Date Collected: 12/19/2011 7:13:27 PM  
 Initial Sample Wt: Data Type: Original  
 Dilution: Initial Sample Vol:  
 Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	624936.3	4728.14	0.76%	100	%
Y 371.029	234329.1	1978.67	0.84%	100	%
Ag 328.068†	114.1	53.39	46.80%	[0.00]	mg/L
Al 308.215†	2844.4	102.75	3.61%	[0.00]	mg/L
As 188.979†	28.5	1.38	4.84%	[0.00]	mg/L
Ba 233.527†	-38.3	12.23	31.91%	[0.00]	mg/L
Be 313.107†	981.5	120.76	12.30%	[0.00]	mg/L
Ca 317.933†	1062.0	58.16	5.48%	[0.00]	mg/L
Cd 228.802†	363.5	11.94	3.28%	[0.00]	mg/L
Co 228.616†	516.2	11.98	2.32%	[0.00]	mg/L
Cr 267.716†	4.9	9.76	199.42%	[0.00]	mg/L
Cu 327.393†	323.2	64.95	20.09%	[0.00]	mg/L
Fe 273.955†	108.7	12.22	11.24%	[0.00]	mg/L
K 404.721†	-16076.9	254.93	1.59%	[0.00]	mg/L
Mg 279.077†	-69.3	62.49	90.22%	[0.00]	mg/L
Mn 257.610†	835.9	7.62	0.91%	[0.00]	mg/L
Mo 202.031†	20.4	12.30	60.21%	[0.00]	mg/L
Na 330.237†	-3412.2	40.67	1.19%	[0.00]	mg/L
Ni 231.604†	1360.5	16.10	1.18%	[0.00]	mg/L
Pb 220.353†	9.1	15.02	165.95%	[0.00]	mg/L
Sb 206.836†	56.0	1.14	2.03%	[0.00]	mg/L
Se 196.026†	5.7	1.34	23.64%	[0.00]	mg/L
Sn 189.927†	-5.9	0.77	13.20%	[0.00]	mg/L
Ti 334.940†	-96.9	231.30	238.79%	[0.00]	mg/L
Tl 190.801†	-11.0	0.28	2.54%	[0.00]	mg/L
V 290.880†	1667.3	19.58	1.17%	[0.00]	mg/L
Zn 206.200†	-203.3	10.01	4.92%	[0.00]	mg/L

All elements reported  
except earth metals.

Sequence No.: 2

Sample ID: Calib 1 V-128669

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 12/19/2011 7:16:47 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	615723.3	4226.69	0.69%	98.5	%
Y 371.029	230368.9	1157.74	0.50%	98.3	%
As 188.979†	5.2	3.21	61.96%	[0.005]	mg/L
Be 313.107†	6964.4	8.07	0.12%	[0.003]	mg/L
Cd 228.802†	116.4	0.39	0.33%	[0.003]	mg/L
Pb 220.353†	5.2	18.31	350.68%	[0.004]	mg/L
Tl 190.801†	3.2	4.80	150.73%	[0.005]	mg/L

Sequence No.: 3

Sample ID: Calib 2 V-129804

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 12/19/2011 7:20:08 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 2 V-129804

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	614778.0	5670.46	0.92%	98.4	%
Y 371.029	230016.9	1692.96	0.74%	98.2	%
Ag 328.068†	238.1	31.50	13.23%	[0.002]	mg/L
Al 308.215†	2427.9	39.93	1.64%	[0.10]	mg/L
As 188.979†	9.4	1.75	18.65%	[0.010]	mg/L
Ba 233.527†	1312.3	13.52	1.03%	[0.010]	mg/L
Be 313.107†	22211.2	120.50	0.54%	[0.010]	mg/L
Ca 317.933†	53204.6	247.74	0.47%	[1.0]	mg/L
Cd 228.802†	351.2	20.52	5.84%	[0.010]	mg/L
Co 228.616†	357.6	1.78	0.50%	[0.010]	mg/L
Cr 267.716†	350.4	2.94	0.84%	[0.010]	mg/L
Cu 327.393†	961.2	113.32	11.79%	[0.010]	mg/L
Fe 273.955†	2666.9	31.54	1.18%	[0.10]	mg/L
K 404.721†	-95.7	150.55	157.27%	[1.0]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	10964.7	102.46	0.93%	[1.0]	mg/L
Mn 257.610†	5546.5	75.74	1.37%	[0.010]	mg/L
Mo 202.031†	130.5	4.51	3.46%	[0.010]	mg/L
Na 330.237†	555.0	38.22	6.89%	[1.0]	mg/L
Ni 231.604†	331.8	24.35	7.34%	[0.010]	mg/L
Pb 220.353†	55.7	2.90	5.20%	[0.010]	mg/L
Sb 206.836†	17.1	3.33	19.49%	[0.010]	mg/L
Se 196.026†	8.1	3.02	37.34%	[0.010]	mg/L
Sn 189.927†	39.4	6.50	16.53%	[0.010]	mg/L
Ti 334.940†	4259.6	48.78	1.15%	[0.010]	mg/L
Tl 190.801†	8.7	1.11	12.78%	[0.010]	mg/L
V 290.880†	1156.6	67.69	5.85%	[0.010]	mg/L
Zn 206.200†	417.9	2.87	0.69%	[0.010]	mg/L

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib 3 V-128661

Date Collected: 12/19/2011 7:23:28 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 3 V-128661

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	593645.1	4512.79	0.76%	95.0	%
Y 371.029	215386.8	255.46	0.12%	91.9	%
Ag 328.068†	10336.5	73.64	0.71%	[0.10]	mg/L
Al 308.215†	107614.5	671.84	0.62%	[5.0]	mg/L
As 188.979†	619.5	3.35	0.54%	[0.50]	mg/L
Ba 233.527†	63685.4	434.78	0.68%	[0.50]	mg/L
Be 313.107†	1168739.5	2056.54	0.18%	[0.50]	mg/L
Ca 317.933†	2525544.6	19687.55	0.78%	[50]	mg/L
Cd 228.802†	16770.5	131.39	0.78%	[0.50]	mg/L
Co 228.616†	17141.8	97.01	0.57%	[0.50]	mg/L
Cr 267.716†	17765.2	151.98	0.86%	[0.50]	mg/L
Cu 327.393†	46504.2	387.38	0.83%	[0.50]	mg/L
Fe 273.955†	129480.8	795.27	0.61%	[5.0]	mg/L
K 404.721†	2226.3	191.31	8.59%	[50]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	527472.1	554.20	0.11%	[50]	mg/L
Mn 257.610†	222645.9	1395.98	0.63%	[0.50]	mg/L
Mo 202.031†	6884.7	58.18	0.85%	[0.50]	mg/L
Na 330.237†	31349.6	223.06	0.71%	[50]	mg/L
Ni 231.604†	15846.8	100.51	0.63%	[0.50]	mg/L
Pb 220.353†	2447.4	31.00	1.27%	[0.50]	mg/L
Sb 206.836†	744.3	1.29	0.17%	[0.50]	mg/L
Se 196.026†	410.1	3.23	0.79%	[0.50]	mg/L
Sn 189.927†	2068.1	20.06	0.97%	[0.50]	mg/L
Ti 334.940†	222211.6	2670.30	1.20%	[0.50]	mg/L
Tl 190.801†	615.1	7.78	1.26%	[0.50]	mg/L
V 290.880†	56420.1	322.17	0.57%	[0.50]	mg/L
Zn 206.200†	20109.7	67.09	0.33%	[0.50]	mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-129807

Date Collected: 12/19/2011 7:27:00 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

## Mean Data: Calib 4 V-129807

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Units
Sc 361.383	578125.9	1102.83	0.19%	92.5	%
Y 371.029	213310.3	188.53	0.09%	91.0	%
Ag 328.068†	20999.6	17.82	0.08%	[0.20]	mg/L
Al 308.215†	214908.8	341.24	0.16%	[10]	mg/L
As 188.979†	1278.0	25.25	1.98%	[1.0]	mg/L
Ba 233.527†	128484.0	448.59	0.35%	[1.0]	mg/L
Be 313.107†	2331020.4	35951.67	1.54%	[1.0]	mg/L
Ca 317.933†	5068121.0	11618.21	0.23%	[100]	mg/L
Cd 228.802†	33934.0	392.14	1.16%	[1.0]	mg/L
Co 228.616†	34287.9	409.76	1.20%	[1.0]	mg/L
Cr 267.716†	35995.8	37.64	0.10%	[1.0]	mg/L
Cu 327.393†	94303.0	143.97	0.15%	[1.0]	mg/L
Fe 273.955†	260990.9	464.15	0.18%	[10]	mg/L
K 404.721†	4582.5	241.25	5.26%	[100]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	1032670.9	18037.39	1.75%	[100]	mg/L
Mn 257.610†	450353.5	436.60	0.10%	[1.0]	mg/L
Mo 202.031†	13914.7	170.57	1.23%	[1.0]	mg/L
Na 330.237†	66390.6	120.20	0.18%	[100]	mg/L
Ni 231.604†	31976.9	33.57	0.10%	[1.0]	mg/L
Pb 220.353†	4912.7	51.86	1.06%	[1.0]	mg/L
Sb 206.836†	1497.0	19.14	1.28%	[1.0]	mg/L
Se 196.026†	850.6	15.27	1.80%	[1.0]	mg/L
Sn 189.927†	4133.6	67.54	1.63%	[1.0]	mg/L
Ti 334.940†	449433.2	585.87	0.13%	[1.0]	mg/L
Tl 190.801†	1212.9	9.78	0.81%	[1.0]	mg/L
V 290.880†	113457.8	4.07	0.00%	[1.0]	mg/L
Zn 206.200†	40647.0	540.55	1.33%	[1.0]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-16.9	104800	0.00000	0.999964	
Al 308.215	3	Lin, Calc Int	155.7	21480	0.00000	0.999999	
As 188.979	4	Lin, Calc Int	-3.9	1275	0.00000	0.999896	
Ba 233.527	3	Lin, Calc Int	-88.8	128400	0.00000	0.999990	
Be 313.107	4	Lin, Calc Int	50.8	2332000	0.00000	0.999999	
Ca 317.933	3	Lin, Calc Int	-404.3	50650	0.00000	0.999998	
Cd 228.802	4	Lin, Calc Int	-16.2	33880	0.00000	0.999983	
Co 228.616	3	Lin, Calc Int	6.3	34280	0.00000	1.000000	
Cr 267.716	3	Lin, Calc Int	-46.7	35960	0.00000	0.999978	
Cu 327.393	3	Lin, Calc Int	-109.5	94180	0.00000	0.999974	
Fe 273.955	3	Lin, Calc Int	-158.8	26080	0.00000	0.999992	
K 404.721	3	Lin, Calc Int	-76.1	46.47	0.00000	0.999635	
Mg 279.077	3	Lin, Calc Int	2316.6	10340	0.00000	0.999940	
Mn 257.610	3	Lin, Calc Int	12.9	449300	0.00000	0.999977	
Mo 202.031	3	Lin, Calc Int	-17.2	13910	0.00000	0.999986	
Na 330.237	3	Lin, Calc Int	-385.4	661.2	0.00000	0.999595	
Ni 231.604	3	Lin, Calc Int	-20.3	31940	0.00000	0.999989	
Pb 220.353	4	Lin, Calc Int	-3.6	4914	0.00000	0.999993	
Sb 206.836	3	Lin, Calc Int	0.2	1495	0.00000	0.999994	
Se 196.026	3	Lin, Calc Int	-3.0	848.1	0.00000	0.999830	
Sn 189.927	3	Lin, Calc Int	-0.7	4135	0.00000	1.000000	
Ti 334.940	3	Lin, Calc Int	-562.5	449100	0.00000	0.999984	
Tl 190.801	4	Lin, Calc Int	-0.9	1217	0.00000	0.999967	
V 290.880	3	Lin, Calc Int	-46.2	113400	0.00000	0.999996	
Zn 206.200	3	Lin, Calc Int	-33.7	40600	0.00000	0.999985	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-128661

Date Collected: 12/19/2011 7:31:48 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICS3 V-128661

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	590098.5	94.4 %		1.13			1.20%
Y 371.029	215303.5	91.9 %		0.79			0.86%
Ag 328.068†	10488.9	0.102129 mg/L		0.0008171	0.102129 mg/L	0.0008171	0.80%
QC value within limits for Ag		328.068	Recovery = 102.13%				
Al 308.215†	108930.7	5.05143 mg/L		0.011712	5.05143 mg/L	0.011712	0.23%
QC value within limits for Al		308.215	Recovery = 101.03%				
As 188.979†	624.2	0.495293 mg/L		0.0006705	0.495293 mg/L	0.0006705	0.14%
QC value within limits for As		188.979	Recovery = 99.06%				
Ba 233.527†	64422.8	0.502549 mg/L		0.0015257	0.502549 mg/L	0.0015257	0.30%
QC value within limits for Ba		233.527	Recovery = 100.51%				
Be 313.107†	1176553.4	0.504451 mg/L		0.0027605	0.504451 mg/L	0.0027605	0.55%
QC value within limits for Be		313.107	Recovery = 100.89%				
Ca 317.933†	2555371.7	50.4573 mg/L		1.15182	50.4573 mg/L	1.15182	2.28%
QC value within limits for Ca		317.933	Recovery = 100.91%				
Cd 228.802†	16954.7	0.501733 mg/L		0.0002808	0.501733 mg/L	0.0002808	0.06%
QC value within limits for Cd		228.802	Recovery = 100.35%				
Co 228.616†	17326.8	0.504737 mg/L		0.0019537	0.504737 mg/L	0.0019537	0.39%
QC value within limits for Co		228.616	Recovery = 100.95%				
Cr 267.716†	17891.7	0.499385 mg/L		0.0012126	0.499385 mg/L	0.0012126	0.24%
QC value within limits for Cr		267.716	Recovery = 99.88%				
Cu 327.393†	47063.2	0.504299 mg/L		0.0001971	0.504299 mg/L	0.0001971	0.04%
QC value within limits for Cu		327.393	Recovery = 100.86%				
Fe 273.955†	130849.5	5.02376 mg/L		0.010056	5.02376 mg/L	0.010056	0.20%
QC value within limits for Fe		273.955	Recovery = 100.48%				
K 404.721†	2219.8	49.4018 mg/L		3.66383	49.4018 mg/L	3.66383	7.42%
Mg 279.077†	530555.6	51.0810 mg/L		0.21180	51.0810 mg/L	0.21180	0.41%
QC value within limits for Mg		279.077	Recovery = 102.16%				
Mn 257.610†	225335.9	0.500764 mg/L		0.0015555	0.500764 mg/L	0.0015555	0.31%
QC value within limits for Mn		257.610	Recovery = 100.15%				
Mo 202.031†	6953.0	0.501329 mg/L		0.0033344	0.501329 mg/L	0.0033344	0.67%
QC value within limits for Mo		202.031	Recovery = 100.27%				
Na 330.237†	31770.6	48.6349 mg/L		0.17055	48.6349 mg/L	0.17055	0.35%
QC value within limits for Na		330.237	Recovery = 97.27%				
Ni 231.604†	16039.3	0.504121 mg/L		0.0012151	0.504121 mg/L	0.0012151	0.24%
QC value within limits for Ni		231.604	Recovery = 100.82%				
Pb 220.353†	2451.1	0.496822 mg/L		0.0007225	0.496822 mg/L	0.0007225	0.15%
QC value within limits for Pb		220.353	Recovery = 99.36%				
Sb 206.836†	750.6	0.511688 mg/L		0.0075824	0.511688 mg/L	0.0075824	1.48%
QC value within limits for Sb		206.836	Recovery = 102.34%				
Se 196.026†	417.0	0.497937 mg/L		0.0054785	0.497937 mg/L	0.0054785	1.10%
QC value within limits for Se		196.026	Recovery = 99.59%				
Sn 189.927†	2095.9	0.507863 mg/L		0.0031054	0.507863 mg/L	0.0031054	0.61%
QC value within limits for Sn		189.927	Recovery = 101.57%				
Ti 334.940†	223722.1	0.499277 mg/L		0.0000205	0.499277 mg/L	0.0000205	0.00%
QC value within limits for Ti		334.940	Recovery = 99.86%				
Tl 190.801†	622.6	0.513955 mg/L		0.0028007	0.513955 mg/L	0.0028007	0.54%
QC value within limits for Tl		190.801	Recovery = 102.79%				
V 290.880†	57100.5	0.495513 mg/L		0.0000851	0.495513 mg/L	0.0000851	0.02%
QC value within limits for V		290.880	Recovery = 99.10%				
Zn 206.200†	20353.1	0.501155 mg/L		0.0009905	0.501155 mg/L	0.0009905	0.20%
QC value within limits for Zn		206.200	Recovery = 100.23%				

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV (2) V-129810

Date Collected: 12/19/2011 7:35:20 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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 Mean Data: ICV (2) V-129810

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	576521.7	92.3 %	0.41			0.44%
Y 371.029	212487.2	90.7 %	0.45			0.49%
Ag 328.068†	20639.6	0.200883 mg/L	0.0017967	0.200883 mg/L	0.0017967	0.89%
	QC value within limits for Ag	328.068 Recovery = 100.44%				
Al 308.215†	217115.9	10.0753 mg/L	0.02688	10.0753 mg/L	0.02688	0.27%
	QC value within limits for Al	308.215 Recovery = 100.75%				
As 188.979†	1268.2	1.00311 mg/L	0.010014	1.00311 mg/L	0.010014	1.00%
	QC value within limits for As	188.979 Recovery = 100.31%				
Ba 233.527†	130881.5	1.02027 mg/L	0.001441	1.02027 mg/L	0.001441	0.14%
	QC value within limits for Ba	233.527 Recovery = 102.03%				
Be 313.107†	2379435.7	1.02021 mg/L	0.005857	1.02021 mg/L	0.005857	0.57%
	QC value within limits for Be	313.107 Recovery = 102.02%				
Ca 317.933†	5158891.9	101.857 mg/L	0.6856	101.857 mg/L	0.6856	0.67%
	QC value within limits for Ca	317.933 Recovery = 101.86%				
Cd 228.802†	33940.5	1.00391 mg/L	0.007388	1.00391 mg/L	0.007388	0.74%
	QC value within limits for Cd	228.802 Recovery = 100.39%				
Co 228.616†	34619.4	1.00863 mg/L	0.007691	1.00863 mg/L	0.007691	0.76%
	QC value within limits for Co	228.616 Recovery = 100.86%				
Cr 267.716†	35908.3	1.00095 mg/L	0.004396	1.00095 mg/L	0.004396	0.44%
	QC value within limits for Cr	267.716 Recovery = 100.10%				
Cu 327.393†	95504.7	1.02215 mg/L	0.000373	1.02215 mg/L	0.000373	0.04%
	QC value within limits for Cu	327.393 Recovery = 102.22%				
Fe 273.955†	260424.5	9.99256 mg/L	0.017543	9.99256 mg/L	0.017543	0.18%
	QC value within limits for Fe	273.955 Recovery = 99.93%				
K 404.721†	4895.3	106.973 mg/L	1.7824	106.973 mg/L	1.7824	1.67%
Mg 279.077†	1057787.8	102.065 mg/L	0.5299	102.065 mg/L	0.5299	0.52%
	QC value within limits for Mg	279.077 Recovery = 102.06%				
Mn 257.610†	450611.2	1.00142 mg/L	0.000628	1.00142 mg/L	0.000628	0.06%
	QC value within limits for Mn	257.610 Recovery = 100.14%				
Mo 202.031†	14004.4	1.00849 mg/L	0.007474	1.00849 mg/L	0.007474	0.74%
	QC value within limits for Mo	202.031 Recovery = 100.85%				
Na 330.237†	66655.0	101.396 mg/L	0.0605	101.396 mg/L	0.0605	0.06%
	QC value within limits for Na	330.237 Recovery = 101.40%				
Ni 231.604†	32238.8	1.01264 mg/L	0.000312	1.01264 mg/L	0.000312	0.03%
	QC value within limits for Ni	231.604 Recovery = 101.26%				
Pb 220.353†	4922.3	0.997020 mg/L	0.0072809	0.997020 mg/L	0.0072809	0.73%
	QC value within limits for Pb	220.353 Recovery = 99.70%				
Sb 206.836†	1490.2	1.01631 mg/L	0.009514	1.01631 mg/L	0.009514	0.94%
	QC value within limits for Sb	206.836 Recovery = 101.63%				
Se 196.026†	853.3	1.01516 mg/L	0.000876	1.01516 mg/L	0.000876	0.09%
	QC value within limits for Se	196.026 Recovery = 101.52%				
Sn 189.927†	4182.7	1.01337 mg/L	0.008385	1.01337 mg/L	0.008385	0.83%
	QC value within limits for Sn	189.927 Recovery = 101.34%				
Ti 334.940†	456981.4	1.01854 mg/L	0.000386	1.01854 mg/L	0.000386	0.04%
	QC value within limits for Ti	334.940 Recovery = 101.85%				
Tl 190.801†	1264.9	1.04348 mg/L	0.001501	1.04348 mg/L	0.001501	0.14%
	QC value within limits for Tl	190.801 Recovery = 104.35%				
V 290.880†	114589.4	0.994066 mg/L	0.0021085	0.994066 mg/L	0.0021085	0.21%
	QC value within limits for V	290.880 Recovery = 99.41%				
Zn 206.200†	40491.9	0.996206 mg/L	0.0082256	0.996206 mg/L	0.0082256	0.83%
	QC value within limits for Zn	206.200 Recovery = 99.62%				

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/19/2011 7:40:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	613137.4	98.1 %		0.90			0.92%
Y 371.029	230025.6	98.2 %		1.13			1.15%
Ag 328.068†	10.7	0.0002642 mg/L		0.00001727	0.0002642 mg/L	0.00001727	6.54%
QC value within limits for Ag	328.068	Recovery = Not calculated					
Al 308.215†	77.0	-0.0036874 mg/L		0.00323608	-0.0036874 mg/L	0.00323608	87.76%
QC value within limits for Al	308.215	Recovery = Not calculated					
As 188.979†	-2.0	0.0014537 mg/L		0.00060858	0.0014537 mg/L	0.00060858	41.86%
QC value within limits for As	188.979	Recovery = Not calculated					
Ba 233.527†	-23.2	0.0005117 mg/L		0.00001762	0.0005117 mg/L	0.00001762	3.44%
QC value within limits for Ba	233.527	Recovery = Not calculated					
Be 313.107†	56.6	0.0000025 mg/L		0.00000877	0.0000025 mg/L	0.00000877	348.72%
QC value within limits for Be	313.107	Recovery = Not calculated					
Ca 317.933†	154.0	0.0110228 mg/L		0.00089138	0.0110228 mg/L	0.00089138	8.09%
QC value within limits for Ca	317.933	Recovery = Not calculated					
Cd 228.802†	4.4	0.0006088 mg/L		0.00047612	0.0006088 mg/L	0.00047612	78.20%
QC value within limits for Cd	228.802	Recovery = Not calculated					
Co 228.616†	4.0	-0.0000687 mg/L		0.00007290	-0.0000687 mg/L	0.00007290	106.10%
QC value within limits for Co	228.616	Recovery = Not calculated					
Cr 267.716†	-14.5	0.0008973 mg/L		0.00005920	0.0008973 mg/L	0.00005920	6.60%
QC value within limits for Cr	267.716	Recovery = Not calculated					
Cu 327.393†	98.2	0.0022088 mg/L		0.00086125	0.0022088 mg/L	0.00086125	38.99%
QC value within limits for Cu	327.393	Recovery = Not calculated					
Fe 273.955†	-61.1	0.0037478 mg/L		0.00068588	0.0037478 mg/L	0.00068588	18.30%
QC value within limits for Fe	273.955	Recovery = Not calculated					
K 404.721†	-106.8	-0.661189 mg/L		1.0329919	-0.661189 mg/L	1.0329919	156.23%
Mg 279.077†	-3.9	-0.224326 mg/L		0.0021115	-0.224326 mg/L	0.0021115	0.94%
QC value within limits for Mg	279.077	Recovery = Not calculated					
Mn 257.610†	34.5	0.0000524 mg/L		0.00005419	0.0000524 mg/L	0.00005419	103.32%
QC value within limits for Mn	257.610	Recovery = Not calculated					
Mo 202.031†	-4.3	0.0009250 mg/L		0.00019597	0.0009250 mg/L	0.00019597	21.18%
QC value within limits for Mo	202.031	Recovery = Not calculated					
Na 330.237†	-39.3	0.523357 mg/L		0.1294010	0.523357 mg/L	0.1294010	24.73%
QC value within limits for Na	330.237	Recovery = Not calculated					
Ni 231.604†	9.2	0.0009251 mg/L		0.00056220	0.0009251 mg/L	0.00056220	60.77%
QC value within limits for Ni	231.604	Recovery = Not calculated					
Pb 220.353†	6.9	0.0021484 mg/L		0.00136405	0.0021484 mg/L	0.00136405	63.49%
QC value within limits for Pb	220.353	Recovery = Not calculated					
Sb 206.836†	-1.8	-0.0012952 mg/L		0.00255330	-0.0012952 mg/L	0.00255330	197.13%
QC value within limits for Sb	206.836	Recovery = Not calculated					
Se 196.026†	1.2	0.0048925 mg/L		0.00296140	0.0048925 mg/L	0.00296140	60.53%
QC value within limits for Se	196.026	Recovery = Not calculated					
Sn 189.927†	6.8	0.0018161 mg/L		0.00104878	0.0018161 mg/L	0.00104878	57.75%
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	-97.1	0.0010360 mg/L		0.00005092	0.0010360 mg/L	0.00005092	4.91%
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	-2.2	-0.0010550 mg/L		0.00049438	-0.0010550 mg/L	0.00049438	46.86%
QC value within limits for Tl	190.801	Recovery = Not calculated					
V 290.880†	-35.0	0.0001368 mg/L		0.00006568	0.0001368 mg/L	0.00006568	48.02%
QC value within limits for V	290.880	Recovery = Not calculated					
Zn 206.200†	18.1	0.0012846 mg/L		0.00006770	0.0012846 mg/L	0.00006770	5.27%
QC value within limits for Zn	206.200	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-129812

Date Collected: 12/19/2011 7:43:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSA V-129812

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	540501.2	86.5	%	0.95				1.10%
Y 371.029	198570.9	84.7	%	1.04				1.23%
Ag 328.068†	-4503.7	-0.0048193	mg/L	0.00081341	-0.0048193	mg/L	0.00081341	16.88%
Al 308.215†	10400511.1	484.217	mg/L	6.0673	484.217	mg/L	6.0673	1.25%
QC value within limits for Al 308.215 Recovery = 96.84%								
As 188.979†	-4.9	0.0021852	mg/L	0.00044303	0.0021852	mg/L	0.00044303	20.27%
Ba 233.527†	845.2	0.0072762	mg/L	0.00008189	0.0072762	mg/L	0.00008189	1.13%
Be 313.107†	-1349.1	-0.0006002	mg/L	0.00006880	-0.0006002	mg/L	0.00006880	11.46%
Ca 317.933†	25783012.5	509.028	mg/L	4.0500	509.028	mg/L	4.0500	0.80%
QC value within limits for Ca 317.933 Recovery = 101.81%								
Cd 228.802†	88.9	0.0031098	mg/L	0.00042510	0.0031098	mg/L	0.00042510	13.67%
Co 228.616†	112.3	0.0030852	mg/L	0.00093550	0.0030852	mg/L	0.00093550	30.32%
Cr 267.716†	-97.1	-0.0014050	mg/L	0.00030724	-0.0014050	mg/L	0.00030724	21.87%
Cu 327.393†	-2616.0	0.0027218	mg/L	0.00148262	0.0027218	mg/L	0.00148262	54.47%
Fe 273.955†	4947795.9	189.739	mg/L	3.4171	189.739	mg/L	3.4171	1.80%
QC value within limits for Fe 273.955 Recovery = 94.87%								
K 404.721†	-2280.0	-47.4229	mg/L	4.26846	-47.4229	mg/L	4.26846	9.00%
Mg 279.077†	5425257.2	524.294	mg/L	10.1381	524.294	mg/L	10.1381	1.93%
QC value within limits for Mg 279.077 Recovery = 104.86%								
Mn 257.610†	1092.2	-0.0067121	mg/L	0.00031268	-0.0067121	mg/L	0.00031268	4.66%
Mo 202.031†	-51.1	-0.0024389	mg/L	0.00010575	-0.0024389	mg/L	0.00010575	4.34%
Na 330.237†	4212.1	6.95349	mg/L	0.070140	6.95349	mg/L	0.070140	1.01%
Ni 231.604†	116.2	0.0042653	mg/L	0.00079673	0.0042653	mg/L	0.00079673	18.68%
Pb 220.353†	1580.0	-0.0058383	mg/L	0.00285290	-0.0058383	mg/L	0.00285290	48.87%
Sb 206.836†	24.8	0.0011745	mg/L	0.00516318	0.0011745	mg/L	0.00516318	439.62%
Se 196.026†	-71.0	-0.0036531	mg/L	0.01044067	-0.0036531	mg/L	0.01044067	285.81%
Sn 189.927†	-50.3	0.0071876	mg/L	0.00276182	0.0071876	mg/L	0.00276182	38.42%
Ti 334.940†	-156.2	0.0009050	mg/L	0.00013469	0.0009050	mg/L	0.00013469	14.88%
Tl 190.801†	-8.6	-0.0031785	mg/L	0.00201786	-0.0031785	mg/L	0.00201786	63.48%
V 290.880†	9648.2	-0.0118488	mg/L	0.00270619	-0.0118488	mg/L	0.00270619	22.84%
Zn 206.200†	-114.3	-0.0193540	mg/L	0.00034417	-0.0193540	mg/L	0.00034417	1.78%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-129814

Date Collected: 12/19/2011 7:48:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-129814

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	546264.3	87.4 %	1.13			1.29%
Y 371.029	200368.6	85.5 %	1.16			1.35%
Ag 328.068†	108479.8	1.07333 mg/L	0.011916	1.07333 mg/L	0.011916	1.11%
		QC value within limits for Ag 328.068	Recovery = 107.33%			
Al 308.215†	10661411.9	496.364 mg/L	2.0111	496.364 mg/L	2.0111	0.41%
		QC value within limits for Al 308.215	Recovery = 99.27%			
As 188.979†	1311.2	1.03536 mg/L	0.010468	1.03536 mg/L	0.010468	1.01%
		QC value within limits for As 188.979	Recovery = 103.54%			
Ba 233.527†	68115.0	0.531311 mg/L	0.0003219	0.531311 mg/L	0.0003219	0.06%
		QC value within limits for Ba 233.527	Recovery = 106.26%			
Be 313.107†	1205061.2	0.516675 mg/L	0.0038093	0.516675 mg/L	0.0038093	0.74%
		QC value within limits for Be 313.107	Recovery = 103.33%			
Ca 317.933†	25459612.8	502.644 mg/L	1.3859	502.644 mg/L	1.3859	0.28%
		QC value within limits for Ca 317.933	Recovery = 100.53%			
Cd 228.802†	34761.8	1.02808 mg/L	0.005119	1.02808 mg/L	0.005119	0.50%
		QC value within limits for Cd 228.802	Recovery = 102.81%			
Co 228.616†	16641.9	0.485112 mg/L	0.0029785	0.485112 mg/L	0.0029785	0.61%
		QC value within limits for Co 228.616	Recovery = 97.02%			
Cr 267.716†	17722.4	0.494147 mg/L	0.0010646	0.494147 mg/L	0.0010646	0.22%
		QC value within limits for Cr 267.716	Recovery = 98.83%			
Cu 327.393†	47155.9	0.530952 mg/L	0.0014050	0.530952 mg/L	0.0014050	0.26%
		QC value within limits for Cu 327.393	Recovery = 106.19%			
Fe 273.955†	4938950.3	189.399 mg/L	1.0421	189.399 mg/L	1.0421	0.55%
		QC value within limits for Fe 273.955	Recovery = 94.70%			
K 404.721†	-2210.2	-45.9222 mg/L	2.10518	-45.9222 mg/L	2.10518	4.58%
Mg 279.077†	5411424.3	522.957 mg/L	3.8550	522.957 mg/L	3.8550	0.74%
		QC value within limits for Mg 279.077	Recovery = 104.59%			
Mn 257.610†	227882.4	0.498037 mg/L	0.0001508	0.498037 mg/L	0.0001508	0.03%
		QC value within limits for Mn 257.610	Recovery = 99.61%			
Mo 202.031†	-19.5	0.0000431 mg/L	0.00021526	0.0000431 mg/L	0.00021526	499.46%
Na 330.237†	4699.5	7.69066 mg/L	0.034820	7.69066 mg/L	0.034820	0.45%
Ni 231.604†	30537.2	0.956569 mg/L	0.0013455	0.956569 mg/L	0.0013455	0.14%
		QC value within limits for Ni 231.604	Recovery = 95.66%			
Pb 220.353†	6344.7	0.956721 mg/L	0.0014954	0.956721 mg/L	0.0014954	0.16%
		QC value within limits for Pb 220.353	Recovery = 95.67%			
Sb 206.836†	1561.2	1.03031 mg/L	0.011827	1.03031 mg/L	0.011827	1.15%
		QC value within limits for Sb 206.836	Recovery = 103.03%			
Se 196.026†	790.0	1.01068 mg/L	0.018189	1.01068 mg/L	0.018189	1.80%
		QC value within limits for Se 196.026	Recovery = 101.07%			
Sn 189.927†	-62.6	0.0041935 mg/L	0.00084989	0.0041935 mg/L	0.00084989	20.27%
Ti 334.940†	110.0	0.0013763 mg/L	0.00017683	0.0013763 mg/L	0.00017683	12.85%
Tl 190.801†	1195.5	0.985621 mg/L	0.0025672	0.985621 mg/L	0.0025672	0.26%
		QC value within limits for Tl 190.801	Recovery = 98.56%			
V 290.880†	63472.5	0.463075 mg/L	0.0017680	0.463075 mg/L	0.0017680	0.38%
		QC value within limits for V 290.880	Recovery = 92.61%			
Zn 206.200†	41163.5	0.998058 mg/L	0.0019837	0.998058 mg/L	0.0019837	0.20%
		QC value within limits for Zn 206.200	Recovery = 99.81%			

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 11720 (100)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 98  
 Date Collected: 12/19/2011 7:53:34 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11720 (100)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	618162.8	98.9	%	0.89				0.90%
Y 371.029	230625.4	98.4	%	0.66				0.67%
Ag 328.068†	24.6	0.0004024	mg/L	0.00048414	0.0004024	mg/L	0.00048414	120.32%
Al 308.215†	358.5	0.0093739	mg/L	0.00253481	0.0093739	mg/L	0.00253481	27.04%
As 188.979†	0.7	0.0035466	mg/L	0.00265087	0.0035466	mg/L	0.00265087	74.74%
Ba 233.527†	26.4	0.0008979	mg/L	0.00001534	0.0008979	mg/L	0.00001534	1.71%
Be 313.107†	54.6	0.0000016	mg/L	0.00002716	0.0000016	mg/L	0.00002716	>999.9%
Ca 317.933†	5126.1	0.109183	mg/L	0.0010701	0.109183	mg/L	0.0010701	0.98%
Cd 228.802†	0.2	0.0004865	mg/L	0.00041311	0.0004865	mg/L	0.00041311	84.92%
Co 228.616†	7.9	0.0000461	mg/L	0.00050168	0.0000461	mg/L	0.00050168	>999.9%
Cr 267.716†	17.6	0.0017914	mg/L	0.00026528	0.0017914	mg/L	0.00026528	14.81%
Cu 327.393†	117.5	0.0024194	mg/L	0.00060569	0.0024194	mg/L	0.00060569	25.04%
Fe 273.955†	480.5	0.0245150	mg/L	0.00124678	0.0245150	mg/L	0.00124678	5.09%
K 404.721†	-34.4	0.896080	mg/L	1.9199012	0.896080	mg/L	1.9199012	214.26%
Mg 279.077†	240.6	-0.200656	mg/L	0.0027469	-0.200656	mg/L	0.0027469	1.37%
Mn 257.610†	243.8	0.0005183	mg/L	0.00000677	0.0005183	mg/L	0.00000677	1.31%
Mo 202.031†	17.9	0.0025233	mg/L	0.00078321	0.0025233	mg/L	0.00078321	31.04%
Na 330.237†	79.5	0.703157	mg/L	0.0825046	0.703157	mg/L	0.0825046	11.73%
Ni 231.604†	21.2	0.0013076	mg/L	0.00052657	0.0013076	mg/L	0.00052657	40.27%
Pb 220.353†	3.0	0.0013477	mg/L	0.00089999	0.0013477	mg/L	0.00089999	66.78%
Sb 206.836†	1.7	0.0010201	mg/L	0.00205859	0.0010201	mg/L	0.00205859	201.81%
Se 196.026†	0.1	0.0035619	mg/L	0.00318326	0.0035619	mg/L	0.00318326	89.37%
Sn 189.927†	55.7	0.0136401	mg/L	0.00033907	0.0136401	mg/L	0.00033907	2.49%
Ti 334.940†	3.3	0.0012592	mg/L	0.00008930	0.0012592	mg/L	0.00008930	7.09%
Tl 190.801†	-2.6	-0.0014232	mg/L	0.00066542	-0.0014232	mg/L	0.00066542	46.76%
V 290.880†	97.9	0.0013048	mg/L	0.00062393	0.0013048	mg/L	0.00062393	47.82%
Zn 206.200†	236.3	0.0066594	mg/L	0.00009449	0.0066594	mg/L	0.00009449	1.42%

Sequence No.: 12  
 Sample ID: LCS 11720  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 99  
 Date Collected: 12/19/2011 7:56:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCS 11720

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	608855.6	97.4	%	0.19				0.19%
Y 371.029	268230.1	114	%	0.2				0.17%
Ag 328.068†	72396.7	0.707670	mg/L	0.0045670	0.707670	mg/L	0.0045670	0.65%
Al 308.215†	1369973.8	63.7472	mg/L	0.61346	63.7472	mg/L	0.61346	0.96%
As 188.979†	1981.4	1.57033	mg/L	0.000098	1.57033	mg/L	0.000098	0.01%
Ba 233.527†	485197.6	3.78041	mg/L	0.008841	3.78041	mg/L	0.008841	0.23%
Be 313.107†	3268474.9	1.40141	mg/L	0.011729	1.40141	mg/L	0.011729	0.84%
Ca 317.933†	3941638.5	77.8256	mg/L	0.76513	77.8256	mg/L	0.76513	0.98%
Cd 228.802†	48571.2	1.43630	mg/L	0.004189	1.43630	mg/L	0.004189	0.29%
Co 228.616†	36997.5	1.07510	mg/L	0.001523	1.07510	mg/L	0.001523	0.14%
Cr 267.716†	61314.3	1.70758	mg/L	0.001311	1.70758	mg/L	0.001311	0.08%
Cu 327.393†	153072.5	1.64012	mg/L	0.006524	1.64012	mg/L	0.006524	0.40%
Fe 273.955†	2776660.1	106.482	mg/L	1.0796	106.482	mg/L	1.0796	1.01%
K 404.721†	724.3	17.2222	mg/L	0.89258	17.2222	mg/L	0.89258	5.18%
Mg 279.077†	349101.9	33.5505	mg/L	0.03379	33.5505	mg/L	0.03379	0.10%
Mn 257.610†	1648073.7	3.66762	mg/L	0.034509	3.66762	mg/L	0.034509	0.94%
Mo 202.031†	15359.8	1.10647	mg/L	0.000411	1.10647	mg/L	0.000411	0.04%
Na 330.237†	4686.7	7.67133	mg/L	0.186835	7.67133	mg/L	0.186835	2.44%
Ni 231.604†	42666.4	1.33934	mg/L	0.005741	1.33934	mg/L	0.005741	0.43%
Pb 220.353†	5286.5	1.03449	mg/L	0.004711	1.03449	mg/L	0.004711	0.46%
Sb 206.836†	766.5	0.538859	mg/L	0.0027374	0.538859	mg/L	0.0027374	0.51%
Se 196.026†	1231.0	1.47943	mg/L	0.007311	1.47943	mg/L	0.007311	0.49%
Sn 189.927†	6657.5	1.62241	mg/L	0.005722	1.62241	mg/L	0.005722	0.35%
Ti 334.940†	1004219.3	2.23686	mg/L	0.020626	2.23686	mg/L	0.020626	0.92%
Tl 190.801†	1889.4	1.56135	mg/L	0.003143	1.56135	mg/L	0.003143	0.20%
V 290.880†	127704.9	1.11615	mg/L	0.001245	1.11615	mg/L	0.001245	0.11%
Zn 206.200†	141207.3	3.48005	mg/L	0.015862	3.48005	mg/L	0.015862	0.46%

Sequence No.: 13  
 Sample ID: LCS 11720 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 100  
 Date Collected: 12/19/2011 8:01:48 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCS 11720 MR

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	609467.1		97.5 %	0.47				0.48%
Y 371.029	267461.3		114 %	1.7				1.51%
Ag 328.068†	71397.5	0.697589	mg/L	0.0200468	0.697589	mg/L	0.0200468	2.87%
Al 308.215†	1359985.8	63.2824	mg/L	0.79092	63.2824	mg/L	0.79092	1.25%
As 188.979†	1956.9	1.55075	mg/L	0.006822	1.55075	mg/L	0.006822	0.44%
Ba 233.527†	477375.8	3.71947	mg/L	0.115619	3.71947	mg/L	0.115619	3.11%
Be 313.107†	3288753.5	1.41010	mg/L	0.016773	1.41010	mg/L	0.016773	1.19%
Ca 317.933†	3937915.8	77.7521	mg/L	0.31236	77.7521	mg/L	0.31236	0.40%
Cd 228.802†	48855.5	1.44470	mg/L	0.045258	1.44470	mg/L	0.045258	3.13%
Co 228.616†	37307.7	1.08413	mg/L	0.006258	1.08413	mg/L	0.006258	0.58%
Cr 267.716†	60801.0	1.69330	mg/L	0.052435	1.69330	mg/L	0.052435	3.10%
Cu 327.393†	151417.4	1.62236	mg/L	0.047603	1.62236	mg/L	0.047603	2.93%
Fe 273.955†	2674292.3	102.557	mg/L	1.2635	102.557	mg/L	1.2635	1.23%
K 404.721†	746.8	17.7065	mg/L	1.67139	17.7065	mg/L	1.67139	9.44%
Mg 279.077†	341138.5	32.7805	mg/L	1.05050	32.7805	mg/L	1.05050	3.20%
Mn 257.610†	1663104.9	3.70109	mg/L	0.046599	3.70109	mg/L	0.046599	1.26%
Mo 202.031†	15255.1	1.09893	mg/L	0.008069	1.09893	mg/L	0.008069	0.73%
Na 330.237†	4561.5	7.48193	mg/L	0.069917	7.48193	mg/L	0.069917	0.93%
Ni 231.604†	42990.2	1.34945	mg/L	0.045996	1.34945	mg/L	0.045996	3.41%
Pb 220.353†	5094.0	0.995715	mg/L	0.0053566	0.995715	mg/L	0.0053566	0.54%
Sb 206.836†	758.5	0.533302	mg/L	0.0054903	0.533302	mg/L	0.0054903	1.03%
Se 196.026†	1206.8	1.44995	mg/L	0.007331	1.44995	mg/L	0.007331	0.51%
Sn 189.927†	6583.6	1.60414	mg/L	0.015216	1.60414	mg/L	0.015216	0.95%
Ti 334.940†	1006166.4	2.24120	mg/L	0.036230	2.24120	mg/L	0.036230	1.62%
Tl 190.801†	1895.4	1.56629	mg/L	0.010279	1.56629	mg/L	0.010279	0.66%
V 290.880†	124951.4	1.09220	mg/L	0.033486	1.09220	mg/L	0.033486	3.07%
Zn 206.200†	139837.6	3.44632	mg/L	0.119237	3.44632	mg/L	0.119237	3.46%

Sequence No.: 14  
 Sample ID: 63230-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 101  
 Date Collected: 12/19/2011 8:06:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-001

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	629285.8		101 %	0.8				0.75%
Y 371.029	277828.5		119 %	0.7				0.60%
Ag 328.068†	-2903.6	-0.0060999	mg/L	0.00028113	-0.0060999	mg/L	0.00028113	4.61%
Al 308.215†	1893634.5	88.1560	mg/L	1.21830	88.1560	mg/L	1.21830	1.38%
As 188.979†	17.8	0.0261865	mg/L	0.00438127	0.0261865	mg/L	0.00438127	16.73%
Ba 233.527†	65389.4	0.510079	mg/L	0.0026729	0.510079	mg/L	0.0026729	0.52%
Be 313.107†	8955.3	0.0038180	mg/L	0.00006346	0.0038180	mg/L	0.00006346	1.66%
Ca 317.933†	551988.7	10.9056	mg/L	0.07760	10.9056	mg/L	0.07760	0.71%
Cd 228.802†	58.8	0.0024219	mg/L	0.00010674	0.0024219	mg/L	0.00010674	4.41%
Co 228.616†	3694.7	0.0878270	mg/L	0.00032953	0.0878270	mg/L	0.00032953	0.38%
Cr 267.716†	5628.2	0.157821	mg/L	0.0003642	0.157821	mg/L	0.0003642	0.23%
Cu 327.393†	23940.2	0.283544	mg/L	0.0001475	0.283544	mg/L	0.0001475	0.05%
Fe 273.955†	3993253.6	153.135	mg/L	2.2514	153.135	mg/L	2.2514	1.47%
K 404.721†	1391.5	31.5786	mg/L	4.33625	31.5786	mg/L	4.33625	13.73%
Mg 279.077†	356568.7	34.2495	mg/L	0.11378	34.2495	mg/L	0.11378	0.33%
Mn 257.610†	1359362.0	3.02466	mg/L	0.042155	3.02466	mg/L	0.042155	1.39%
Mo 202.031†	61.4	0.0057342	mg/L	0.00073015	0.0057342	mg/L	0.00073015	12.73%
Na 330.237†	-502.2	-0.176666	mg/L	0.0418225	-0.176666	mg/L	0.0418225	23.67%
Ni 231.604†	4464.0	0.140392	mg/L	0.0008312	0.140392	mg/L	0.0008312	0.59%
Pb 220.353†	1495.9	0.239572	mg/L	0.0019867	0.239572	mg/L	0.0019867	0.83%
Sb 206.836†	-16.7	0.0053507	mg/L	0.00482816	0.0053507	mg/L	0.00482816	90.23%
Se 196.026†	-33.3	-0.0017494	mg/L	0.00263719	-0.0017494	mg/L	0.00263719	150.75%
Sn 189.927†	19.5	0.0257133	mg/L	0.00053987	0.0257133	mg/L	0.00053987	2.10%
Ti 334.940†	3849974.3	8.57369	mg/L	0.109806	8.57369	mg/L	0.109806	1.28%
Tl 190.801†	-51.2	-0.0015337	mg/L	0.00197965	-0.0015337	mg/L	0.00197965	129.08%
V 290.880†	33152.7	0.279045	mg/L	0.0010215	0.279045	mg/L	0.0010215	0.37%
Zn 206.200†	17392.4	0.428288	mg/L	0.0030720	0.428288	mg/L	0.0030720	0.72%

Sequence No.: 15  
 Sample ID: 63230-001 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 102  
 Date Collected: 12/19/2011 8:10:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-001 MR

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	627172.7		100 %	0.9				0.92%
Y 371.029	273841.6		117 %	0.4				0.34%
Ag 328.068†	-2754.2	-0.0060122	mg/L	0.00004741	-0.0060122	mg/L	0.00004741	0.79%
Al 308.215†	1952898.7	90.9152	mg/L	0.19454	90.9152	mg/L	0.19454	0.21%
As 188.979†	20.0	0.0268703	mg/L	0.00326439	0.0268703	mg/L	0.00326439	12.15%
Ba 233.527†	62628.4	0.488571	mg/L	0.0091718	0.488571	mg/L	0.0091718	1.88%
Be 313.107†	8978.7	0.0038281	mg/L	0.00013466	0.0038281	mg/L	0.00013466	3.52%
Ca 317.933†	522842.7	10.3302	mg/L	0.01308	10.3302	mg/L	0.01308	0.13%
Cd 228.802†	55.3	0.0023410	mg/L	0.00013232	0.0023410	mg/L	0.00013232	5.65%
Co 228.616†	3533.2	0.0832480	mg/L	0.00188034	0.0832480	mg/L	0.00188034	2.26%
Cr 267.716†	6605.1	0.184988	mg/L	0.0033644	0.184988	mg/L	0.0033644	1.82%
Cu 327.393†	24133.5	0.284954	mg/L	0.0039425	0.284954	mg/L	0.0039425	1.38%
Fe 273.955†	3743772.0	143.568	mg/L	0.2528	143.568	mg/L	0.2528	0.18%
K 404.721†	1508.6	34.0983	mg/L	3.86822	34.0983	mg/L	3.86822	11.34%
Mg 279.077†	359347.8	34.5181	mg/L	0.66201	34.5181	mg/L	0.66201	1.92%
Mn 257.610†	1194145.5	2.65696	mg/L	0.004301	2.65696	mg/L	0.004301	0.16%
Mo 202.031†	45.8	0.0046148	mg/L	0.00016874	0.0046148	mg/L	0.00016874	3.66%
Na 330.237†	-741.2	-0.538118	mg/L	0.2622928	-0.538118	mg/L	0.2622928	48.74%
Ni 231.604†	4894.1	0.153854	mg/L	0.0027442	0.153854	mg/L	0.0027442	1.78%
Pb 220.353†	1436.8	0.226112	mg/L	0.0056838	0.226112	mg/L	0.0056838	2.51%
Sb 206.836†	-16.9	0.0050417	mg/L	0.00211486	0.0050417	mg/L	0.00211486	41.95%
Se 196.026†	-31.0	-0.0007364	mg/L	0.00770839	-0.0007364	mg/L	0.00770839	>999.9%
Sn 189.927†	17.0	0.0240948	mg/L	0.00246762	0.0240948	mg/L	0.00246762	10.24%
Ti 334.940†	3821765.5	8.51087	mg/L	0.047367	8.51087	mg/L	0.047367	0.56%
Tl 190.801†	-53.0	-0.0031973	mg/L	0.00099499	-0.0031973	mg/L	0.00099499	31.12%
V 290.880†	31412.7	0.264156	mg/L	0.0058477	0.264156	mg/L	0.0058477	2.21%
Zn 206.200†	17544.0	0.432053	mg/L	0.0082894	0.432053	mg/L	0.0082894	1.92%

Sequence No.: 16

Autosampler Location: 103

Sample ID: 63230-001 MS 1

Date Collected: 12/19/2011 8:13:53 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63230-001 MS 1

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	616008.2	98.6	%	0.69				0.70%
Y 371.029	267751.4	114	%	0.9				0.77%
Ag 328.068†	6333.6	0.0840116	mg/L	0.00095643	0.0840116	mg/L	0.00095643	1.14%
Al 308.215†	2147920.1	99.9838	mg/L	0.70631	99.9838	mg/L	0.70631	0.71%
As 188.979†	581.2	0.470072	mg/L	0.0037840	0.470072	mg/L	0.0037840	0.80%
Ba 233.527†	127619.5	0.994854	mg/L	0.0021378	0.994854	mg/L	0.0021378	0.21%
Be 313.107†	1055165.3	0.452404	mg/L	0.0039815	0.452404	mg/L	0.0039815	0.88%
Ca 317.933†	2864879.1	56.5678	mg/L	0.38020	56.5678	mg/L	0.38020	0.67%
Cd 228.802†	15458.6	0.457690	mg/L	0.0014137	0.457690	mg/L	0.0014137	0.31%
Co 228.616†	19877.1	0.557508	mg/L	0.0006262	0.557508	mg/L	0.0006262	0.11%
Cr 267.716†	21749.9	0.606615	mg/L	0.0056262	0.606615	mg/L	0.0056262	0.93%
Cu 327.393†	69354.4	0.770863	mg/L	0.0008256	0.770863	mg/L	0.0008256	0.11%
Fe 273.955†	4162123.9	159.611	mg/L	1.1502	159.611	mg/L	1.1502	0.72%
K 404.721†	4278.9	93.7102	mg/L	1.13330	93.7102	mg/L	1.13330	1.21%
Mg 279.077†	847480.7	81.7203	mg/L	0.47968	81.7203	mg/L	0.47968	0.59%
Mn 257.610†	1597602.7	3.55421	mg/L	0.024629	3.55421	mg/L	0.024629	0.69%
Mo 202.031†	6095.0	0.439710	mg/L	0.0011931	0.439710	mg/L	0.0011931	0.27%
Na 330.237†	28439.4	43.5966	mg/L	0.06854	43.5966	mg/L	0.06854	0.16%
Ni 231.604†	18662.0	0.586051	mg/L	0.0020514	0.586051	mg/L	0.0020514	0.35%
Pb 220.353†	3829.3	0.706826	mg/L	0.0054103	0.706826	mg/L	0.0054103	0.77%
Sb 206.836†	342.0	0.255320	mg/L	0.0005575	0.255320	mg/L	0.0005575	0.22%
Se 196.026†	334.3	0.434557	mg/L	0.0059881	0.434557	mg/L	0.0059881	1.38%
Sn 189.927†	1942.7	0.492260	mg/L	0.0055384	0.492260	mg/L	0.0055384	1.13%
Ti 334.940†	4419313.8	9.84129	mg/L	0.031652	9.84129	mg/L	0.031652	0.32%
Tl 190.801†	518.9	0.472235	mg/L	0.0017597	0.472235	mg/L	0.0017597	0.37%
V 290.880†	85622.6	0.733797	mg/L	0.0002649	0.733797	mg/L	0.0002649	0.04%
Zn 206.200†	36011.0	0.885937	mg/L	0.0012402	0.885937	mg/L	0.0012402	0.14%

Sequence No.: 17  
 Sample ID: 63230-001 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 104  
 Date Collected: 12/19/2011 8:17:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-001 MS 2

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	622349.6	99.6 %		0.57				0.57%
Y 371.029	323703.0	138 %		0.7				0.51%
Ag 328.068†	6007.3	0.0803048 mg/L		0.00112784	0.0803048 mg/L	0.00112784		1.40%
Al 308.215†	2092531.3	97.4051 mg/L		1.43449	97.4051 mg/L	1.43449		1.47%
As 188.979†	603.0	0.486814 mg/L		0.0052900	0.486814 mg/L	0.0052900		1.09%
Ba 233.527†	129239.3	1.00747 mg/L		0.000784	1.00747 mg/L	0.000784		0.08%
Be 313.107†	1044877.1	0.447992 mg/L		0.0075353	0.447992 mg/L	0.0075353		1.68%
Ca 317.933†	2876839.7	56.8039 mg/L		1.06897	56.8039 mg/L	1.06897		1.88%
Cd 228.802†	15286.2	0.452585 mg/L		0.0051490	0.452585 mg/L	0.0051490		1.14%
Co 228.616†	19366.5	0.542298 mg/L		0.0044101	0.542298 mg/L	0.0044101		0.81%
Cr 267.716†	21582.4	0.601952 mg/L		0.0000836	0.601952 mg/L	0.0000836		0.01%
Cu 327.393†	66439.3	0.740022 mg/L		0.0040761	0.740022 mg/L	0.0040761		0.55%
Fe 273.955†	4049495.7	155.292 mg/L		2.3781	155.292 mg/L	2.3781		1.53%
K 404.721†	5362.6	117.029 mg/L		4.0930	117.029 mg/L	4.0930		3.50%
Mg 279.077†	832831.2	80.3039 mg/L		1.33585	80.3039 mg/L	1.33585		1.66%
Mn 257.610†	1373207.6	3.05484 mg/L		0.048181	3.05484 mg/L	0.048181		1.58%
Mo 202.031†	6041.5	0.435866 mg/L		0.0031421	0.435866 mg/L	0.0031421		0.72%
Na 330.237†	28035.6	42.9859 mg/L		0.00358	42.9859 mg/L	0.00358		0.01%
Ni 231.604†	18373.0	0.576992 mg/L		0.0052940	0.576992 mg/L	0.0052940		0.92%
Pb 220.353†	3746.6	0.691786 mg/L		0.0038439	0.691786 mg/L	0.0038439		0.56%
Sb 206.836†	345.4	0.257786 mg/L		0.0007812	0.257786 mg/L	0.0007812		0.30%
Se 196.026†	339.9	0.440925 mg/L		0.0049383	0.440925 mg/L	0.0049383		1.12%
Sn 189.927†	1927.4	0.488219 mg/L		0.0004616	0.488219 mg/L	0.0004616		0.09%
Ti 334.940†	4479704.9	9.97576 mg/L		0.113579	9.97576 mg/L	0.113579		1.14%
Tl 190.801†	505.6	0.462161 mg/L		0.0002650	0.462161 mg/L	0.0002650		0.06%
V 290.880†	83406.1	0.714710 mg/L		0.0012469	0.714710 mg/L	0.0012469		0.17%
Zn 206.200†	36664.4	0.902071 mg/L		0.0086906	0.902071 mg/L	0.0086906		0.96%

Sequence No.: 18  
 Sample ID: 63230-001 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 105  
 Date Collected: 12/19/2011 8:21:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63230-001 PS

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	608469.8		97.4 %	0.54				0.55%
Y 371.029	267935.7		114 %	0.7				0.59%
Ag 328.068†	5902.6	0.0792994	mg/L	0.00059641	0.0792994	mg/L	0.00059641	0.75%
Al 308.215†	1940657.3	90.3337	mg/L	1.99054	90.3337	mg/L	1.99054	2.20%
As 188.979†	594.4	0.480726	mg/L	0.0085116	0.480726	mg/L	0.0085116	1.77%
Ba 233.527†	125055.1	0.974878	mg/L	0.0000199	0.974878	mg/L	0.0000199	0.00%
Be 313.107†	1082560.6	0.464150	mg/L	0.0100307	0.464150	mg/L	0.0100307	2.16%
Ca 317.933†	2962171.2	58.4885	mg/L	1.96260	58.4885	mg/L	1.96260	3.36%
Cd 228.802†	15833.6	0.468775	mg/L	0.0022243	0.468775	mg/L	0.0022243	0.47%
Co 228.616†	19826.1	0.558101	mg/L	0.0020600	0.558101	mg/L	0.0020600	0.37%
Cr 267.716†	21948.0	0.612141	mg/L	0.0020137	0.612141	mg/L	0.0020137	0.33%
Cu 327.393†	68249.1	0.756865	mg/L	0.0013252	0.756865	mg/L	0.0013252	0.18%
Fe 273.955†	4041056.7	154.968	mg/L	3.5718	154.968	mg/L	3.5718	2.30%
K 404.721†	3994.1	87.5820	mg/L	3.38235	87.5820	mg/L	3.38235	3.86%
Mg 279.077†	835146.2	80.5281	mg/L	1.97919	80.5281	mg/L	1.97919	2.46%
Mn 257.610†	1533371.1	3.41129	mg/L	0.078620	3.41129	mg/L	0.078620	2.30%
Mo 202.031†	6312.7	0.455361	mg/L	0.0027576	0.455361	mg/L	0.0027576	0.61%
Na 330.237†	29223.6	44.7826	mg/L	0.00750	44.7826	mg/L	0.00750	0.02%
Ni 231.604†	18993.5	0.596471	mg/L	0.0015628	0.596471	mg/L	0.0015628	0.26%
Pb 220.353†	3711.5	0.689630	mg/L	0.0026686	0.689630	mg/L	0.0026686	0.39%
Sb 206.836†	659.2	0.466144	mg/L	0.0025147	0.466144	mg/L	0.0025147	0.54%
Se 196.026†	353.8	0.456656	mg/L	0.0076719	0.456656	mg/L	0.0076719	1.68%
Sn 189.927†	2044.6	0.515874	mg/L	0.0050127	0.515874	mg/L	0.0050127	0.97%
Ti 334.940†	4017164.5	8.94585	mg/L	0.175218	8.94585	mg/L	0.175218	1.96%
Tl 190.801†	540.4	0.485688	mg/L	0.0000946	0.485688	mg/L	0.0000946	0.02%
V 290.880†	83895.7	0.719019	mg/L	0.0000305	0.719019	mg/L	0.0000305	0.00%
Zn 206.200†	35703.4	0.878411	mg/L	0.0017545	0.878411	mg/L	0.0017545	0.20%

Sequence No.: 19  
 Sample ID: CCV V-129808  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/19/2011 8:24:50 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	588032.8	94.1 %		0.32			0.34%
Y 371.029	223111.2	95.2 %		0.49			0.52%
Ag 328.068†	10710.5	0.104256 mg/L		0.0000648	0.104256 mg/L	0.0000648	0.06%
QC value within limits for Ag		328.068	Recovery = 104.26%				
Al 308.215†	113474.5	5.26285 mg/L		0.003445	5.26285 mg/L	0.003445	0.07%
QC value within limits for Al		308.215	Recovery = 105.26%				
As 188.979†	621.9	0.493516 mg/L		0.0049594	0.493516 mg/L	0.0049594	1.00%
QC value within limits for As		188.979	Recovery = 98.70%				
Ba 233.527†	67728.1	0.528297 mg/L		0.0010789	0.528297 mg/L	0.0010789	0.20%
QC value within limits for Ba		233.527	Recovery = 105.66%				
Be 313.107†	1168477.4	0.500989 mg/L		0.0008904	0.500989 mg/L	0.0008904	0.18%
QC value within limits for Be		313.107	Recovery = 100.20%				
Ca 317.933†	2531752.0	49.9910 mg/L		0.25376	49.9910 mg/L	0.25376	0.51%
QC value within limits for Ca		317.933	Recovery = 99.98%				
Cd 228.802†	17657.5	0.522510 mg/L		0.0011751	0.522510 mg/L	0.0011751	0.22%
QC value within limits for Cd		228.802	Recovery = 104.50%				
Co 228.616†	18274.0	0.532316 mg/L		0.0003972	0.532316 mg/L	0.0003972	0.07%
QC value within limits for Co		228.616	Recovery = 106.46%				
Cr 267.716†	18464.7	0.515327 mg/L		0.0018772	0.515327 mg/L	0.0018772	0.36%
QC value within limits for Cr		267.716	Recovery = 103.07%				
Cu 327.393†	49188.6	0.526916 mg/L		0.0011723	0.526916 mg/L	0.0011723	0.22%
QC value within limits for Cu		327.393	Recovery = 105.38%				
Fe 273.955†	135139.6	5.18827 mg/L		0.007290	5.18827 mg/L	0.007290	0.14%
QC value within limits for Fe		273.955	Recovery = 103.77%				
K 404.721†	2391.2	53.0899 mg/L		2.10713	53.0899 mg/L	2.10713	3.97%
Mg 279.077†	525107.0	50.5543 mg/L		0.10219	50.5543 mg/L	0.10219	0.20%
QC value within limits for Mg		279.077	Recovery = 101.11%				
Mn 257.610†	233544.7	0.519043 mg/L		0.0008831	0.519043 mg/L	0.0008831	0.17%
QC value within limits for Mn		257.610	Recovery = 103.81%				
Mo 202.031†	7022.8	0.506348 mg/L		0.0042069	0.506348 mg/L	0.0042069	0.83%
QC value within limits for Mo		202.031	Recovery = 101.27%				
Na 330.237†	32927.4	50.3846 mg/L		0.04272	50.3846 mg/L	0.04272	0.08%
QC value within limits for Na		330.237	Recovery = 100.77%				
Ni 231.604†	16731.2	0.525795 mg/L		0.0026149	0.525795 mg/L	0.0026149	0.50%
QC value within limits for Ni		231.604	Recovery = 105.16%				
Pb 220.353†	2460.7	0.498666 mg/L		0.0048002	0.498666 mg/L	0.0048002	0.96%
QC value within limits for Pb		220.353	Recovery = 99.73%				
Sb 206.836†	738.9	0.504054 mg/L		0.0015380	0.504054 mg/L	0.0015380	0.31%
QC value within limits for Sb		206.836	Recovery = 100.81%				
Se 196.026†	416.0	0.496762 mg/L		0.0114316	0.496762 mg/L	0.0114316	2.30%
QC value within limits for Se		196.026	Recovery = 99.35%				
Sn 189.927†	2098.9	0.508617 mg/L		0.0023829	0.508617 mg/L	0.0023829	0.47%
QC value within limits for Sn		189.927	Recovery = 101.72%				
Ti 334.940†	234885.8	0.524131 mg/L		0.0010931	0.524131 mg/L	0.0010931	0.21%
QC value within limits for Ti		334.940	Recovery = 104.83%				
Tl 190.801†	659.8	0.544619 mg/L		0.0040408	0.544619 mg/L	0.0040408	0.74%
QC value within limits for Tl		190.801	Recovery = 108.92%				
V 290.880†	59385.1	0.515743 mg/L		0.0017204	0.515743 mg/L	0.0017204	0.33%
QC value within limits for V		290.880	Recovery = 103.15%				
Zn 206.200†	21283.1	0.524100 mg/L		0.0013454	0.524100 mg/L	0.0013454	0.26%
QC value within limits for Zn		206.200	Recovery = 104.82%				

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/19/2011 8:28:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	607451.0	97.2 %	%	1.94			2.00%
Y 371.029	228053.0	97.3 %	%	2.02			2.08%
Ag 328.068†	21.1	0.0003645 mg/L	mg/L	0.00022895	0.0003645 mg/L	0.00022895	62.81%
QC value within limits for Ag		328.068	Recovery = Not calculated				
Al 308.215†	207.4	0.0023812 mg/L	mg/L	0.00373582	0.0023812 mg/L	0.00373582	156.89%
QC value within limits for Al		308.215	Recovery = Not calculated				
As 188.979†	0.7	0.0035957 mg/L	mg/L	0.00468547	0.0035957 mg/L	0.00468547	130.31%
QC value within limits for As		188.979	Recovery = Not calculated				
Ba 233.527†	2.0	0.0007075 mg/L	mg/L	0.00011092	0.0007075 mg/L	0.00011092	15.68%
QC value within limits for Ba		233.527	Recovery = Not calculated				
Be 313.107†	-1.4	-0.0000224 mg/L	mg/L	0.00002100	-0.0000224 mg/L	0.00002100	93.83%
QC value within limits for Be		313.107	Recovery = Not calculated				
Ca 317.933†	191.0	0.0117536 mg/L	mg/L	0.00150636	0.0117536 mg/L	0.00150636	12.82%
QC value within limits for Ca		317.933	Recovery = Not calculated				
Cd 228.802†	7.9	0.0007138 mg/L	mg/L	0.00006493	0.0007138 mg/L	0.00006493	9.10%
QC value within limits for Cd		228.802	Recovery = Not calculated				
Co 228.616†	5.1	-0.0000357 mg/L	mg/L	0.00033256	-0.0000357 mg/L	0.00033256	930.40%
QC value within limits for Co		228.616	Recovery = Not calculated				
Cr 267.716†	-0.7	0.0012802 mg/L	mg/L	0.00025617	0.0012802 mg/L	0.00025617	20.01%
QC value within limits for Cr		267.716	Recovery = Not calculated				
Cu 327.393†	112.8	0.0023644 mg/L	mg/L	0.00081288	0.0023644 mg/L	0.00081288	34.38%
QC value within limits for Cu		327.393	Recovery = Not calculated				
Fe 273.955†	12.0	0.0065500 mg/L	mg/L	0.00052242	0.0065500 mg/L	0.00052242	7.98%
QC value within limits for Fe		273.955	Recovery = Not calculated				
K 404.721†	-479.2	-8.67371 mg/L	mg/L	5.280809	-8.67371 mg/L	5.280809	60.88%
Mg 279.077†	27.7	-0.221267 mg/L	mg/L	0.0005770	-0.221267 mg/L	0.0005770	0.26%
QC value within limits for Mg		279.077	Recovery = Not calculated				
Mn 257.610†	90.2	0.0001763 mg/L	mg/L	0.00006809	0.0001763 mg/L	0.00006809	38.62%
QC value within limits for Mn		257.610	Recovery = Not calculated				
Mo 202.031†	-3.0	0.0010162 mg/L	mg/L	0.00046147	0.0010162 mg/L	0.00046147	45.41%
QC value within limits for Mo		202.031	Recovery = Not calculated				
Na 330.237†	111.8	0.751965 mg/L	mg/L	0.2162380	0.751965 mg/L	0.2162380	28.76%
QC value within limits for Na		330.237	Recovery = Not calculated				
Ni 231.604†	34.3	0.0017131 mg/L	mg/L	0.00142608	0.0017131 mg/L	0.00142608	83.24%
QC value within limits for Ni		231.604	Recovery = Not calculated				
Pb 220.353†	-8.4	-0.0009768 mg/L	mg/L	0.00413161	-0.0009768 mg/L	0.00413161	422.97%
QC value within limits for Pb		220.353	Recovery = Not calculated				
Sb 206.836†	-0.6	-0.0005396 mg/L	mg/L	0.00038757	-0.0005396 mg/L	0.00038757	71.82%
QC value within limits for Sb		206.836	Recovery = Not calculated				
Se 196.026†	1.7	0.0054519 mg/L	mg/L	0.00763674	0.0054519 mg/L	0.00763674	140.07%
QC value within limits for Se		196.026	Recovery = Not calculated				
Sn 189.927†	3.8	0.0010891 mg/L	mg/L	0.00080202	0.0010891 mg/L	0.00080202	73.64%
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940†	3.9	0.0012608 mg/L	mg/L	0.00002688	0.0012608 mg/L	0.00002688	2.13%
QC value within limits for Ti		334.940	Recovery = Not calculated				
Tl 190.801†	0.9	0.0014725 mg/L	mg/L	0.00055487	0.0014725 mg/L	0.00055487	37.68%
QC value within limits for Tl		190.801	Recovery = Not calculated				
V 290.880†	68.1	0.0010450 mg/L	mg/L	0.00055948	0.0010450 mg/L	0.00055948	53.54%
QC value within limits for V		290.880	Recovery = Not calculated				
Zn 206.200†	15.8	0.0012300 mg/L	mg/L	0.00009605	0.0012300 mg/L	0.00009605	7.81%
QC value within limits for Zn		206.200	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63230-001 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 106  
 Date Collected: 12/19/2011 8:31:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-001 SD

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	622428.2		99.6 %	0.86				0.86%
Y 371.029	240480.3		103 %	0.9				0.86%
Ag 328.068†	-511.4	-0.0003946	mg/L	0.00020218	-0.0003946	mg/L	0.00020218	51.24%
Al 308.215†	377610.2	17.5734	mg/L	0.02889	17.5734	mg/L	0.02889	0.16%
As 188.979†	-0.8	0.0042678	mg/L	0.00134040	0.0042678	mg/L	0.00134040	31.41%
Ba 233.527†	12828.3	0.100625	mg/L	0.0001303	0.100625	mg/L	0.0001303	0.13%
Be 313.107†	1697.7	0.0007062	mg/L	0.00000986	0.0007062	mg/L	0.00000986	1.40%
Ca 317.933†	110279.2	2.18517	mg/L	0.011535	2.18517	mg/L	0.011535	0.53%
Cd 228.802†	20.6	0.0011286	mg/L	0.00009416	0.0011286	mg/L	0.00009416	8.34%
Co 228.616†	755.1	0.0179846	mg/L	0.00067361	0.0179846	mg/L	0.00067361	3.75%
Cr 267.716†	1113.7	0.0322733	mg/L	0.00042393	0.0322733	mg/L	0.00042393	1.31%
Cu 327.393†	4759.1	0.0572502	mg/L	0.00006080	0.0572502	mg/L	0.00006080	0.11%
Fe 273.955†	805061.8	30.8777	mg/L	0.04655	30.8777	mg/L	0.04655	0.15%
K 404.721†	165.7	5.20334	mg/L	1.147753	5.20334	mg/L	1.147753	22.06%
Mg 279.077†	71158.7	6.65577	mg/L	0.001765	6.65577	mg/L	0.001765	0.03%
Mn 257.610†	271257.8	0.603545	mg/L	0.0008712	0.603545	mg/L	0.0008712	0.14%
Mo 202.031†	26.0	0.0031202	mg/L	0.00075947	0.0031202	mg/L	0.00075947	24.34%
Na 330.237†	3.8	0.588578	mg/L	0.0506096	0.588578	mg/L	0.0506096	8.60%
Ni 231.604†	897.8	0.0287485	mg/L	0.00050171	0.0287485	mg/L	0.00050171	1.75%
Pb 220.353†	289.3	0.0465330	mg/L	0.00197533	0.0465330	mg/L	0.00197533	4.25%
Sb 206.836†	-3.1	0.0010821	mg/L	0.00255169	0.0010821	mg/L	0.00255169	235.80%
Se 196.026†	-4.9	0.0045905	mg/L	0.00428402	0.0045905	mg/L	0.00428402	93.32%
Sn 189.927†	-3.9	0.0033809	mg/L	0.00040103	0.0033809	mg/L	0.00040103	11.86%
Ti 334.940†	751590.6	1.67476	mg/L	0.010165	1.67476	mg/L	0.010165	0.61%
Tl 190.801†	-8.4	0.0016298	mg/L	0.00271307	0.0016298	mg/L	0.00271307	166.47%
V 290.880†	6553.9	0.0554793	mg/L	0.00017435	0.0554793	mg/L	0.00017435	0.31%
Zn 206.200†	3520.0	0.0873519	mg/L	0.00119859	0.0873519	mg/L	0.00119859	1.37%

Sequence No.: 22  
 Sample ID: 63111-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 107  
 Date Collected: 12/19/2011 8:35:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-004

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	602201.8	96.4	%	1.83				1.90%
Y 371.029	356775.8	152	%	3.1				2.02%
Ag 328.068†	-1136.0	-0.0003279	mg/L	0.00010246	-0.0003279	mg/L	0.00010246	31.25%
Al 308.215†	774119.9	36.0334	mg/L	0.17341	36.0334	mg/L	0.17341	0.48%
As 188.979†	282.8	0.227027	mg/L	0.0060079	0.227027	mg/L	0.0060079	2.65%
Ba 233.527†	167485.5	1.30541	mg/L	0.005821	1.30541	mg/L	0.005821	0.45%
Be 313.107†	8298.8	0.0035366	mg/L	0.00040609	0.0035366	mg/L	0.00040609	11.48%
Ca 317.933†	6117752.1	120.787	mg/L	1.9516	120.787	mg/L	1.9516	1.62%
Cd 228.802†	1275.9	0.0382533	mg/L	0.00074847	0.0382533	mg/L	0.00074847	1.96%
Co 228.616†	1721.3	0.0479738	mg/L	0.00086060	0.0479738	mg/L	0.00086060	1.79%
Cr 267.716†	2093.1	0.0595336	mg/L	0.00192943	0.0595336	mg/L	0.00192943	3.24%
Cu 327.393†	65960.3	0.711113	mg/L	0.0008922	0.711113	mg/L	0.0008922	0.13%
Fe 273.955†	1425356.1	54.6641	mg/L	0.25770	54.6641	mg/L	0.25770	0.47%
K 404.721†	285.7	7.78402	mg/L	4.065434	7.78402	mg/L	4.065434	52.23%
Mg 279.077†	47149.2	4.33497	mg/L	0.031798	4.33497	mg/L	0.031798	0.73%
Mn 257.610†	327879.4	0.729606	mg/L	0.0029360	0.729606	mg/L	0.0029360	0.40%
Mo 202.031†	329.2	0.0274187	mg/L	0.00020186	0.0274187	mg/L	0.00020186	0.74%
Na 330.237†	7116.4	11.3462	mg/L	0.09195	11.3462	mg/L	0.09195	0.81%
Ni 231.604†	2343.4	0.0740642	mg/L	0.00151998	0.0740642	mg/L	0.00151998	2.05%
Pb 220.353†	9044.7	1.82127	mg/L	0.024067	1.82127	mg/L	0.024067	1.32%
Sb 206.836†	13.0	0.0099318	mg/L	0.00532857	0.0099318	mg/L	0.00532857	53.65%
Se 196.026†	-5.2	0.0151130	mg/L	0.00166468	0.0151130	mg/L	0.00166468	11.01%
Sn 189.927†	3638.6	0.886235	mg/L	0.0153907	0.886235	mg/L	0.0153907	1.74%
Ti 334.940†	404573.3	0.902074	mg/L	0.0479484	0.902074	mg/L	0.0479484	5.32%
Tl 190.801†	-10.4	-0.0036365	mg/L	0.00176724	-0.0036365	mg/L	0.00176724	48.60%
V 290.880†	14862.7	0.127908	mg/L	0.0004800	0.127908	mg/L	0.0004800	0.38%
Zn 206.200†	497304.8	12.2490	mg/L	0.07521	12.2490	mg/L	0.07521	0.61%

Sequence No.: 23  
 Sample ID: 63111-008  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 108  
 Date Collected: 12/19/2011 8:38:39 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-008

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	633527.2		101 %	0.8				0.84%
Y 371.029	268551.1		115 %	0.7				0.60%
Ag 328.068†	-2557.3	-0.0032379	mg/L	0.00131410	-0.0032379	mg/L	0.00131410	40.58%
Al 308.215†	1149010.0	53.4878	mg/L	0.07306	53.4878	mg/L	0.07306	0.14%
As 188.979†	148.3	0.131065	mg/L	0.0009418	0.131065	mg/L	0.0009418	0.72%
Ba 233.527†	171488.4	1.33660	mg/L	0.022584	1.33660	mg/L	0.022584	1.69%
Be 313.107†	7390.9	0.0031472	mg/L	0.00006237	0.0031472	mg/L	0.00006237	1.98%
Ca 317.933†	2955833.3	58.3634	mg/L	0.72572	58.3634	mg/L	0.72572	1.24%
Cd 228.802†	201.6	0.0066377	mg/L	0.00001610	0.0066377	mg/L	0.00001610	0.24%
Co 228.616†	2183.5	0.0583031	mg/L	0.00082202	0.0583031	mg/L	0.00082202	1.41%
Cr 267.716†	4812.5	0.135142	mg/L	0.0007993	0.135142	mg/L	0.0007993	0.59%
Cu 327.393†	93966.5	1.01354	mg/L	0.017256	1.01354	mg/L	0.017256	1.70%
Fe 273.955†	3703649.3	142.030	mg/L	0.3419	142.030	mg/L	0.3419	0.24%
K 404.721†	489.8	12.1758	mg/L	2.94709	12.1758	mg/L	2.94709	24.20%
Mg 279.077†	193769.1	18.5100	mg/L	0.31692	18.5100	mg/L	0.31692	1.71%
Mn 257.610†	1127028.2	2.50787	mg/L	0.005709	2.50787	mg/L	0.005709	0.23%
Mo 202.031†	135.6	0.0114054	mg/L	0.00082043	0.0114054	mg/L	0.00082043	7.19%
Na 330.237†	3443.1	5.79039	mg/L	0.027800	5.79039	mg/L	0.027800	0.48%
Ni 231.604†	4448.9	0.139935	mg/L	0.0015825	0.139935	mg/L	0.0015825	1.13%
Pb 220.353†	14857.4	2.98448	mg/L	0.024649	2.98448	mg/L	0.024649	0.83%
Sb 206.836†	7.0	0.0093390	mg/L	0.00243492	0.0093390	mg/L	0.00243492	26.07%
Se 196.026†	-32.6	-0.0014719	mg/L	0.00100595	-0.0014719	mg/L	0.00100595	68.35%
Sn 189.927†	2171.2	0.541011	mg/L	0.0002915	0.541011	mg/L	0.0002915	0.05%
Ti 334.940†	1010754.9	2.25180	mg/L	0.003066	2.25180	mg/L	0.003066	0.14%
Tl 190.801†	-21.1	-0.0066477	mg/L	0.00261711	-0.0066477	mg/L	0.00261711	39.37%
V 290.880†	24309.4	0.204264	mg/L	0.0039517	0.204264	mg/L	0.0039517	1.93%
Zn 206.200†	82537.0	2.03323	mg/L	0.040581	2.03323	mg/L	0.040581	2.00%

Sequence No.: 24  
 Sample ID: 63111-012  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 109  
 Date Collected: 12/19/2011 8:42:16 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-012

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	644275.1		103 %	0.9				0.91%
Y 371.029	266231.1		114 %	1.6				1.38%
Ag 328.068†	-829.6	-0.0000074	mg/L	0.00013942	-0.0000074	mg/L	0.00013942	>999.9%
Al 308.215†	749463.2	34.8854	mg/L	0.00248	34.8854	mg/L	0.00248	0.01%
As 188.979†	75.5	0.0657310	mg/L	0.00064065	0.0657310	mg/L	0.00064065	0.97%
Ba 233.527†	149164.2	1.16269	mg/L	0.008201	1.16269	mg/L	0.008201	0.71%
Be 313.107†	6784.8	0.0028874	mg/L	0.00000188	0.0028874	mg/L	0.00000188	0.07%
Ca 317.933†	1588766.9	31.3742	mg/L	0.01301	31.3742	mg/L	0.01301	0.04%
Cd 228.802†	89.4	0.0032209	mg/L	0.00037677	0.0032209	mg/L	0.00037677	11.70%
Co 228.616†	1341.4	0.0365394	mg/L	0.00001939	0.0365394	mg/L	0.00001939	0.05%
Cr 267.716†	2012.4	0.0572920	mg/L	0.00039465	0.0572920	mg/L	0.00039465	0.69%
Cu 327.393†	14626.8	0.162700	mg/L	0.0003020	0.162700	mg/L	0.0003020	0.19%
Fe 273.955†	1323272.6	50.7495	mg/L	0.18569	50.7495	mg/L	0.18569	0.37%
K 404.721†	629.1	15.1741	mg/L	4.67649	15.1741	mg/L	4.67649	30.82%
Mg 279.077†	46470.5	4.26941	mg/L	0.024955	4.26941	mg/L	0.024955	0.58%
Mn 257.610†	291605.6	0.648881	mg/L	0.0027384	0.648881	mg/L	0.0027384	0.42%
Mo 202.031†	369.7	0.0279014	mg/L	0.00033173	0.0279014	mg/L	0.00033173	1.19%
Na 330.237†	1676.6	3.11858	mg/L	0.023819	3.11858	mg/L	0.023819	0.76%
Ni 231.604†	2169.3	0.0686223	mg/L	0.00003937	0.0686223	mg/L	0.00003937	0.06%
Pb 220.353†	5478.9	1.09087	mg/L	0.000203	1.09087	mg/L	0.000203	0.02%
Sb 206.836†	0.1	0.0021510	mg/L	0.00080811	0.0021510	mg/L	0.00080811	37.57%
Se 196.026†	-12.4	0.0019616	mg/L	0.00501500	0.0019616	mg/L	0.00501500	255.66%
Sn 189.927†	239.7	0.0639165	mg/L	0.00039563	0.0639165	mg/L	0.00039563	0.62%
Ti 334.940†	473862.1	1.05635	mg/L	0.022060	1.05635	mg/L	0.022060	2.09%
Tl 190.801†	-13.5	-0.0054088	mg/L	0.00089996	-0.0054088	mg/L	0.00089996	16.64%
V 290.880†	47173.6	0.413079	mg/L	0.0018099	0.413079	mg/L	0.0018099	0.44%
Zn 206.200†	15685.4	0.387092	mg/L	0.0000852	0.387092	mg/L	0.0000852	0.02%

Sequence No.: 25

Sample ID: 63111-021

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 110

Date Collected: 12/19/2011 8:45:50 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63111-021

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	621085.6	99.4	%	0.83			0.84%
Y 371.029	252615.1	108	%	1.1			0.98%
Ag 328.068†	-3288.4	-0.0055907	mg/L	0.00030465	-0.0055907	mg/L	0.00030465 5.45%
Al 308.215†	505207.5	23.5136	mg/L	0.00806	23.5136	mg/L	0.00806 0.03%
As 188.979†	161.6	0.146064	mg/L	0.0031020	0.146064	mg/L	0.0031020 2.12%
Ba 233.527†	198551.2	1.54742	mg/L	0.013542	1.54742	mg/L	0.013542 0.88%
Be 313.107†	5507.0	0.0023395	mg/L	0.00000039	0.0023395	mg/L	0.00000039 0.02%
Ca 317.933†	3889370.8	76.7938	mg/L	0.15317	76.7938	mg/L	0.15317 0.20%
Cd 228.802†	256.0	0.0081800	mg/L	0.00046397	0.0081800	mg/L	0.00046397 5.67%
Co 228.616†	3105.6	0.0882914	mg/L	0.00009415	0.0882914	mg/L	0.00009415 0.11%
Cr 267.716†	3001.1	0.0847779	mg/L	0.00045518	0.0847779	mg/L	0.00045518 0.54%
Cu 327.393†	43236.6	0.473960	mg/L	0.0038382	0.473960	mg/L	0.0038382 0.81%
Fe 273.955†	4494943.3	172.373	mg/L	0.4207	172.373	mg/L	0.4207 0.24%
K 404.721†	-183.0	-2.30056	mg/L	2.890964	-2.30056	mg/L	2.890964 125.66%
Mg 279.077†	73304.9	6.86358	mg/L	0.052796	6.86358	mg/L	0.052796 0.77%
Mn 257.610†	729288.9	1.62290	mg/L	0.002838	1.62290	mg/L	0.002838 0.17%
Mo 202.031†	235.9	0.0189996	mg/L	0.00070530	0.0189996	mg/L	0.00070530 3.71%
Na 330.237†	3842.5	6.39455	mg/L	0.149443	6.39455	mg/L	0.149443 2.34%
Ni 231.604†	3083.2	0.0972015	mg/L	0.00097031	0.0972015	mg/L	0.00097031 1.00%
Pb 220.353†	18885.3	3.82403	mg/L	0.035651	3.82403	mg/L	0.035651 0.93%
Sb 206.836†	58.7	0.0421525	mg/L	0.00237932	0.0421525	mg/L	0.00237932 5.64%
Se 196.026†	29.0	0.0797622	mg/L	0.01397927	0.0797622	mg/L	0.01397927 17.53%
Sn 189.927†	2779.6	0.690410	mg/L	0.0024567	0.690410	mg/L	0.0024567 0.36%
Ti 334.940†	413441.9	0.921814	mg/L	0.0060308	0.921814	mg/L	0.0060308 0.65%
Tl 190.801†	-14.1	-0.0070513	mg/L	0.00241162	-0.0070513	mg/L	0.00241162 34.20%
V 290.880†	24684.2	0.207923	mg/L	0.0016695	0.207923	mg/L	0.0016695 0.80%
Zn 206.200†	158060.2	3.89362	mg/L	0.045320	3.89362	mg/L	0.045320 1.16%

Sequence No.: 26  
 Sample ID: 63111-037  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 111  
 Date Collected: 12/19/2011 8:49:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-037

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	629078.2		101 %	0.0				0.01%
Y 371.029	280620.5		120 %	0.2				0.14%
Ag 328.068†	-2819.4	-0.0046837	mg/L	0.00050187	-0.0046837	mg/L	0.00050187	10.72%
Al 308.215†	1406291.7	65.4663	mg/L	0.07369	65.4663	mg/L	0.07369	0.11%
As 188.979†	60.3	0.0619812	mg/L	0.00043136	0.0619812	mg/L	0.00043136	0.70%
Ba 233.527†	120979.4	0.943127	mg/L	0.0036328	0.943127	mg/L	0.0036328	0.39%
Be 313.107†	8889.0	0.0037896	mg/L	0.00000190	0.0037896	mg/L	0.00000190	0.05%
Ca 317.933†	2794831.6	55.1848	mg/L	1.12945	55.1848	mg/L	1.12945	2.05%
Cd 228.802†	104.6	0.0037023	mg/L	0.00064136	0.0037023	mg/L	0.00064136	17.32%
Co 228.616†	1919.3	0.0509182	mg/L	0.00007553	0.0509182	mg/L	0.00007553	0.15%
Cr 267.716†	6237.7	0.174775	mg/L	0.0003034	0.174775	mg/L	0.0003034	0.17%
Cu 327.393†	21875.1	0.247976	mg/L	0.0001808	0.247976	mg/L	0.0001808	0.07%
Fe 273.955†	3916335.3	150.185	mg/L	0.0355	150.185	mg/L	0.0355	0.02%
K 404.721†	152.3	4.91424	mg/L	1.954517	4.91424	mg/L	1.954517	39.77%
Mg 279.077†	162879.0	15.5235	mg/L	0.09064	15.5235	mg/L	0.09064	0.58%
Mn 257.610†	1257164.7	2.79755	mg/L	0.000347	2.79755	mg/L	0.000347	0.01%
Mo 202.031†	109.4	0.0098553	mg/L	0.00022342	0.0098553	mg/L	0.00022342	2.27%
Na 330.237†	2803.1	4.82252	mg/L	0.045728	4.82252	mg/L	0.045728	0.95%
Ni 231.604†	2873.0	0.0905984	mg/L	0.00111831	0.0905984	mg/L	0.00111831	1.23%
Pb 220.353†	10389.8	2.06817	mg/L	0.001761	2.06817	mg/L	0.001761	0.09%
Sb 206.836†	8.3	0.0098368	mg/L	0.00283013	0.0098368	mg/L	0.00283013	28.77%
Se 196.026†	-27.7	0.0059251	mg/L	0.00140459	0.0059251	mg/L	0.00140459	23.71%
Sn 189.927†	952.4	0.246990	mg/L	0.0018114	0.246990	mg/L	0.0018114	0.73%
Ti 334.940†	944452.6	2.10416	mg/L	0.011238	2.10416	mg/L	0.011238	0.53%
Tl 190.801†	-16.9	-0.0039559	mg/L	0.00181638	-0.0039559	mg/L	0.00181638	45.92%
V 290.880†	23158.0	0.194179	mg/L	0.0015935	0.194179	mg/L	0.0015935	0.82%
Zn 206.200†	149729.3	3.68828	mg/L	0.016429	3.68828	mg/L	0.016429	0.45%

Sequence No.: 27  
 Sample ID: 63224-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 112  
 Date Collected: 12/19/2011 8:53:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63224-001

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	648676.0	104	%	0.6				0.56%
Y 371.029	274257.5	117	%	0.4				0.37%
Ag 328.068†	-2390.2	-0.0048751	mg/L	0.00022769	-0.0048751	mg/L	0.00022769	4.67%
Al 308.215†	1311776.0	61.0658	mg/L	0.02072	61.0658	mg/L	0.02072	0.03%
As 188.979†	187.7	0.161377	mg/L	0.0017002	0.161377	mg/L	0.0017002	1.05%
Ba 233.527†	14211.0	0.111397	mg/L	0.0004405	0.111397	mg/L	0.0004405	0.40%
Be 313.107†	7397.0	0.0031499	mg/L	0.00001006	0.0031499	mg/L	0.00001006	0.32%
Ca 317.933†	714932.8	14.1225	mg/L	0.02203	14.1225	mg/L	0.02203	0.16%
Cd 228.802†	211.8	0.0067531	mg/L	0.00047283	0.0067531	mg/L	0.00047283	7.00%
Co 228.616†	476.7	0.0127659	mg/L	0.00016877	0.0127659	mg/L	0.00016877	1.32%
Cr 267.716†	14163.3	0.395185	mg/L	0.0029185	0.395185	mg/L	0.0029185	0.74%
Cu 327.393†	3275.3	0.0435755	mg/L	0.00021376	0.0435755	mg/L	0.00021376	0.49%
Fe 273.955†	3286953.7	126.051	mg/L	0.1922	126.051	mg/L	0.1922	0.15%
K 404.721†	1324.3	30.1324	mg/L	4.34017	30.1324	mg/L	4.34017	14.40%
Mg 279.077†	72131.3	6.74999	mg/L	0.057871	6.74999	mg/L	0.057871	0.86%
Mn 257.610†	70455.5	0.156658	mg/L	0.0013425	0.156658	mg/L	0.0013425	0.86%
Mo 202.031†	149.8	0.0120319	mg/L	0.00065699	0.0120319	mg/L	0.00065699	5.46%
Na 330.237†	638.0	1.54783	mg/L	0.063508	1.54783	mg/L	0.063508	4.10%
Ni 231.604†	433.4	0.0142352	mg/L	0.00036862	0.0142352	mg/L	0.00036862	2.59%
Pb 220.353†	515.7	0.0614908	mg/L	0.00123668	0.0614908	mg/L	0.00123668	2.01%
Sb 206.836†	3.5	0.0041919	mg/L	0.00162732	0.0041919	mg/L	0.00162732	38.82%
Se 196.026†	-28.6	0.0010198	mg/L	0.00745231	0.0010198	mg/L	0.00745231	730.73%
Sn 189.927†	19.7	0.0179061	mg/L	0.00046749	0.0179061	mg/L	0.00046749	2.61%
Ti 334.940†	162407.0	0.362776	mg/L	0.0030286	0.362776	mg/L	0.0030286	0.83%
Tl 190.801†	-9.8	-0.0053492	mg/L	0.00040411	-0.0053492	mg/L	0.00040411	7.55%
V 290.880†	38950.9	0.336189	mg/L	0.0020818	0.336189	mg/L	0.0020818	0.62%
Zn 206.200†	5175.9	0.128668	mg/L	0.0004518	0.128668	mg/L	0.0004518	0.35%

Sequence No.: 28  
 Sample ID: 63230-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 113  
 Date Collected: 12/19/2011 8:56:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-002

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	625236.4		100 %	0.2				0.24%
Y 371.029	276658.9		118 %	1.1				0.92%
Ag 328.068†	-2452.8	-0.0051205	mg/L	0.00058023	-0.0051205	mg/L	0.00058023	11.33%
Al 308.215†	1585018.5	73.7876	mg/L	0.44530	73.7876	mg/L	0.44530	0.60%
As 188.979†	2.3	0.0124000	mg/L	0.00252525	0.0124000	mg/L	0.00252525	20.36%
Ba 233.527†	60442.6	0.471543	mg/L	0.0066504	0.471543	mg/L	0.0066504	1.41%
Be 313.107†	7636.5	0.0032526	mg/L	0.00002945	0.0032526	mg/L	0.00002945	0.91%
Ca 317.933†	573308.3	11.3265	mg/L	0.02922	11.3265	mg/L	0.02922	0.26%
Cd 228.802†	46.9	0.0020297	mg/L	0.00032006	0.0020297	mg/L	0.00032006	15.77%
Co 228.616†	2946.7	0.0682097	mg/L	0.00100775	0.0682097	mg/L	0.00100775	1.48%
Cr 267.716†	4464.6	0.125459	mg/L	0.0023175	0.125459	mg/L	0.0023175	1.85%
Cu 327.393†	19416.0	0.232086	mg/L	0.0030539	0.232086	mg/L	0.0030539	1.32%
Fe 273.955†	3365517.0	129.063	mg/L	0.6777	129.063	mg/L	0.6777	0.53%
K 404.721†	1433.1	32.4748	mg/L	5.71086	32.4748	mg/L	5.71086	17.59%
Mg 279.077†	295260.7	28.3221	mg/L	0.49214	28.3221	mg/L	0.49214	1.74%
Mn 257.610†	1994247.0	4.43771	mg/L	0.021024	4.43771	mg/L	0.021024	0.47%
Mo 202.031†	30.5	0.0035345	mg/L	0.00025324	0.0035345	mg/L	0.00025324	7.16%
Na 330.237†	-393.5	-0.0123002	mg/L	0.13407539	-0.0123002	mg/L	0.13407539	>999.9%
Ni 231.604†	3580.6	0.112732	mg/L	0.0004557	0.112732	mg/L	0.0004557	0.40%
Pb 220.353†	872.8	0.123306	mg/L	0.0014283	0.123306	mg/L	0.0014283	1.16%
Sb 206.836†	-16.9	0.0033743	mg/L	0.00022245	0.0033743	mg/L	0.00022245	6.59%
Se 196.026†	-26.9	-0.0022006	mg/L	0.00550502	-0.0022006	mg/L	0.00550502	250.16%
Sn 189.927†	25.3	0.0240862	mg/L	0.00062858	0.0240862	mg/L	0.00062858	2.61%
Ti 334.940†	3421427.3	7.61948	mg/L	0.068728	7.61948	mg/L	0.068728	0.90%
Tl 190.801†	-47.2	-0.0033845	mg/L	0.00366025	-0.0033845	mg/L	0.00366025	108.15%
V 290.880†	27507.4	0.231508	mg/L	0.0033362	0.231508	mg/L	0.0033362	1.44%
Zn 206.200†	20915.8	0.515216	mg/L	0.0090347	0.515216	mg/L	0.0090347	1.75%

Sequence No.: 29

Autosampler Location: 7

Sample ID: ICSA V-129812

Date Collected: 12/19/2011 9:00:13 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSA V-129812

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	539763.9	86.4	%	0.90				1.04%
Y 371.029	198490.9	84.7	%	0.87				1.02%
Ag 328.068†	-4654.9	-0.0060664	mg/L	0.00036144	-0.0060664	mg/L	0.00036144	5.96%
Al 308.215†	10455567.3	486.781	mg/L	7.1825	486.781	mg/L	7.1825	1.48%
QC value within limits for Al 308.215 Recovery = 97.36%								
As 188.979†	0.2	0.0061796	mg/L	0.00372762	0.0061796	mg/L	0.00372762	60.32%
Ba 233.527†	878.2	0.0075330	mg/L	0.00032224	0.0075330	mg/L	0.00032224	4.28%
Be 313.107†	-1313.6	-0.0005850	mg/L	0.00001681	-0.0005850	mg/L	0.00001681	2.87%
Ca 317.933†	25931354.6	511.957	mg/L	8.9895	511.957	mg/L	8.9895	1.76%
QC value within limits for Ca 317.933 Recovery = 102.39%								
Cd 228.802†	88.9	0.0031088	mg/L	0.00016310	0.0031088	mg/L	0.00016310	5.25%
Co 228.616†	111.0	0.0030495	mg/L	0.00025094	0.0030495	mg/L	0.00025094	8.23%
Cr 267.716†	-92.2	-0.0012660	mg/L	0.00000374	-0.0012660	mg/L	0.00000374	0.30%
Cu 327.393†	-2586.2	0.0032000	mg/L	0.00090171	0.0032000	mg/L	0.00090171	28.18%
Fe 273.955†	4971943.6	190.665	mg/L	3.9251	190.665	mg/L	3.9251	2.06%
QC value within limits for Fe 273.955 Recovery = 95.33%								
K 404.721†	-2405.1	-50.1155	mg/L	4.41199	-50.1155	mg/L	4.41199	8.80%
Mg 279.077†	5444351.5	526.140	mg/L	11.6370	526.140	mg/L	11.6370	2.21%
QC value within limits for Mg 279.077 Recovery = 105.23%								
Mn 257.610†	987.3	-0.0069773	mg/L	0.00010725	-0.0069773	mg/L	0.00010725	1.54%
Mo 202.031†	-40.0	-0.0016394	mg/L	0.00077336	-0.0016394	mg/L	0.00077336	47.17%
Na 330.237†	4238.7	6.99370	mg/L	0.075079	6.99370	mg/L	0.075079	1.07%
Ni 231.604†	82.9	0.0032252	mg/L	0.00117837	0.0032252	mg/L	0.00117837	36.54%
Pb 220.353†	1548.4	-0.0140115	mg/L	0.00116601	-0.0140115	mg/L	0.00116601	8.32%
Sb 206.836†	25.1	0.0013516	mg/L	0.00028039	0.0013516	mg/L	0.00028039	20.75%
Se 196.026†	-73.2	-0.0058410	mg/L	0.00384901	-0.0058410	mg/L	0.00384901	65.90%
Sn 189.927†	-61.2	0.0046413	mg/L	0.00147145	0.0046413	mg/L	0.00147145	31.70%
Ti 334.940†	96.1	0.0014667	mg/L	0.00009569	0.0014667	mg/L	0.00009569	6.52%
Tl 190.801†	-10.6	-0.0048537	mg/L	0.00385292	-0.0048537	mg/L	0.00385292	79.38%
V 290.880†	9664.7	-0.0120597	mg/L	0.00034821	-0.0120597	mg/L	0.00034821	2.89%
Zn 206.200†	-9.6	-0.0168368	mg/L	0.00029009	-0.0168368	mg/L	0.00029009	1.72%

All analyte(s) passed QC.

Sequence No.: 30  
 Sample ID: ICSAB V-129814  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/19/2011 9:05:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB V-129814

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	542550.2	86.8 %		0.23			0.26%
Y 371.029	199592.2	85.2 %		0.24			0.29%
Ag 328.068†	109229.9	1.08071 mg/L		0.004857	1.08071 mg/L	0.004857	0.45%
		QC value within limits for Ag 328.068	Recovery = 108.07%				
Al 308.215†	10802546.9	502.935 mg/L		9.7603	502.935 mg/L	9.7603	1.94%
		QC value within limits for Al 308.215	Recovery = 100.59%				
As 188.979†	1324.0	1.04509 mg/L		0.004194	1.04509 mg/L	0.004194	0.40%
		QC value within limits for As 188.979	Recovery = 104.51%				
Ba 233.527†	67844.7	0.529206 mg/L		0.0000745	0.529206 mg/L	0.0000745	0.01%
		QC value within limits for Ba 233.527	Recovery = 105.84%				
Be 313.107†	1206536.3	0.517307 mg/L		0.0060902	0.517307 mg/L	0.0060902	1.18%
		QC value within limits for Be 313.107	Recovery = 103.46%				
Ca 317.933†	25990199.0	513.119 mg/L		2.9879	513.119 mg/L	2.9879	0.58%
		QC value within limits for Ca 317.933	Recovery = 102.62%				
Cd 228.802†	35164.2	1.03994 mg/L		0.007141	1.03994 mg/L	0.007141	0.69%
		QC value within limits for Cd 228.802	Recovery = 103.99%				
Co 228.616†	16780.3	0.489148 mg/L		0.0032324	0.489148 mg/L	0.0032324	0.66%
		QC value within limits for Co 228.616	Recovery = 97.83%				
Cr 267.716†	17675.9	0.492854 mg/L		0.0008962	0.492854 mg/L	0.0008962	0.18%
		QC value within limits for Cr 267.716	Recovery = 98.57%				
Cu 327.393†	47278.2	0.532653 mg/L		0.0030739	0.532653 mg/L	0.0030739	0.58%
		QC value within limits for Cu 327.393	Recovery = 106.53%				
Fe 273.955†	4935272.9	189.258 mg/L		2.1103	189.258 mg/L	2.1103	1.12%
		QC value within limits for Fe 273.955	Recovery = 94.63%				
K 404.721†	-2216.0	-46.0468 mg/L		0.67408	-46.0468 mg/L	0.67408	1.46%
Mg 279.077†	5400961.8	521.945 mg/L		6.4630	521.945 mg/L	6.4630	1.24%
		QC value within limits for Mg 279.077	Recovery = 104.39%				
Mn 257.610†	226827.3	0.495706 mg/L		0.0005000	0.495706 mg/L	0.0005000	0.10%
		QC value within limits for Mn 257.610	Recovery = 99.14%				
Mo 202.031†	-48.5	-0.0020508 mg/L		0.00004133	-0.0020508 mg/L	0.00004133	2.02%
Na 330.237†	4611.1	7.55702 mg/L		0.127071	7.55702 mg/L	0.127071	1.68%
Ni 231.604†	30298.0	0.949077 mg/L		0.0026041	0.949077 mg/L	0.0026041	0.27%
		QC value within limits for Ni 231.604	Recovery = 94.91%				
Pb 220.353†	6384.7	0.960443 mg/L		0.0120551	0.960443 mg/L	0.0120551	1.26%
		QC value within limits for Pb 220.353	Recovery = 96.04%				
Sb 206.836†	1578.6	1.04175 mg/L		0.025296	1.04175 mg/L	0.025296	2.43%
		QC value within limits for Sb 206.836	Recovery = 104.18%				
Se 196.026†	809.6	1.03430 mg/L		0.002624	1.03430 mg/L	0.002624	0.25%
		QC value within limits for Se 196.026	Recovery = 103.43%				
Sn 189.927†	-62.1	0.0043022 mg/L		0.00161519	0.0043022 mg/L	0.00161519	37.54%
Ti 334.940†	-9.8	0.0011100 mg/L		0.00012309	0.0011100 mg/L	0.00012309	11.09%
Tl 190.801†	1202.7	0.991555 mg/L		0.0000240	0.991555 mg/L	0.0000240	0.00%
		QC value within limits for Tl 190.801	Recovery = 99.16%				
V 290.880†	63262.3	0.461396 mg/L		0.0022612	0.461396 mg/L	0.0022612	0.49%
		QC value within limits for V 290.880	Recovery = 92.28%				
Zn 206.200†	40739.7	0.987652 mg/L		0.0031495	0.987652 mg/L	0.0031495	0.32%
		QC value within limits for Zn 206.200	Recovery = 98.77%				

All analyte(s) passed QC.

Sequence No.: 31

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/19/2011 9:10:18 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	589841.0	94.4 %		0.91			0.97%
Y 371.029	218225.1	93.1 %		0.69			0.75%
Ag 328.068†	10640.3	0.103591 mg/L		0.0022612	0.103591 mg/L	0.0022612	2.18%
	QC value within limits for Ag	328.068	Recovery = 103.59%				
Al 308.215†	112250.9	5.20585 mg/L		0.116694	5.20585 mg/L	0.116694	2.24%
	QC value within limits for Al	308.215	Recovery = 104.12%				
As 188.979†	629.4	0.499399 mg/L		0.0031648	0.499399 mg/L	0.0031648	0.63%
	QC value within limits for As	188.979	Recovery = 99.88%				
Ba 233.527†	66886.0	0.521738 mg/L		0.0106273	0.521738 mg/L	0.0106273	2.04%
	QC value within limits for Ba	233.527	Recovery = 104.35%				
Be 313.107†	1190326.3	0.510357 mg/L		0.0107848	0.510357 mg/L	0.0107848	0.24%
	QC value within limits for Be	313.107	Recovery = 102.07%				
Ca 317.933†	2563265.1	50.6132 mg/L		0.04122	50.6132 mg/L	0.04122	0.08%
	QC value within limits for Ca	317.933	Recovery = 101.23%				
Cd 228.802†	17476.6	0.517163 mg/L		0.0107848	0.517163 mg/L	0.0107848	2.09%
	QC value within limits for Cd	228.802	Recovery = 103.43%				
Co 228.616†	18074.4	0.526518 mg/L		0.0134649	0.526518 mg/L	0.0134649	2.56%
	QC value within limits for Co	228.616	Recovery = 105.30%				
Cr 267.716†	18262.1	0.509692 mg/L		0.0123408	0.509692 mg/L	0.0123408	2.42%
	QC value within limits for Cr	267.716	Recovery = 101.94%				
Cu 327.393†	48736.1	0.522111 mg/L		0.0113925	0.522111 mg/L	0.0113925	2.18%
	QC value within limits for Cu	327.393	Recovery = 104.42%				
Fe 273.955†	133409.6	5.12193 mg/L		0.104809	5.12193 mg/L	0.104809	2.05%
	QC value within limits for Fe	273.955	Recovery = 102.44%				
K 404.721†	2181.5	48.5784 mg/L		2.12013	48.5784 mg/L	2.12013	4.36%
Mg 279.077†	536617.0	51.6671 mg/L		0.09070	51.6671 mg/L	0.09070	0.18%
	QC value within limits for Mg	279.077	Recovery = 103.33%				
Mn 257.610†	230651.0	0.512585 mg/L		0.0101318	0.512585 mg/L	0.0101318	1.98%
	QC value within limits for Mn	257.610	Recovery = 102.52%				
Mo 202.031†	7042.5	0.507762 mg/L		0.0053285	0.507762 mg/L	0.0053285	1.05%
	QC value within limits for Mo	202.031	Recovery = 101.55%				
Na 330.237†	32597.8	49.8860 mg/L		1.11985	49.8860 mg/L	1.11985	2.24%
	QC value within limits for Na	330.237	Recovery = 99.77%				
Ni 231.604†	16571.1	0.520787 mg/L		0.0108815	0.520787 mg/L	0.0108815	2.09%
	QC value within limits for Ni	231.604	Recovery = 104.16%				
Pb 220.353†	2486.8	0.504013 mg/L		0.0080433	0.504013 mg/L	0.0080433	1.60%
	QC value within limits for Pb	220.353	Recovery = 100.80%				
Sb 206.836†	753.7	0.513954 mg/L		0.0054752	0.513954 mg/L	0.0054752	1.07%
	QC value within limits for Sb	206.836	Recovery = 102.79%				
Se 196.026†	420.6	0.502150 mg/L		0.0085960	0.502150 mg/L	0.0085960	1.71%
	QC value within limits for Se	196.026	Recovery = 100.43%				
Sn 189.927†	2117.8	0.513178 mg/L		0.0031972	0.513178 mg/L	0.0031972	0.62%
	QC value within limits for Sn	189.927	Recovery = 102.64%				
Ti 334.940†	230870.2	0.515191 mg/L		0.0101157	0.515191 mg/L	0.0101157	1.96%
	QC value within limits for Ti	334.940	Recovery = 103.04%				
Tl 190.801†	649.5	0.536177 mg/L		0.0132664	0.536177 mg/L	0.0132664	2.47%
	QC value within limits for Tl	190.801	Recovery = 107.24%				
V 290.880†	58732.6	0.509807 mg/L		0.0104864	0.509807 mg/L	0.0104864	2.06%
	QC value within limits for V	290.880	Recovery = 101.96%				
Zn 206.200†	21042.5	0.518129 mg/L		0.0112370	0.518129 mg/L	0.0112370	2.17%
	QC value within limits for Zn	206.200	Recovery = 103.63%				

All analyte(s) passed QC.

Sequence No.: 32  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/19/2011 9:13:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	621976.6	99.5 %		0.71			0.71%
Y 371.029	233605.0	99.7 %		0.59			0.60%
Ag 328.068†	39.5	0.0005400 mg/L		0.00043799	0.0005400 mg/L	0.00043799	81.11%
QC value within limits for Ag 328.068		Recovery = Not calculated					
Al 308.215†	128.1	-0.0013042 mg/L		0.00103074	-0.0013042 mg/L	0.00103074	79.03%
QC value within limits for Al 308.215		Recovery = Not calculated					
As 188.979†	0.1	0.0030981 mg/L		0.00070453	0.0030981 mg/L	0.00070453	22.74%
QC value within limits for As 188.979		Recovery = Not calculated					
Ba 233.527†	14.4	0.0008043 mg/L		0.00004282	0.0008043 mg/L	0.00004282	5.32%
QC value within limits for Ba 233.527		Recovery = Not calculated					
Be 313.107†	22.6	-0.0000121 mg/L		0.00000137	-0.0000121 mg/L	0.00000137	11.40%
QC value within limits for Be 313.107		Recovery = Not calculated					
Ca 317.933†	255.5	0.0130259 mg/L		0.00201822	0.0130259 mg/L	0.00201822	15.49%
QC value within limits for Ca 317.933		Recovery = Not calculated					
Cd 228.802†	6.9	0.0006821 mg/L		0.00015165	0.0006821 mg/L	0.00015165	22.23%
QC value within limits for Cd 228.802		Recovery = Not calculated					
Co 228.616†	2.1	-0.0001252 mg/L		0.00009474	-0.0001252 mg/L	0.00009474	75.67%
QC value within limits for Co 228.616		Recovery = Not calculated					
Cr 267.716†	-11.9	0.0009683 mg/L		0.00012747	0.0009683 mg/L	0.00012747	13.16%
QC value within limits for Cr 267.716		Recovery = Not calculated					
Cu 327.393†	59.3	0.0017961 mg/L		0.00022668	0.0017961 mg/L	0.00022668	12.62%
QC value within limits for Cu 327.393		Recovery = Not calculated					
Fe 273.955†	34.9	0.0074256 mg/L		0.00159084	0.0074256 mg/L	0.00159084	21.42%
QC value within limits for Fe 273.955		Recovery = Not calculated					
K 404.721†	-86.9	-0.232345 mg/L		0.7395803	-0.232345 mg/L	0.7395803	318.31%
Mg 279.077†	75.4	-0.216658 mg/L		0.0008300	-0.216658 mg/L	0.0008300	0.38%
QC value within limits for Mg 279.077		Recovery = Not calculated					
Mn 257.610†	41.8	0.0000684 mg/L		0.00005093	0.0000684 mg/L	0.00005093	74.43%
QC value within limits for Mn 257.610		Recovery = Not calculated					
Mo 202.031†	-7.4	0.0007054 mg/L		0.00029810	0.0007054 mg/L	0.00029810	42.26%
QC value within limits for Mo 202.031		Recovery = Not calculated					
Na 330.237†	55.9	0.667363 mg/L		0.1959334	0.667363 mg/L	0.1959334	29.36%
QC value within limits for Na 330.237		Recovery = Not calculated					
Ni 231.604†	1.4	0.0006811 mg/L		0.00005029	0.0006811 mg/L	0.00005029	7.38%
QC value within limits for Ni 231.604		Recovery = Not calculated					
Pb 220.353†	12.2	0.0032283 mg/L		0.00206230	0.0032283 mg/L	0.00206230	63.88%
QC value within limits for Pb 220.353		Recovery = Not calculated					
Sb 206.836†	1.7	0.0010370 mg/L		0.00158771	0.0010370 mg/L	0.00158771	153.11%
QC value within limits for Sb 206.836		Recovery = Not calculated					
Se 196.026†	-4.5	-0.0018451 mg/L		0.00039363	-0.0018451 mg/L	0.00039363	21.33%
QC value within limits for Se 196.026		Recovery = Not calculated					
Sn 189.927†	1.6	0.0005546 mg/L		0.00000850	0.0005546 mg/L	0.00000850	1.53%
QC value within limits for Sn 189.927		Recovery = Not calculated					
Ti 334.940†	-62.2	0.0011137 mg/L		0.00004274	0.0011137 mg/L	0.00004274	3.84%
QC value within limits for Ti 334.940		Recovery = Not calculated					
Tl 190.801†	3.7	0.0038088 mg/L		0.00012480	0.0038088 mg/L	0.00012480	3.28%
QC value within limits for Tl 190.801		Recovery = Not calculated					
V 290.880†	53.3	0.0009133 mg/L		0.00022279	0.0009133 mg/L	0.00022279	24.39%
QC value within limits for V 290.880		Recovery = Not calculated					
Zn 206.200†	22.8	0.0014002 mg/L		0.00016521	0.0014002 mg/L	0.00016521	11.80%
QC value within limits for Zn 206.200		Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 33  
 Sample ID: 63230-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 114  
 Date Collected: 12/19/2011 9:17:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63230-003

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD	
Sc 361.383	625292.4	100	%	1.1			1.13%	
Y 371.029	310985.5	133	%	1.5			1.11%	
Ag 328.068†	-3388.3	-0.0069715	mg/L	0.00015676	-0.0069715	mg/L	0.00015676	2.25%
Al 308.215†	2785412.3	129.675	mg/L	0.8848	129.675	mg/L	0.8848	0.68%
As 188.979†	100.1	0.0912118	mg/L	0.00019724	0.0912118	mg/L	0.00019724	0.22%
Ba 233.527†	117819.4	0.918511	mg/L	0.0028223	0.918511	mg/L	0.0028223	0.31%
Be 313.107†	12925.5	0.0055204	mg/L	0.00002893	0.0055204	mg/L	0.00002893	0.52%
Ca 317.933†	979258.5	19.3410	mg/L	0.21432	19.3410	mg/L	0.21432	1.11%
Cd 228.802†	336.9	0.0106379	mg/L	0.00005990	0.0106379	mg/L	0.00005990	0.56%
Co 228.616†	3319.9	0.0781928	mg/L	0.00020890	0.0781928	mg/L	0.00020890	0.27%
Cr 267.716†	6549.4	0.183441	mg/L	0.0010238	0.183441	mg/L	0.0010238	0.56%
Cu 327.393†	23510.2	0.279239	mg/L	0.0003322	0.279239	mg/L	0.0003322	0.12%
Fe 273.955†	4663867.5	178.851	mg/L	1.5832	178.851	mg/L	1.5832	0.89%
K 404.721†	1092.8	25.1522	mg/L	6.18136	25.1522	mg/L	6.18136	24.58%
Mg 279.077†	390028.5	37.4844	mg/L	0.03099	37.4844	mg/L	0.03099	0.08%
Mn 257.610†	1166013.6	2.59430	mg/L	0.022502	2.59430	mg/L	0.022502	0.87%
Mo 202.031†	69.6	0.0066839	mg/L	0.00069112	0.0066839	mg/L	0.00069112	10.34%
Na 330.237†	6413.1	10.2825	mg/L	0.15286	10.2825	mg/L	0.15286	1.49%
Ni 231.604†	4571.5	0.143759	mg/L	0.0010570	0.143759	mg/L	0.0010570	0.74%
Pb 220.353†	4053.6	0.733266	mg/L	0.0005365	0.733266	mg/L	0.0005365	0.07%
Sb 206.836†	-5.6	0.0110120	mg/L	0.00103048	0.0110120	mg/L	0.00103048	9.36%
Se 196.026†	-36.6	0.0022275	mg/L	0.00002531	0.0022275	mg/L	0.00002531	1.14%
Sn 189.927†	186.9	0.0684499	mg/L	0.00042252	0.0684499	mg/L	0.00042252	0.62%
Ti 334.940†	3594283.0	8.00435	mg/L	0.068339	8.00435	mg/L	0.068339	0.85%
Tl 190.801†	-54.7	-0.0066776	mg/L	0.00076159	-0.0066776	mg/L	0.00076159	11.41%
V 290.880†	34266.0	0.286975	mg/L	0.0005067	0.286975	mg/L	0.0005067	0.18%
Zn 206.200†	87727.9	2.16052	mg/L	0.001677	2.16052	mg/L	0.001677	0.08%

Sequence No.: 34  
 Sample ID: 63230-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 115  
 Date Collected: 12/19/2011 9:20:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63230-004

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	629154.3		101 %	1.1			1.09%	
Y 371.029	282274.8		120 %	1.3			1.04%	
Ag 328.068†	-4322.9	-0.0092452	mg/L	0.00035126	-0.0092452	mg/L	0.00035126	3.80%
Al 308.215†	3301250.0	153.691	mg/L	0.3508	153.691	mg/L	0.3508	0.23%
As 188.979†	4.3	0.0185029	mg/L	0.00434331	0.0185029	mg/L	0.00434331	23.47%
Ba 233.527†	181595.0	1.41533	mg/L	0.002758	1.41533	mg/L	0.002758	0.19%
Be 313.107†	13305.6	0.0056833	mg/L	0.00005997	0.0056833	mg/L	0.00005997	1.06%
Ca 317.933†	807781.2	15.9556	mg/L	0.13784	15.9556	mg/L	0.13784	0.86%
Cd 228.802†	58.1	0.0024535	mg/L	0.00006576	0.0024535	mg/L	0.00006576	2.68%
Co 228.616†	4520.4	0.0987227	mg/L	0.00066684	0.0987227	mg/L	0.00066684	0.68%
Cr 267.716†	9479.9	0.264938	mg/L	0.0003676	0.264938	mg/L	0.0003676	0.14%
Cu 327.393†	20677.1	0.266229	mg/L	0.0013924	0.266229	mg/L	0.0013924	0.52%
Fe 273.955†	5930525.0	227.423	mg/L	1.6432	227.423	mg/L	1.6432	0.72%
K 404.721†	2910.0	64.2534	mg/L	6.15639	64.2534	mg/L	6.15639	9.58%
Mg 279.077†	604593.3	58.2288	mg/L	0.00190	58.2288	mg/L	0.00190	0.00%
Mn 257.610†	1996904.2	4.44311	mg/L	0.006551	4.44311	mg/L	0.006551	0.15%
Mo 202.031†	124.0	0.0102757	mg/L	0.00029289	0.0102757	mg/L	0.00029289	2.85%
Na 330.237†	-1806.8	-2.14987	mg/L	0.077505	-2.14987	mg/L	0.077505	3.61%
Ni 231.604†	5568.1	0.174968	mg/L	0.0013235	0.174968	mg/L	0.0013235	0.76%
Pb 220.353†	960.9	0.0834372	mg/L	0.00085320	0.0834372	mg/L	0.00085320	1.02%
Sb 206.836†	-26.4	0.0096042	mg/L	0.00107496	0.0096042	mg/L	0.00107496	11.19%
Se 196.026†	-45.0	0.0013845	mg/L	0.00210803	0.0013845	mg/L	0.00210803	152.26%
Sn 189.927†	-20.0	0.0272227	mg/L	0.00081196	0.0272227	mg/L	0.00081196	2.98%
Ti 334.940†	6418841.0	14.2936	mg/L	0.08081	14.2936	mg/L	0.08081	0.57%
Tl 190.801†	-80.8	0.0009641	mg/L	0.00197855	0.0009641	mg/L	0.00197855	205.23%
V 290.880†	48035.5	0.402407	mg/L	0.0003042	0.402407	mg/L	0.0003042	0.08%
Zn 206.200†	24297.5	0.597720	mg/L	0.0022509	0.597720	mg/L	0.0022509	0.38%

Sequence No.: 35  
 Sample ID: 63230-005  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 116  
 Date Collected: 12/19/2011 9:24:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-005

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	645117.2	103	%	0.5			0.53%
Y 371.029	255227.2	109	%	0.6			0.53%
Ag 328.068†	-5081.6	-0.0110851	mg/L	0.00030894	-0.0110851	0.00030894	2.79%
Al 308.215†	4413987.1	205.498	mg/L	2.2841	205.498	2.2841	1.11%
As 188.979†	-2.9	0.0134406	mg/L	0.00215681	0.0134406	0.00215681	16.05%
Ba 233.527†	211999.2	1.65218	mg/L	0.024514	1.65218	0.024514	1.48%
Be 313.107†	14519.1	0.0062036	mg/L	0.00007582	0.0062036	0.00007582	1.22%
Ca 317.933†	2288788.0	45.1943	mg/L	0.05001	45.1943	0.05001	0.11%
Cd 228.802†	48.6	0.0021355	mg/L	0.00043539	0.0021355	0.00043539	20.39%
Co 228.616†	3751.4	0.0672650	mg/L	0.00037594	0.0672650	0.00037594	0.56%
Cr 267.716†	14988.0	0.418121	mg/L	0.0000930	0.418121	0.0000930	0.02%
Cu 327.393†	26526.4	0.340355	mg/L	0.0044990	0.340355	0.0044990	1.32%
Fe 273.955†	6821045.4	261.572	mg/L	2.8488	261.572	2.8488	1.09%
K 404.721†	5136.3	112.159	mg/L	2.3158	112.159	2.3158	2.06%
Mg 279.077†	867294.6	83.6270	mg/L	1.21845	83.6270	1.21845	1.46%
Mn 257.610†	1749535.6	3.89214	mg/L	0.056066	3.89214	0.056066	1.44%
Mo 202.031†	172.4	0.0137693	mg/L	0.00057063	0.0137693	0.00057063	4.14%
Na 330.237†	-3148.1	-4.17849	mg/L	0.067463	-4.17849	0.067463	1.61%
Ni 231.604†	4766.4	0.149882	mg/L	0.0010414	0.149882	0.0010414	0.69%
Pb 220.353†	1156.8	0.0867053	mg/L	0.00391496	0.0867053	0.00391496	4.52%
Sb 206.836†	-35.8	0.0104330	mg/L	0.00350990	0.0104330	0.00350990	33.64%
Se 196.026†	-66.6	-0.0129404	mg/L	0.00401571	-0.0129404	0.00401571	31.03%
Sn 189.927†	286.4	0.107212	mg/L	0.0013548	0.107212	0.0013548	1.26%
Ti 334.940†	8170734.2	18.1944	mg/L	0.26452	18.1944	0.26452	1.45%
Tl 190.801†	-104.8	0.0000779	mg/L	0.00466645	0.0000779	0.00466645	>999.9%
V 290.880†	67031.6	0.563912	mg/L	0.0094259	0.563912	0.0094259	1.67%
Zn 206.200†	27688.0	0.680608	mg/L	0.0004857	0.680608	0.0004857	0.07%

Sequence No.: 36  
 Sample ID: 63230-006  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 117  
 Date Collected: 12/19/2011 9:28:04 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-006

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	623499.4	99.8	%	0.15			0.15%
Y 371.029	280626.5	120	%	0.2			0.14%
Ag 328.068†	-3956.1	-0.0080404	mg/L	0.00079854	-0.0080404 mg/L	0.00079854	9.93%
Al 308.215†	3211223.2	149.500	mg/L	0.3475	149.500 mg/L	0.3475	0.23%
As 188.979†	21.3	0.0308569	mg/L	0.00081738	0.0308569 mg/L	0.00081738	2.65%
Ba 233.527†	143279.4	1.11685	mg/L	0.001650	1.11685 mg/L	0.001650	0.15%
Be 313.107†	13512.1	0.0057719	mg/L	0.00000056	0.0057719 mg/L	0.00000056	0.01%
Ca 317.933†	998170.1	19.7143	mg/L	0.29128	19.7143 mg/L	0.29128	1.48%
Cd 228.802†	79.0	0.0031246	mg/L	0.00017221	0.0031246 mg/L	0.00017221	5.51%
Co 228.616†	3996.3	0.0875096	mg/L	0.00009510	0.0875096 mg/L	0.00009510	0.11%
Cr 267.716†	9024.6	0.252276	mg/L	0.0009218	0.252276 mg/L	0.0009218	0.37%
Cu 327.393†	19873.3	0.252822	mg/L	0.0001051	0.252822 mg/L	0.0001051	0.04%
Fe 273.955†	5481817.9	210.217	mg/L	0.4334	210.217 mg/L	0.4334	0.21%
K 404.721†	1974.3	44.1200	mg/L	0.03706	44.1200 mg/L	0.03706	0.08%
Mg 279.077†	621297.8	59.8437	mg/L	0.13423	59.8437 mg/L	0.13423	0.22%
Mn 257.610†	1495197.3	3.32652	mg/L	0.008933	3.32652 mg/L	0.008933	0.27%
Mo 202.031†	96.8	0.0083235	mg/L	0.00105464	0.0083235 mg/L	0.00105464	12.67%
Na 330.237†	-2994.2	-3.94579	mg/L	0.092673	-3.94579 mg/L	0.092673	2.35%
Ni 231.604†	6727.9	0.211269	mg/L	0.0005854	0.211269 mg/L	0.0005854	0.28%
Pb 220.353†	1536.4	0.204498	mg/L	0.0003203	0.204498 mg/L	0.0003203	0.16%
Sb 206.836†	-30.6	0.0031255	mg/L	0.00323316	0.0031255 mg/L	0.00323316	103.44%
Se 196.026†	-39.6	0.0053596	mg/L	0.00930147	0.0053596 mg/L	0.00930147	173.55%
Sn 189.927†	-7.2	0.0274754	mg/L	0.00043969	0.0274754 mg/L	0.00043969	1.60%
Ti 334.940†	5623656.4	12.5230	mg/L	0.04037	12.5230 mg/L	0.04037	0.32%
Tl 190.801†	-77.0	-0.0038460	mg/L	0.00247224	-0.0038460 mg/L	0.00247224	64.28%
V 290.880†	44862.3	0.375054	mg/L	0.0009276	0.375054 mg/L	0.0009276	0.25%
Zn 206.200†	25722.8	0.632751	mg/L	0.0006465	0.632751 mg/L	0.0006465	0.10%

Sequence No.: 37  
 Sample ID: 63230-007  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 118  
 Date Collected: 12/19/2011 9:31:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63230-007

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	641952.0	103 %		1.9			1.86%
Y 371.029	299193.9	128 %		2.0			1.53%
Ag 328.068†	-2965.3	-0.0062469 mg/L		0.00086448	-0.0062469 mg/L	0.00086448	13.84%
Al 308.215†	1899807.3	88.4434 mg/L		0.20742	88.4434 mg/L	0.20742	0.23%
As 188.979†	73.6	0.0702800 mg/L		0.00256493	0.0702800 mg/L	0.00256493	3.65%
Ba 233.527†	97192.9	0.757830 mg/L		0.0050467	0.757830 mg/L	0.0050467	0.67%
Be 313.107†	9427.6	0.0040205 mg/L		0.00009807	0.0040205 mg/L	0.00009807	2.44%
Ca 317.933†	618379.5	12.2163 mg/L		0.08920	12.2163 mg/L	0.08920	0.73%
Cd 228.802†	98.1	0.0036135 mg/L		0.00015075	0.0036135 mg/L	0.00015075	4.17%
Co 228.616†	3271.9	0.0760053 mg/L		0.00160374	0.0760053 mg/L	0.00160374	2.11%
Cr 267.716†	5376.1	0.150810 mg/L		0.0010083	0.150810 mg/L	0.0010083	0.67%
Cu 327.393†	30086.4	0.348481 mg/L		0.0032538	0.348481 mg/L	0.0032538	0.93%
Fe 273.955†	4070837.6	156.110 mg/L		0.4731	156.110 mg/L	0.4731	0.30%
K 404.721†	1716.3	38.5691 mg/L		4.21567	38.5691 mg/L	4.21567	10.93%
Mg 279.077†	360791.2	34.6577 mg/L		0.18626	34.6577 mg/L	0.18626	0.54%
Mn 257.610†	763727.3	1.69906 mg/L		0.004039	1.69906 mg/L	0.004039	0.24%
Mo 202.031†	67.4	0.0061747 mg/L		0.00061713	0.0061747 mg/L	0.00061713	9.99%
Na 330.237†	-2949.1	-3.87755 mg/L		0.197739	-3.87755 mg/L	0.197739	5.10%
Ni 231.604†	5102.2	0.160371 mg/L		0.0019389	0.160371 mg/L	0.0019389	1.21%
Pb 220.353†	1104.7	0.159738 mg/L		0.0049161	0.159738 mg/L	0.0049161	3.08%
Sb 206.836†	-16.5	0.0050845 mg/L		0.00242307	0.0050845 mg/L	0.00242307	47.66%
Se 196.026†	-34.4	-0.0004843 mg/L		0.00388554	-0.0004843 mg/L	0.00388554	802.37%
Sn 189.927†	33.3	0.0292102 mg/L		0.00126353	0.0292102 mg/L	0.00126353	4.33%
Ti 334.940†	3750068.5	8.35124 mg/L		0.005735	8.35124 mg/L	0.005735	0.07%
Tl 190.801†	-51.1	-0.0019755 mg/L		0.00336992	-0.0019755 mg/L	0.00336992	170.59%
V 290.880†	31788.7	0.266792 mg/L		0.0018433	0.266792 mg/L	0.0018433	0.69%
Zn 206.200†	18873.0	0.464732 mg/L		0.0035609	0.464732 mg/L	0.0035609	0.77%

Sequence No.: 38  
 Sample ID: 63230-008  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 119  
 Date Collected: 12/19/2011 9:35:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-008

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	628739.0	101 %		0.3				0.28%
Y 371.029	257657.6	110 %		0.3				0.31%
Ag 328.068†	-3750.4	-0.0064183 mg/L		0.00102051	-0.0064183 mg/L	0.00102051		15.90%
Al 308.215†	2595805.6	120.847 mg/L		0.2427	120.847 mg/L	0.2427		0.20%
As 188.979†	-1.7	0.0137790 mg/L		0.00170037	0.0137790 mg/L	0.00170037		12.34%
Ba 233.527†	123739.7	0.964630 mg/L		0.0021254	0.964630 mg/L	0.0021254		0.22%
Be 313.107†	11570.1	0.0049392 mg/L		0.00002542	0.0049392 mg/L	0.00002542		0.51%
Ca 317.933†	659583.8	13.0298 mg/L		0.18042	13.0298 mg/L	0.18042		1.38%
Cd 228.802†	60.0	0.0025591 mg/L		0.00060512	0.0025591 mg/L	0.00060512		23.65%
Co 228.616†	4741.5	0.107617 mg/L		0.0013518	0.107617 mg/L	0.0013518		1.26%
Cr 267.716†	6984.4	0.195542 mg/L		0.0016269	0.195542 mg/L	0.0016269		0.83%
Cu 327.393†	36742.3	0.433312 mg/L		0.0012095	0.433312 mg/L	0.0012095		0.28%
Fe 273.955†	5446604.7	208.866 mg/L		1.7250	208.866 mg/L	1.7250		0.83%
K 404.721†	2753.5	60.8856 mg/L		4.29482	60.8856 mg/L	4.29482		7.05%
Mg 279.077†	627940.6	60.4860 mg/L		0.02256	60.4860 mg/L	0.02256		0.04%
Mn 257.610†	1218577.0	2.71089 mg/L		0.000045	2.71089 mg/L	0.000045		0.00%
Mo 202.031†	148.4	0.0120224 mg/L		0.00046038	0.0120224 mg/L	0.00046038		3.83%
Na 330.237†	-1528.7	-1.72921 mg/L		0.149838	-1.72921 mg/L	0.149838		8.67%
Ni 231.604†	6612.3	0.207661 mg/L		0.0010341	0.207661 mg/L	0.0010341		0.50%
Pb 220.353†	969.9	0.107680 mg/L		0.0007663	0.107680 mg/L	0.0007663		0.71%
Sb 206.836†	-27.7	0.0070511 mg/L		0.00103298	0.0070511 mg/L	0.00103298		14.65%
Se 196.026†	-41.9	0.0024077 mg/L		0.00125855	0.0024077 mg/L	0.00125855		52.27%
Sn 189.927†	-9.8	0.0271629 mg/L		0.00009627	0.0271629 mg/L	0.00009627		0.35%
Ti 334.940†	5947284.0	13.2436 mg/L		0.05920	13.2436 mg/L	0.05920		0.45%
Tl 190.801†	-74.6	0.0015624 mg/L		0.00223859	0.0015624 mg/L	0.00223859		143.28%
V 290.880†	45764.7	0.382978 mg/L		0.0001589	0.382978 mg/L	0.0001589		0.04%
Zn 206.200†	22547.6	0.554444 mg/L		0.0048099	0.554444 mg/L	0.0048099		0.87%

Sequence No.: 39

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/19/2011 9:38:56 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	595937.9	95.4 %	2.84			2.98%
Y 371.029	221189.2	94.4 %	0.87			0.93%
Ag 328.068†	10572.0	0.102931 mg/L	0.0017358	0.102931 mg/L	0.0017358	1.69%
	QC value within limits for Ag	328.068	Recovery = 102.93%			
Al 308.215†	111877.7	5.18837 mg/L	0.104964	5.18837 mg/L	0.104964	2.02%
	QC value within limits for Al	308.215	Recovery = 103.77%			
As 188.979†	644.2	0.511002 mg/L	0.0098864	0.511002 mg/L	0.0098864	1.93%
	QC value within limits for As	188.979	Recovery = 102.20%			
Ba 233.527†	66809.6	0.521142 mg/L	0.0094686	0.521142 mg/L	0.0094686	1.82%
	QC value within limits for Ba	233.527	Recovery = 104.23%			
Be 313.107†	1180089.9	0.505968 mg/L	0.0020275	0.505968 mg/L	0.0020275	0.40%
	QC value within limits for Be	313.107	Recovery = 101.19%			
Ca 317.933†	2545110.3	50.2547 mg/L	1.22198	50.2547 mg/L	1.22198	2.43%
	QC value within limits for Ca	317.933	Recovery = 100.51%			
Cd 228.802†	17434.8	0.515925 mg/L	0.0094079	0.515925 mg/L	0.0094079	1.82%
	QC value within limits for Cd	228.802	Recovery = 103.18%			
Co 228.616†	18031.8	0.525282 mg/L	0.0102432	0.525282 mg/L	0.0102432	1.95%
	QC value within limits for Co	228.616	Recovery = 105.06%			
Cr 267.716†	18282.7	0.510269 mg/L	0.0073904	0.510269 mg/L	0.0073904	1.45%
	QC value within limits for Cr	267.716	Recovery = 102.05%			
Cu 327.393†	48666.2	0.521353 mg/L	0.0112214	0.521353 mg/L	0.0112214	2.15%
	QC value within limits for Cu	327.393	Recovery = 104.27%			
Fe 273.955†	133375.4	5.12062 mg/L	0.084002	5.12062 mg/L	0.084002	1.64%
	QC value within limits for Fe	273.955	Recovery = 102.41%			
K 404.721†	2372.8	52.6951 mg/L	8.37670	52.6951 mg/L	8.37670	15.90%
Mg 279.077†	532544.1	51.2735 mg/L	0.38367	51.2735 mg/L	0.38367	0.75%
	QC value within limits for Mg	279.077	Recovery = 102.55%			
Mn 257.610†	230370.2	0.511968 mg/L	0.0098853	0.511968 mg/L	0.0098853	1.93%
	QC value within limits for Mn	257.610	Recovery = 102.39%			
Mo 202.031†	7096.3	0.511636 mg/L	0.0137406	0.511636 mg/L	0.0137406	2.69%
	QC value within limits for Mo	202.031	Recovery = 102.33%			
Na 330.237†	32540.8	49.7999 mg/L	0.80304	49.7999 mg/L	0.80304	1.61%
	QC value within limits for Na	330.237	Recovery = 99.60%			
Ni 231.604†	16484.7	0.518093 mg/L	0.0122944	0.518093 mg/L	0.0122944	2.37%
	QC value within limits for Ni	231.604	Recovery = 103.62%			
Pb 220.353†	2492.6	0.505209 mg/L	0.0119269	0.505209 mg/L	0.0119269	2.36%
	QC value within limits for Pb	220.353	Recovery = 101.04%			
Sb 206.836†	756.3	0.515738 mg/L	0.0157205	0.515738 mg/L	0.0157205	3.05%
	QC value within limits for Sb	206.836	Recovery = 103.15%			
Se 196.026†	427.3	0.510032 mg/L	0.0080794	0.510032 mg/L	0.0080794	1.58%
	QC value within limits for Se	196.026	Recovery = 102.01%			
Sn 189.927†	2141.0	0.518794 mg/L	0.0155287	0.518794 mg/L	0.0155287	2.99%
	QC value within limits for Sn	189.927	Recovery = 103.76%			
Ti 334.940†	230552.4	0.514483 mg/L	0.0098327	0.514483 mg/L	0.0098327	1.91%
	QC value within limits for Ti	334.940	Recovery = 102.90%			
Tl 190.801†	658.8	0.543762 mg/L	0.0185986	0.543762 mg/L	0.0185986	3.42%
	QC value within limits for Tl	190.801	Recovery = 108.75%			
V 290.880†	58417.8	0.507099 mg/L	0.0109350	0.507099 mg/L	0.0109350	2.16%
	QC value within limits for V	290.880	Recovery = 101.42%			
Zn 206.200†	21022.2	0.517643 mg/L	0.0089834	0.517643 mg/L	0.0089834	1.74%
	QC value within limits for Zn	206.200	Recovery = 103.53%			

All analyte(s) passed QC.

Sequence No.: 40

Autosampler Location: 2

Sample ID: CCB V-129815

Date Collected: 12/19/2011 9:42:26 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	633236.9	101 %		0.0			0.01%
Y 371.029	237698.8	101 %		0.0			0.03%
Ag 328.068†	47.0	0.0006122 mg/L		0.00024633	0.0006122 mg/L	0.00024633	40.24%
QC value within limits for Ag		328.068	Recovery = Not calculated				
Al 308.215†	6.0	-0.0070136 mg/L		0.00041744	-0.0070136 mg/L	0.00041744	5.95%
QC value within limits for Al		308.215	Recovery = Not calculated				
As 188.979†	-1.5	0.0018846 mg/L		0.00397094	0.0018846 mg/L	0.00397094	210.71%
QC value within limits for As		188.979	Recovery = Not calculated				
Ba 233.527†	5.5	0.0007351 mg/L		0.00007854	0.0007351 mg/L	0.00007854	10.68%
QC value within limits for Ba		233.527	Recovery = Not calculated				
Be 313.107†	-28.2	-0.0000339 mg/L		0.00000369	-0.0000339 mg/L	0.00000369	10.90%
QC value within limits for Be		313.107	Recovery = Not calculated				
Ca 317.933†	67.6	0.0093161 mg/L		0.00026594	0.0093161 mg/L	0.00026594	2.85%
QC value within limits for Ca		317.933	Recovery = Not calculated				
Cd 228.802†	12.0	0.0008336 mg/L		0.00035896	0.0008336 mg/L	0.00035896	43.06%
QC value within limits for Cd		228.802	Recovery = Not calculated				
Co 228.616†	-4.8	-0.0003257 mg/L		0.00013140	-0.0003257 mg/L	0.00013140	40.35%
QC value within limits for Co		228.616	Recovery = Not calculated				
Cr 267.716†	-6.4	0.0011222 mg/L		0.00018765	0.0011222 mg/L	0.00018765	16.72%
QC value within limits for Cr		267.716	Recovery = Not calculated				
Cu 327.393†	46.7	0.0016637 mg/L		0.00047408	0.0016637 mg/L	0.00047408	28.50%
QC value within limits for Cu		327.393	Recovery = Not calculated				
Fe 273.955†	94.5	0.0097121 mg/L		0.00067054	0.0097121 mg/L	0.00067054	6.90%
QC value within limits for Fe		273.955	Recovery = Not calculated				
K 404.721†	387.0	9.96471 mg/L		3.924186	9.96471 mg/L	3.924186	39.38%
Mg 279.077†	26.2	-0.221402 mg/L		0.0001643	-0.221402 mg/L	0.0001643	0.07%
QC value within limits for Mg		279.077	Recovery = Not calculated				
Mn 257.610†	43.4	0.0000725 mg/L		0.00005309	0.0000725 mg/L	0.00005309	73.21%
QC value within limits for Mn		257.610	Recovery = Not calculated				
Mo 202.031†	6.3	0.0016877 mg/L		0.00181476	0.0016877 mg/L	0.00181476	107.53%
QC value within limits for Mo		202.031	Recovery = Not calculated				
Na 330.237†	209.7	0.899948 mg/L		0.0046315	0.899948 mg/L	0.0046315	0.51%
QC value within limits for Na		330.237	Recovery = Not calculated				
Ni 231.604†	-25.6	-0.0001608 mg/L		0.00006477	-0.0001608 mg/L	0.00006477	40.27%
QC value within limits for Ni		231.604	Recovery = Not calculated				
Pb 220.353†	9.5	0.0026867 mg/L		0.00163883	0.0026867 mg/L	0.00163883	61.00%
QC value within limits for Pb		220.353	Recovery = Not calculated				
Sb 206.836†	-0.1	-0.0001617 mg/L		0.00110567	-0.0001617 mg/L	0.00110567	683.87%
QC value within limits for Sb		206.836	Recovery = Not calculated				
Se 196.026†	-2.1	0.0009715 mg/L		0.00027166	0.0009715 mg/L	0.00027166	27.96%
QC value within limits for Se		196.026	Recovery = Not calculated				
Sn 189.927†	-4.1	-0.0008361 mg/L		0.00017194	-0.0008361 mg/L	0.00017194	20.56%
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940†	102.9	0.0014812 mg/L		0.00010776	0.0014812 mg/L	0.00010776	7.28%
QC value within limits for Ti		334.940	Recovery = Not calculated				
Tl 190.801†	2.8	0.0030657 mg/L		0.00018208	0.0030657 mg/L	0.00018208	5.94%
QC value within limits for Tl		190.801	Recovery = Not calculated				
V 290.880†	10.6	0.0005387 mg/L		0.00084026	0.0005387 mg/L	0.00084026	155.97%
QC value within limits for V		290.880	Recovery = Not calculated				
Zn 206.200†	24.9	0.0014532 mg/L		0.00054413	0.0014532 mg/L	0.00054413	37.44%
QC value within limits for Zn		206.200	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 41

Autosampler Location: 120

Sample ID: 63230-009

Date Collected: 12/19/2011 9:45:46 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63230-009

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	630192.8	101 %		0.2			0.23%
Y 371.029	268066.3	114 %		0.7			0.61%
Ag 328.068†	-2268.0	-0.0046727 mg/L		0.00056927	-0.0046727 mg/L	0.00056927	12.18%
Al 308.215†	2110293.7	98.2432 mg/L		0.19871	98.2432 mg/L	0.19871	0.20%
As 188.979†	18.5	0.0231812 mg/L		0.00001826	0.0231812 mg/L	0.00001826	0.08%
Ba 233.527†	52518.3	0.409812 mg/L		0.0033899	0.409812 mg/L	0.0033899	0.83%
Be 313.107†	9203.4	0.0039244 mg/L		0.00002464	0.0039244 mg/L	0.00002464	0.63%
Ca 317.933†	488756.5	9.65724 mg/L		0.008837	9.65724 mg/L	0.008837	0.09%
Cd 228.802†	33.9	0.0016097 mg/L		0.00016325	0.0016097 mg/L	0.00016325	10.14%
Co 228.616†	2303.0	0.0518913 mg/L		0.00137231	0.0518913 mg/L	0.00137231	2.64%
Cr 267.716†	3860.9	0.108672 mg/L		0.0008477	0.108672 mg/L	0.0008477	0.78%
Cu 327.393†	18679.2	0.221230 mg/L		0.0016400	0.221230 mg/L	0.0016400	0.74%
Fe 273.955†	3124866.1	119.835 mg/L		0.2189	119.835 mg/L	0.2189	0.18%
K 404.721†	830.0	19.4969 mg/L		1.87843	19.4969 mg/L	1.87843	9.63%
Mg 279.077†	266857.6	25.5761 mg/L		0.20099	25.5761 mg/L	0.20099	0.79%
Mn 257.610†	720970.6	1.60406 mg/L		0.002493	1.60406 mg/L	0.002493	0.16%
Mo 202.031†	42.6	0.0043656 mg/L		0.00073313	0.0043656 mg/L	0.00073313	16.79%
Na 330.237†	1594.3	2.99411 mg/L		0.025575	2.99411 mg/L	0.025575	0.85%
Ni 231.604†	2766.9	0.0872631 mg/L		0.00131105	0.0872631 mg/L	0.00131105	1.50%
Pb 220.353†	1165.1	0.167499 mg/L		0.0055044	0.167499 mg/L	0.0055044	3.29%
Sb 206.836†	-13.2	0.0030801 mg/L		0.00348269	0.0030801 mg/L	0.00348269	113.07%
Se 196.026†	-25.6	0.0016324 mg/L		0.00171587	0.0016324 mg/L	0.00171587	105.11%
Sn 189.927†	29.7	0.0235571 mg/L		0.00073220	0.0235571 mg/L	0.00073220	3.11%
Ti 334.940†	2942510.9	6.55311 mg/L		0.012277	6.55311 mg/L	0.012277	0.19%
Tl 190.801†	-43.0	-0.0037269 mg/L		0.00121625	-0.0037269 mg/L	0.00121625	32.63%
V 290.880†	22683.7	0.189910 mg/L		0.0006567	0.189910 mg/L	0.0006567	0.35%
Zn 206.200†	13372.4	0.329496 mg/L		0.0041884	0.329496 mg/L	0.0041884	1.27%

Sequence No.: 42  
 Sample ID: 63230-010  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 121  
 Date Collected: 12/19/2011 9:49:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63230-010

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	595314.7	95.3	%	0.14			0.14%
Y 371.029	260763.4	111	%	0.7			0.63%
Ag 328.068†	-2862.6	-0.0045654	mg/L	0.00046599	-0.0045654	0.00046599	10.21%
Al 308.215†	2012840.3	93.7034	mg/L	1.08616	93.7034	1.08616	1.16%
As 188.979†	38.8	0.0441911	mg/L	0.00396339	0.0441911	0.00396339	8.97%
Ba 233.527†	79680.9	0.621410	mg/L	0.0053184	0.621410	0.0053184	0.86%
Be 313.107†	10313.1	0.0044002	mg/L	0.00007448	0.0044002	0.00007448	1.69%
Ca 317.933†	582417.1	11.5063	mg/L	0.13657	11.5063	0.13657	1.19%
Cd 228.802†	219.7	0.0072320	mg/L	0.00051917	0.0072320	0.00051917	7.18%
Co 228.616†	4151.4	0.102773	mg/L	0.0050427	0.102773	0.0050427	4.91%
Cr 267.716†	13890.8	0.387704	mg/L	0.0071507	0.387704	0.0071507	1.84%
Cu 327.393†	16472.8	0.203093	mg/L	0.0008594	0.203093	0.0008594	0.42%
Fe 273.955†	4205979.7	161.292	mg/L	0.1267	161.292	0.1267	0.08%
K 404.721†	-14706.6	-314.819	mg/L	38.2470	-314.819	38.2470	12.15%
Mg 279.077†	389823.4	37.4666	mg/L	1.05208	37.4666	1.05208	2.81%
Mn 257.610†	1230283.1	2.73737	mg/L	0.014159	2.73737	0.014159	0.52%
Mo 202.031†	1424.0	0.103732	mg/L	0.0025123	0.103732	0.0025123	2.42%
Na 330.237†	-2704.9	-3.50823	mg/L	0.698595	-3.50823	0.698595	19.91%
Ni 231.604†	5739.5	0.180594	mg/L	0.0065062	0.180594	0.0065062	3.60%
Pb 220.353†	673.9	0.0689347	mg/L	0.00296084	0.0689347	0.00296084	4.30%
Sb 206.836†	8.8	0.0233558	mg/L	0.00094773	0.0233558	0.00094773	4.06%
Se 196.026†	-38.2	-0.0050801	mg/L	0.00320570	-0.0050801	0.00320570	63.10%
Sn 189.927†	64.8	0.0370769	mg/L	0.00131608	0.0370769	0.00131608	3.55%
Ti 334.940†	3547290.2	7.89967	mg/L	0.096390	7.89967	0.096390	1.22%
Tl 190.801†	-59.5	-0.0114769	mg/L	0.00198689	-0.0114769	0.00198689	17.31%
V 290.880†	30925.8	0.258502	mg/L	0.0048505	0.258502	0.0048505	1.88%
Zn 206.200†	20123.8	0.495793	mg/L	0.0168635	0.495793	0.0168635	3.40%

Sequence No.: 43

Sample ID: 63230-011

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 122

Date Collected: 12/19/2011 9:52:58 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63230-011

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	620760.0	99.3	%	1.24			1.24%
Y 371.029	276562.3	118	%	1.6			1.38%
Ag 328.068†	-2629.7	-0.0039340	mg/L	0.00126869	-0.0039340 mg/L	0.00126869	32.25%
Al 308.215†	2195541.8	102.212	mg/L	4.2495	102.212 mg/L	4.2495	4.16%
As 188.979†	41.3	0.0440039	mg/L	0.00034353	0.0440039 mg/L	0.00034353	0.78%
Ba 233.527†	71035.1	0.554059	mg/L	0.0031130	0.554059 mg/L	0.0031130	0.56%
Be 313.107†	9371.0	0.0039962	mg/L	0.00003637	0.0039962 mg/L	0.00003637	0.91%
Ca 317.933†	600287.7	11.8591	mg/L	0.46547	11.8591 mg/L	0.46547	3.93%
Cd 228.802†	145.0	0.0049686	mg/L	0.00049654	0.0049686 mg/L	0.00049654	9.99%
Co 228.616†	3193.4	0.0765176	mg/L	0.00190647	0.0765176 mg/L	0.00190647	2.49%
Cr 267.716†	5831.6	0.163479	mg/L	0.0040007	0.163479 mg/L	0.0040007	2.45%
Cu 327.393†	14174.6	0.176325	mg/L	0.0014549	0.176325 mg/L	0.0014549	0.83%
Fe 273.955†	3904698.7	149.739	mg/L	6.9719	149.739 mg/L	6.9719	4.66%
K 404.721†	-3454.4	-72.6939	mg/L	19.67410	-72.6939 mg/L	19.67410	27.06%
Mg 279.077†	383378.0	36.8414	mg/L	0.31654	36.8414 mg/L	0.31654	0.86%
Mn 257.610†	1301023.2	2.89478	mg/L	0.127951	2.89478 mg/L	0.127951	4.42%
Mo 202.031†	52.6	0.0051211	mg/L	0.00016482	0.0051211 mg/L	0.00016482	3.22%
Na 330.237†	-252.6	0.200740	mg/L	0.0353567	0.200740 mg/L	0.0353567	17.61%
Ni 231.604†	4474.0	0.140704	mg/L	0.0055053	0.140704 mg/L	0.0055053	3.91%
Pb 220.353†	1973.6	0.328307	mg/L	0.0073236	0.328307 mg/L	0.0073236	2.23%
Sb 206.836†	-6.6	0.0089601	mg/L	0.00407738	0.0089601 mg/L	0.00407738	45.51%
Se 196.026†	-34.3	-0.0033216	mg/L	0.00396503	-0.0033216 mg/L	0.00396503	119.37%
Sn 189.927†	219.3	0.0727845	mg/L	0.00229544	0.0727845 mg/L	0.00229544	3.15%
Ti 334.940†	3202329.1	7.13162	mg/L	0.332693	7.13162 mg/L	0.332693	4.67%
Tl 190.801†	-44.1	-0.0023927	mg/L	0.00551289	-0.0023927 mg/L	0.00551289	230.40%
V 290.880†	30196.8	0.252723	mg/L	0.0016391	0.252723 mg/L	0.0016391	0.65%
Zn 206.200†	20680.8	0.509202	mg/L	0.0156828	0.509202 mg/L	0.0156828	3.08%

Sequence No.: 44  
 Sample ID: 63230-012  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 123  
 Date Collected: 12/19/2011 9:56:34 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-012

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	636486.2	102	%	0.2				0.20%
Y 371.029	260054.0	111	%	0.2				0.17%
Ag 328.068†	-2445.4	-0.0042833	mg/L	0.00015768	-0.0042833	mg/L	0.00015768	3.68%
Al 308.215†	2780998.2	129.469	mg/L	0.1167	129.469	mg/L	0.1167	0.09%
As 188.979†	15.8	0.0210212	mg/L	0.00135830	0.0210212	mg/L	0.00135830	6.46%
Ba 233.527†	333207.7	2.59640	mg/L	0.013629	2.59640	mg/L	0.013629	0.52%
Be 313.107†	7425.5	0.0031621	mg/L	0.00003735	0.0031621	mg/L	0.00003735	1.18%
Ca 317.933†	383867.3	7.58647	mg/L	0.073504	7.58647	mg/L	0.073504	0.97%
Cd 228.802†	68.8	0.0026711	mg/L	0.00052068	0.0026711	mg/L	0.00052068	19.49%
Co 228.616†	1799.5	0.0359913	mg/L	0.00085367	0.0359913	mg/L	0.00085367	2.37%
Cr 267.716†	5157.1	0.144735	mg/L	0.0014558	0.144735	mg/L	0.0014558	1.01%
Cu 327.393†	16183.4	0.196658	mg/L	0.0028833	0.196658	mg/L	0.0028833	1.47%
Fe 273.955†	3526072.1	135.220	mg/L	0.3065	135.220	mg/L	0.3065	0.23%
K 404.721†	141.4	4.67913	mg/L	4.411763	4.67913	mg/L	4.411763	94.29%
Mg 279.077†	328289.2	31.5157	mg/L	0.22244	31.5157	mg/L	0.22244	0.71%
Mn 257.610†	420604.2	0.935492	mg/L	0.0044756	0.935492	mg/L	0.0044756	0.48%
Mo 202.031†	234.3	0.0181553	mg/L	0.00124852	0.0181553	mg/L	0.00124852	6.88%
Na 330.237†	1664.4	3.10028	mg/L	0.064577	3.10028	mg/L	0.064577	2.08%
Ni 231.604†	3452.8	0.108773	mg/L	0.0010615	0.108773	mg/L	0.0010615	0.98%
Pb 220.353†	1029.3	0.118880	mg/L	0.0052752	0.118880	mg/L	0.0052752	4.44%
Sb 206.836†	-7.5	0.0076593	mg/L	0.00273701	0.0076593	mg/L	0.00273701	35.73%
Se 196.026†	-30.5	0.0009081	mg/L	0.00214756	0.0009081	mg/L	0.00214756	236.48%
Sn 189.927†	91.2	0.0403018	mg/L	0.00008803	0.0403018	mg/L	0.00008803	0.22%
Ti 334.940†	3180919.9	7.08395	mg/L	0.054448	7.08395	mg/L	0.054448	0.77%
Tl 190.801†	-46.4	-0.0035799	mg/L	0.00105735	-0.0035799	mg/L	0.00105735	29.54%
V 290.880†	38789.5	0.330160	mg/L	0.0006719	0.330160	mg/L	0.0006719	0.20%
Zn 206.200†	14523.4	0.357699	mg/L	0.0053757	0.357699	mg/L	0.0053757	1.50%

Sequence No.: 45  
 Sample ID: 63230-013  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 124  
 Date Collected: 12/19/2011 10:00:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63230-013

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	633793.1	101	%	0.8			0.78%
Y 371.029	263182.0	112	%	1.9			1.70%
Ag 328.068†	-1139.3	-0.0011637	mg/L	0.00061537	-0.0011637	0.00061537	52.88%
Al 308.215†	1106952.3	51.5299	mg/L	0.08913	51.5299	0.08913	0.17%
As 188.979†	22.5	0.0243484	mg/L	0.00176661	0.0243484	0.00176661	7.26%
Ba 233.527†	58241.6	0.454397	mg/L	0.0067040	0.454397	0.0067040	1.48%
Be 313.107†	5168.9	0.0021945	mg/L	0.00001780	0.0021945	0.00001780	0.81%
Ca 317.933†	775367.9	15.3157	mg/L	0.00972	15.3157	0.00972	0.06%
Cd 228.802†	59.9	0.0023280	mg/L	0.00082998	0.0023280	0.00082998	35.65%
Co 228.616†	1121.2	0.0263068	mg/L	0.00079509	0.0263068	0.00079509	3.02%
Cr 267.716†	2635.7	0.0745979	mg/L	0.00062090	0.0745979	0.00062090	0.83%
Cu 327.393†	9544.3	0.112730	mg/L	0.0005105	0.112730	0.0005105	0.45%
Fe 273.955†	1732008.6	66.4232	mg/L	0.04688	66.4232	0.04688	0.07%
K 404.721†	-392.6	-6.81107	mg/L	2.729592	-6.81107	2.729592	40.08%
Mg 279.077†	155826.5	14.8415	mg/L	0.19777	14.8415	0.19777	1.33%
Mn 257.610†	564098.7	1.25513	mg/L	0.001266	1.25513	0.001266	0.10%
Mo 202.031†	18.1	0.0025772	mg/L	0.00042506	0.0025772	0.00042506	16.49%
Na 330.237†	10072.5	15.8172	mg/L	0.14683	15.8172	0.14683	0.93%
Ni 231.604†	1707.8	0.0541033	mg/L	0.00027470	0.0541033	0.00027470	0.51%
Pb 220.353†	2105.5	0.392391	mg/L	0.0031196	0.392391	0.0031196	0.80%
Sb 206.836†	-0.7	0.0042475	mg/L	0.00026676	0.0042475	0.00026676	6.28%
Se 196.026†	-13.1	0.0035943	mg/L	0.01035773	0.0035943	0.01035773	288.17%
Sn 189.927†	98.7	0.0324209	mg/L	0.00026649	0.0324209	0.00026649	0.82%
Ti 334.940†	1208919.3	2.69305	mg/L	0.015930	2.69305	0.015930	0.59%
Tl 190.801†	-19.1	-0.0024261	mg/L	0.00411674	-0.0024261	0.00411674	169.69%
V 290.880†	15481.5	0.130984	mg/L	0.0013808	0.130984	0.0013808	1.05%
Zn 206.200†	8842.1	0.218222	mg/L	0.0011526	0.218222	0.0011526	0.53%

Sequence No.: 46  
 Sample ID: 63230-014  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 125  
 Date Collected: 12/19/2011 10:03:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63230-014

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	619393.6	99.1	%	0.69				0.70%
Y 371.029	260766.8	111	%	1.8				1.59%
Ag 328.068†	-1699.8	-0.0024195	mg/L	0.00084332	-0.0024195	mg/L	0.00084332	34.85%
Al 308.215†	971218.8	45.2104	mg/L	0.01689	45.2104	mg/L	0.01689	0.04%
As 188.979†	1.3	0.0106483	mg/L	0.00200249	0.0106483	mg/L	0.00200249	18.81%
Ba 233.527†	41905.8	0.327140	mg/L	0.0026684	0.327140	mg/L	0.0026684	0.82%
Be 313.107†	4439.9	0.0018820	mg/L	0.00004115	0.0018820	mg/L	0.00004115	2.19%
Ca 317.933†	3160069.0	62.3955	mg/L	0.68619	62.3955	mg/L	0.68619	1.10%
Cd 228.802†	62.4	0.0024531	mg/L	0.00013964	0.0024531	mg/L	0.00013964	5.69%
Co 228.616†	1864.3	0.0458696	mg/L	0.00101297	0.0458696	mg/L	0.00101297	2.21%
Cr 267.716†	2920.6	0.0825222	mg/L	0.00109450	0.0825222	mg/L	0.00109450	1.33%
Cu 327.393†	14340.7	0.168741	mg/L	0.0007878	0.168741	mg/L	0.0007878	0.47%
Fe 273.955†	2298696.6	88.1539	mg/L	0.05791	88.1539	mg/L	0.05791	0.07%
K 404.721†	-270.8	-4.19073	mg/L	2.284431	-4.19073	mg/L	2.284431	54.51%
Mg 279.077†	425680.9	40.9313	mg/L	0.02037	40.9313	mg/L	0.02037	0.05%
Mn 257.610†	622659.8	1.38500	mg/L	0.001333	1.38500	mg/L	0.001333	0.10%
Mo 202.031†	34.9	0.0038060	mg/L	0.00116200	0.0038060	mg/L	0.00116200	30.53%
Na 330.237†	3291.7	5.56151	mg/L	0.114120	5.56151	mg/L	0.114120	2.05%
Ni 231.604†	2827.9	0.0891693	mg/L	0.00289976	0.0891693	mg/L	0.00289976	3.25%
Pb 220.353†	1038.1	0.177671	mg/L	0.0013504	0.177671	mg/L	0.0013504	0.76%
Sb 206.836†	-6.0	0.0025315	mg/L	0.00283975	0.0025315	mg/L	0.00283975	112.17%
Se 196.026†	-26.7	-0.0056010	mg/L	0.00649180	-0.0056010	mg/L	0.00649180	115.90%
Sn 189.927†	96.8	0.0347473	mg/L	0.00231701	0.0347473	mg/L	0.00231701	6.67%
Ti 334.940†	1621520.5	3.61176	mg/L	0.020276	3.61176	mg/L	0.020276	0.56%
Tl 190.801†	-25.7	-0.0036585	mg/L	0.00059426	-0.0036585	mg/L	0.00059426	16.24%
V 290.880†	16014.6	0.130197	mg/L	0.0009660	0.130197	mg/L	0.0009660	0.74%
Zn 206.200†	12383.2	0.304585	mg/L	0.0033792	0.304585	mg/L	0.0033792	1.11%

Sequence No.: 47

Autosampler Location: 7

Sample ID: ICSA V-129812

Date Collected: 12/19/2011 10:07:22 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSA V-129812

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	557180.0	89.2 %	%	1.13			1.26%
Y 371.029	204469.5	87.3 %	%	1.09			1.25%
Ag 328.068†	-4596.6	-0.0056980 mg/L	mg/L	0.00185716	-0.0056980 mg/L	0.00185716	32.59%
Al 308.215†	10728605.4	499.493 mg/L	mg/L	10.3297	499.493 mg/L	10.3297	2.07%
QC value within limits for Al 308.215 Recovery = 99.90%							
As 188.979†	2.2	0.0068391 mg/L	mg/L	0.00160187	0.0068391 mg/L	0.00160187	23.42%
Ba 233.527†	900.7	0.0077083 mg/L	mg/L	0.00027349	0.0077083 mg/L	0.00027349	3.55%
Be 313.107†	-1480.2	-0.0006564 mg/L	mg/L	0.00002085	-0.0006564 mg/L	0.00002085	3.18%
Ca 317.933†	26195894.1	517.180 mg/L	mg/L	19.3874	517.180 mg/L	19.3874	3.75%
QC value within limits for Ca 317.933 Recovery = 103.44%							
Cd 228.802†	72.4	0.0026221 mg/L	mg/L	0.00021205	0.0026221 mg/L	0.00021205	8.09%
Co 228.616†	103.8	0.0028374 mg/L	mg/L	0.00007966	0.0028374 mg/L	0.00007966	2.81%
Cr 267.716†	-83.8	-0.0010337 mg/L	mg/L	0.00058096	-0.0010337 mg/L	0.00058096	56.20%
Cu 327.393†	-2601.2	0.0031355 mg/L	mg/L	0.00095439	0.0031355 mg/L	0.00095439	30.44%
Fe 273.955†	4913915.9	188.439 mg/L	mg/L	2.4676	188.439 mg/L	2.4676	1.31%
QC value within limits for Fe 273.955 Recovery = 94.22%							
K 404.721†	-2133.1	-44.2625 mg/L	mg/L	3.58055	-44.2625 mg/L	3.58055	8.09%
Mg 279.077†	5404375.3	522.275 mg/L	mg/L	6.8043	522.275 mg/L	6.8043	1.30%
QC value within limits for Mg 279.077 Recovery = 104.46%							
Mn 257.610†	951.0	-0.0069908 mg/L	mg/L	0.00003375	-0.0069908 mg/L	0.00003375	0.48%
Mo 202.031†	-35.9	-0.0013499 mg/L	mg/L	0.00170872	-0.0013499 mg/L	0.00170872	126.58%
Na 330.237†	4175.9	6.89881 mg/L	mg/L	0.201199	6.89881 mg/L	0.201199	2.92%
Ni 231.604†	95.1	0.0036096 mg/L	mg/L	0.00031348	0.0036096 mg/L	0.00031348	8.68%
Pb 220.353†	1602.0	-0.0113774 mg/L	mg/L	0.00380690	-0.0113774 mg/L	0.00380690	33.46%
Sb 206.836†	21.0	-0.0017521 mg/L	mg/L	0.00228783	-0.0017521 mg/L	0.00228783	130.58%
Se 196.026†	-64.2	0.0046744 mg/L	mg/L	0.00623506	0.0046744 mg/L	0.00623506	133.39%
Sn 189.927†	-46.2	0.0080629 mg/L	mg/L	0.00243841	0.0080629 mg/L	0.00243841	30.24%
Ti 334.940†	134.7	0.0015526 mg/L	mg/L	0.00000702	0.0015526 mg/L	0.00000702	0.45%
Tl 190.801†	-7.1	-0.0018537 mg/L	mg/L	0.00010589	-0.0018537 mg/L	0.00010589	5.71%
V 290.880†	9294.4	-0.0145637 mg/L	mg/L	0.00065071	-0.0145637 mg/L	0.00065071	4.47%
Zn 206.200†	-60.2	-0.0179546 mg/L	mg/L	0.00112861	-0.0179546 mg/L	0.00112861	6.29%

All analyte(s) passed QC.

Sequence No.: 48

Autosampler Location: 8

Sample ID: ICSAB V-129814

Date Collected: 12/19/2011 10:12:31 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-129814

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	571753.2	91.5 %	0.85			0.93%
Y 371.029	209267.7	89.3 %	0.75			0.84%
Ag 328.068†	107600.4	1.06413 mg/L	0.001988	1.06413 mg/L	0.001988	0.19%
QC value within limits for Ag		328.068	Recovery = 106.41%			
Al 308.215†	10399658.9	484.178 mg/L	4.8450	484.178 mg/L	4.8450	1.00%
QC value within limits for Al		308.215	Recovery = 96.84%			
As 188.979†	1294.1	1.02196 mg/L	0.008498	1.02196 mg/L	0.008498	0.83%
QC value within limits for As		188.979	Recovery = 102.20%			
Ba 233.527†	68119.0	0.531342 mg/L	0.0035084	0.531342 mg/L	0.0035084	0.66%
QC value within limits for Ba		233.527	Recovery = 106.27%			
Be 313.107†	1176052.9	0.504237 mg/L	0.0126162	0.504237 mg/L	0.0126162	2.50%
QC value within limits for Be		313.107	Recovery = 100.85%			
Ca 317.933†	24937422.2	492.334 mg/L	5.7415	492.334 mg/L	5.7415	1.17%
QC value within limits for Ca		317.933	Recovery = 98.47%			
Cd 228.802†	34216.0	1.01192 mg/L	0.012638	1.01192 mg/L	0.012638	1.25%
QC value within limits for Cd		228.802	Recovery = 101.19%			
Co 228.616†	16383.2	0.477563 mg/L	0.0065535	0.477563 mg/L	0.0065535	1.37%
QC value within limits for Co		228.616	Recovery = 95.51%			
Cr 267.716†	17682.9	0.493047 mg/L	0.0030541	0.493047 mg/L	0.0030541	0.62%
QC value within limits for Cr		267.716	Recovery = 98.61%			
Cu 327.393†	46576.2	0.524187 mg/L	0.0001280	0.524187 mg/L	0.0001280	0.02%
QC value within limits for Cu		327.393	Recovery = 104.84%			
Fe 273.955†	4830820.8	185.253 mg/L	4.5635	185.253 mg/L	4.5635	2.46%
QC value within limits for Fe		273.955	Recovery = 92.63%			
K 404.721†	-1786.1	-36.7965 mg/L	5.40539	-36.7965 mg/L	5.40539	14.69%
Mg 279.077†	5320653.6	514.181 mg/L	13.5131	514.181 mg/L	13.5131	2.63%
QC value within limits for Mg		279.077	Recovery = 102.84%			
Mn 257.610†	227045.9	0.496328 mg/L	0.0029205	0.496328 mg/L	0.0029205	0.59%
QC value within limits for Mn		257.610	Recovery = 99.27%			
Mo 202.031†	-46.4	-0.0018977 mg/L	0.00110884	-0.0018977 mg/L	0.00110884	58.43%
Na 330.237†	4567.5	7.49110 mg/L	0.060006	7.49110 mg/L	0.060006	0.80%
Ni 231.604†	29635.5	0.928337 mg/L	0.0122561	0.928337 mg/L	0.0122561	1.32%
QC value within limits for Ni		231.604	Recovery = 92.83%			
Pb 220.353†	6276.8	0.951092 mg/L	0.0117620	0.951092 mg/L	0.0117620	1.24%
QC value within limits for Pb		220.353	Recovery = 95.11%			
Sb 206.836†	1541.6	1.01753 mg/L	0.013106	1.01753 mg/L	0.013106	1.29%
QC value within limits for Sb		206.836	Recovery = 101.75%			
Se 196.026†	795.3	1.01524 mg/L	0.003586	1.01524 mg/L	0.003586	0.35%
QC value within limits for Se		196.026	Recovery = 101.52%			
Sn 189.927†	-49.0	0.0070570 mg/L	0.00006005	0.0070570 mg/L	0.00006005	0.85%
Ti 334.940†	192.2	0.0015596 mg/L	0.00015921	0.0015596 mg/L	0.00015921	10.21%
Tl 190.801†	1170.1	0.964699 mg/L	0.0118230	0.964699 mg/L	0.0118230	1.23%
QC value within limits for Tl		190.801	Recovery = 96.47%			
V 290.880†	62790.9	0.458743 mg/L	0.0033302	0.458743 mg/L	0.0033302	0.73%
QC value within limits for V		290.880	Recovery = 91.75%			
Zn 206.200†	40195.1	0.974496 mg/L	0.0124087	0.974496 mg/L	0.0124087	1.27%
QC value within limits for Zn		206.200	Recovery = 97.45%			

All analyte(s) passed QC.

Sequence No.: 49

Sample ID: CCV V-129808

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/19/2011 10:17:35 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	618468.5	99.0 %	0.91			0.91%
Y 371.029	225660.1	96.3 %	1.23			1.28%
Ag 328.068†	10340.5	0.100776 mg/L	0.0028600	0.100776 mg/L	0.0028600	2.84%
QC value within limits for Ag		328.068	Recovery = 100.78%			
Al 308.215†	110105.3	5.10592 mg/L	0.087960	5.10592 mg/L	0.087960	1.72%
QC value within limits for Al		308.215	Recovery = 102.12%			
As 188.979†	642.5	0.509708 mg/L	0.0000161	0.509708 mg/L	0.0000161	0.00%
QC value within limits for As		188.979	Recovery = 101.94%			
Ba 233.527†	65801.2	0.513287 mg/L	0.0096474	0.513287 mg/L	0.0096474	1.88%
QC value within limits for Ba		233.527	Recovery = 102.66%			
Be 313.107†	1180524.9	0.506154 mg/L	0.0014093	0.506154 mg/L	0.0014093	0.28%
QC value within limits for Be		313.107	Recovery = 101.23%			
Ca 317.933†	2689204.3	53.0995 mg/L	0.15374	53.0995 mg/L	0.15374	0.29%
QC value within limits for Ca		317.933	Recovery = 106.20%			
Cd 228.802†	17164.3	0.507933 mg/L	0.0115551	0.507933 mg/L	0.0115551	2.27%
QC value within limits for Cd		228.802	Recovery = 101.59%			
Co 228.616†	17789.3	0.518223 mg/L	0.0100244	0.518223 mg/L	0.0100244	1.93%
QC value within limits for Co		228.616	Recovery = 103.64%			
Cr 267.716†	18060.4	0.504086 mg/L	0.0101863	0.504086 mg/L	0.0101863	2.02%
QC value within limits for Cr		267.716	Recovery = 100.82%			
Cu 327.393†	47620.7	0.510340 mg/L	0.0092841	0.510340 mg/L	0.0092841	1.82%
QC value within limits for Cu		327.393	Recovery = 102.07%			
Fe 273.955†	131365.0	5.04353 mg/L	0.103519	5.04353 mg/L	0.103519	2.05%
QC value within limits for Fe		273.955	Recovery = 100.87%			
K 404.721†	2298.2	51.0904 mg/L	0.73860	51.0904 mg/L	0.73860	1.45%
Mg 279.077†	539615.6	51.9571 mg/L	0.25233	51.9571 mg/L	0.25233	0.49%
QC value within limits for Mg		279.077	Recovery = 103.91%			
Mn 257.610†	226462.8	0.503259 mg/L	0.0100654	0.503259 mg/L	0.0100654	2.00%
QC value within limits for Mn		257.610	Recovery = 100.65%			
Mo 202.031†	7058.6	0.508920 mg/L	0.0007868	0.508920 mg/L	0.0007868	0.15%
QC value within limits for Mo		202.031	Recovery = 101.78%			
Na 330.237†	32022.3	49.0156 mg/L	0.91268	49.0156 mg/L	0.91268	1.86%
QC value within limits for Na		330.237	Recovery = 98.03%			
Ni 231.604†	16309.5	0.512600 mg/L	0.0096159	0.512600 mg/L	0.0096159	1.88%
QC value within limits for Ni		231.604	Recovery = 102.52%			
Pb 220.353†	2512.1	0.509197 mg/L	0.0019433	0.509197 mg/L	0.0019433	0.38%
QC value within limits for Pb		220.353	Recovery = 101.84%			
Sb 206.836†	749.8	0.511312 mg/L	0.0059553	0.511312 mg/L	0.0059553	1.16%
QC value within limits for Sb		206.836	Recovery = 102.26%			
Se 196.026†	432.7	0.516525 mg/L	0.0059125	0.516525 mg/L	0.0059125	1.14%
QC value within limits for Se		196.026	Recovery = 103.31%			
Sn 189.927†	2164.5	0.524457 mg/L	0.0011464	0.524457 mg/L	0.0011464	0.22%
QC value within limits for Sn		189.927	Recovery = 104.89%			
Ti 334.940†	226909.4	0.506373 mg/L	0.0090846	0.506373 mg/L	0.0090846	1.79%
QC value within limits for Ti		334.940	Recovery = 101.27%			
Tl 190.801†	648.9	0.535632 mg/L	0.0044983	0.535632 mg/L	0.0044983	0.84%
QC value within limits for Tl		190.801	Recovery = 107.13%			
V 290.880†	57645.8	0.500180 mg/L	0.0101090	0.500180 mg/L	0.0101090	2.02%
QC value within limits for V		290.880	Recovery = 100.04%			
Zn 206.200†	20864.3	0.513722 mg/L	0.0106074	0.513722 mg/L	0.0106074	2.06%
QC value within limits for Zn		206.200	Recovery = 102.74%			

All analyte(s) passed QC.

```

=====
Sequence No.: 50                               Autosampler Location: 1
Sample ID: CCB V-129815                       Date Collected: 12/19/2011 10:21:07 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                            Initial Sample Vol:
Dilution:                                    Sample Prep Vol:
=====
    
```

-----  
Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	648945.6	104 %	1.5			1.47%
Y 371.029	243818.1	104 %	1.2			1.17%
Ag 328.068†	46.8	0.0006097 mg/L	0.00047671	0.0006097 mg/L	0.00047671	78.18%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Al 308.215†	50.9	-0.0049032 mg/L	0.00326219	-0.0049032 mg/L	0.00326219	66.53%
QC value within limits for Al	308.215	Recovery = Not calculated				
As 188.979†	-0.3	0.0028067 mg/L	0.00257658	0.0028067 mg/L	0.00257658	91.80%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527†	26.3	0.0008966 mg/L	0.00030446	0.0008966 mg/L	0.00030446	33.96%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 313.107†	-53.1	-0.0000445 mg/L	0.00000496	-0.0000445 mg/L	0.00000496	11.15%
QC value within limits for Be	313.107	Recovery = Not calculated				
Ca 317.933†	235.1	0.0126241 mg/L	0.00186655	0.0126241 mg/L	0.00186655	14.79%
QC value within limits for Ca	317.933	Recovery = Not calculated				
Cd 228.802†	10.0	0.0007727 mg/L	0.00070969	0.0007727 mg/L	0.00070969	91.84%
QC value within limits for Cd	228.802	Recovery = Not calculated				
Co 228.616†	8.0	0.0000489 mg/L	0.00027073	0.0000489 mg/L	0.00027073	553.75%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cr 267.716†	-9.1	0.0010472 mg/L	0.00050217	0.0010472 mg/L	0.00050217	47.95%
QC value within limits for Cr	267.716	Recovery = Not calculated				
Cu 327.393†	140.2	0.0026559 mg/L	0.00008821	0.0026559 mg/L	0.00008821	3.32%
QC value within limits for Cu	327.393	Recovery = Not calculated				
Fe 273.955†	96.9	0.0098044 mg/L	0.00003183	0.0098044 mg/L	0.00003183	0.32%
QC value within limits for Fe	273.955	Recovery = Not calculated				
K 404.721†	53.8	2.79565 mg/L	2.862472	2.79565 mg/L	2.862472	102.39%
Mg 279.077†	31.4	-0.220910 mg/L	0.0022708	-0.220910 mg/L	0.0022708	1.03%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610†	33.9	0.0000510 mg/L	0.00007549	0.0000510 mg/L	0.00007549	148.12%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031†	-3.8	0.0009639 mg/L	0.00034999	0.0009639 mg/L	0.00034999	36.31%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Na 330.237†	77.0	0.699319 mg/L	0.0441633	0.699319 mg/L	0.0441633	6.32%
QC value within limits for Na	330.237	Recovery = Not calculated				
Ni 231.604†	-11.8	0.0002702 mg/L	0.00052016	0.0002702 mg/L	0.00052016	192.48%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Pb 220.353†	6.5	0.0020652 mg/L	0.00055184	0.0020652 mg/L	0.00055184	26.72%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Sb 206.836†	2.5	0.0015241 mg/L	0.00035912	0.0015241 mg/L	0.00035912	23.56%
QC value within limits for Sb	206.836	Recovery = Not calculated				
Se 196.026†	-3.2	-0.0003077 mg/L	0.00440136	-0.0003077 mg/L	0.00440136	>999.9%
QC value within limits for Se	196.026	Recovery = Not calculated				
Sn 189.927†	18.4	0.0046115 mg/L	0.00001650	0.0046115 mg/L	0.00001650	0.36%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	-71.2	0.0010936 mg/L	0.00006736	0.0010936 mg/L	0.00006736	6.16%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	-0.4	0.0003731 mg/L	0.00011761	0.0003731 mg/L	0.00011761	31.52%
QC value within limits for Tl	190.801	Recovery = Not calculated				
V 290.880†	-20.4	0.0002640 mg/L	0.00002680	0.0002640 mg/L	0.00002680	10.15%
QC value within limits for V	290.880	Recovery = Not calculated				
Zn 206.200†	20.7	0.0013486 mg/L	0.00006861	0.0013486 mg/L	0.00006861	5.09%
QC value within limits for Zn	206.200	Recovery = Not calculated				

All analyte(s) passed QC.

Method: HGCV2 Soil (7471A)

Page 1

Date: 12/17/2011 6:30:31 PM

*1st Review PA 12/19/2011**V-131162*

## Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100, S/N B050-9550

Technique: AA FIMS-MHS  
Autosampler Model: AS-90

*sh 12/21/11*

Sample Information File: C:\data-AA\johns\Sample Information\H13410S.sif  
Batch ID: H13410S  
Results Data Set: H13410S  
Results Library: C:\data-AA\johns\Results\Results.mdb

## Method Loaded

Method Name: HGCV2 Soil (7471A)  
Method Description: HGCV2 Soil (7471A)

Method Last Saved: 12/8/2011 8:31:32 PM

Sequence No.: 1  
Sample ID: Calibration Blank  
Analyst:

Autosampler Location: 1  
Date Collected: 12/17/2011 6:25:47 PM  
Data Type: Original

## Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0000	-0.0001	0.0000	18:26:34	Yes
2		[0.00]	0.0001	-0.0003	0.0001	18:27:06	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	11.38				

Auto-zero performed.

Sequence No.: 2  
Sample ID: .2 PPB  
Analyst:

Autosampler Location: 2  
Date Collected: 12/17/2011 6:27:07 PM  
Data Type: Original

## Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0010	0.0061	0.0011	18:27:52	Yes
2		[0.2]	0.0009	0.0036	0.0010	18:28:25	Yes
Mean:		[0.2]	0.0010				
SD:		0.0	0.0001				
%RSD:		0.0	10.04				

Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000 Slope: 0.00486 Intercept: 0.00000

Sequence No.: 3  
Sample ID: .5 PPB  
Analyst:

Autosampler Location: 3  
Date Collected: 12/17/2011 6:28:26 PM  
Data Type: Original

## Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0024	0.0100	0.0025	18:29:11	Yes
2		[0.5]	0.0025	0.0099	0.0025	18:29:44	Yes
Mean:		[0.5]	0.0024				
SD:		0.0	0.0000				
%RSD:		0.0	1.72				

Standard number 2 applied. [0.5]  
Correlation Coef.: 0.999999 Slope: 0.00488 Intercept: -0.00000

Sequence No.: 4  
Sample ID: 1 PPB  
Analyst:

Autosampler Location: 4  
Date Collected: 12/17/2011 6:29:45 PM  
Data Type: Original

## Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Method: HGCV2 Soil (7471A)

Page 2

Date: 12/17/2011 6:36:20 PM

1 [1] 0.0055 0.0214 0.0055 18:30:30 Yes  
 2 [1] 0.0054 0.0206 0.0055 18:31:03 Yes  
 Mean: [1] 0.0055  
 SD: 0 0.0001  
 %RSD: 0 0.97  
 Standard number 3 applied. [1]  
 Correlation Coef.: 0.998347 Slope: 0.00547 Intercept: -0.00011

=====

Sequence No.: 5 Autosampler Location: 5  
 Sample ID: 2 PPB Date Collected: 12/17/2011 6:31:04 PM  
 Analyst: Data Type: Original

-----

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0100	0.0367	0.0100	18:31:49	Yes
2		[2]	0.0098	0.0354	0.0099	18:32:22	Yes
Mean:		[2]	0.0099				
SD:		0	0.0001				
%RSD:		0	1.23				

Standard number 4 applied. [2]  
 Correlation Coef.: 0.998369 Slope: 0.00501 Intercept: 0.00005

=====

Sequence No.: 6 Autosampler Location: 6  
 Sample ID: 5 PPB Date Collected: 12/17/2011 6:32:23 PM  
 Analyst: Data Type: Original

-----

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0254	0.0942	0.0254	18:33:08	Yes
2		[5]	0.0252	0.0928	0.0253	18:33:41	Yes
Mean:		[5]	0.0253				
SD:		0	0.0001				
%RSD:		0	0.38				

Standard number 5 applied. [5]  
 Correlation Coef.: 0.999763 Slope: 0.00505 Intercept: 0.00002

=====

Sequence No.: 7 Autosampler Location: 7  
 Sample ID: 10 PPB Date Collected: 12/17/2011 6:33:42 PM  
 Analyst: Data Type: Original

-----

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0511	0.1843	0.0512	18:34:27	Yes
2		[10]	0.0511	0.1828	0.0512	18:35:00	Yes
Mean:		[10]	0.0511				
SD:		0	0.0000				
%RSD:		0	0.00				

Standard number 6 applied. [10]  
 Correlation Coef.: 0.999932 Slope: 0.00510 Intercept: -0.00004

=====

Sequence No.: 8 Autosampler Location: 8  
 Sample ID: 25 PPB Date Collected: 12/17/2011 6:35:01 PM  
 Analyst: Data Type: Original

-----

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1264	0.4486	0.1265	18:35:46	Yes
2		[25]	0.1249	0.4438	0.1249	18:36:19	Yes
Mean:		[25]	0.1257				
SD:		0	0.0011				
%RSD:		0	0.85				

Standard number 7 applied. [25]  
 Correlation Coef.: 0.999970 Slope: 0.00503 Intercept: 0.00012

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.023	0.00	11.4
.2 PPB	0.0010	0.2	0.170	0.00	10.0
.5 PPB	0.0024	0.5	0.462	0.00	1.7
1 PPB	0.0055	1.0	1.062	0.00	1.0
2 PPB	0.0099	2.0	1.945	0.00	1.2
5 PPB	0.0253	5.0	5.001	0.00	0.4
10 PPB	0.0511	10.0	10.135	0.00	0.0
25 PPB	0.1257	25.0	24.949	0.00	0.9

Correlation Coef.: 0.999970 Slope: 0.00503 Intercept: 0.00012

Sequence No.: 9

Sample ID: ICV (2)

Analyst:

Autosampler Location: 10

Date Collected: 12/17/2011 6:36:20 PM

Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.92	19.92	0.1003	0.3604	0.1004	18:37:09	Yes
2	19.90	19.90	0.1003	0.3559	0.1003	18:37:41	Yes
Mean:	19.91	19.91	0.1003				
SD:	0.011	0.011	0.0001				
%RSD:	0.053	0.053	0.05				

QC value within limits for Hg 253.7 Recovery = 99.55%  
All analyte(s) passed QC.

Sequence No.: 10

Sample ID: ICB

Analyst:

Autosampler Location: 1

Date Collected: 12/17/2011 6:37:42 PM

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0004	0.0039	0.0005	18:38:28	Yes
2	0.009	0.009	0.0002	0.0018	0.0002	18:39:01	Yes
Mean:	0.036	0.036	0.0003				
SD:	0.037	0.037	0.0002				
%RSD:	104.0	104.0	62.94				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 11

Sample ID: MB 11720 (167)

Analyst:

Autosampler Location: 11

Date Collected: 12/17/2011 6:39:02 PM

Data Type: Original

## Replicate Data: MB 11720 (167)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	0.0000	0.0001	0.0001	18:39:48	Yes
2	-0.022	-0.022	0.0000	-0.0000	0.0001	18:40:21	Yes
Mean:	-0.021	-0.021	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.399	8.399	62.87				

Sequence No.: 12

Sample ID: LCS 11720

Analyst:

Autosampler Location: 12

Date Collected: 12/17/2011 6:40:22 PM

Data Type: Original

## Replicate Data: LCS 11720

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.63	20.63	0.1039	0.3606	0.1040	18:41:07	Yes
2	20.67	20.67	0.1041	0.3536	0.1042	18:41:40	Yes
Mean:	20.65	20.65	0.1040				

SD: 0.032 0.032 0.0002  
 %RSD: 0.153 0.153 0.15

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCS MR 11720 Date Collected: 12/17/2011 6:41:41 PM  
 Analyst: Data Type: Original

## Replicate Data: LCS MR 11720

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	22.37	22.37	0.1127	0.3821	0.1127	18:42:27	Yes
2	22.62	22.62	0.1139	0.3806	0.1140	18:42:59	Yes
Mean:	22.50	22.50	0.1133				
SD:	0.176	0.176	0.0009				
%RSD:	0.782	0.782	0.78				

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63230-001 Date Collected: 12/17/2011 6:43:00 PM  
 Analyst: Data Type: Original

## Replicate Data: 63230-001

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.149	0.149	0.0009	0.0048	0.0009	18:43:46	Yes
2	0.124	0.124	0.0007	0.0031	0.0008	18:44:18	Yes
Mean:	0.136	0.136	0.0008				
SD:	0.018	0.018	0.0001				
%RSD:	12.89	12.89	11.00				

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63230-001 MR Date Collected: 12/17/2011 6:44:19 PM  
 Analyst: Data Type: Original

## Replicate Data: 63230-001 MR

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.172	0.172	0.0010	0.0036	0.0010	18:45:05	Yes
2	0.190	0.190	0.0011	0.0045	0.0011	18:45:37	Yes
Mean:	0.181	0.181	0.0010				
SD:	0.013	0.013	0.0001				
%RSD:	7.273	7.273	6.44				

Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63230-001 MS1 Date Collected: 12/17/2011 6:45:38 PM  
 Analyst: Data Type: Original

## Replicate Data: 63230-001 MS1

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.61	10.61	0.0535	0.1757	0.0535	18:46:23	Yes
2	10.58	10.58	0.0534	0.1768	0.0534	18:46:56	Yes
Mean:	10.60	10.60	0.0534				
SD:	0.017	0.017	0.0001				
%RSD:	0.158	0.158	0.16				

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63230-001 MS2 Date Collected: 12/17/2011 6:46:57 PM  
 Analyst: Data Type: Original

## Replicate Data: 63230-001 MS2

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.55	10.55	0.0532	0.1756	0.0532	18:47:42	Yes
2	10.36	10.36	0.0522	0.1725	0.0523	18:48:14	Yes
Mean:	10.45	10.45	0.0527				
SD:	0.135	0.135	0.0007				

%RSD: 1.287 1.287 1.28

Sequence No.: 18  
 Sample ID: 63111-004  
 Analyst:

Autosampler Location: 18  
 Date Collected: 12/17/2011 6:48:16 PM  
 Data Type: Original

## Replicate Data: 63111-004

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.551	8.551	0.0431	0.1427	0.0432	18:49:01	Yes
2	8.696	8.696	0.0439	0.1420	0.0439	18:49:33	Yes
Mean:	8.624	8.624	0.0435				
SD:	0.103	0.103	0.0005				
%RSD:	1.192	1.192	1.19				

Sequence No.: 19  
 Sample ID: 63111-008  
 Analyst:

Autosampler Location: 19  
 Date Collected: 12/17/2011 6:49:34 PM  
 Data Type: Original

## Replicate Data: 63111-008

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.264	6.264	0.0316	0.1034	0.0317	18:50:23	Yes
2	6.284	6.284	0.0317	0.1023	0.0318	18:50:55	Yes
Mean:	6.274	6.274	0.0317				
SD:	0.014	0.014	0.0001				
%RSD:	0.226	0.226	0.23				

Sequence No.: 20  
 Sample ID: 63111-012  
 Analyst:

Autosampler Location: 20  
 Date Collected: 12/17/2011 6:50:57 PM  
 Data Type: Original

## Replicate Data: 63111-012

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.518	1.518	0.0078	0.0260	0.0078	18:51:42	Yes
2	1.541	1.541	0.0079	0.0254	0.0079	18:52:14	Yes
Mean:	1.529	1.529	0.0078				
SD:	0.016	0.016	0.0001				
%RSD:	1.061	1.061	1.04				

Sequence No.: 21  
 Sample ID: CCV  
 Analyst:

Autosampler Location: 9  
 Date Collected: 12/17/2011 6:52:15 PM  
 Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.70	10.70	0.0540	0.1716	0.0540	18:53:02	Yes
2	10.55	10.55	0.0532	0.1763	0.0533	18:53:34	Yes
Mean:	10.63	10.63	0.0536				
SD:	0.106	0.106	0.0005				
%RSD:	1.001	1.001	1.00				

QC value within limits for Hg 253.7 Recovery = 106.25%  
 All analyte(s) passed QC.

Sequence No.: 22  
 Sample ID: CCB  
 Analyst:

Autosampler Location: 1  
 Date Collected: 12/17/2011 6:53:35 PM  
 Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0001	0.0003	0.0001	18:54:21	Yes
2	-0.019	-0.019	0.0000	-0.0002	0.0001	18:54:53	Yes
Mean:	-0.015	-0.015	0.0000				

SD: 0.006 0.006 0.0000  
 %RSD: 42.12 42.12 73.26  
 QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: 63111-021  
 Analyst:  
 Autosampler Location: 21  
 Date Collected: 12/17/2011 6:54:54 PM  
 Data Type: Original

## Replicate Data: 63111-021

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	46.61	46.61	0.2347	0.7712	0.2347	18:55:42	Yes
Sample concentration is greater than that of the highest standard.							
2	47.15	47.15	0.2374	0.7723	0.2374	18:56:14	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	46.88	46.88	0.2360				
SD:	0.384	0.384	0.0019				
%RSD:	0.819	0.819	0.82				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 24  
 Sample ID: 63111-037  
 Analyst:  
 Autosampler Location: 22  
 Date Collected: 12/17/2011 6:56:15 PM  
 Data Type: Original

## Replicate Data: 63111-037

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.911	8.911	0.0450	0.1501	0.0450	18:57:01	Yes
2	8.852	8.852	0.0447	0.1460	0.0447	18:57:33	Yes
Mean:	8.882	8.882	0.0448				
SD:	0.042	0.042	0.0002				
%RSD:	0.470	0.470	0.47				

Sequence No.: 25  
 Sample ID: 63224-001  
 Analyst:  
 Autosampler Location: 23  
 Date Collected: 12/17/2011 6:57:34 PM  
 Data Type: Original

## Replicate Data: 63224-001

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0003	0.0014	0.0003	18:58:19	Yes
2	0.017	0.017	0.0002	0.0008	0.0003	18:58:52	Yes
Mean:	0.024	0.024	0.0002				
SD:	0.010	0.010	0.0001				
%RSD:	41.72	41.72	21.35				

Sequence No.: 26  
 Sample ID: 63230-002  
 Analyst:  
 Autosampler Location: 24  
 Date Collected: 12/17/2011 6:58:53 PM  
 Data Type: Original

## Replicate Data: 63230-002

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.107	0.107	0.0007	0.0021	0.0007	18:59:38	Yes
2	0.109	0.109	0.0007	0.0023	0.0007	19:00:11	Yes
Mean:	0.108	0.108	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	1.124	1.124	0.92				

Sequence No.: 27  
 Sample ID: 63230-003  
 Analyst:  
 Autosampler Location: 25  
 Date Collected: 12/17/2011 7:00:12 PM  
 Data Type: Original

## Replicate Data: 63230-003

Repl #	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
	ug/L	ug/L	Signal	Area	Height		Stored

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#	ug/L	ug/L	Signal	Area	Peak Height	Time	Stored
1	0.724	0.724	0.0038	0.0118	0.0038	19:00:57	Yes
2	0.724	0.724	0.0038	0.0121	0.0038	19:01:29	Yes
Mean:	0.724	0.724	0.0038				
SD:	0.001	0.001	0.0000				
%RSD:	0.084	0.084	0.08				

Sequence No.: 28

Autosampler Location: 26

Sample ID: 63230-004

Date Collected: 12/17/2011 7:01:31 PM

Analyst:

Data Type: Original

Replicate Data: 63230-004

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.069	0.069	0.0005	0.0014	0.0005	19:02:16	Yes
2	0.057	0.057	0.0004	0.0003	0.0005	19:02:47	Yes
Mean:	0.063	0.063	0.0004				
SD:	0.009	0.009	0.0000				
%RSD:	13.56	13.56	9.89				

Sequence No.: 29

Autosampler Location: 27

Sample ID: 63230-005

Date Collected: 12/17/2011 7:02:49 PM

Analyst:

Data Type: Original

Replicate Data: 63230-005

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.053	0.053	0.0004	0.0004	0.0004	19:03:34	Yes
2	0.047	0.047	0.0004	0.0005	0.0004	19:04:07	Yes
Mean:	0.050	0.050	0.0004				
SD:	0.004	0.004	0.0000				
%RSD:	7.869	7.869	5.38				

Sequence No.: 30

Autosampler Location: 28

Sample ID: 63230-006

Date Collected: 12/17/2011 7:04:08 PM

Analyst:

Data Type: Original

Replicate Data: 63230-006

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.178	0.178	0.0010	0.0024	0.0011	19:04:56	Yes
2	0.176	0.176	0.0010	0.0031	0.0011	19:05:29	Yes
Mean:	0.177	0.177	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	0.812	0.812	0.72				

Sequence No.: 31

Autosampler Location: 29

Sample ID: 63230-007

Date Collected: 12/17/2011 7:05:30 PM

Analyst:

Data Type: Original

Replicate Data: 63230-007

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0004	0.0010	0.0004	19:06:15	Yes
2	0.065	0.065	0.0004	0.0015	0.0005	19:06:48	Yes
Mean:	0.058	0.058	0.0004				
SD:	0.009	0.009	0.0000				
%RSD:	15.91	15.91	11.37				

Sequence No.: 32

Autosampler Location: 30

Sample ID: 63230-008

Date Collected: 12/17/2011 7:06:49 PM

Analyst:

Data Type: Original

Replicate Data: 63230-008

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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1	0.094	0.094	0.0006	0.0023	0.0006	19:07:34	Yes
2	0.097	0.097	0.0006	0.0025	0.0007	19:08:07	Yes
Mean:	0.096	0.096	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	2.174	2.174	1.75				

Sequence No.: 33

Autosampler Location: 9

Sample ID: CCV

Date Collected: 12/17/2011 7:08:08 PM

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.43	10.43	0.0526	0.1724	0.0527	19:08:55	Yes
2	10.43	10.43	0.0526	0.1724	0.0527	19:09:27	Yes
Mean:	10.43	10.43	0.0526				
SD:	0.000	0.000	0.0000				
%RSD:	0.002	0.002	0.00				

QC value within limits for Hg 253.7 Recovery = 104.31%

All analyte(s) passed QC.

Sequence No.: 34

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/17/2011 7:09:28 PM

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0001	0.0015	0.0002	19:10:14	Yes
2	-0.024	-0.024	-0.0000	0.0000	0.0000	19:10:46	Yes
Mean:	-0.013	-0.013	0.0001				
SD:	0.015	0.015	0.0001				
%RSD:	112.8	112.8	151.80				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 35

Autosampler Location: 31

Sample ID: 63230-009

Date Collected: 12/17/2011 7:10:48 PM

Analyst:

Data Type: Original

Replicate Data: 63230-009

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.097	0.097	0.0006	0.0025	0.0007	19:11:36	Yes
2	0.094	0.094	0.0006	0.0019	0.0006	19:12:08	Yes
Mean:	0.095	0.095	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	1.979	1.979	1.59				

Sequence No.: 36

Autosampler Location: 32

Sample ID: 63230-010

Date Collected: 12/17/2011 7:12:09 PM

Analyst:

Data Type: Original

Replicate Data: 63230-010

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0001	0.0004	0.0001	19:12:55	Yes
2	-0.016	-0.016	0.0000	0.0001	0.0001	19:13:27	Yes
Mean:	-0.014	-0.014	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	20.61	20.61	29.14				

Sequence No.: 37

Autosampler Location: 33

Sample ID: 63230-011

Date Collected: 12/17/2011 7:13:28 PM

Analyst:

Data Type: Original

## Replicate Data: 63230-011

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.269	0.269	0.0015	0.0049	0.0015	19:14:13	Yes
2	0.258	0.258	0.0014	0.0042	0.0015	19:14:46	Yes
Mean:	0.264	0.264	0.0014				
SD:	0.008	0.008	0.0000				
%RSD:	3.045	3.045	2.80				

Sequence No.: 38

Sample ID: 63230-012

Analyst:

Autosampler Location: 34

Date Collected: 12/17/2011 7:14:47 PM

Data Type: Original

## Replicate Data: 63230-012

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.268	0.268	0.0015	0.0050	0.0015	19:15:32	Yes
2	0.263	0.263	0.0014	0.0046	0.0015	19:16:05	Yes
Mean:	0.266	0.266	0.0015				
SD:	0.004	0.004	0.0000				
%RSD:	1.328	1.328	1.22				

Sequence No.: 39

Sample ID: 63230-013

Analyst:

Autosampler Location: 35

Date Collected: 12/17/2011 7:16:06 PM

Data Type: Original

## Replicate Data: 63230-013

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.355	0.355	0.0019	0.0057	0.0020	19:16:51	Yes
2	0.362	0.362	0.0019	0.0063	0.0020	19:17:24	Yes
Mean:	0.358	0.358	0.0019				
SD:	0.005	0.005	0.0000				
%RSD:	1.312	1.312	1.23				

Sequence No.: 40

Sample ID: 63230-014

Analyst:

Autosampler Location: 36

Date Collected: 12/17/2011 7:17:25 PM

Data Type: Original

## Replicate Data: 63230-014

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.204	0.204	0.0011	0.0039	0.0012	19:18:10	Yes
2	0.196	0.196	0.0011	0.0032	0.0012	19:18:43	Yes
Mean:	0.200	0.200	0.0011				
SD:	0.006	0.006	0.0000				
%RSD:	2.877	2.877	2.58				

Sequence No.: 41

Sample ID: CCV

Analyst:

Autosampler Location: 9

Date Collected: 12/17/2011 7:18:44 PM

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.59	10.59	0.0534	0.1664	0.0535	19:19:33	Yes
2	10.50	10.50	0.0530	0.1659	0.0530	19:20:06	Yes
Mean:	10.55	10.55	0.0532				
SD:	0.061	0.061	0.0003				
%RSD:	0.578	0.578	0.58				

QC value within limits for Hg 253.7 Recovery = 105.48%

All analyte(s) passed QC.

Sequence No.: 42

Sample ID: CCB

Analyst:

Autosampler Location: 1

Date Collected: 12/17/2011 7:20:07 PM

Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0000	0.0006	0.0001	19:20:52	Yes
2	-0.020	-0.020	0.0000	-0.0001	0.0001	19:21:25	Yes
Mean:	-0.017	-0.017	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	20.40	20.40	61.20				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.



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1	[1]	0.0056	0.0187	0.0057	20:41:54	Yes
2	[1]	0.0057	0.0187	0.0058	20:42:27	Yes
Mean:	[1]	0.0056				
SD:	0	0.0000				
%RSD:	0	0.39				

Standard number 3 applied. [1]  
Correlation Coef.: 0.998337 Slope: 0.00568 Intercept: -0.00013

Sequence No.: 5 Autosampler Location: 5  
Sample ID: 2 PPB Date Collected: 12/17/2011 8:42:28 PM  
Analyst: Data Type: Original

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[2]	[2]	0.0102	0.0320	0.0103	20:43:13	Yes
2	[2]	[2]	0.0103	0.0323	0.0104	20:43:45	Yes
Mean:	[2]	[2]	0.0102				
SD:	0	0	0.0001				
%RSD:	0	0	0.58				

Standard number 4 applied. [2]  
Correlation Coef.: 0.998307 Slope: 0.00519 Intercept: 0.00003

Sequence No.: 6 Autosampler Location: 6  
Sample ID: 5 PPB Date Collected: 12/17/2011 8:43:46 PM  
Analyst: Data Type: Original

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[5]	[5]	0.0263	0.0827	0.0264	20:44:31	Yes
2	[5]	[5]	0.0260	0.0813	0.0262	20:45:04	Yes
Mean:	[5]	[5]	0.0262				
SD:	0	0	0.0002				
%RSD:	0	0	0.63				

Standard number 5 applied. [5]  
Correlation Coef.: 0.999754 Slope: 0.00523 Intercept: 0.00001

Sequence No.: 7 Autosampler Location: 7  
Sample ID: 10 PPB Date Collected: 12/17/2011 8:45:05 PM  
Analyst: Data Type: Original

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[10]	[10]	0.0523	0.1648	0.0524	20:45:51	Yes
2	[10]	[10]	0.0528	0.1650	0.0529	20:46:23	Yes
Mean:	[10]	[10]	0.0525				
SD:	0	0	0.0004				
%RSD:	0	0	0.73				

Standard number 6 applied. [10]  
Correlation Coef.: 0.999944 Slope: 0.00525 Intercept: -0.00002

Sequence No.: 8 Autosampler Location: 8  
Sample ID: 25 PPB Date Collected: 12/17/2011 8:46:24 PM  
Analyst: Data Type: Original

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[25]	[25]	0.1303	0.4058	0.1305	20:47:10	Yes
2	[25]	[25]	0.1294	0.4036	0.1295	20:47:42	Yes
Mean:	[25]	[25]	0.1299				
SD:	0	0	0.0006				
%RSD:	0	0	0.50				

Standard number 7 applied. [25]  
Correlation Coef.: 0.999982 Slope: 0.00520 Intercept: 0.00009

Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.018	0.00	20.2
.2 PPB	0.0010	0.2	0.165	0.00	2.4
.5 PPB	0.0025	0.5	0.469	0.00	0.8
1 PPB	0.0056	1.0	1.068	0.00	0.4
2 PPB	0.0102	2.0	1.951	0.00	0.6
5 PPB	0.0262	5.0	5.015	0.00	0.6
10 PPB	0.0525	10.0	10.087	0.00	0.7
25 PPB	0.1299	25.0	24.965	0.00	0.5

Correlation Coef.: 0.999982 Slope: 0.00520 Intercept: 0.00009

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/17/2011 8:47:43 PM

Analyst:

Data Type: Original

Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.82	19.82	0.1032	0.3222	0.1033	20:48:32	Yes
2	20.00	20.00	0.1041	0.3232	0.1042	20:49:04	Yes
Mean:	19.91	19.91	0.1036				
SD:	0.123	0.123	0.0006				
%RSD:	0.618	0.618	0.62				

QC value within limits for Hg 253.7 Recovery = 99.56%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/17/2011 8:49:06 PM

Analyst:

Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0001	0.0011	0.0002	20:49:52	Yes
2	-0.015	-0.015	0.0000	0.0008	0.0001	20:50:24	Yes
Mean:	-0.008	-0.008	0.0001				
SD:	0.009	0.009	0.0000				
%RSD:	113.9	113.9	98.49				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 37

Sample ID: 63111-021 4D

Date Collected: 12/17/2011 8:50:25 PM

Analyst:

Data Type: Original



Replicate Data: 63111-021 4D

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	11.94	11.94	0.0622	0.1932	0.0623	20:51:13	Yes
2	11.96	11.96	0.0623	0.1931	0.0624	20:51:45	Yes
Mean:	11.95	11.95	0.0622				
SD:	0.015	0.015	0.0001				
%RSD:	0.126	0.126	0.13				

Sequence No.: 12

Autosampler Location: 9

Sample ID: CCV

Date Collected: 12/17/2011 8:51:46 PM

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.36	10.36	0.0540	0.1666	0.0541	20:52:33	Yes
2	10.49	10.49	0.0546	0.1653	0.0547	20:53:06	Yes
Mean:	10.43	10.43	0.0543				

SD: 0.091 0.091 0.0005  
 %RSD: 0.869 0.869 0.87  
 QC value within limits for Hg 253.7 Recovery = 104.26%  
 All analyte(s) passed QC.

=====  
 Sequence No.: 13

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/17/2011 8:53:07 PM

Analyst:

Data Type: Original  
 -----

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0000	0.0004	0.0001	20:53:53	Yes
2	-0.044	-0.044	-0.0001	-0.0021	-0.0000	20:54:25	Yes
Mean:	-0.029	-0.029	-0.0001				
SD:	0.021	0.021	0.0001				
%RSD:	69.98	69.98	180.22				

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP3A\I13383A3.txt

Analysis Date: 12/12/11

Instrument: PEICP3A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	18:57	1							V-129815(ICB/CCB)
Calib 1 V-128669	1	CAL	19:00	2							V-128669(ICS1 - Lowest std)
Calib 2 V-128664	1	CAL	19:03	3							V-128664(ICS2- Low Std)
Calib 3 V-128661	1	CAL	19:07	4							V-128661(ICS3 - Middle Std)
Calib 4 V-129806	1	CAL	19:10	5							V-129806(ICS4 - High std)
ICS3 V-128661	1	ICS	19:15	6							V-128661(ICS3 - Middle Std)
ICV (2) V-128235	1	ICV	19:18	7							V-128235(ICV)
ICB V-129815	1	ICB	19:23	8							V-129815(ICB/CCB)
ICSA V-129812	1	ICSA	19:26	9							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	19:31	10							V-128667(ICSAB)
MB 11689 (100)	1	MB	19:37	11		SOIL	SOIL	SW846	11689		0
LCS 11689	1	LCS	19:40	12		SOIL	SOIL	SW846	11689		0
LCS 11689 MR	1	LCS	19:45	13		SOIL	SOIL	SW846	11689		0
AC63111-006	1	SMP	19:50	14	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-006	1	MR	19:53	15	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-006	1	MS	19:57	16	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-006	1	MSD	20:00	17	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-006	1	PS	20:04	18	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
CCV V-129808	1	CCV	20:08	19							V-129808(CCV)
CCB V-129815	1	CCB	20:11	20							V-129815(ICB/CCB)
AC63111-006	5	SD	20:14	21	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-001	1	SMP	20:18	22	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-002	1	SMP	20:21	23	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-003	1	SMP	20:25	24	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-005	1	SMP	20:28	25	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-007	1	SMP	20:32	26	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
ICSA V-129812	1	ICSA	20:36	27							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	20:41	28							V-128667(ICSAB)
CCV V-129808	1	CCV	20:46	29							V-129808(CCV)
CCB V-129815	1	CCB	20:49	30							V-129815(ICB/CCB)
AC63111-009	1	SMP	20:53	31	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-010	1	SMP	20:56	32	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-011	1	SMP	21:00	33	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-013	1	SMP	21:03	34	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-014	1	SMP	21:07	35	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-015	1	SMP	21:10	36	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-017	1	SMP	21:14	37	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
CCV V-129808	1	CCV	21:17	38							V-129808(CCV)
CCB V-129815	1	CCB	21:21	39							V-129815(ICB/CCB)
AC63111-019	1	SMP	21:24	40	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-020	1	SMP	21:28	41	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-022	1	SMP	21:31	42	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-023	1	SMP	21:35	43	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-024	1	SMP	21:39	44	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-026	1	SMP	21:42	45	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-027	1	SMP	21:46	46	MET-2-SOIL	SOIL	SOIL	SW846	11689		0
ICSA V-129812	1	ICSA	21:49	47							V-129812(ICSA)
ICSAB V-128667	1	ICSAB	21:54	48							V-128667(ICSAB)
CCV V-129808	1	CCV	21:59	49							V-129808(CCV)
CCB V-129815	1	CCB	22:03	50							V-129815(ICB/CCB)

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

gabriele  
192.168.1.85 12/13/2011 11:27:02 AM

RUN OK.

*Shu* 12/13/11

## Run Log

Data File: W:\METALS.FRM\ICPDATA\New\HGC\1A\H13383S.txt

Analysis Date: 12/12/11

Instrument: HGC\1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	19:20	1							0
.2 PPB	1	CAL	19:21	2							0
.5 PPB	1	CAL	19:23	3							0
1 PPB	1	CAL	19:24	4							0
2 PPB	1	CAL	19:26	5							0
5 PPB	1	CAL	19:28	6							0
10 PPB	1	CAL	19:29	7							0
25 PPB	1	CAL	19:31	8							0
ICV (2)	1	ICV	19:32	9							0
ICB	1	ICB	19:34	10							0
MB 11689 (167)	1	MB	19:35	11		SOIL	SOIL	SW846	11689		0
LCS 11689	1	LCS	19:37	12		SOIL	SOIL	SW846	11689		0
LCS MR 11689	1	LCS	19:38	13		SOIL	SOIL	SW846	11689		0
AC63111-006	1	NA	19:40	14	HG-SOIL	SOIL	SOIL	SW846	11689	non-homogenous sample	0
AC63111-006	1	NA	19:41	15	HG-SOIL	SOIL	SOIL	SW846	11689	non-homogenous sample	0
AC63111-006	1	NA	19:43	16	HG-SOIL	SOIL	SOIL	SW846	11689	non-homogenous sample	0
AC63111-006	1	NA	19:44	17	HG-SOIL	SOIL	SOIL	SW846	11689	non-homogenous sample	0
AC63111-001	1	NA	19:46	18	HG-SOIL	SOIL	SOIL	SW846	11689	sample concentration greater than that of highest standard	0
AC63111-002	1	SMP	19:48	19	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-003	1	NA	19:50	20	HG-SOIL	SOIL	SOIL	SW846	11689	sample concentration greater than that of highest standard	0
CCV	1	CCV	19:52	21							0
CCB	1	CCB	19:53	22							0
AC63111-005	1	SMP	19:55	23	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-007	1	SMP	19:57	24	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-009	1	SMP	19:58	25	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-010	1	SMP	20:00	26	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-011	1	SMP	20:01	27	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-013	1	SMP	20:03	28	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-014	1	SMP	20:04	29	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-015	1	SMP	20:06	30	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-017	1	SMP	20:07	31	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-019	1	SMP	20:09	32	HG-SOIL	SOIL	SOIL	SW846	11689		0
CCV	1	CCV	20:10	33							0
CCB	1	CCB	20:12	34							0
AC63111-020	1	SMP	20:14	35	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-022	1	SMP	20:15	36	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-023	1	SMP	20:17	37	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-024	1	SMP	20:18	38	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-026	1	SMP	20:20	39	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-027	1	SMP	20:21	40	HG-SOIL	SOIL	SOIL	SW846	11689		0
CCV	1	CCV	20:23	41							0
CCB	1	CCB	20:24	42							0

Comments/Reviewedby:

olufemi  
192.168.1.89 12/13/2011 1:33:05 PM

RUN IS OK

Standard/Batch/SnCl2 Lot #:

V-130565

Shu 12/13/11

# Run Log

Data File: W:\METALS\FRM\ICPDATA\New\HGCVIA\H13383Sc.txt

Analysis Date: 12/13/11

Instrument: HGCVIA

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	13:42	1							0
2 PPB	1	CAL	13:44	2							0
5 PPB	1	CAL	13:45	3							0
1 PPB	1	CAL	13:47	4							0
2 PPB	1	CAL	13:48	5							0
5 PPB	1	CAL	13:50	6							0
10 PPB	1	CAL	13:51	7							0
25 PPB	1	CAL	13:53	8							0
ICV (2)	1	ICV	13:54	9							0
ICB	1	ICB	13:56	10							0
MB 11706 (167)	1	MB	13:57	11	HG-SOIL	SOIL	SOIL	SW846	11706		0
LCS 11706	1	NA	13:59	12	HG-SOIL	SOIL	SOIL	SW846	11706	concentration greater than that of highest standard	0
LCS MR 11706	1	LCS	14:01	13	HG-SOIL	SOIL	SOIL	SW846	11706		0
AC63111-006	1	NA	14:02	14	HG-SOIL	SOIL	SOIL	SW846	11706	MS1 concentration greater than that of highest standard	0
AC63111-006	1	NA	14:04	15	HG-SOIL	SOIL	SOIL	SW846	11706	MS1 concentration greater than that of highest standard	0
LCS 11706	1	LCS	14:05	16	HG-SOIL	SOIL	SOIL	SW846	11706		0
AC63111-006	1	NA	14:07	17	HG-SOIL	SOIL	SOIL	SW846	11706	MS1 concentration greater than that of highest standard	0
AC63111-006	1	NA	14:08	18	HG-SOIL	SOIL	SOIL	SW846	11706	MS1 concentration greater than that of highest standard	0
AC63111-001	10	SMP	14:10	19	HG-SOIL	SOIL	SOIL	SW846	11689		0
AC63111-003	5	SMP	14:11	20	HG-SOIL	SOIL	SOIL	SW846	11689		0
CCV	1	CCV	14:13	21							0
CCB	1	CCB	14:14	22							0
AC63111-006	2	SMP	14:16	23	HG-SOIL	SOIL	SOIL	SW846	11706		0
AC63111-006	2	MR	14:17	24	HG-SOIL	SOIL	SOIL	SW846	11706		0
AC63111-006	2	MS	14:19	25	HG-SOIL	SOIL	SOIL	SW846	11706		0
AC63111-006	2	MSD	14:20	26	HG-SOIL	SOIL	SOIL	SW846	11706		0
CCV	1	CCV	14:22	27							0
CCB	1	CCB	14:24	28							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/13/2011 2:43:07 PM

V-130652

RUN IS OK

*olufemi* 12/13/11

*G. Yhalin* 12.13.11

Method Loaded

Method Name: PE3 7300DV AXIAL  
 IEC File: IEC091211A.iec  
 Method Description: 200.7/6010B

Method Last Saved: 12/9/2011 12:49:52 PM  
 MSF File:

13383  
(11689)

Sequence No.: 1  
 Sample ID: Calib Blk 1 V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/12/2011 6:57:00 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

*sh...* 12/13/11

Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	487018.1	7931.60	1.63%	100 %
Y 371.029	189578.4	3369.31	1.78%	100 %
Ag 328.068†	106.2	12.25	11.54%	[0.00] mg/L
Al 308.215†	3613.1	33.04	0.91%	[0.00] mg/L
As 188.979†	30.9	4.44	14.37%	[0.00] mg/L
Ba 233.527†	-117.0	9.75	8.33%	[0.00] mg/L
Be 313.107†	963.4	72.18	7.49%	[0.00] mg/L
Ca 317.933†	1121.2	26.54	2.37%	[0.00] mg/L
Cd 228.802†	368.5	17.51	4.75%	[0.00] mg/L
Co 228.616†	647.9	22.30	3.44%	[0.00] mg/L
Cr 267.716†	29.0	3.43	11.83%	[0.00] mg/L
Cu 327.393†	676.4	26.47	3.91%	[0.00] mg/L
Fe 273.955†	-169.2	27.53	16.27%	[0.00] mg/L
K 404.721†	-20967.1	151.91	0.72%	[0.00] mg/L
Mg 279.077†	175.6	80.23	45.70%	[0.00] mg/L
Mn 257.610†	402.7	27.56	6.84%	[0.00] mg/L
Mo 202.031†	33.0	6.47	19.59%	[0.00] mg/L
Na 330.237†	-4227.8	6.80	0.16%	[0.00] mg/L
Ni 231.604†	1698.5	32.74	1.93%	[0.00] mg/L
Pb 220.353†	-2.9	12.26	428.44%	[0.00] mg/L
Sb 206.836†	53.9	5.06	9.39%	[0.00] mg/L
Se 196.026†	1.1	4.66	428.62%	[0.00] mg/L
Sn 189.927†	-21.6	3.33	15.42%	[0.00] mg/L
Ti 334.940†	-264.1	3.07	1.16%	[0.00] mg/L
Tl 190.801†	-11.2	0.30	2.71%	[0.00] mg/L
V 290.880†	2166.9	147.12	6.79%	[0.00] mg/L
Zn 206.200†	-198.8	2.34	1.18%	[0.00] mg/L

As, Pb reported.

Sequence No.: 2

Sample ID: Calib 1 V-128669

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 12/12/2011 7:00:20 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

-----  
Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	508261.1	2036.70	0.40%	104	%
Y 371.029	197063.9	413.19	0.21%	104	%
As 188.979†	7.4	4.47	60.71%	[0.005]	mg/L
Be 313.107†	5313.2	29.55	0.56%	[0.003]	mg/L
Cd 228.802†	63.2	2.08	3.28%	[0.003]	mg/L
Pb 220.353†	25.1	8.05	32.03%	[0.004]	mg/L
Tl 190.801†	2.1	3.34	157.41%	[0.005]	mg/L

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-128664

Date Collected: 12/12/2011 7:03:40 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 2 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	501600.6	14171.19	2.83%	103	%
Y 371.029	194661.8	5567.48	2.86%	103	%
Ag 328.068†	133.7	36.47	27.28%	[0.002]	mg/L
Al 308.215†	1531.2	131.30	8.57%	[0.10]	mg/L
As 188.979†	8.1	3.48	43.08%	[0.010]	mg/L
Ba 233.527†	997.0	27.56	2.76%	[0.010]	mg/L
Be 313.107†	17770.7	592.42	3.33%	[0.010]	mg/L
Ca 317.933†	48892.4	1527.52	3.12%	[1.0]	mg/L
Cd 228.802†	246.0	44.62	18.13%	[0.010]	mg/L
Co 228.616†	261.4	44.42	16.99%	[0.010]	mg/L
Cr 267.716†	276.6	0.09	0.03%	[0.010]	mg/L
Cu 327.393†	701.4	42.60	6.07%	[0.010]	mg/L
Fe 273.955†	2093.7	79.55	3.80%	[0.10]	mg/L
K 404.721†	397.3	727.02	183.01%	[1.0]	mg/L
Mg 279.077†	8817.5	267.14	3.03%	[1.0]	mg/L
Mn 257.610†	3530.4	124.69	3.53%	[0.010]	mg/L
Mo 202.031†	111.4	13.92	12.50%	[0.010]	mg/L
Na 330.237†	516.6	79.82	15.45%	[1.0]	mg/L
Ni 231.604†	215.7	38.73	17.96%	[0.010]	mg/L
Pb 220.353†	45.1	4.85	10.74%	[0.010]	mg/L
Sb 206.836†	10.8	0.17	1.60%	[0.010]	mg/L
Se 196.026†	7.8	1.00	12.79%	[0.010]	mg/L
Sn 189.927†	38.6	4.51	11.69%	[0.010]	mg/L
Ti 334.940†	2994.2	53.79	1.80%	[0.010]	mg/L
Tl 190.801†	5.5	4.44	80.68%	[0.010]	mg/L
V 290.880†	795.4	103.48	13.01%	[0.010]	mg/L
Zn 206.200†	345.7	3.39	0.98%	[0.010]	mg/L

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib 3 V-128661

Date Collected: 12/12/2011 7:07:01 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 3 V-128661

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	477031.9	437.38	0.09%	97.9	%
Y 371.029	181323.6	369.12	0.20%	95.6	%
Ag 328.068†	9029.1	20.65	0.23%	[0.10]	mg/L
Al 308.215†	78314.3	121.89	0.16%	[5.0]	mg/L
As 188.979†	544.2	3.23	0.59%	[0.50]	mg/L
Ba 233.527†	49254.0	125.23	0.25%	[0.50]	mg/L
Be 313.107†	938350.4	884.17	0.09%	[0.50]	mg/L
Ca 317.933†	2395195.6	10158.17	0.42%	[50]	mg/L
Cd 228.802†	13632.8	134.07	0.98%	[0.50]	mg/L
Co 228.616†	13588.2	127.11	0.94%	[0.50]	mg/L
Cr 267.716†	14390.8	158.11	1.10%	[0.50]	mg/L
Cu 327.393†	37158.8	21.81	0.06%	[0.50]	mg/L
Fe 273.955†	102177.7	174.52	0.17%	[5.0]	mg/L
K 404.721†	1333.1	16.95	1.27%	[50]	mg/L
Mg 279.077†	424497.0	838.47	0.20%	[50]	mg/L
Mn 257.610†	173732.1	250.42	0.14%	[0.50]	mg/L
Mo 202.031†	5444.1	47.07	0.86%	[0.50]	mg/L
Na 330.237†	22555.9	8.48	0.04%	[50]	mg/L
Ni 231.604†	12811.6	125.03	0.98%	[0.50]	mg/L
Pb 220.353†	1996.8	6.77	0.34%	[0.50]	mg/L
Sb 206.836†	655.4	3.68	0.56%	[0.50]	mg/L
Se 196.026†	349.4	1.31	0.38%	[0.50]	mg/L
Sn 189.927†	1763.9	14.40	0.82%	[0.50]	mg/L
Ti 334.940†	152206.6	122.21	0.08%	[0.50]	mg/L
Tl 190.801†	412.7	3.84	0.93%	[0.50]	mg/L
V 290.880†	43876.3	127.90	0.29%	[0.50]	mg/L
Zn 206.200†	17108.4	152.83	0.89%	[0.50]	mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-129806

Date Collected: 12/12/2011 7:10:25 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 4 V-129806

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	463264.7	2951.37	0.64%	95.1	%
Y 371.029	176046.8	1428.75	0.81%	92.9	%
Ag 328.068†	18110.0	106.74	0.59%	[0.20]	mg/L
Al 308.215†	155657.0	196.21	0.13%	[10]	mg/L
As 188.979†	1119.3	7.98	0.71%	[1.0]	mg/L
Ba 233.527†	97786.1	442.12	0.45%	[1.0]	mg/L
Be 313.107†	1859966.8	37132.43	2.00%	[1.0]	mg/L
Ca 317.933†	4676817.0	102316.40	2.19%	[100]	mg/L
Cd 228.802†	27381.8	212.45	0.78%	[1.0]	mg/L
Co 228.616†	27024.9	170.51	0.63%	[1.0]	mg/L
Cr 267.716†	29131.9	142.87	0.49%	[1.0]	mg/L
Cu 327.393†	74251.3	373.60	0.50%	[1.0]	mg/L
Fe 273.955†	202670.6	558.19	0.28%	[10]	mg/L
K 404.721†	2589.4	52.83	2.04%	[100]	mg/L
Mg 279.077†	828153.7	18011.52	2.17%	[100]	mg/L
Mn 257.610†	344419.7	912.35	0.26%	[1.0]	mg/L
Mo 202.031†	10977.8	38.13	0.35%	[1.0]	mg/L
Na 330.237†	46799.3	46.07	0.10%	[100]	mg/L
Ni 231.604†	25655.7	97.68	0.38%	[1.0]	mg/L
Pb 220.353†	3997.8	45.78	1.15%	[1.0]	mg/L
Sb 206.836†	1332.3	14.69	1.10%	[1.0]	mg/L
Se 196.026†	717.8	6.79	0.95%	[1.0]	mg/L
Sn 189.927†	3530.6	26.77	0.76%	[1.0]	mg/L
Ti 334.940†	303837.6	408.44	0.13%	[1.0]	mg/L
Tl 190.801†	826.7	6.18	0.75%	[1.0]	mg/L
V 290.880†	86781.5	296.76	0.34%	[1.0]	mg/L
Zn 206.200†	34085.1	180.71	0.53%	[1.0]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-26.2	90650	0.00000	0.999997	
Al 308.215	3	Lin, Calc Int	76.9	15580	0.00000	0.999995	
As 188.979	4	Lin, Calc Int	-2.3	1116	0.00000	0.999906	
Ba 233.527	3	Lin, Calc Int	74.4	97840	0.00000	0.999993	
Be 313.107	4	Lin, Calc Int	700.3	1862000	0.00000	0.999990	
Ca 317.933	3	Lin, Calc Int	11299.7	46860	0.00000	0.999923	
Cd 228.802	4	Lin, Calc Int	-21.9	27380	0.00000	0.999998	
Co 228.616	3	Lin, Calc Int	9.8	27040	0.00000	0.999996	
Cr 267.716	3	Lin, Calc Int	-38.5	29110	0.00000	0.999981	
Cu 327.393	3	Lin, Calc Int	-12.7	74280	0.00000	1.000000	
Fe 273.955	3	Lin, Calc Int	183.7	20280	0.00000	0.999991	
K 404.721	3	Lin, Calc Int	175.6	23.96	0.00000	0.990917	
Mg 279.077	3	Lin, Calc Int	2139.8	8297	0.00000	0.999918	
Mn 257.610	3	Lin, Calc Int	316.2	344600	0.00000	0.999990	
Mo 202.031	3	Lin, Calc Int	-7.4	10970	0.00000	0.999991	
Na 330.237	3	Lin, Calc Int	-131.5	466.2	0.00000	0.999819	
Ni 231.604	3	Lin, Calc Int	-21.5	25670	0.00000	0.999999	
Pb 220.353	4	Lin, Calc Int	4.2	3992	0.00000	0.999998	
Sb 206.836	3	Lin, Calc Int	-3.1	1332	0.00000	0.999968	
Se 196.026	3	Lin, Calc Int	-1.4	715.7	0.00000	0.999902	
Sn 189.927	3	Lin, Calc Int	1.2	3529	0.00000	0.999999	
Ti 334.940	3	Lin, Calc Int	32.3	303900	0.00000	0.999999	
Tl 190.801	4	Lin, Calc Int	-1.6	828.3	0.00000	0.999996	
V 290.880	3	Lin, Calc Int	55.5	86910	0.00000	0.999982	
Zn 206.200	3	Lin, Calc Int	14.2	34090	0.00000	0.999998	

Sequence No.: 6

Sample ID: ICS3 V-128661

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/12/2011 7:15:14 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICS3 V-128661

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	472809.0		97.1 %	1.24			1.27%
Y 371.029	181039.5		95.5 %	0.12			0.12%
Ag 328.068†	9127.8	0.103171 mg/L		0.0018727	0.103171 mg/L	0.0018727	1.82%
QC value within limits for Ag		328.068	Recovery = 103.17%				
Al 308.215†	79123.3	5.06215 mg/L		0.083784	5.06215 mg/L	0.083784	1.66%
QC value within limits for Al		308.215	Recovery = 101.24%				
As 188.979†	552.0	0.499442 mg/L		0.0020124	0.499442 mg/L	0.0020124	0.40%
QC value within limits for As		188.979	Recovery = 99.89%				
Ba 233.527†	49596.5	0.506150 mg/L		0.0074064	0.506150 mg/L	0.0074064	1.46%
QC value within limits for Ba		233.527	Recovery = 101.23%				
Be 313.107†	927757.4	0.497760 mg/L		0.0035088	0.497760 mg/L	0.0035088	0.70%
QC value within limits for Be		313.107	Recovery = 99.55%				
Ca 317.933†	2376279.2	50.4701 mg/L		0.15404	50.4701 mg/L	0.15404	0.31%
QC value within limits for Ca		317.933	Recovery = 100.94%				
Cd 228.802†	13567.5	0.497008 mg/L		0.0026748	0.497008 mg/L	0.0026748	0.54%
QC value within limits for Cd		228.802	Recovery = 99.40%				
Co 228.616†	13917.3	0.513722 mg/L		0.0089582	0.513722 mg/L	0.0089582	1.74%
QC value within limits for Co		228.616	Recovery = 102.74%				
Cr 267.716†	14763.6	0.509045 mg/L		0.0074100	0.509045 mg/L	0.0074100	1.46%
QC value within limits for Cr		267.716	Recovery = 101.81%				
Cu 327.393†	37557.3	0.509201 mg/L		0.0091228	0.509201 mg/L	0.0091228	1.79%
QC value within limits for Cu		327.393	Recovery = 101.84%				
Fe 273.955†	102861.3	5.06334 mg/L		0.079457	5.06334 mg/L	0.079457	1.57%
QC value within limits for Fe		273.955	Recovery = 101.27%				
K 404.721†	1258.2	45.1912 mg/L		1.36990	45.1912 mg/L	1.36990	3.03%
Mg 279.077†	419653.6	50.3289 mg/L		0.25183	50.3289 mg/L	0.25183	0.50%
QC value within limits for Mg		279.077	Recovery = 100.66%				
Mn 257.610†	174262.0	0.504022 mg/L		0.0078875	0.504022 mg/L	0.0078875	1.56%
QC value within limits for Mn		257.610	Recovery = 100.80%				
Mo 202.031†	5451.2	0.497749 mg/L		0.0028606	0.497749 mg/L	0.0028606	0.57%
QC value within limits for Mo		202.031	Recovery = 99.55%				
Na 330.237†	22717.4	49.0099 mg/L		0.75739	49.0099 mg/L	0.75739	1.55%
QC value within limits for Na		330.237	Recovery = 98.02%				
Ni 231.604†	13260.8	0.518712 mg/L		0.0081222	0.518712 mg/L	0.0081222	1.57%
QC value within limits for Ni		231.604	Recovery = 103.74%				
Pb 220.353†	1998.9	0.496904 mg/L		0.0013330	0.496904 mg/L	0.0013330	0.27%
QC value within limits for Pb		220.353	Recovery = 99.38%				
Sb 206.836†	662.3	0.509409 mg/L		0.0039548	0.509409 mg/L	0.0039548	0.78%
QC value within limits for Sb		206.836	Recovery = 101.88%				
Se 196.026†	352.2	0.496890 mg/L		0.0048084	0.496890 mg/L	0.0048084	0.97%
QC value within limits for Se		196.026	Recovery = 99.38%				
Sn 189.927†	1772.5	0.502811 mg/L		0.0019968	0.502811 mg/L	0.0019968	0.40%
QC value within limits for Sn		189.927	Recovery = 100.56%				
Ti 334.940†	152406.6	0.501249 mg/L		0.0112617	0.501249 mg/L	0.0112617	2.25%
QC value within limits for Ti		334.940	Recovery = 100.25%				
Tl 190.801†	414.5	0.504225 mg/L		0.0080332	0.504225 mg/L	0.0080332	1.59%
QC value within limits for Tl		190.801	Recovery = 100.85%				
V 290.880†	44428.2	0.502221 mg/L		0.0082398	0.502221 mg/L	0.0082398	1.64%
QC value within limits for V		290.880	Recovery = 100.44%				
Zn 206.200†	17509.2	0.512217 mg/L		0.0084141	0.512217 mg/L	0.0084141	1.64%
QC value within limits for Zn		206.200	Recovery = 102.44%				

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV (2) V-128235

Date Collected: 12/12/2011 7:18:47 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICV (2) V-128235

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	461701.7	94.8 %	0.19			0.20%
Y 371.029	175498.3	92.6 %	0.14			0.15%
Ag 328.068†	18030.5	0.203544 mg/L	0.0035334	0.203544 mg/L	0.0035334	1.74%
	QC value within limits for Ag	328.068 Recovery = 101.77%				
Al 308.215†	156347.1	10.0065 mg/L	0.05975	10.0065 mg/L	0.05975	0.60%
	QC value within limits for Al	308.215 Recovery = 100.07%				
As 188.979†	1129.1	1.01920 mg/L	0.004609	1.01920 mg/L	0.004609	0.45%
	QC value within limits for As	188.979 Recovery = 101.92%				
Ba 233.527†	99079.2	1.01190 mg/L	0.006057	1.01190 mg/L	0.006057	0.60%
	QC value within limits for Ba	233.527 Recovery = 101.19%				
Be 313.107†	1882078.9	1.01016 mg/L	0.020999	1.01016 mg/L	0.020999	2.08%
	QC value within limits for Be	313.107 Recovery = 101.02%				
Ca 317.933†	4766014.8	101.469 mg/L	1.2404	101.469 mg/L	1.2404	1.22%
	QC value within limits for Ca	317.933 Recovery = 101.47%				
Cd 228.802†	27896.8	1.02101 mg/L	0.001203	1.02101 mg/L	0.001203	0.12%
	QC value within limits for Cd	228.802 Recovery = 102.10%				
Co 228.616†	27740.5	1.02438 mg/L	0.000819	1.02438 mg/L	0.000819	0.08%
	QC value within limits for Co	228.616 Recovery = 102.44%				
Cr 267.716†	29307.7	1.00926 mg/L	0.016487	1.00926 mg/L	0.016487	1.63%
	QC value within limits for Cr	267.716 Recovery = 100.93%				
Cu 327.393†	75129.3	1.01843 mg/L	0.009820	1.01843 mg/L	0.009820	0.96%
	QC value within limits for Cu	327.393 Recovery = 101.84%				
Fe 273.955†	201645.8	9.93470 mg/L	0.073000	9.93470 mg/L	0.073000	0.73%
	QC value within limits for Fe	273.955 Recovery = 99.35%				
K 404.721†	2294.9	88.4648 mg/L	7.49207	88.4648 mg/L	7.49207	8.47%
Mg 279.077†	837858.8	100.742 mg/L	2.3806	100.742 mg/L	2.3806	2.36%
	QC value within limits for Mg	279.077 Recovery = 100.74%				
Mn 257.610†	344181.6	0.996371 mg/L	0.0077433	0.996371 mg/L	0.0077433	0.78%
	QC value within limits for Mn	257.610 Recovery = 99.64%				
Mo 202.031†	11238.0	1.02542 mg/L	0.001081	1.02542 mg/L	0.001081	0.11%
	QC value within limits for Mo	202.031 Recovery = 102.54%				
Na 330.237†	46892.6	100.865 mg/L	0.4523	100.865 mg/L	0.4523	0.45%
	QC value within limits for Na	330.237 Recovery = 100.86%				
Ni 231.604†	26132.7	1.02152 mg/L	0.000782	1.02152 mg/L	0.000782	0.08%
	QC value within limits for Ni	231.604 Recovery = 102.15%				
Pb 220.353†	4058.6	1.01025 mg/L	0.001111	1.01025 mg/L	0.001111	0.11%
	QC value within limits for Pb	220.353 Recovery = 101.03%				
Sb 206.836†	1334.4	1.02435 mg/L	0.005509	1.02435 mg/L	0.005509	0.54%
	QC value within limits for Sb	206.836 Recovery = 102.44%				
Se 196.026†	731.4	1.02950 mg/L	0.012523	1.02950 mg/L	0.012523	1.22%
	QC value within limits for Se	196.026 Recovery = 102.95%				
Sn 189.927†	3610.2	1.02440 mg/L	0.005132	1.02440 mg/L	0.005132	0.50%
	QC value within limits for Sn	189.927 Recovery = 102.44%				
Ti 334.940†	303661.7	0.998818 mg/L	0.0048809	0.998818 mg/L	0.0048809	0.49%
	QC value within limits for Ti	334.940 Recovery = 99.88%				
Tl 190.801†	880.5	1.06869 mg/L	0.004075	1.06869 mg/L	0.004075	0.38%
	QC value within limits for Tl	190.801 Recovery = 106.87%				
V 290.880†	87289.0	0.987062 mg/L	0.0060391	0.987062 mg/L	0.0060391	0.61%
	QC value within limits for V	290.880 Recovery = 98.71%				
Zn 206.200†	34565.5	1.01155 mg/L	0.003486	1.01155 mg/L	0.003486	0.34%
	QC value within limits for Zn	206.200 Recovery = 101.16%				

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/12/2011 7:23:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	496429.8	102 %	%	0.9			0.89%
Y 371.029	193277.2	102 %	%	0.6			0.63%
Ag 328.068†	-6.0	0.0002164 mg/L	mg/L	0.00002369	0.0002164 mg/L	0.00002369	10.95%
QC value within limits for Ag 328.068			Recovery = Not calculated				
Al 308.215†	52.3	-0.0016275 mg/L	mg/L	0.00412266	-0.0016275 mg/L	0.00412266	253.31%
QC value within limits for Al 308.215			Recovery = Not calculated				
As 188.979†	-0.5	0.0016117 mg/L	mg/L	0.00281011	0.0016117 mg/L	0.00281011	174.35%
QC value within limits for As 188.979			Recovery = Not calculated				
Ba 233.527†	18.7	-0.0005692 mg/L	mg/L	0.00004401	-0.0005692 mg/L	0.00004401	7.73%
QC value within limits for Ba 233.527			Recovery = Not calculated				
Be 313.107†	-4.4	-0.0003783 mg/L	mg/L	0.00001342	-0.0003783 mg/L	0.00001342	3.55%
QC value within limits for Be 313.107			Recovery = Not calculated				
Ca 317.933†	-1.0	-0.241166 mg/L	mg/L	0.0000772	-0.241166 mg/L	0.0000772	0.03%
QC value within limits for Ca 317.933			Recovery = Not calculated				
Cd 228.802†	7.5	0.0010707 mg/L	mg/L	0.00066978	0.0010707 mg/L	0.00066978	62.56%
QC value within limits for Cd 228.802			Recovery = Not calculated				
Co 228.616†	-20.5	-0.0011185 mg/L	mg/L	0.00096391	-0.0011185 mg/L	0.00096391	86.18%
QC value within limits for Co 228.616			Recovery = Not calculated				
Cr 267.716†	-5.1	0.0011513 mg/L	mg/L	0.00008094	0.0011513 mg/L	0.00008094	7.03%
QC value within limits for Cr 267.716			Recovery = Not calculated				
Cu 327.393†	-80.0	-0.0009163 mg/L	mg/L	0.00014102	-0.0009163 mg/L	0.00014102	15.39%
QC value within limits for Cu 327.393			Recovery = Not calculated				
Fe 273.955†	24.5	-0.0078490 mg/L	mg/L	0.00203233	-0.0078490 mg/L	0.00203233	25.89%
QC value within limits for Fe 273.955			Recovery = Not calculated				
K 404.721†	275.5	4.17257 mg/L	mg/L	6.407799	4.17257 mg/L	6.407799	153.57%
Mg 279.077†	18.7	-0.255593 mg/L	mg/L	0.0052362	-0.255593 mg/L	0.0052362	2.05%
QC value within limits for Mg 279.077			Recovery = Not calculated				
Mn 257.610†	7.6	-0.0008903 mg/L	mg/L	0.00001283	-0.0008903 mg/L	0.00001283	1.44%
QC value within limits for Mn 257.610			Recovery = Not calculated				
Mo 202.031†	13.1	0.0018681 mg/L	mg/L	0.00005091	0.0018681 mg/L	0.00005091	2.72%
QC value within limits for Mo 202.031			Recovery = Not calculated				
Na 330.237†	82.2	0.458511 mg/L	mg/L	0.1753308	0.458511 mg/L	0.1753308	38.24%
QC value within limits for Na 330.237			Recovery = Not calculated				
Ni 231.604†	-29.2	-0.0002947 mg/L	mg/L	0.00091878	-0.0002947 mg/L	0.00091878	311.76%
QC value within limits for Ni 231.604			Recovery = Not calculated				
Pb 220.353†	1.4	-0.0007109 mg/L	mg/L	0.00113497	-0.0007109 mg/L	0.00113497	159.65%
QC value within limits for Pb 220.353			Recovery = Not calculated				
Sb 206.836†	-1.9	0.0009015 mg/L	mg/L	0.00194911	0.0009015 mg/L	0.00194911	216.20%
QC value within limits for Sb 206.836			Recovery = Not calculated				
Se 196.026†	4.0	0.0075665 mg/L	mg/L	0.00033632	0.0075665 mg/L	0.00033632	4.44%
QC value within limits for Se 196.026			Recovery = Not calculated				
Sn 189.927†	13.6	0.0035010 mg/L	mg/L	0.00096699	0.0035010 mg/L	0.00096699	27.62%
QC value within limits for Sn 189.927			Recovery = Not calculated				
Ti 334.940†	-19.8	-0.0001717 mg/L	mg/L	0.00003410	-0.0001717 mg/L	0.00003410	19.86%
QC value within limits for Ti 334.940			Recovery = Not calculated				
Tl 190.801†	1.4	0.0035405 mg/L	mg/L	0.00110728	0.0035405 mg/L	0.00110728	31.27%
QC value within limits for Tl 190.801			Recovery = Not calculated				
V 290.880†	-75.3	-0.0014612 mg/L	mg/L	0.00004327	-0.0014612 mg/L	0.00004327	2.96%
QC value within limits for V 290.880			Recovery = Not calculated				
Zn 206.200†	8.2	-0.0001668 mg/L	mg/L	0.00010288	-0.0001668 mg/L	0.00010288	61.67%
QC value within limits for Zn 206.200			Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 9  
 Sample ID: ICSA V-129812  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/12/2011 7:26:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: ICSA V-129812

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	448638.3		92.1 %	0.38			0.41%
Y 371.029	169846.4		89.6 %	0.47			0.52%
Ag 328.068†	-3011.7	0.0166369	mg/L	0.00024396	0.0166369	mg/L	0.00024396 1.47%
Al 308.215†	7599586.0	487.904	mg/L	0.9661	487.904	mg/L	0.9661 0.20%
QC value within limits for Al 308.215 Recovery = 97.58%							
As 188.979†	-7.0	-0.0019107	mg/L	0.00032855	-0.0019107	mg/L	0.00032855 17.20%
Ba 233.527†	658.5	0.0059698	mg/L	0.00003328	0.0059698	mg/L	0.00003328 0.56%
Be 313.107†	-1310.2	-0.0010795	mg/L	0.00000183	-0.0010795	mg/L	0.00000183 0.17%
Ca 317.933†	23092995.2	492.578	mg/L	6.1473	492.578	mg/L	6.1473 1.25%
QC value within limits for Ca 317.933 Recovery = 98.52%							
Cd 228.802†	67.2	0.0032528	mg/L	0.00051824	0.0032528	mg/L	0.00051824 15.93%
Co 228.616†	94.5	0.0031396	mg/L	0.00045122	0.0031396	mg/L	0.00045122 14.37%
Cr 267.716†	-71.8	-0.0011417	mg/L	0.00027511	-0.0011417	mg/L	0.00027511 24.10%
Cu 327.393†	-2161.2	-0.0003431	mg/L	0.00077241	-0.0003431	mg/L	0.00077241 225.10%
Fe 273.955†	3805367.0	187.645	mg/L	0.5458	187.645	mg/L	0.5458 0.29%
QC value within limits for Fe 273.955 Recovery = 93.82%							
K 404.721†	-1001.2	-49.1226	mg/L	11.09761	-49.1226	mg/L	11.09761 22.59%
Mg 279.077†	4245267.1	511.380	mg/L	1.8793	511.380	mg/L	1.8793 0.37%
QC value within limits for Mg 279.077 Recovery = 102.28%							
Mn 257.610†	797.1	-0.0074931	mg/L	0.00028156	-0.0074931	mg/L	0.00028156 3.76%
Mo 202.031†	5.2	0.0011517	mg/L	0.00032149	0.0011517	mg/L	0.00032149 27.91%
Na 330.237†	3953.5	8.76208	mg/L	0.076693	8.76208	mg/L	0.076693 0.88%
Ni 231.604†	-9.8	0.0004600	mg/L	0.00149381	0.0004600	mg/L	0.00149381 324.73%
Pb 220.353†	1236.9	-0.0214709	mg/L	0.00093393	-0.0214709	mg/L	0.00093393 4.35%
Sb 206.836†	19.2	0.0015981	mg/L	0.00283465	0.0015981	mg/L	0.00283465 177.38%
Se 196.026†	-50.0	0.0075964	mg/L	0.01376244	0.0075964	mg/L	0.01376244 181.17%
Sn 189.927†	-27.4	0.0108730	mg/L	0.00033532	0.0108730	mg/L	0.00033532 3.08%
Ti 334.940†	-401.3	-0.0014266	mg/L	0.00040712	-0.0014266	mg/L	0.00040712 28.54%
Tl 190.801†	-2.3	0.0022701	mg/L	0.00569419	0.0022701	mg/L	0.00569419 250.83%
V 290.880†	10066.1	0.0201054	mg/L	0.00041982	0.0201054	mg/L	0.00041982 2.09%
Zn 206.200†	-72.2	-0.0194769	mg/L	0.00016861	-0.0194769	mg/L	0.00016861 0.87%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 7:31:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	436133.3	89.6 %	0.14			0.15%
Y 371.029	165306.4	87.2 %	0.20			0.23%
Ag 328.068†	95793.6	1.10798 mg/L	0.000960	1.10798 mg/L	0.000960	0.09%
	QC value within limits for Ag 328.068	Recovery = 110.80%				
Al 308.215†	7832567.5	502.862 mg/L	2.9107	502.862 mg/L	2.9107	0.58%
	QC value within limits for Al 308.215	Recovery = 100.57%				
As 188.979†	1167.7	1.05233 mg/L	0.017399	1.05233 mg/L	0.017399	1.65%
	QC value within limits for As 188.979	Recovery = 105.23%				
Ba 233.527†	51853.6	0.529219 mg/L	0.0003593	0.529219 mg/L	0.0003593	0.07%
	QC value within limits for Ba 233.527	Recovery = 105.84%				
Be 313.107†	973153.1	0.522134 mg/L	0.0026737	0.522134 mg/L	0.0026737	0.51%
	QC value within limits for Be 313.107	Recovery = 104.43%				
Ca 317.933†	23647775.0	504.417 mg/L	0.1815	504.417 mg/L	0.1815	0.04%
	QC value within limits for Ca 317.933	Recovery = 100.88%				
Cd 228.802†	28679.5	1.04954 mg/L	0.005983	1.04954 mg/L	0.005983	0.57%
	QC value within limits for Cd 228.802	Recovery = 104.95%				
Co 228.616†	13647.6	0.504120 mg/L	0.0021676	0.504120 mg/L	0.0021676	0.43%
	QC value within limits for Co 228.616	Recovery = 100.82%				
Cr 267.716†	14508.7	0.499759 mg/L	0.0031422	0.499759 mg/L	0.0031422	0.63%
	QC value within limits for Cr 267.716	Recovery = 99.95%				
Cu 327.393†	37679.2	0.536761 mg/L	0.0005403	0.536761 mg/L	0.0005403	0.10%
	QC value within limits for Cu 327.393	Recovery = 107.35%				
Fe 273.955†	3921231.6	193.359 mg/L	1.2391	193.359 mg/L	1.2391	0.64%
	QC value within limits for Fe 273.955	Recovery = 96.68%				
K 404.721†	-1398.3	-65.6972 mg/L	1.56231	-65.6972 mg/L	1.56231	2.38%
Mg 279.077†	4371806.6	526.630 mg/L	3.6780	526.630 mg/L	3.6780	0.70%
	QC value within limits for Mg 279.077	Recovery = 105.33%				
Mn 257.610†	175071.5	0.497901 mg/L	0.0002795	0.497901 mg/L	0.0002795	0.06%
	QC value within limits for Mn 257.610	Recovery = 99.58%				
Mo 202.031†	-29.0	-0.0017619 mg/L	0.00191579	-0.0017619 mg/L	0.00191579	108.73%
Na 330.237†	4183.4	9.25519 mg/L	0.332427	9.25519 mg/L	0.332427	3.59%
Ni 231.604†	25168.7	0.981119 mg/L	0.0075660	0.981119 mg/L	0.0075660	0.77%
	QC value within limits for Ni 231.604	Recovery = 98.11%				
Pb 220.353†	5297.4	0.986301 mg/L	0.0034823	0.986301 mg/L	0.0034823	0.35%
	QC value within limits for Pb 220.353	Recovery = 98.63%				
Sb 206.836†	1410.0	1.04721 mg/L	0.000837	1.04721 mg/L	0.000837	0.08%
	QC value within limits for Sb 206.836	Recovery = 104.72%				
Se 196.026†	684.5	1.03522 mg/L	0.016726	1.03522 mg/L	0.016726	1.62%
	QC value within limits for Se 196.026	Recovery = 103.52%				
Sn 189.927†	-28.6	0.0111050 mg/L	0.00153942	0.0111050 mg/L	0.00153942	13.86%
Ti 334.940†	-360.1	-0.0014139 mg/L	0.00003358	-0.0014139 mg/L	0.00003358	2.38%
Tl 190.801†	831.3	1.00853 mg/L	0.031775	1.00853 mg/L	0.031775	3.15%
	QC value within limits for Tl 190.801	Recovery = 100.85%				
V 290.880†	51259.1	0.491246 mg/L	0.0020596	0.491246 mg/L	0.0020596	0.42%
	QC value within limits for V 290.880	Recovery = 98.25%				
Zn 206.200†	34757.0	1.00231 mg/L	0.006672	1.00231 mg/L	0.006672	0.67%
	QC value within limits for Zn 206.200	Recovery = 100.23%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 11689 (100)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 70  
 Date Collected: 12/12/2011 7:37:00 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: MB 11689 (100)

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	498980.3		102 %	0.1				0.12%
Y 371.029	192834.1		102 %	0.3				0.33%
Ag 328.068†	-52.5	-0.0002814	mg/L	0.00010220	-0.0002814	mg/L	0.00010220	36.31%
Al 308.215†	331.4	0.0163058	mg/L	0.00257990	0.0163058	mg/L	0.00257990	15.82%
As 188.979†	-1.1	0.0011019	mg/L	0.00129269	0.0011019	mg/L	0.00129269	117.32%
Ba 233.527†	40.4	-0.0003473	mg/L	0.00030081	-0.0003473	mg/L	0.00030081	86.61%
Be 313.107†	-116.5	-0.0004385	mg/L	0.00003108	-0.0004385	mg/L	0.00003108	7.09%
Ca 317.933†	19322.7	0.171216	mg/L	0.0017379	0.171216	mg/L	0.0017379	1.02%
Cd 228.802†	10.4	0.0011768	mg/L	0.00053980	0.0011768	mg/L	0.00053980	45.87%
Co 228.616†	-17.4	-0.0010037	mg/L	0.00071656	-0.0010037	mg/L	0.00071656	71.39%
Cr 267.716†	16.1	0.0018785	mg/L	0.00016010	0.0018785	mg/L	0.00016010	8.52%
Cu 327.393†	16.7	0.0004040	mg/L	0.00067479	0.0004040	mg/L	0.00067479	167.02%
Fe 273.955†	637.9	0.0223960	mg/L	0.00155535	0.0223960	mg/L	0.00155535	6.94%
K 404.721†	507.9	13.8711	mg/L	1.66840	13.8711	mg/L	1.66840	12.03%
Mg 279.077†	196.4	-0.234199	mg/L	0.0140645	-0.234199	mg/L	0.0140645	6.01%
Mn 257.610†	354.2	0.0001147	mg/L	0.00002906	0.0001147	mg/L	0.00002906	25.33%
Mo 202.031†	6.4	0.0012582	mg/L	0.00065695	0.0012582	mg/L	0.00065695	52.21%
Na 330.237†	257.5	0.834509	mg/L	0.0976515	0.834509	mg/L	0.0976515	11.70%
Ni 231.604†	-12.0	0.0003748	mg/L	0.00016603	0.0003748	mg/L	0.00016603	44.30%
Pb 220.353†	3.0	-0.0003022	mg/L	0.00104000	-0.0003022	mg/L	0.00104000	344.09%
Sb 206.836†	-0.3	0.0021451	mg/L	0.00006357	0.0021451	mg/L	0.00006357	2.96%
Se 196.026†	4.1	0.0078346	mg/L	0.00224626	0.0078346	mg/L	0.00224626	28.67%
Sn 189.927†	46.6	0.0128538	mg/L	0.00037521	0.0128538	mg/L	0.00037521	2.92%
Ti 334.940†	82.7	0.0001654	mg/L	0.00031951	0.0001654	mg/L	0.00031951	193.22%
Tl 190.801†	1.2	0.0033762	mg/L	0.00288031	0.0033762	mg/L	0.00288031	85.31%
V 290.880†	-51.8	-0.0011962	mg/L	0.00014731	-0.0011962	mg/L	0.00014731	12.31%
Zn 206.200†	313.9	0.0088024	mg/L	0.00040523	0.0088024	mg/L	0.00040523	4.60%

Sequence No.: 12  
 Sample ID: LCS 11689  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 71  
 Date Collected: 12/12/2011 7:40:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCS 11689

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	498345.4	102	%	2.0				1.95%
Y 371.029	225134.3	119	%	2.0				1.69%
Ag 328.068†	60813.5	0.695814	mg/L	0.0104149	0.695814	mg/L	0.0104149	1.50%
Al 308.215†	995432.9	63.8751	mg/L	0.82070	63.8751	mg/L	0.82070	1.28%
As 188.979†	1696.4	1.53587	mg/L	0.034002	1.53587	mg/L	0.034002	2.21%
Ba 233.527†	350123.1	3.57774	mg/L	0.092758	3.57774	mg/L	0.092758	2.59%
Be 313.107†	2548602.6	1.36803	mg/L	0.016470	1.36803	mg/L	0.016470	1.20%
Ca 317.933†	3541175.5	75.3298	mg/L	0.21750	75.3298	mg/L	0.21750	0.29%
Cd 228.802†	37164.1	1.35984	mg/L	0.027617	1.35984	mg/L	0.027617	2.03%
Co 228.616†	27964.1	1.02932	mg/L	0.021662	1.02932	mg/L	0.021662	2.10%
Cr 267.716†	48888.7	1.68205	mg/L	0.027833	1.68205	mg/L	0.027833	1.65%
Cu 327.393†	116827.7	1.58718	mg/L	0.034777	1.58718	mg/L	0.034777	2.19%
Fe 273.955†	2286820.1	112.761	mg/L	1.2160	112.761	mg/L	1.2160	1.08%
K 404.721†	1192.6	42.4518	mg/L	10.77914	42.4518	mg/L	10.77914	25.39%
Mg 279.077†	270273.6	32.3388	mg/L	0.77389	32.3388	mg/L	0.77389	2.39%
Mn 257.610†	1239852.3	3.59640	mg/L	0.038923	3.59640	mg/L	0.038923	1.08%
Mo 202.031†	12308.5	1.12349	mg/L	0.022007	1.12349	mg/L	0.022007	1.96%
Na 330.237†	3879.6	8.60356	mg/L	0.021882	8.60356	mg/L	0.021882	0.25%
Ni 231.604†	33263.1	1.29951	mg/L	0.030666	1.29951	mg/L	0.030666	2.36%
Pb 220.353†	4116.9	0.987720	mg/L	0.0157460	0.987720	mg/L	0.0157460	1.59%
Sb 206.836†	993.5	0.775296	mg/L	0.0070286	0.775296	mg/L	0.0070286	0.91%
Se 196.026†	1009.3	1.43811	mg/L	0.013501	1.43811	mg/L	0.013501	0.94%
Sn 189.927†	5322.6	1.52099	mg/L	0.035807	1.52099	mg/L	0.035807	2.35%
Ti 334.940†	732449.5	2.40954	mg/L	0.024041	2.40954	mg/L	0.024041	1.00%
Tl 190.801†	1217.9	1.48176	mg/L	0.027977	1.48176	mg/L	0.027977	1.89%
V 290.880†	96046.7	1.09390	mg/L	0.030611	1.09390	mg/L	0.030611	2.80%
Zn 206.200†	112841.4	3.31067	mg/L	0.080265	3.31067	mg/L	0.080265	2.42%

Sequence No.: 13

Autosampler Location: 72

Sample ID: LCS 11689 MR

Date Collected: 12/12/2011 7:45:12 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: LCS 11689 MR

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
Sc 361.383	490222.1	101 %	%	2.1				2.08%
Y 371.029	222428.2	117 %	%	2.3				1.94%
Ag 328.068†	60231.6	0.689218 mg/L	mg/L	0.0027344	0.689218 mg/L	0.0027344	0.40%	0.40%
Al 308.215†	993195.0	63.7304 mg/L	mg/L	1.87229	63.7304 mg/L	1.87229	2.94%	2.94%
As 188.979†	1711.8	1.54970 mg/L	mg/L	0.034375	1.54970 mg/L	0.034375	2.22%	2.22%
Ba 233.527†	361204.6	3.69100 mg/L	mg/L	0.000314	3.69100 mg/L	0.000314	0.01%	0.01%
Be 313.107†	2619603.8	1.40615 mg/L	mg/L	0.040975	1.40615 mg/L	0.040975	2.91%	2.91%
Ca 317.933†	3679540.0	78.2825 mg/L	mg/L	1.70294	78.2825 mg/L	1.70294	2.18%	2.18%
Cd 228.802†	39313.5	1.43843 mg/L	mg/L	0.027069	1.43843 mg/L	0.027069	1.88%	1.88%
Co 228.616†	29125.0	1.07243 mg/L	mg/L	0.021200	1.07243 mg/L	0.021200	1.98%	1.98%
Cr 267.716†	50008.1	1.72055 mg/L	mg/L	0.003734	1.72055 mg/L	0.003734	0.22%	0.22%
Cu 327.393†	121103.1	1.64466 mg/L	mg/L	0.003131	1.64466 mg/L	0.003131	0.19%	0.19%
Fe 273.955†	2262445.1	111.559 mg/L	mg/L	3.3361	111.559 mg/L	3.3361	2.99%	2.99%
K 404.721†	1027.7	35.5710 mg/L	mg/L	19.69881	35.5710 mg/L	19.69881	55.38%	55.38%
Mg 279.077†	273928.2	32.7800 mg/L	mg/L	0.08735	32.7800 mg/L	0.08735	0.27%	0.27%
Mn 257.610†	1283649.1	3.72349 mg/L	mg/L	0.107931	3.72349 mg/L	0.107931	2.90%	2.90%
Mo 202.031†	12733.4	1.16225 mg/L	mg/L	0.021508	1.16225 mg/L	0.021508	1.85%	1.85%
Na 330.237†	3851.5	8.54345 mg/L	mg/L	0.099702	8.54345 mg/L	0.099702	1.17%	1.17%
Ni 231.604†	35038.7	1.36878 mg/L	mg/L	0.000398	1.36878 mg/L	0.000398	0.03%	0.03%
Pb 220.353†	4142.6	0.994425 mg/L	mg/L	0.0099464	0.994425 mg/L	0.0099464	1.00%	1.00%
Sb 206.836†	1004.5	0.784097 mg/L	mg/L	0.0202740	0.784097 mg/L	0.0202740	2.59%	2.59%
Se 196.026†	1019.1	1.45144 mg/L	mg/L	0.023356	1.45144 mg/L	0.023356	1.61%	1.61%
Sn 189.927†	5325.6	1.52168 mg/L	mg/L	0.016497	1.52168 mg/L	0.016497	1.08%	1.08%
Ti 334.940†	714587.6	2.35076 mg/L	mg/L	0.067979	2.35076 mg/L	0.067979	2.89%	2.89%
Tl 190.801†	1273.2	1.54823 mg/L	mg/L	0.007221	1.54823 mg/L	0.007221	0.47%	0.47%
V 290.880†	97883.4	1.11504 mg/L	mg/L	0.000332	1.11504 mg/L	0.000332	0.03%	0.03%
Zn 206.200†	117138.9	3.43676 mg/L	mg/L	0.009642	3.43676 mg/L	0.009642	0.28%	0.28%

Sequence No.: 14  
 Sample ID: 63111-006  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 73  
 Date Collected: 12/12/2011 7:50:04 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-006

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	496920.3		102 %	0.6				0.55%
Y 371.029	228391.0		120 %	2.5				2.08%
Ag 328.068†	-2166.6	0.0136688	mg/L	0.00075988	0.0136688	mg/L	0.00075988	5.56%
Al 308.215†	974837.7	62.5813	mg/L	0.29744	62.5813	mg/L	0.29744	0.48%
As 188.979†	57.5	0.0686255	mg/L	0.00278314	0.0686255	mg/L	0.00278314	4.06%
Ba 233.527†	115651.4	1.18128	mg/L	0.029583	1.18128	mg/L	0.029583	2.50%
Be 313.107†	6563.1	0.0031479	mg/L	0.00012472	0.0031479	mg/L	0.00012472	3.96%
Ca 317.933†	1921323.9	40.7611	mg/L	0.05491	40.7611	mg/L	0.05491	0.13%
Cd 228.802†	122.1	0.0054679	mg/L	0.00105880	0.0054679	mg/L	0.00105880	19.36%
Co 228.616†	2057.8	0.0704180	mg/L	0.00093949	0.0704180	mg/L	0.00093949	1.33%
Cr 267.716†	4503.0	0.156038	mg/L	0.0030554	0.156038	mg/L	0.0030554	1.96%
Cu 327.393†	51732.5	0.712445	mg/L	0.0203369	0.712445	mg/L	0.0203369	2.85%
Fe 273.955†	3618980.7	178.454	mg/L	0.7350	178.454	mg/L	0.7350	0.41%
K 404.721†	540.8	15.2462	mg/L	6.46870	15.2462	mg/L	6.46870	42.43%
Mg 279.077†	122019.2	14.4481	mg/L	0.40200	14.4481	mg/L	0.40200	2.78%
Mn 257.610†	1035925.4	3.00459	mg/L	0.011191	3.00459	mg/L	0.011191	0.37%
Mo 202.031†	164.6	0.0159351	mg/L	0.00197314	0.0159351	mg/L	0.00197314	12.38%
Na 330.237†	1247.7	2.95830	mg/L	0.158342	2.95830	mg/L	0.158342	5.35%
Ni 231.604†	3594.6	0.140887	mg/L	0.0015436	0.140887	mg/L	0.0015436	1.10%
Pb 220.353†	9361.9	2.29674	mg/L	0.021907	2.29674	mg/L	0.021907	0.95%
Sb 206.836†	9.9	0.0150430	mg/L	0.00655134	0.0150430	mg/L	0.00655134	43.55%
Se 196.026†	-23.5	0.0099260	mg/L	0.00046346	0.0099260	mg/L	0.00046346	4.67%
Sn 189.927†	1207.3	0.361285	mg/L	0.0000528	0.361285	mg/L	0.0000528	0.01%
Ti 334.940†	697752.3	2.29575	mg/L	0.005632	2.29575	mg/L	0.005632	0.25%
Tl 190.801†	-21.2	-0.0136593	mg/L	0.00248625	-0.0136593	mg/L	0.00248625	18.20%
V 290.880†	20567.0	0.224253	mg/L	0.0062402	0.224253	mg/L	0.0062402	2.78%
Zn 206.200†	42331.8	1.24094	mg/L	0.034713	1.24094	mg/L	0.034713	2.80%

Sequence No.: 15  
 Sample ID: 63111-006 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 74  
 Date Collected: 12/12/2011 7:53:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-006 MR

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	506908.5		104 %	0.1				0.08%
Y 371.029	217972.1		115 %	0.0				0.01%
Ag 328.068†	-3980.1	0.0243703	mg/L	0.00070215	0.0243703	mg/L	0.00070215	2.88%
Al 308.215†	1397066.7	89.6893	mg/L	0.84741	89.6893	mg/L	0.84741	0.94%
As 188.979†	61.6	0.0861386	mg/L	0.00244592	0.0861386	mg/L	0.00244592	2.84%
Ba 233.527†	135527.9	1.38443	mg/L	0.000285	1.38443	mg/L	0.000285	0.02%
Be 313.107†	8184.1	0.0040183	mg/L	0.00005659	0.0040183	mg/L	0.00005659	1.41%
Ca 317.933†	2633166.1	55.9523	mg/L	0.21148	55.9523	mg/L	0.21148	0.38%
Cd 228.802†	181.7	0.0076014	mg/L	0.00039735	0.0076014	mg/L	0.00039735	5.23%
Co 228.616†	1691.8	0.0579904	mg/L	0.00054214	0.0579904	mg/L	0.00054214	0.93%
Cr 267.716†	7852.2	0.271096	mg/L	0.0015595	0.271096	mg/L	0.0015595	0.58%
Cu 327.393†	62020.3	0.857727	mg/L	0.0027456	0.857727	mg/L	0.0027456	0.32%
Fe 273.955†	6641847.9	327.521	mg/L	2.8825	327.521	mg/L	2.8825	0.88%
K 404.721†	766.8	24.6780	mg/L	3.49514	24.6780	mg/L	3.49514	14.16%
Mg 279.077†	118200.3	13.9878	mg/L	0.00393	13.9878	mg/L	0.00393	0.03%
Mn 257.610†	880849.4	2.55464	mg/L	0.022450	2.55464	mg/L	0.022450	0.88%
Mo 202.031†	125.0	0.0129597	mg/L	0.00064665	0.0129597	mg/L	0.00064665	4.99%
Na 330.237†	2938.2	6.58430	mg/L	0.033116	6.58430	mg/L	0.033116	0.50%
Ni 231.604†	2885.9	0.113275	mg/L	0.0001452	0.113275	mg/L	0.0001452	0.13%
Pb 220.353†	17783.6	4.38547	mg/L	0.005563	4.38547	mg/L	0.005563	0.13%
Sb 206.836†	19.3	0.0222020	mg/L	0.00455054	0.0222020	mg/L	0.00455054	20.50%
Se 196.026†	-47.4	0.0135145	mg/L	0.00631183	0.0135145	mg/L	0.00631183	46.70%
Sn 189.927†	1333.1	0.411688	mg/L	0.0010589	0.411688	mg/L	0.0010589	0.26%
Ti 334.940†	545660.7	1.79528	mg/L	0.019333	1.79528	mg/L	0.019333	1.08%
Tl 190.801†	-17.1	-0.0107263	mg/L	0.00060920	-0.0107263	mg/L	0.00060920	5.68%
V 290.880†	41296.6	0.455029	mg/L	0.0002772	0.455029	mg/L	0.0002772	0.06%
Zn 206.200†	148207.5	4.34650	mg/L	0.010804	4.34650	mg/L	0.010804	0.25%

Sequence No.: 16  
 Sample ID: 63111-006 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 75  
 Date Collected: 12/12/2011 7:57:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-006 MS 1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	489090.1	100 %	0.1			0.11%
Y 371.029	218292.6	115 %	0.1			0.10%
Ag 328.068†	5761.0	0.107114 mg/L	0.0006245	0.107114 mg/L	0.0006245	0.58%
Al 308.215†	1172159.5	75.2381 mg/L	0.03689	75.2381 mg/L	0.03689	0.05%
As 188.979†	552.7	0.516326 mg/L	0.0031743	0.516326 mg/L	0.0031743	0.61%
Ba 233.527†	186709.3	1.90754 mg/L	0.001051	1.90754 mg/L	0.001051	0.06%
Be 313.107†	856544.7	0.459524 mg/L	0.0011515	0.459524 mg/L	0.0011515	0.25%
Ca 317.933†	4550094.0	96.8607 mg/L	0.82004	96.8607 mg/L	0.82004	0.85%
Cd 228.802†	12749.2	0.467216 mg/L	0.0003984	0.467216 mg/L	0.0003984	0.09%
Co 228.616†	14574.0	0.532252 mg/L	0.0007135	0.532252 mg/L	0.0007135	0.13%
Cr 267.716†	18870.4	0.650100 mg/L	0.0004708	0.650100 mg/L	0.0004708	0.07%
Cu 327.393†	114859.2	1.56720 mg/L	0.004820	1.56720 mg/L	0.004820	0.31%
Fe 273.955†	4087303.4	201.548 mg/L	0.6332	201.548 mg/L	0.6332	0.31%
K 404.721†	1915.9	72.6467 mg/L	3.87587	72.6467 mg/L	3.87587	5.34%
Mg 279.077†	527028.7	63.2691 mg/L	0.07001	63.2691 mg/L	0.07001	0.11%
Mn 257.610†	1194930.1	3.46527 mg/L	0.004828	3.46527 mg/L	0.004828	0.14%
Mo 202.031†	5122.0	0.468081 mg/L	0.0016188	0.468081 mg/L	0.0016188	0.35%
Na 330.237†	21784.3	47.0084 mg/L	0.00948	47.0084 mg/L	0.00948	0.02%
Ni 231.604†	14830.6	0.579769 mg/L	0.0008971	0.579769 mg/L	0.0008971	0.15%
Pb 220.353†	13942.9	3.43600 mg/L	0.001383	3.43600 mg/L	0.001383	0.04%
Sb 206.836†	415.8	0.329166 mg/L	0.0006103	0.329166 mg/L	0.0006103	0.19%
Se 196.026†	272.1	0.430408 mg/L	0.0091555	0.430408 mg/L	0.0091555	2.13%
Sn 189.927†	4003.5	1.15647 mg/L	0.000850	1.15647 mg/L	0.000850	0.07%
Ti 334.940†	899257.0	2.95866 mg/L	0.022080	2.95866 mg/L	0.022080	0.75%
Tl 190.801†	369.9	0.461239 mg/L	0.0027970	0.461239 mg/L	0.0027970	0.61%
V 290.880†	61582.6	0.687123 mg/L	0.0009954	0.687123 mg/L	0.0009954	0.14%
Zn 206.200†	73851.8	2.16455 mg/L	0.000766	2.16455 mg/L	0.000766	0.04%

Sequence No.: 17  
 Sample ID: 63111-006 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 76  
 Date Collected: 12/12/2011 8:00:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-006 MS 2

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	484849.4		99.6 %	1.24			1.25%	
Y 371.029	224446.4		118 %	1.5			1.24%	
Ag 328.068†	5741.4	0.112839	mg/L	0.0002570	0.112839	mg/L	0.0002570	0.23%
Al 308.215†	1049863.7	67.3862	mg/L	0.24295	67.3862	mg/L	0.24295	0.36%
As 188.979†	588.6	0.551689	mg/L	0.0046980	0.551689	mg/L	0.0046980	0.85%
Ba 233.527†	171302.3	1.75007	mg/L	0.005987	1.75007	mg/L	0.005987	0.34%
Be 313.107†	869329.7	0.466389	mg/L	0.0021232	0.466389	mg/L	0.0021232	0.46%
Ca 317.933†	5468605.8	116.462	mg/L	0.0595	116.462	mg/L	0.0595	0.05%
Cd 228.802†	12914.2	0.473256	mg/L	0.0079467	0.473256	mg/L	0.0079467	1.68%
Co 228.616†	14932.8	0.545847	mg/L	0.0077147	0.545847	mg/L	0.0077147	1.41%
Cr 267.716†	17883.5	0.616204	mg/L	0.0011080	0.616204	mg/L	0.0011080	0.18%
Cu 327.393†	73019.8	1.00572	mg/L	0.003400	1.00572	mg/L	0.003400	0.34%
Fe 273.955†	4633901.7	228.503	mg/L	0.2755	228.503	mg/L	0.2755	0.12%
K 404.721†	1776.7	66.8342	mg/L	5.11770	66.8342	mg/L	5.11770	7.66%
Mg 279.077†	516397.4	61.9880	mg/L	0.39687	61.9880	mg/L	0.39687	0.64%
Mn 257.610†	1174689.8	3.40657	mg/L	0.014500	3.40657	mg/L	0.014500	0.43%
Mo 202.031†	5219.6	0.476976	mg/L	0.0066522	0.476976	mg/L	0.0066522	1.39%
Na 330.237†	22455.4	48.4478	mg/L	0.19024	48.4478	mg/L	0.19024	0.39%
Ni 231.604†	15022.4	0.587264	mg/L	0.0096150	0.587264	mg/L	0.0096150	1.64%
Pb 220.353†	14193.7	3.50284	mg/L	0.051327	3.50284	mg/L	0.051327	1.47%
Sb 206.836†	436.8	0.345073	mg/L	0.0079263	0.345073	mg/L	0.0079263	2.30%
Se 196.026†	280.0	0.448505	mg/L	0.0023354	0.448505	mg/L	0.0023354	0.52%
Sn 189.927†	2845.3	0.830879	mg/L	0.0104092	0.830879	mg/L	0.0104092	1.25%
Ti 334.940†	859664.2	2.82839	mg/L	0.024933	2.82839	mg/L	0.024933	0.88%
Tl 190.801†	378.7	0.471170	mg/L	0.0041755	0.471170	mg/L	0.0041755	0.89%
V 290.880†	59996.7	0.667680	mg/L	0.0022193	0.667680	mg/L	0.0022193	0.33%
Zn 206.200†	73435.2	2.15232	mg/L	0.012051	2.15232	mg/L	0.012051	0.56%

Sequence No.: 18  
 Sample ID: 63111-006 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 77  
 Date Collected: 12/12/2011 8:04:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-006 PS

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	484577.8		99.5 %	0.66				0.66%
Y 371.029	221104.8		117 %	0.5				0.45%
Ag 328.068†	5892.1	0.103666	mg/L	0.0006189	0.103666	mg/L	0.0006189	0.60%
Al 308.215†	1017249.5	65.2923	mg/L	0.21586	65.2923	mg/L	0.21586	0.33%
As 188.979†	571.8	0.531567	mg/L	0.0059041	0.531567	mg/L	0.0059041	1.11%
Ba 233.527†	158028.5	1.61440	mg/L	0.001868	1.61440	mg/L	0.001868	0.12%
Be 313.107†	868213.7	0.465789	mg/L	0.0027551	0.465789	mg/L	0.0027551	0.59%
Ca 317.933†	4071667.1	86.6508	mg/L	0.40621	86.6508	mg/L	0.40621	0.47%
Cd 228.802†	12974.8	0.475506	mg/L	0.0019779	0.475506	mg/L	0.0019779	0.42%
Co 228.616†	15165.6	0.554697	mg/L	0.0012593	0.554697	mg/L	0.0012593	0.23%
Cr 267.716†	17890.1	0.616434	mg/L	0.0014049	0.616434	mg/L	0.0014049	0.23%
Cu 327.393†	86128.0	1.17832	mg/L	0.002654	1.17832	mg/L	0.002654	0.23%
Fe 273.955†	3623465.2	178.675	mg/L	0.7265	178.675	mg/L	0.7265	0.41%
K 404.721†	1714.8	64.2516	mg/L	2.32000	64.2516	mg/L	2.32000	3.61%
Mg 279.077†	510245.2	61.2466	mg/L	0.13665	61.2466	mg/L	0.13665	0.22%
Mn 257.610†	1156651.7	3.35424	mg/L	0.015134	3.35424	mg/L	0.015134	0.45%
Mo 202.031†	5230.9	0.477910	mg/L	0.0018258	0.477910	mg/L	0.0018258	0.38%
Na 330.237†	22071.5	47.6245	mg/L	0.01776	47.6245	mg/L	0.01776	0.04%
Ni 231.604†	15699.2	0.613627	mg/L	0.0015401	0.613627	mg/L	0.0015401	0.25%
Pb 220.353†	10935.0	2.68970	mg/L	0.006308	2.68970	mg/L	0.006308	0.23%
Sb 206.836†	609.3	0.474103	mg/L	0.0012959	0.474103	mg/L	0.0012959	0.27%
Se 196.026†	300.5	0.464268	mg/L	0.0022790	0.464268	mg/L	0.0022790	0.49%
Sn 189.927†	2912.8	0.844908	mg/L	0.0003909	0.844908	mg/L	0.0003909	0.05%
Ti 334.940†	827872.0	2.72378	mg/L	0.016942	2.72378	mg/L	0.016942	0.62%
Tl 190.801†	391.6	0.486240	mg/L	0.0028077	0.486240	mg/L	0.0028077	0.58%
V 290.880†	60594.5	0.677297	mg/L	0.0001163	0.677297	mg/L	0.0001163	0.02%
Zn 206.200†	56869.2	1.66646	mg/L	0.002152	1.66646	mg/L	0.002152	0.13%

Sequence No.: 19

Sample ID: CCV V-129808

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/12/2011 8:08:05 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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 Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	473855.8	97.3 %	0.99			1.02%
Y 371.029	178540.7	94.2 %	0.43			0.45%
Ag 328.068†	8808.3	0.0996176 mg/L	0.00234140	0.0996176 mg/L	0.00234140	2.35%
	QC value within limits for Ag 328.068 Recovery = 99.62%					
Al 308.215†	77445.5	4.95429 mg/L	0.067658	4.95429 mg/L	0.067658	1.37%
	QC value within limits for Al 308.215 Recovery = 99.09%					
As 188.979†	544.1	0.492254 mg/L	0.0047158	0.492254 mg/L	0.0047158	0.96%
	QC value within limits for As 188.979 Recovery = 98.45%					
Ba 233.527†	49179.7	0.501890 mg/L	0.0075914	0.501890 mg/L	0.0075914	1.51%
	QC value within limits for Ba 233.527 Recovery = 100.38%					
Be 313.107†	926682.7	0.497183 mg/L	0.0002743	0.497183 mg/L	0.0002743	0.06%
	QC value within limits for Be 313.107 Recovery = 99.44%					
Ca 317.933†	2376082.0	50.4659 mg/L	0.13530	50.4659 mg/L	0.13530	0.27%
	QC value within limits for Ca 317.933 Recovery = 100.93%					
Cd 228.802†	13551.3	0.496403 mg/L	0.0083973	0.496403 mg/L	0.0083973	1.69%
	QC value within limits for Cd 228.802 Recovery = 99.28%					
Co 228.616†	13776.2	0.508523 mg/L	0.0065155	0.508523 mg/L	0.0065155	1.28%
	QC value within limits for Co 228.616 Recovery = 101.70%					
Cr 267.716†	14445.5	0.498122 mg/L	0.0066624	0.498122 mg/L	0.0066624	1.34%
	QC value within limits for Cr 267.716 Recovery = 99.62%					
Cu 327.393†	37142.6	0.503605 mg/L	0.0073646	0.503605 mg/L	0.0073646	1.46%
	QC value within limits for Cu 327.393 Recovery = 100.72%					
Fe 273.955†	99887.2	4.91668 mg/L	0.069430	4.91668 mg/L	0.069430	1.41%
	QC value within limits for Fe 273.955 Recovery = 98.33%					
K 404.721†	1623.7	60.4489 mg/L	8.03425	60.4489 mg/L	8.03425	13.29%
Mg 279.077†	415979.7	49.8863 mg/L	0.07600	49.8863 mg/L	0.07600	0.15%
	QC value within limits for Mg 279.077 Recovery = 99.77%					
Mn 257.610†	170702.9	0.493705 mg/L	0.0071888	0.493705 mg/L	0.0071888	1.46%
	QC value within limits for Mn 257.610 Recovery = 98.74%					
Mo 202.031†	5507.6	0.502890 mg/L	0.0078739	0.502890 mg/L	0.0078739	1.57%
	QC value within limits for Mo 202.031 Recovery = 100.58%					
Na 330.237†	22192.4	47.8838 mg/L	0.78097	47.8838 mg/L	0.78097	1.63%
	QC value within limits for Na 330.237 Recovery = 95.77%					
Ni 231.604†	12998.5	0.508509 mg/L	0.0055295	0.508509 mg/L	0.0055295	1.09%
	QC value within limits for Ni 231.604 Recovery = 101.70%					
Pb 220.353†	1981.1	0.492520 mg/L	0.0047105	0.492520 mg/L	0.0047105	0.96%
	QC value within limits for Pb 220.353 Recovery = 98.50%					
Sb 206.836†	653.2	0.502677 mg/L	0.0110538	0.502677 mg/L	0.0110538	2.20%
	QC value within limits for Sb 206.836 Recovery = 100.54%					
Se 196.026†	347.5	0.490212 mg/L	0.0022809	0.490212 mg/L	0.0022809	0.47%
	QC value within limits for Se 196.026 Recovery = 98.04%					
Sn 189.927†	1769.6	0.501950 mg/L	0.0094610	0.501950 mg/L	0.0094610	1.88%
	QC value within limits for Sn 189.927 Recovery = 100.39%					
Ti 334.940†	151622.5	0.498672 mg/L	0.0047722	0.498672 mg/L	0.0047722	0.96%
	QC value within limits for Ti 334.940 Recovery = 99.73%					
Tl 190.801†	435.0	0.528955 mg/L	0.0034516	0.528955 mg/L	0.0034516	0.65%
	QC value within limits for Tl 190.801 Recovery = 105.79%					
V 290.880†	43615.4	0.492954 mg/L	0.0081382	0.492954 mg/L	0.0081382	1.65%
	QC value within limits for V 290.880 Recovery = 98.59%					
Zn 206.200†	17010.4	0.497586 mg/L	0.0064475	0.497586 mg/L	0.0064475	1.30%
	QC value within limits for Zn 206.200 Recovery = 99.52%					

All analyte(s) passed QC.

Sequence No.: 20

Sample ID: CCB V-129815

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 12/12/2011 8:11:35 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	492139.7	101 %		0.4			0.44%
Y 371.029	192000.7	101 %		0.2			0.24%
Ag 328.068†	-65.5	-0.0004404 mg/L		0.00012773	-0.0004404 mg/L	0.00012773	29.00%
QC value within limits for Ag 328.068							Recovery = Not calculated
Al 308.215†	-187.2	-0.0169647 mg/L		0.00184719	-0.0169647 mg/L	0.00184719	10.89%
QC value within limits for Al 308.215							Recovery = Not calculated
As 188.979†	-0.6	0.0015667 mg/L		0.00521158	0.0015667 mg/L	0.00521158	332.65%
QC value within limits for As 188.979							Recovery = Not calculated
Ba 233.527†	-2.5	-0.0007858 mg/L		0.00001805	-0.0007858 mg/L	0.00001805	2.30%
QC value within limits for Ba 233.527							Recovery = Not calculated
Be 313.107†	-13.7	-0.0003833 mg/L		0.00006485	-0.0003833 mg/L	0.00006485	16.92%
QC value within limits for Be 313.107							Recovery = Not calculated
Ca 317.933†	-63.6	-0.242501 mg/L		0.0009532	-0.242501 mg/L	0.0009532	0.39%
QC value within limits for Ca 317.933							Recovery = Not calculated
Cd 228.802†	5.6	0.0010010 mg/L		0.00060979	0.0010010 mg/L	0.00060979	60.92%
QC value within limits for Cd 228.802							Recovery = Not calculated
Co 228.616†	-13.6	-0.0008641 mg/L		0.00055738	-0.0008641 mg/L	0.00055738	64.51%
QC value within limits for Co 228.616							Recovery = Not calculated
Cr 267.716†	-9.2	0.0010084 mg/L		0.00003020	0.0010084 mg/L	0.00003020	2.99%
QC value within limits for Cr 267.716							Recovery = Not calculated
Cu 327.393†	-6.5	0.0000730 mg/L		0.00039614	0.0000730 mg/L	0.00039614	542.80%
QC value within limits for Cu 327.393							Recovery = Not calculated
Fe 273.955†	37.9	-0.0071885 mg/L		0.00105722	-0.0071885 mg/L	0.00105722	14.71%
QC value within limits for Fe 273.955							Recovery = Not calculated
K 404.721†	528.6	14.7372 mg/L		5.88232	14.7372 mg/L	5.88232	39.91%
Mg 279.077†	-22.7	-0.260614 mg/L		0.0094345	-0.260614 mg/L	0.0094345	3.62%
QC value within limits for Mg 279.077							Recovery = Not calculated
Mn 257.610†	-4.2	-0.0009250 mg/L		0.00000199	-0.0009250 mg/L	0.00000199	0.21%
QC value within limits for Mn 257.610							Recovery = Not calculated
Mo 202.031†	-3.0	0.0003990 mg/L		0.00105535	0.0003990 mg/L	0.00105535	264.50%
QC value within limits for Mo 202.031							Recovery = Not calculated
Na 330.237†	115.0	0.528778 mg/L		0.1158100	0.528778 mg/L	0.1158100	21.90%
QC value within limits for Na 330.237							Recovery = Not calculated
Ni 231.604†	-33.1	-0.0004523 mg/L		0.00037594	-0.0004523 mg/L	0.00037594	83.11%
QC value within limits for Ni 231.604							Recovery = Not calculated
Pb 220.353†	23.5	0.0048415 mg/L		0.00158879	0.0048415 mg/L	0.00158879	32.82%
QC value within limits for Pb 220.353							Recovery = Not calculated
Sb 206.836†	-1.6	0.0011444 mg/L		0.00151319	0.0011444 mg/L	0.00151319	132.23%
QC value within limits for Sb 206.836							Recovery = Not calculated
Se 196.026†	6.5	0.0111015 mg/L		0.00244109	0.0111015 mg/L	0.00244109	21.99%
QC value within limits for Se 196.026							Recovery = Not calculated
Sn 189.927†	9.8	0.0024347 mg/L		0.00023638	0.0024347 mg/L	0.00023638	9.71%
QC value within limits for Sn 189.927							Recovery = Not calculated
Ti 334.940†	34.8	0.0000077 mg/L		0.00020427	0.0000077 mg/L	0.00020427	>999.9%
QC value within limits for Ti 334.940							Recovery = Not calculated
Tl 190.801†	-2.3	-0.0008270 mg/L		0.00318913	-0.0008270 mg/L	0.00318913	385.64%
QC value within limits for Tl 190.801							Recovery = Not calculated
V 290.880†	-163.7	-0.0024785 mg/L		0.00047578	-0.0024785 mg/L	0.00047578	19.20%
QC value within limits for V 290.880							Recovery = Not calculated
Zn 206.200†	9.9	-0.0001162 mg/L		0.00014659	-0.0001162 mg/L	0.00014659	126.17%
QC value within limits for Zn 206.200							Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63111-006 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 78  
 Date Collected: 12/12/2011 8:14:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-006 SD

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	492671.4		101 %	0.9				0.94%
Y 371.029	197537.9		104 %	0.9				0.89%
Ag 328.068†	-460.5	0.0026168	mg/L	0.00038650	0.0026168	mg/L	0.00038650	14.77%
Al 308.215†	196789.2	12.6292	mg/L	0.11895	12.6292	mg/L	0.11895	0.94%
As 188.979†	9.2	0.0132909	mg/L	0.00015579	0.0132909	mg/L	0.00015579	1.17%
Ba 233.527†	22969.2	0.234000	mg/L	0.0013433	0.234000	mg/L	0.0013433	0.57%
Be 313.107†	1133.5	0.0002326	mg/L	0.00003083	0.0002326	mg/L	0.00003083	13.25%
Ca 317.933†	387561.9	8.02967	mg/L	0.033435	8.02967	mg/L	0.033435	0.42%
Cd 228.802†	32.3	0.0020184	mg/L	0.00007338	0.0020184	mg/L	0.00007338	3.64%
Co 228.616†	400.8	0.0134043	mg/L	0.00075784	0.0134043	mg/L	0.00075784	5.65%
Cr 267.716†	881.3	0.0316043	mg/L	0.00055675	0.0316043	mg/L	0.00055675	1.76%
Cu 327.393†	10217.1	0.140862	mg/L	0.0001750	0.140862	mg/L	0.0001750	0.12%
Fe 273.955†	719348.4	35.4642	mg/L	0.05559	35.4642	mg/L	0.05559	0.16%
K 404.721†	594.5	17.4882	mg/L	3.22589	17.4882	mg/L	3.22589	18.45%
Mg 279.077†	24537.6	2.69947	mg/L	0.033488	2.69947	mg/L	0.033488	1.24%
Mn 257.610†	208856.6	0.605038	mg/L	0.0038766	0.605038	mg/L	0.0038766	0.64%
Mo 202.031†	42.9	0.0046368	mg/L	0.00104367	0.0046368	mg/L	0.00104367	22.51%
Na 330.237†	396.7	1.13310	mg/L	0.056797	1.13310	mg/L	0.056797	5.01%
Ni 231.604†	670.8	0.0269787	mg/L	0.00254299	0.0269787	mg/L	0.00254299	9.43%
Pb 220.353†	1918.8	0.470058	mg/L	0.0081577	0.470058	mg/L	0.0081577	1.74%
Sb 206.836†	-2.4	0.0016222	mg/L	0.00543845	0.0016222	mg/L	0.00543845	335.24%
Se 196.026†	5.9	0.0183106	mg/L	0.01073283	0.0183106	mg/L	0.01073283	58.62%
Sn 189.927†	251.8	0.0748948	mg/L	0.00405902	0.0748948	mg/L	0.00405902	5.42%
Ti 334.940†	138855.8	0.456779	mg/L	0.0060962	0.456779	mg/L	0.0060962	1.33%
Tl 190.801†	-3.2	-0.0000190	mg/L	0.00243713	-0.0000190	mg/L	0.00243713	>999.9%
V 290.880†	3974.7	0.0427877	mg/L	0.00067599	0.0427877	mg/L	0.00067599	1.58%
Zn 206.200†	8333.7	0.243972	mg/L	0.0030486	0.243972	mg/L	0.0030486	1.25%

Sequence No.: 22  
 Sample ID: 63111-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 79  
 Date Collected: 12/12/2011 8:18:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	491664.8	101	%	0.0				0.04%
Y 371.029	203054.9	107	%	0.0				0.02%
Ag 328.068†	-2419.7	0.0158451	mg/L	0.00039025	0.0158451	mg/L	0.00039025	2.46%
Al 308.215†	371161.3	23.8242	mg/L	0.02328	23.8242	mg/L	0.02328	0.10%
As 188.979†	78.6	0.0916040	mg/L	0.00495122	0.0916040	mg/L	0.00495122	5.41%
Ba 233.527†	157476.6	1.60876	mg/L	0.003656	1.60876	mg/L	0.003656	0.23%
Be 313.107†	3230.0	0.0013583	mg/L	0.00000048	0.0013583	mg/L	0.00000048	0.04%
Ca 317.933†	2359007.8	50.1016	mg/L	0.06957	50.1016	mg/L	0.06957	0.14%
Cd 228.802†	179.4	0.0074628	mg/L	0.00002517	0.0074628	mg/L	0.00002517	0.34%
Co 228.616†	1427.8	0.0493932	mg/L	0.00048888	0.0493932	mg/L	0.00048888	0.99%
Cr 267.716†	4622.7	0.160145	mg/L	0.0014979	0.160145	mg/L	0.0014979	0.94%
Cu 327.393†	197270.3	2.67095	mg/L	0.002638	2.67095	mg/L	0.002638	0.10%
Fe 273.955†	4092269.2	201.793	mg/L	0.5508	201.793	mg/L	0.5508	0.27%
K 404.721†	572.6	16.5720	mg/L	1.98188	16.5720	mg/L	1.98188	11.96%
Mg 279.077†	55921.0	6.48186	mg/L	0.007603	6.48186	mg/L	0.007603	0.12%
Mn 257.610†	659009.8	1.91110	mg/L	0.002919	1.91110	mg/L	0.002919	0.15%
Mo 202.031†	88.3	0.0096124	mg/L	0.00015147	0.0096124	mg/L	0.00015147	1.58%
Na 330.237†	2883.8	6.46775	mg/L	0.114324	6.46775	mg/L	0.114324	1.77%
Ni 231.604†	1934.9	0.0762244	mg/L	0.00158411	0.0762244	mg/L	0.00158411	2.08%
Pb 220.353†	27493.2	6.86519	mg/L	0.057737	6.86519	mg/L	0.057737	0.84%
Sb 206.836†	19.9	0.0216110	mg/L	0.00379033	0.0216110	mg/L	0.00379033	17.54%
Se 196.026†	-28.6	0.0094921	mg/L	0.00199540	0.0094921	mg/L	0.00199540	21.02%
Sn 189.927†	1878.4	0.553213	mg/L	0.0042186	0.553213	mg/L	0.0042186	0.76%
Ti 334.940†	395971.6	1.30276	mg/L	0.006330	1.30276	mg/L	0.006330	0.49%
Tl 190.801†	-13.6	-0.0090562	mg/L	0.00399886	-0.0090562	mg/L	0.00399886	44.16%
V 290.880†	14642.4	0.156181	mg/L	0.0009599	0.156181	mg/L	0.0009599	0.61%
Zn 206.200†	146980.3	4.31059	mg/L	0.015674	4.31059	mg/L	0.015674	0.36%

Sequence No.: 23  
 Sample ID: 63111-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 80  
 Date Collected: 12/12/2011 8:21:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-002

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	496501.6	102	%	0.5				0.45%
Y 371.029	206184.7	109	%	0.0				0.03%
Ag 328.068†	-1184.9	0.0097785	mg/L	0.00001667	0.0097785	mg/L	0.00001667	0.17%
Al 308.215†	453078.3	29.0835	mg/L	0.10328	29.0835	mg/L	0.10328	0.36%
As 188.979†	63.1	0.0677371	mg/L	0.00019766	0.0677371	mg/L	0.00019766	0.29%
Ba 233.527†	131369.8	1.34193	mg/L	0.002776	1.34193	mg/L	0.002776	0.21%
Be 313.107†	3956.6	0.0017484	mg/L	0.00002877	0.0017484	mg/L	0.00002877	1.65%
Ca 317.933†	2625101.6	55.7802	mg/L	0.16802	55.7802	mg/L	0.16802	0.30%
Cd 228.802†	113.4	0.0050383	mg/L	0.00042911	0.0050383	mg/L	0.00042911	8.52%
Co 228.616†	1126.7	0.0365419	mg/L	0.00018601	0.0365419	mg/L	0.00018601	0.51%
Cr 267.716†	2687.8	0.0936692	mg/L	0.00053381	0.0936692	mg/L	0.00053381	0.57%
Cu 327.393†	35876.7	0.495360	mg/L	0.0041435	0.495360	mg/L	0.0041435	0.84%
Fe 273.955†	2118613.2	104.466	mg/L	0.0525	104.466	mg/L	0.0525	0.05%
K 404.721†	767.3	24.7015	mg/L	3.15385	24.7015	mg/L	3.15385	12.77%
Mg 279.077†	105922.8	12.5080	mg/L	0.01776	12.5080	mg/L	0.01776	0.14%
Mn 257.610†	385974.6	1.11878	mg/L	0.003484	1.11878	mg/L	0.003484	0.31%
Mo 202.031†	62.4	0.0067186	mg/L	0.00332824	0.0067186	mg/L	0.00332824	49.54%
Na 330.237†	1642.0	3.80402	mg/L	0.087953	3.80402	mg/L	0.087953	2.31%
Ni 231.604†	1673.8	0.0660473	mg/L	0.00102508	0.0660473	mg/L	0.00102508	1.55%
Pb 220.353†	14532.6	3.61653	mg/L	0.003084	3.61653	mg/L	0.003084	0.09%
Sb 206.836†	8.3	0.0130034	mg/L	0.00672346	0.0130034	mg/L	0.00672346	51.71%
Se 196.026†	-12.9	0.0100076	mg/L	0.00216187	0.0100076	mg/L	0.00216187	21.60%
Sn 189.927†	1358.5	0.396497	mg/L	0.0040990	0.396497	mg/L	0.0040990	1.03%
Ti 334.940†	625758.3	2.05887	mg/L	0.006323	2.05887	mg/L	0.006323	0.31%
Tl 190.801†	-13.1	-0.0044745	mg/L	0.00520769	-0.0044745	mg/L	0.00520769	116.39%
V 290.880†	14472.0	0.158321	mg/L	0.0008580	0.158321	mg/L	0.0008580	0.54%
Zn 206.200†	58136.7	1.70448	mg/L	0.002666	1.70448	mg/L	0.002666	0.16%

Sequence No.: 24  
 Sample ID: 63111-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 81  
 Date Collected: 12/12/2011 8:25:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63111-003

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	482715.4		99.1 %	1.40				1.41%
Y 371.029	196930.9		104 %	1.6				1.58%
Ag 328.068†	959.3	0.0382990	mg/L	0.00052968	0.0382990	mg/L	0.00052968	1.38%
Al 308.215†	335431.3	21.5302	mg/L	0.07308	21.5302	mg/L	0.07308	0.34%
As 188.979†	951.8	0.863365	mg/L	0.0099030	0.863365	mg/L	0.0099030	1.15%
Ba 233.527†	105181.7	1.07427	mg/L	0.003488	1.07427	mg/L	0.003488	0.32%
Be 313.107†	2789.2	0.0011216	mg/L	0.00006628	0.0011216	mg/L	0.00006628	5.91%
Ca 317.933†	5763964.0	122.765	mg/L	1.3160	122.765	mg/L	1.3160	1.07%
Cd 228.802†	1475.5	0.0547843	mg/L	0.00069523	0.0547843	mg/L	0.00069523	1.27%
Co 228.616†	1109.0	0.0385835	mg/L	0.00084940	0.0385835	mg/L	0.00084940	2.20%
Cr 267.716†	2857.2	0.0994901	mg/L	0.00046716	0.0994901	mg/L	0.00046716	0.47%
Cu 327.393†	3844203.4	51.7663	mg/L	0.62847	51.7663	mg/L	0.62847	1.21%
Fe 273.955†	2449682.9	120.792	mg/L	0.3172	120.792	mg/L	0.3172	0.26%
K 404.721†	442.9	11.1606	mg/L	18.01420	11.1606	mg/L	18.01420	161.41%
Mg 279.077†	225500.8	26.9196	mg/L	0.07576	26.9196	mg/L	0.07576	0.28%
Mn 257.610†	470934.1	1.36504	mg/L	0.004738	1.36504	mg/L	0.004738	0.35%
Mo 202.031†	94.4	0.0134468	mg/L	0.00024886	0.0134468	mg/L	0.00024886	1.85%
Na 330.237†	10402.9	22.5957	mg/L	0.13579	22.5957	mg/L	0.13579	0.60%
Ni 231.604†	1784.0	0.0703484	mg/L	0.00157405	0.0703484	mg/L	0.00157405	2.24%
Pb 220.353†	63218.1	15.8270	mg/L	0.05735	15.8270	mg/L	0.05735	0.36%
Sb 206.836†	229.3	0.176570	mg/L	0.0041018	0.176570	mg/L	0.0041018	2.32%
Se 196.026†	-18.3	0.0087105	mg/L	0.01161055	0.0087105	mg/L	0.01161055	133.29%
Sn 189.927†	30521.6	8.66221	mg/L	0.000829	8.66221	mg/L	0.000829	0.01%
Ti 334.940†	270081.3	0.888548	mg/L	0.0034277	0.888548	mg/L	0.0034277	0.39%
Tl 190.801†	-8.3	-0.0043151	mg/L	0.00450462	-0.0043151	mg/L	0.00450462	104.39%
V 290.880†	13992.6	0.149547	mg/L	0.0012099	0.149547	mg/L	0.0012099	0.81%
Zn 206.200†	691415.7	20.2783	mg/L	0.08122	20.2783	mg/L	0.08122	0.40%

Sequence No.: 25  
 Sample ID: 63111-005  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 82  
 Date Collected: 12/12/2011 8:28:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-005

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	500490.8	103	%	1.3				1.23%
Y 371.029	220817.7	116	%	0.9				0.77%
Ag 328.068†	-1246.3	0.0072497	mg/L	0.00010734	0.0072497	mg/L	0.00010734	1.48%
Al 308.215†	724132.8	46.4854	mg/L	0.32321	46.4854	mg/L	0.32321	0.70%
As 188.979†	45.2	0.0501944	mg/L	0.00015949	0.0501944	mg/L	0.00015949	0.32%
Ba 233.527†	112988.3	1.15406	mg/L	0.015794	1.15406	mg/L	0.015794	1.37%
Be 313.107†	7232.3	0.0035072	mg/L	0.00013622	0.0035072	mg/L	0.00013622	3.88%
Ca 317.933†	1806544.1	38.3116	mg/L	0.42105	38.3116	mg/L	0.42105	1.10%
Cd 228.802†	69.0	0.0034499	mg/L	0.00020768	0.0034499	mg/L	0.00020768	6.02%
Co 228.616†	1347.5	0.0449770	mg/L	0.00156768	0.0449770	mg/L	0.00156768	3.49%
Cr 267.716†	3395.2	0.117984	mg/L	0.0026316	0.117984	mg/L	0.0026316	2.23%
Cu 327.393†	17226.3	0.242975	mg/L	0.0038858	0.242975	mg/L	0.0038858	1.60%
Fe 273.955†	1974437.7	97.3564	mg/L	0.57757	97.3564	mg/L	0.57757	0.59%
K 404.721†	1420.3	51.9585	mg/L	2.44275	51.9585	mg/L	2.44275	4.70%
Mg 279.077†	84157.8	9.88519	mg/L	0.140613	9.88519	mg/L	0.140613	1.42%
Mn 257.610†	507906.3	1.47262	mg/L	0.009522	1.47262	mg/L	0.009522	0.65%
Mo 202.031†	215.5	0.0204754	mg/L	0.00020800	0.0204754	mg/L	0.00020800	1.02%
Na 330.237†	1241.9	2.94601	mg/L	0.137734	2.94601	mg/L	0.137734	4.68%
Ni 231.604†	2244.6	0.0883173	mg/L	0.00310301	0.0883173	mg/L	0.00310301	3.51%
Pb 220.353†	4920.1	1.19717	mg/L	0.017551	1.19717	mg/L	0.017551	1.47%
Sb 206.836†	7.1	0.0118268	mg/L	0.00011102	0.0118268	mg/L	0.00011102	0.94%
Se 196.026†	-2.8	0.0215471	mg/L	0.00447274	0.0215471	mg/L	0.00447274	20.76%
Sn 189.927†	530.0	0.160907	mg/L	0.0025114	0.160907	mg/L	0.0025114	1.56%
Ti 334.940†	591562.1	1.94635	mg/L	0.017535	1.94635	mg/L	0.017535	0.90%
Tl 190.801†	-17.5	-0.0104131	mg/L	0.00135216	-0.0104131	mg/L	0.00135216	12.99%
V 290.880†	19914.8	0.221767	mg/L	0.0035028	0.221767	mg/L	0.0035028	1.58%
Zn 206.200†	25114.5	0.736048	mg/L	0.0090040	0.736048	mg/L	0.0090040	1.22%

Sequence No.: 26  
 Sample ID: 63111-007  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 83  
 Date Collected: 12/12/2011 8:32:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-007

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	477449.0		98.0 %	0.79				0.80%
Y 371.029	196477.5		104 %	0.9				0.84%
Ag 328.068†	-5655.5	0.0328815	mg/L	0.00100834	0.0328815	mg/L	0.00100834	3.07%
Al 308.215†	531098.1	34.0925	mg/L	0.03216	34.0925	mg/L	0.03216	0.09%
As 188.979†	193.3	0.220115	mg/L	0.0021635	0.220115	mg/L	0.0021635	0.98%
Ba 233.527†	92677.2	0.946464	mg/L	0.0038412	0.946464	mg/L	0.0038412	0.41%
Be 313.107†	3103.7	0.0012904	mg/L	0.00008419	0.0012904	mg/L	0.00008419	6.52%
Ca 317.933†	4306115.3	91.6541	mg/L	0.49553	91.6541	mg/L	0.49553	0.54%
Cd 228.802†	294.4	0.0117144	mg/L	0.00043963	0.0117144	mg/L	0.00043963	3.75%
Co 228.616†	2627.6	0.0890989	mg/L	0.00073418	0.0890989	mg/L	0.00073418	0.82%
Cr 267.716†	3697.7	0.128364	mg/L	0.0012715	0.128364	mg/L	0.0012715	0.99%
Cu 327.393†	35270.7	0.508973	mg/L	0.0001141	0.508973	mg/L	0.0001141	0.02%
Fe 273.955†	9247854.8	456.031	mg/L	0.6222	456.031	mg/L	0.6222	0.14%
K 404.721†	-717.5	-37.2800	mg/L	0.25132	-37.2800	mg/L	0.25132	0.67%
Mg 279.077†	119905.9	14.1933	mg/L	0.07347	14.1933	mg/L	0.07347	0.52%
Mn 257.610†	2602072.9	7.54880	mg/L	0.013848	7.54880	mg/L	0.013848	0.18%
Mo 202.031†	65.4	0.0068200	mg/L	0.00133077	0.0068200	mg/L	0.00133077	19.51%
Na 330.237†	1752.9	4.04199	mg/L	0.045518	4.04199	mg/L	0.045518	1.13%
Ni 231.604†	2842.9	0.111585	mg/L	0.0014770	0.111585	mg/L	0.0014770	1.32%
Pb 220.353†	9954.5	2.45305	mg/L	0.025527	2.45305	mg/L	0.025527	1.04%
Sb 206.836†	9.7	0.0197849	mg/L	0.00255049	0.0197849	mg/L	0.00255049	12.89%
Se 196.026†	-70.9	0.0041600	mg/L	0.00625258	0.0041600	mg/L	0.00625258	150.30%
Sn 189.927†	545.4	0.202425	mg/L	0.0043637	0.202425	mg/L	0.0043637	2.16%
Ti 334.940†	1013054.7	3.33323	mg/L	0.019102	3.33323	mg/L	0.019102	0.57%
Tl 190.801†	-31.9	-0.0236814	mg/L	0.00168816	-0.0236814	mg/L	0.00168816	7.13%
V 290.880†	27396.2	0.288306	mg/L	0.0005106	0.288306	mg/L	0.0005106	0.18%
Zn 206.200†	30651.0	0.898307	mg/L	0.0101470	0.898307	mg/L	0.0101470	1.13%

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Sequence No.: 27                               Autosampler Location: 7
Sample ID: ICSA V-129812                       Date Collected: 12/12/2011 8:36:08 PM
Analyst:                                         Data Type: Original
Initial Sample Wt:                               Initial Sample Vol:
Dilution:                                       Sample Prep Vol:
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Mean Data: ICSA V-129812

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	436017.2	89.5 %	0.14			0.16%
Y 371.029	164962.2	87.0 %	0.10			0.11%
Ag 328.068†	-2967.2	0.0181973 mg/L	0.00038158	0.0181973 mg/L	0.00038158	2.10%
Al 308.215†	7787668.4	499.980 mg/L	2.8312	499.980 mg/L	2.8312	0.57%
QC value within limits for Al 308.215 Recovery = 100.00%						
As 188.979†	-5.7	-0.0007161 mg/L	0.00331950	-0.0007161 mg/L	0.00331950	463.56%
Ba 233.527†	640.1	0.0057819 mg/L	0.00017637	0.0057819 mg/L	0.00017637	3.05%
Be 313.107†	-1326.5	-0.0010882 mg/L	0.00000888	-0.0010882 mg/L	0.00000888	0.82%
Ca 317.933†	23658478.0	504.646 mg/L	3.6018	504.646 mg/L	3.6018	0.71%
QC value within limits for Ca 317.933 Recovery = 100.93%						
Cd 228.802†	51.8	0.0026900 mg/L	0.00002692	0.0026900 mg/L	0.00002692	1.00%
Co 228.616†	103.7	0.0034746 mg/L	0.00105943	0.0034746 mg/L	0.00105943	30.49%
Cr 267.716†	-92.3	-0.0018471 mg/L	0.00035817	-0.0018471 mg/L	0.00035817	19.39%
Cu 327.393†	-2029.3	0.0020979 mg/L	0.00099718	0.0020979 mg/L	0.00099718	47.53%
Fe 273.955†	3884199.9	191.533 mg/L	1.0515	191.533 mg/L	1.0515	0.55%
QC value within limits for Fe 273.955 Recovery = 95.77%						
K 404.721†	-1320.1	-62.4318 mg/L	3.05913	-62.4318 mg/L	3.05913	4.90%
Mg 279.077†	4324288.9	520.903 mg/L	2.8560	520.903 mg/L	2.8560	0.55%
QC value within limits for Mg 279.077 Recovery = 104.18%						
Mn 257.610†	1091.2	-0.0068058 mg/L	0.00046384	-0.0068058 mg/L	0.00046384	6.82%
Mo 202.031†	-14.4	-0.0006335 mg/L	0.00067240	-0.0006335 mg/L	0.00067240	106.14%
Na 330.237†	3891.5	8.62917 mg/L	0.405806	8.62917 mg/L	0.405806	4.70%
Ni 231.604†	-14.4	0.0002765 mg/L	0.00077431	0.0002765 mg/L	0.00077431	280.06%
Pb 220.353†	1268.2	-0.0217671 mg/L	0.00230495	-0.0217671 mg/L	0.00230495	10.59%
Sb 206.836†	19.0	0.0011059 mg/L	0.00125540	0.0011059 mg/L	0.00125540	113.52%
Se 196.026†	-50.5	0.0085894 mg/L	0.00837611	0.0085894 mg/L	0.00837611	97.52%
Sn 189.927†	-19.8	0.0134242 mg/L	0.00020113	0.0134242 mg/L	0.00020113	1.50%
Ti 334.940†	-368.4	-0.0013180 mg/L	0.00074695	-0.0013180 mg/L	0.00074695	56.67%
Tl 190.801†	-1.9	0.0027848 mg/L	0.00239534	0.0027848 mg/L	0.00239534	86.01%
V 290.880†	10210.8	0.0199775 mg/L	0.00409091	0.0199775 mg/L	0.00409091	20.48%
Zn 206.200†	-28.1	-0.0184988 mg/L	0.00033114	-0.0184988 mg/L	0.00033114	1.79%

All analyte(s) passed QC.

Sequence No.: 28  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 8:41:09 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	436560.4	89.6 %	0.07			0.08%
Y 371.029	164893.4	87.0 %	0.04			0.05%
Ag 328.068†	95401.6	1.10244 mg/L	0.004190	1.10244 mg/L	0.004190	0.38%
	QC value within limits for Ag	328.068	Recovery = 110.24%			
Al 308.215†	7668844.1	492.351 mg/L	2.8239	492.351 mg/L	2.8239	0.57%
	QC value within limits for Al	308.215	Recovery = 98.47%			
As 188.979†	1145.7	1.03247 mg/L	0.013191	1.03247 mg/L	0.013191	1.28%
	QC value within limits for As	188.979	Recovery = 103.25%			
Ba 233.527†	51861.7	0.529302 mg/L	0.0012889	0.529302 mg/L	0.0012889	0.24%
	QC value within limits for Ba	233.527	Recovery = 105.86%			
Be 313.107†	949229.6	0.509289 mg/L	0.0022359	0.509289 mg/L	0.0022359	0.44%
	QC value within limits for Be	313.107	Recovery = 101.86%			
Ca 317.933†	23178278.4	494.398 mg/L	1.1057	494.398 mg/L	1.1057	0.22%
	QC value within limits for Ca	317.933	Recovery = 98.88%			
Cd 228.802†	28139.9	1.02980 mg/L	0.007938	1.02980 mg/L	0.007938	0.77%
	QC value within limits for Cd	228.802	Recovery = 102.98%			
Co 228.616†	13325.2	0.492201 mg/L	0.0042346	0.492201 mg/L	0.0042346	0.86%
	QC value within limits for Co	228.616	Recovery = 98.44%			
Cr 267.716†	14258.3	0.491159 mg/L	0.0045230	0.491159 mg/L	0.0045230	0.92%
	QC value within limits for Cr	267.716	Recovery = 98.23%			
Cu 327.393†	37812.9	0.537930 mg/L	0.0014652	0.537930 mg/L	0.0014652	0.27%
	QC value within limits for Cu	327.393	Recovery = 107.59%			
Fe 273.955†	3823422.4	188.535 mg/L	1.1689	188.535 mg/L	1.1689	0.62%
	QC value within limits for Fe	273.955	Recovery = 94.27%			
K 404.721†	-1008.5	-49.4280 mg/L	2.20273	-49.4280 mg/L	2.20273	4.46%
Mg 279.077†	4246652.1	511.547 mg/L	3.6649	511.547 mg/L	3.6649	0.72%
	QC value within limits for Mg	279.077	Recovery = 102.31%			
Mn 257.610†	175655.1	0.499856 mg/L	0.0007926	0.499856 mg/L	0.0007926	0.16%
	QC value within limits for Mn	257.610	Recovery = 99.97%			
Mo 202.031†	-33.4	-0.0021598 mg/L	0.00082110	-0.0021598 mg/L	0.00082110	38.02%
Na 330.237†	4343.0	9.59769 mg/L	0.202932	9.59769 mg/L	0.202932	2.11%
Ni 231.604†	24631.7	0.960205 mg/L	0.0077657	0.960205 mg/L	0.0077657	0.81%
	QC value within limits for Ni	231.604	Recovery = 96.02%			
Pb 220.353†	5189.0	0.966263 mg/L	0.0095127	0.966263 mg/L	0.0095127	0.98%
	QC value within limits for Pb	220.353	Recovery = 96.63%			
Sb 206.836†	1382.8	1.02707 mg/L	0.005736	1.02707 mg/L	0.005736	0.56%
	QC value within limits for Sb	206.836	Recovery = 102.71%			
Se 196.026†	665.7	1.00720 mg/L	0.003715	1.00720 mg/L	0.003715	0.37%
	QC value within limits for Se	196.026	Recovery = 100.72%			
Sn 189.927†	-24.4	0.0117936 mg/L	0.00146277	0.0117936 mg/L	0.00146277	12.40%
Ti 334.940†	-443.9	-0.0016874 mg/L	0.00011146	-0.0016874 mg/L	0.00011146	6.61%
Tl 190.801†	819.5	0.994167 mg/L	0.0332307	0.994167 mg/L	0.0332307	3.34%
	QC value within limits for Tl	190.801	Recovery = 99.42%			
V 290.880†	51492.5	0.496698 mg/L	0.0023381	0.496698 mg/L	0.0023381	0.47%
	QC value within limits for V	290.880	Recovery = 99.34%			
Zn 206.200†	33930.9	0.978567 mg/L	0.0093773	0.978567 mg/L	0.0093773	0.96%
	QC value within limits for Zn	206.200	Recovery = 97.86%			

All analyte(s) passed QC.

Sequence No.: 29

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/12/2011 8:46:11 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	466295.7	95.7 %		0.02			0.02%
Y 371.029	177028.3	93.4 %		0.58			0.63%
Ag 328.068†	8959.8	0.101313 mg/L		0.0004935	0.101313 mg/L	0.0004935	0.49%
	QC value within limits for Ag	328.068	Recovery = 101.31%				
Al 308.215†	78321.5	5.01050 mg/L		0.027722	5.01050 mg/L	0.027722	0.55%
	QC value within limits for Al	308.215	Recovery = 100.21%				
As 188.979†	550.0	0.497628 mg/L		0.0028578	0.497628 mg/L	0.0028578	0.57%
	QC value within limits for As	188.979	Recovery = 99.53%				
Ba 233.527†	49567.8	0.505857 mg/L		0.0028132	0.505857 mg/L	0.0028132	0.56%
	QC value within limits for Ba	233.527	Recovery = 101.17%				
Be 313.107†	934412.1	0.501333 mg/L		0.0012695	0.501333 mg/L	0.0012695	0.25%
	QC value within limits for Be	313.107	Recovery = 100.27%				
Ca 317.933†	2413418.6	51.2627 mg/L		0.17410	51.2627 mg/L	0.17410	0.34%
	QC value within limits for Ca	317.933	Recovery = 102.53%				
Cd 228.802†	13566.1	0.496952 mg/L		0.0014077	0.496952 mg/L	0.0014077	0.28%
	QC value within limits for Cd	228.802	Recovery = 99.39%				
Co 228.616†	13932.1	0.514290 mg/L		0.0047268	0.514290 mg/L	0.0047268	0.92%
	QC value within limits for Co	228.616	Recovery = 102.86%				
Cr 267.716†	14545.6	0.501562 mg/L		0.0015424	0.501562 mg/L	0.0015424	0.31%
	QC value within limits for Cr	267.716	Recovery = 100.31%				
Cu 327.393†	37825.0	0.512822 mg/L		0.0040105	0.512822 mg/L	0.0040105	0.78%
	QC value within limits for Cu	327.393	Recovery = 102.56%				
Fe 273.955†	100482.6	4.94604 mg/L		0.022655	4.94604 mg/L	0.022655	0.46%
	QC value within limits for Fe	273.955	Recovery = 98.92%				
K 404.721†	1237.4	44.3248 mg/L		16.06710	44.3248 mg/L	16.06710	36.25%
Mg 279.077†	418940.3	50.2431 mg/L		0.02596	50.2431 mg/L	0.02596	0.05%
	QC value within limits for Mg	279.077	Recovery = 100.49%				
Mn 257.610†	172050.7	0.497610 mg/L		0.0030406	0.497610 mg/L	0.0030406	0.61%
	QC value within limits for Mn	257.610	Recovery = 99.52%				
Mo 202.031†	5521.2	0.504129 mg/L		0.0024322	0.504129 mg/L	0.0024322	0.48%
	QC value within limits for Mo	202.031	Recovery = 100.83%				
Na 330.237†	22406.4	48.3427 mg/L		0.23824	48.3427 mg/L	0.23824	0.49%
	QC value within limits for Na	330.237	Recovery = 96.69%				
Ni 231.604†	13146.3	0.514270 mg/L		0.0018483	0.514270 mg/L	0.0018483	0.36%
	QC value within limits for Ni	231.604	Recovery = 102.85%				
Pb 220.353†	1986.0	0.493707 mg/L		0.0010636	0.493707 mg/L	0.0010636	0.22%
	QC value within limits for Pb	220.353	Recovery = 98.74%				
Sb 206.836†	658.8	0.506891 mg/L		0.0020328	0.506891 mg/L	0.0020328	0.40%
	QC value within limits for Sb	206.836	Recovery = 101.38%				
Se 196.026†	356.3	0.502589 mg/L		0.0054761	0.502589 mg/L	0.0054761	1.09%
	QC value within limits for Se	196.026	Recovery = 100.52%				
Sn 189.927†	1776.8	0.503995 mg/L		0.0007529	0.503995 mg/L	0.0007529	0.15%
	QC value within limits for Sn	189.927	Recovery = 100.80%				
Ti 334.940†	151326.6	0.497698 mg/L		0.0015612	0.497698 mg/L	0.0015612	0.31%
	QC value within limits for Ti	334.940	Recovery = 99.54%				
Tl 190.801†	425.1	0.516936 mg/L		0.0016614	0.516936 mg/L	0.0016614	0.32%
	QC value within limits for Tl	190.801	Recovery = 103.39%				
V 290.880†	44005.8	0.497386 mg/L		0.0025103	0.497386 mg/L	0.0025103	0.50%
	QC value within limits for V	290.880	Recovery = 99.48%				
Zn 206.200†	17163.6	0.502073 mg/L		0.0016277	0.502073 mg/L	0.0016277	0.32%
	QC value within limits for Zn	206.200	Recovery = 100.41%				

All analyte(s) passed QC.

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Sequence No.: 30                               Autosampler Location: 2
Sample ID: CCB V-129815                       Date Collected: 12/12/2011 8:49:41 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	482146.5	99.0 %	0.03			0.03%
Y 371.029	188057.1	99.2 %	0.10			0.10%
Ag 328.068†	-49.0	-0.0002577 mg/L	0.00046951	-0.0002577 mg/L	0.00046951	182.18%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 308.215†	31.8	-0.0029067 mg/L	0.00213718	-0.0029067 mg/L	0.00213718	73.53%
QC value within limits for Al 308.215		Recovery = Not calculated				
As 188.979†	-2.8	-0.0004047 mg/L	0.00051825	-0.0004047 mg/L	0.00051825	128.06%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	4.2	-0.0007179 mg/L	0.00019613	-0.0007179 mg/L	0.00019613	27.32%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 313.107†	-38.0	-0.0003964 mg/L	0.00005437	-0.0003964 mg/L	0.00005437	13.72%
QC value within limits for Be 313.107		Recovery = Not calculated				
Ca 317.933†	11.2	-0.240904 mg/L	0.0020255	-0.240904 mg/L	0.0020255	0.84%
QC value within limits for Ca 317.933		Recovery = Not calculated				
Cd 228.802†	8.2	0.0010993 mg/L	0.00053140	0.0010993 mg/L	0.00053140	48.34%
QC value within limits for Cd 228.802		Recovery = Not calculated				
Co 228.616†	1.7	-0.0002988 mg/L	0.00051256	-0.0002988 mg/L	0.00051256	171.53%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cr 267.716†	-0.3	0.0013131 mg/L	0.00010772	0.0013131 mg/L	0.00010772	8.20%
QC value within limits for Cr 267.716		Recovery = Not calculated				
Cu 327.393†	-1.2	0.0001443 mg/L	0.00091531	0.0001443 mg/L	0.00091531	634.41%
QC value within limits for Cu 327.393		Recovery = Not calculated				
Fe 273.955†	57.7	-0.0062162 mg/L	0.00042384	-0.0062162 mg/L	0.00042384	6.82%
QC value within limits for Fe 273.955		Recovery = Not calculated				
K 404.721†	484.9	12.9124 mg/L	8.10507	12.9124 mg/L	8.10507	62.77%
Mg 279.077†	84.4	-0.247715 mg/L	0.0116530	-0.247715 mg/L	0.0116530	4.70%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610†	10.5	-0.0008826 mg/L	0.00001144	-0.0008826 mg/L	0.00001144	1.30%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031†	-2.5	0.0004473 mg/L	0.00067709	0.0004473 mg/L	0.00067709	151.39%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Na 330.237†	116.2	0.531269 mg/L	0.0549954	0.531269 mg/L	0.0549954	10.35%
QC value within limits for Na 330.237		Recovery = Not calculated				
Ni 231.604†	10.1	0.0012317 mg/L	0.00043791	0.0012317 mg/L	0.00043791	35.55%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Pb 220.353†	15.5	0.0028197 mg/L	0.00002851	0.0028197 mg/L	0.00002851	1.01%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Sb 206.836†	-1.6	0.0011238 mg/L	0.00057273	0.0011238 mg/L	0.00057273	50.96%
QC value within limits for Sb 206.836		Recovery = Not calculated				
Se 196.026†	1.6	0.0042353 mg/L	0.00157726	0.0042353 mg/L	0.00157726	37.24%
QC value within limits for Se 196.026		Recovery = Not calculated				
Sn 189.927†	11.0	0.0027669 mg/L	0.00102130	0.0027669 mg/L	0.00102130	36.91%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940†	-50.1	-0.0002715 mg/L	0.00007271	-0.0002715 mg/L	0.00007271	26.78%
QC value within limits for Ti 334.940		Recovery = Not calculated				
Tl 190.801†	-0.4	0.0014116 mg/L	0.00470806	0.0014116 mg/L	0.00470806	333.53%
QC value within limits for Tl 190.801		Recovery = Not calculated				
V 290.880†	-106.4	-0.0018209 mg/L	0.00078146	-0.0018209 mg/L	0.00078146	42.92%
QC value within limits for V 290.880		Recovery = Not calculated				
Zn 206.200†	9.3	-0.0001329 mg/L	0.00033032	-0.0001329 mg/L	0.00033032	248.50%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 31  
 Sample ID: 63111-009  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 84  
 Date Collected: 12/12/2011 8:53:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-009

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	501375.9	103	%	0.6			0.57%
Y 371.029	237601.7	125	%	0.7			0.52%
Ag 328.068†	-2290.7	0.0138850	mg/L	0.00009251	0.0138850 mg/L	0.00009251	0.67%
Al 308.215†	824703.7	52.9426	mg/L	0.10494	52.9426 mg/L	0.10494	0.20%
As 188.979†	33.2	0.0481832	mg/L	0.00118206	0.0481832 mg/L	0.00118206	2.45%
Ba 233.527†	154621.2	1.57957	mg/L	0.000388	1.57957 mg/L	0.000388	0.02%
Be 313.107†	8319.6	0.0040910	mg/L	0.00003984	0.0040910 mg/L	0.00003984	0.97%
Ca 317.933†	1425321.3	30.1761	mg/L	0.01730	30.1761 mg/L	0.01730	0.06%
Cd 228.802†	81.5	0.0039342	mg/L	0.00001841	0.0039342 mg/L	0.00001841	0.47%
Co 228.616†	1730.9	0.0580127	mg/L	0.00018020	0.0580127 mg/L	0.00018020	0.31%
Cr 267.716†	5954.4	0.205891	mg/L	0.0002769	0.205891 mg/L	0.0002769	0.13%
Cu 327.393†	45831.5	0.633319	mg/L	0.0001367	0.633319 mg/L	0.0001367	0.02%
Fe 273.955†	3801083.4	187.434	mg/L	0.1159	187.434 mg/L	0.1159	0.06%
K 404.721†	1399.0	51.0683	mg/L	15.01884	51.0683 mg/L	15.01884	29.41%
Mg 279.077†	158142.4	18.8015	mg/L	0.00093	18.8015 mg/L	0.00093	0.00%
Mn 257.610†	855398.2	2.48071	mg/L	0.002373	2.48071 mg/L	0.002373	0.10%
Mo 202.031†	50.6	0.0056752	mg/L	0.00029729	0.0056752 mg/L	0.00029729	5.24%
Na 330.237†	1192.1	2.83907	mg/L	0.149975	2.83907 mg/L	0.149975	5.28%
Ni 231.604†	2744.0	0.107727	mg/L	0.0000516	0.107727 mg/L	0.0000516	0.05%
Pb 220.353†	51850.5	12.9469	mg/L	0.00341	12.9469 mg/L	0.00341	0.03%
Sb 206.836†	3.8	0.0110851	mg/L	0.00402403	0.0110851 mg/L	0.00402403	36.30%
Se 196.026†	-27.1	0.0070439	mg/L	0.00478657	0.0070439 mg/L	0.00478657	67.95%
Sn 189.927†	506.7	0.163724	mg/L	0.0012512	0.163724 mg/L	0.0012512	0.76%
Ti 334.940†	735074.6	2.41854	mg/L	0.014926	2.41854 mg/L	0.014926	0.62%
Tl 190.801†	-20.2	-0.0117297	mg/L	0.00326431	-0.0117297 mg/L	0.00326431	27.83%
V 290.880†	28548.6	0.314889	mg/L	0.0000344	0.314889 mg/L	0.0000344	0.01%
Zn 206.200†	64792.5	1.89965	mg/L	0.004226	1.89965 mg/L	0.004226	0.22%

Sequence No.: 32  
 Sample ID: 63111-010  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 85  
 Date Collected: 12/12/2011 8:56:28 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-010

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	479792.0	98.5	%	0.30				0.31%
Y 371.029	214819.0	113	%	0.4				0.32%
Ag 328.068†	-1363.5	0.0134001	mg/L	0.00046852	0.0134001	mg/L	0.00046852	3.50%
Al 308.215†	1247851.5	80.1092	mg/L	0.31370	80.1092	mg/L	0.31370	0.39%
As 188.979†	73.4	0.0764930	mg/L	0.00375491	0.0764930	mg/L	0.00375491	4.91%
Ba 233.527†	206047.7	2.10519	mg/L	0.006502	2.10519	mg/L	0.006502	0.31%
Be 313.107†	8910.4	0.0044082	mg/L	0.00010211	0.0044082	mg/L	0.00010211	2.32%
Ca 317.933†	12586227.2	268.357	mg/L	0.3197	268.357	mg/L	0.3197	0.12%
Cd 228.802†	87.2	0.0041121	mg/L	0.00017947	0.0041121	mg/L	0.00017947	4.36%
Co 228.616†	1275.1	0.0403338	mg/L	0.00011826	0.0403338	mg/L	0.00011826	0.29%
Cr 267.716†	3270.3	0.113695	mg/L	0.0002411	0.113695	mg/L	0.0002411	0.21%
Cu 327.393†	22622.8	0.327183	mg/L	0.0010870	0.327183	mg/L	0.0010870	0.33%
Fe 273.955†	2187390.1	107.858	mg/L	0.3052	107.858	mg/L	0.3052	0.28%
K 404.721†	884.8	29.6057	mg/L	6.36245	29.6057	mg/L	6.36245	21.49%
Mg 279.077†	106255.2	12.5484	mg/L	0.01622	12.5484	mg/L	0.01622	0.13%
Mn 257.610†	618812.1	1.79437	mg/L	0.003738	1.79437	mg/L	0.003738	0.21%
Mo 202.031†	229.3	0.0217340	mg/L	0.00151082	0.0217340	mg/L	0.00151082	6.95%
Na 330.237†	3357.3	7.48337	mg/L	0.158419	7.48337	mg/L	0.158419	2.12%
Ni 231.604†	2246.8	0.0884083	mg/L	0.00131111	0.0884083	mg/L	0.00131111	1.48%
Pb 220.353†	35245.0	8.76842	mg/L	0.021851	8.76842	mg/L	0.021851	0.25%
Sb 206.836†	14.7	0.0171996	mg/L	0.00248259	0.0171996	mg/L	0.00248259	14.43%
Se 196.026†	-23.3	0.0055605	mg/L	0.00205787	0.0055605	mg/L	0.00205787	37.01%
Sn 189.927†	667.3	0.201427	mg/L	0.0009129	0.201427	mg/L	0.0009129	0.45%
Ti 334.940†	851921.7	2.80304	mg/L	0.025675	2.80304	mg/L	0.025675	0.92%
Tl 190.801†	-17.5	-0.0061848	mg/L	0.00434507	-0.0061848	mg/L	0.00434507	70.25%
V 290.880†	20299.6	0.225200	mg/L	0.0004406	0.225200	mg/L	0.0004406	0.20%
Zn 206.200†	25907.7	0.759219	mg/L	0.0023751	0.759219	mg/L	0.0023751	0.31%

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Sequence No.: 33                               Autosampler Location: 86
Sample ID: 63111-011                           Date Collected: 12/12/2011 9:00:08 PM
Analyst:                                         Data Type: Original
Initial Sample Wt:                               Initial Sample Vol:
Dilution:                                       Sample Prep Vol:
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Mean Data: 63111-011

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	492064.3	101	%	0.4				0.37%
Y 371.029	213355.8	113	%	0.2				0.14%
Ag 328.068†	-789.5	0.0077743	mg/L	0.00022013	0.0077743	mg/L	0.00022013	2.83%
Al 308.215†	467765.6	30.0261	mg/L	0.12406	30.0261	mg/L	0.12406	0.41%
As 188.979†	114.0	0.110258	mg/L	0.0019115	0.110258	mg/L	0.0019115	1.73%
Ba 233.527†	321543.8	3.28564	mg/L	0.006470	3.28564	mg/L	0.006470	0.20%
Be 313.107†	7224.0	0.0035027	mg/L	0.00001999	0.0035027	mg/L	0.00001999	0.57%
Ca 317.933†	3873926.3	82.4309	mg/L	0.55435	82.4309	mg/L	0.55435	0.67%
Cd 228.802†	135.5	0.0058722	mg/L	0.00032821	0.0058722	mg/L	0.00032821	5.59%
Co 228.616†	1209.3	0.0417822	mg/L	0.00056607	0.0417822	mg/L	0.00056607	1.35%
Cr 267.716†	2731.1	0.0951714	mg/L	0.00094306	0.0951714	mg/L	0.00094306	0.99%
Cu 327.393†	24943.1	0.345302	mg/L	0.0003649	0.345302	mg/L	0.0003649	0.11%
Fe 273.955†	1423583.9	70.1922	mg/L	0.04310	70.1922	mg/L	0.04310	0.06%
K 404.721†	774.2	24.9890	mg/L	6.56332	24.9890	mg/L	6.56332	26.26%
Mg 279.077†	56725.4	6.57903	mg/L	0.005586	6.57903	mg/L	0.005586	0.08%
Mn 257.610†	358481.8	1.03912	mg/L	0.004450	1.03912	mg/L	0.004450	0.43%
Mo 202.031†	205.3	0.0197036	mg/L	0.00168055	0.0197036	mg/L	0.00168055	8.53%
Na 330.237†	2610.9	5.88228	mg/L	0.114816	5.88228	mg/L	0.114816	1.95%
Ni 231.604†	2176.7	0.0856692	mg/L	0.00100854	0.0856692	mg/L	0.00100854	1.18%
Pb 220.353†	22044.3	5.49877	mg/L	0.025005	5.49877	mg/L	0.025005	0.45%
Sb 206.836†	-0.4	0.0043633	mg/L	0.00411218	0.0043633	mg/L	0.00411218	94.25%
Se 196.026†	-0.8	0.0200800	mg/L	0.00540443	0.0200800	mg/L	0.00540443	26.91%
Sn 189.927†	610.1	0.180355	mg/L	0.0015549	0.180355	mg/L	0.0015549	0.86%
Ti 334.940†	339717.1	1.11768	mg/L	0.016446	1.11768	mg/L	0.016446	1.47%
Tl 190.801†	-10.2	-0.0054424	mg/L	0.00122241	-0.0054424	mg/L	0.00122241	22.46%
V 290.880†	15931.2	0.177904	mg/L	0.0000050	0.177904	mg/L	0.0000050	0.00%
Zn 206.200†	51814.8	1.51925	mg/L	0.006137	1.51925	mg/L	0.006137	0.40%

Sequence No.: 34  
 Sample ID: 63111-013  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 87  
 Date Collected: 12/12/2011 9:03:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-013

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	471214.2		96.8 %	0.64			0.66%	
Y 371.029	207714.0		110 %	0.5			0.44%	
Ag 328.068†	-538.4	0.0298497	mg/L	0.00007038	0.0298497	mg/L	0.00007038	0.24%
Al 308.215†	973088.1	62.4692	mg/L	0.12015	62.4692	mg/L	0.12015	0.19%
As 188.979†	64.2	0.0731407	mg/L	0.00020582	0.0731407	mg/L	0.00020582	0.28%
Ba 233.527†	103196.0	1.05397	mg/L	0.002380	1.05397	mg/L	0.002380	0.23%
Be 313.107†	5877.8	0.0027799	mg/L	0.00000776	0.0027799	mg/L	0.00000776	0.28%
Ca 317.933†	16380369.4	349.326	mg/L	0.4015	349.326	mg/L	0.4015	0.11%
Cd 228.802†	187.3	0.0077882	mg/L	0.00047779	0.0077882	mg/L	0.00047779	6.13%
Co 228.616†	1439.6	0.0469480	mg/L	0.00009050	0.0469480	mg/L	0.00009050	0.19%
Cr 267.716†	4111.9	0.142593	mg/L	0.0004571	0.142593	mg/L	0.0004571	0.32%
Cu 327.393†	76208.3	1.05252	mg/L	0.000752	1.05252	mg/L	0.000752	0.07%
Fe 273.955†	2733207.6	134.774	mg/L	0.3001	134.774	mg/L	0.3001	0.22%
K 404.721†	623.3	18.6882	mg/L	3.04972	18.6882	mg/L	3.04972	16.32%
Mg 279.077†	638505.6	76.6947	mg/L	0.22507	76.6947	mg/L	0.22507	0.29%
Mn 257.610†	2135942.7	6.19523	mg/L	0.009641	6.19523	mg/L	0.009641	0.16%
Mo 202.031†	72.4	0.0076048	mg/L	0.00116470	0.0076048	mg/L	0.00116470	15.32%
Na 330.237†	3948.9	8.75227	mg/L	0.201965	8.75227	mg/L	0.201965	2.31%
Ni 231.604†	2592.1	0.101816	mg/L	0.0003501	0.101816	mg/L	0.0003501	0.34%
Pb 220.353†	8228.9	2.01075	mg/L	0.001956	2.01075	mg/L	0.001956	0.10%
Sb 206.836†	-0.0	0.0053742	mg/L	0.00175228	0.0053742	mg/L	0.00175228	32.61%
Se 196.026†	-26.4	0.0045007	mg/L	0.00223617	0.0045007	mg/L	0.00223617	49.69%
Sn 189.927†	1977.0	0.575166	mg/L	0.0011838	0.575166	mg/L	0.0011838	0.21%
Ti 334.940†	777575.8	2.55840	mg/L	0.027123	2.55840	mg/L	0.027123	1.06%
Tl 190.801†	-20.2	-0.0124244	mg/L	0.00257764	-0.0124244	mg/L	0.00257764	20.75%
V 290.880†	17998.0	0.186604	mg/L	0.0023248	0.186604	mg/L	0.0023248	1.25%
Zn 206.200†	53932.0	1.57910	mg/L	0.006040	1.57910	mg/L	0.006040	0.38%

Sequence No.: 35  
 Sample ID: 63111-014  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 88  
 Date Collected: 12/12/2011 9:07:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-014

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	486079.7	99.8 %		1.19				1.19%
Y 371.029	210823.1	111 %		1.2				1.08%
Ag 328.068†	-3960.8	0.0227451 mg/L		0.00026211	0.0227451 mg/L	0.00026211		1.15%
Al 308.215†	655429.4	42.0747 mg/L		0.06120	42.0747 mg/L	0.06120		0.15%
As 188.979†	63.0	0.0891554 mg/L		0.00111249	0.0891554 mg/L	0.00111249		1.25%
Ba 233.527†	114597.5	1.17051 mg/L		0.000032	1.17051 mg/L	0.000032		0.00%
Be 313.107†	5662.5	0.0026643 mg/L		0.00001128	0.0026643 mg/L	0.00001128		0.42%
Ca 317.933†	3378463.7	71.8574 mg/L		0.51572	71.8574 mg/L	0.51572		0.72%
Cd 228.802†	129.6	0.0056570 mg/L		0.00062489	0.0056570 mg/L	0.00062489		11.05%
Co 228.616†	1407.5	0.0474997 mg/L		0.00088359	0.0474997 mg/L	0.00088359		1.86%
Cr 267.716†	4321.4	0.149794 mg/L		0.0018062	0.149794 mg/L	0.0018062		1.21%
Cu 327.393†	18560.9	0.272756 mg/L		0.0003422	0.272756 mg/L	0.0003422		0.13%
Fe 273.955†	6422266.2	316.692 mg/L		1.6285	316.692 mg/L	1.6285		0.51%
K 404.721†	70.8	-4.37402 mg/L		3.345186	-4.37402 mg/L	3.345186		76.48%
Mg 279.077†	84388.0	9.91274 mg/L		0.000934	9.91274 mg/L	0.000934		0.01%
Mn 257.610†	1031675.5	2.99234 mg/L		0.016281	2.99234 mg/L	0.016281		0.54%
Mo 202.031†	114.2	0.0112881 mg/L		0.00134709	0.0112881 mg/L	0.00134709		11.93%
Na 330.237†	1750.3	4.03636 mg/L		0.188645	4.03636 mg/L	0.188645		4.67%
Ni 231.604†	2152.1	0.0846914 mg/L		0.00197867	0.0846914 mg/L	0.00197867		2.34%
Pb 220.353†	14022.8	3.47262 mg/L		0.026751	3.47262 mg/L	0.026751		0.77%
Sb 206.836†	4.7	0.0117772 mg/L		0.00410500	0.0117772 mg/L	0.00410500		34.86%
Se 196.026†	-39.5	0.0211030 mg/L		0.00545035	0.0211030 mg/L	0.00545035		25.83%
Sn 189.927†	218.4	0.0946978 mg/L		0.00040604	0.0946978 mg/L	0.00040604		0.43%
Ti 334.940†	548269.5	1.80389 mg/L		0.001750	1.80389 mg/L	0.001750		0.10%
Tl 190.801†	-21.0	-0.0158950 mg/L		0.00458449	-0.0158950 mg/L	0.00458449		28.84%
V 290.880†	17960.0	0.187756 mg/L		0.0014212	0.187756 mg/L	0.0014212		0.76%
Zn 206.200†	33309.5	0.976458 mg/L		0.0100531	0.976458 mg/L	0.0100531		1.03%

Sequence No.: 36  
 Sample ID: 63111-015  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 89  
 Date Collected: 12/12/2011 9:10:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-015

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	497104.1		102 %	1.1			1.10%
Y 371.029	218041.0		115 %	1.2			1.00%
Ag 328.068†	-1629.3	0.0100151	mg/L	0.00081720	0.0100151	mg/L	0.00081720 8.16%
Al 308.215†	901794.2	57.8920	mg/L	0.08038	57.8920	mg/L	0.08038 0.14%
As 188.979†	16.4	0.0270748	mg/L	0.00090399	0.0270748	mg/L	0.00090399 3.34%
Ba 233.527†	45352.3	0.462771	mg/L	0.0006857	0.462771	mg/L	0.0006857 0.15%
Be 313.107†	6443.1	0.0030835	mg/L	0.00003074	0.0030835	mg/L	0.00003074 1.00%
Ca 317.933†	1272363.9	26.9119	mg/L	0.14139	26.9119	mg/L	0.14139 0.53%
Cd 228.802†	31.1	0.0020696	mg/L	0.00042965	0.0020696	mg/L	0.00042965 20.76%
Co 228.616†	1512.8	0.0486698	mg/L	0.00071543	0.0486698	mg/L	0.00071543 1.47%
Cr 267.716†	3542.5	0.123032	mg/L	0.0001433	0.123032	mg/L	0.0001433 0.12%
Cu 327.393†	39360.2	0.544719	mg/L	0.0011908	0.544719	mg/L	0.0011908 0.22%
Fe 273.955†	2696641.9	132.971	mg/L	0.3083	132.971	mg/L	0.3083 0.23%
K 404.721†	1383.2	50.4094	mg/L	2.45782	50.4094	mg/L	2.45782 4.88%
Mg 279.077†	131582.2	15.6004	mg/L	0.02340	15.6004	mg/L	0.02340 0.15%
Mn 257.610†	1231103.3	3.57088	mg/L	0.008289	3.57088	mg/L	0.008289 0.23%
Mo 202.031†	47.3	0.0050624	mg/L	0.00162619	0.0050624	mg/L	0.00162619 32.12%
Na 330.237†	241.4	0.799818	mg/L	0.0384385	0.799818	mg/L	0.0384385 4.81%
Ni 231.604†	2305.8	0.0906583	mg/L	0.00045312	0.0906583	mg/L	0.00045312 0.50%
Pb 220.353†	2037.2	0.465864	mg/L	0.0057275	0.465864	mg/L	0.0057275 1.23%
Sb 206.836†	-2.0	0.0069381	mg/L	0.00249741	0.0069381	mg/L	0.00249741 36.00%
Se 196.026†	-12.6	0.0129575	mg/L	0.01876168	0.0129575	mg/L	0.01876168 144.79%
Sn 189.927†	243.6	0.0839846	mg/L	0.00280627	0.0839846	mg/L	0.00280627 3.34%
Ti 334.940†	907911.5	2.98727	mg/L	0.014156	2.98727	mg/L	0.014156 0.47%
Tl 190.801†	-20.3	-0.0096390	mg/L	0.00027562	-0.0096390	mg/L	0.00027562 2.86%
V 290.880†	18441.3	0.201981	mg/L	0.0003997	0.201981	mg/L	0.0003997 0.20%
Zn 206.200†	12684.4	0.371286	mg/L	0.0004180	0.371286	mg/L	0.0004180 0.11%

Sequence No.: 37  
 Sample ID: 63111-017  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 90  
 Date Collected: 12/12/2011 9:14:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-017

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	493982.8	101 %		0.1			0.07%
Y 371.029	229383.2	121 %		0.6			0.50%
Ag 328.068†	-1678.3	0.0184917 mg/L		0.00018086	0.0184917 mg/L	0.00018086	0.98%
Al 308.215†	963454.0	61.8504 mg/L		0.25097	61.8504 mg/L	0.25097	0.41%
As 188.979†	109.0	0.114278 mg/L		0.0012069	0.114278 mg/L	0.0012069	1.06%
Ba 233.527†	187973.5	1.92046 mg/L		0.001373	1.92046 mg/L	0.001373	0.07%
Be 313.107†	12705.1	0.0064457 mg/L		0.00005450	0.0064457 mg/L	0.00005450	0.85%
Ca 317.933†	3455607.8	73.5037 mg/L		0.87912	73.5037 mg/L	0.87912	1.20%
Cd 228.802†	232.5	0.0094590 mg/L		0.00040329	0.0094590 mg/L	0.00040329	4.26%
Co 228.616†	2006.3	0.0701411 mg/L		0.00004797	0.0701411 mg/L	0.00004797	0.07%
Cr 267.716†	2976.5	0.103598 mg/L		0.0012849	0.103598 mg/L	0.0012849	1.24%
Cu 327.393†	221949.2	3.00333 mg/L		0.003125	3.00333 mg/L	0.003125	0.10%
Fe 273.955†	3487633.9	171.977 mg/L		0.5507	171.977 mg/L	0.5507	0.32%
K 404.721†	1149.7	40.6604 mg/L		15.39998	40.6604 mg/L	15.39998	37.87%
Mg 279.077†	108038.1	12.7631 mg/L		0.00151	12.7631 mg/L	0.00151	0.01%
Mn 257.610†	682575.4	1.97937 mg/L		0.002346	1.97937 mg/L	0.002346	0.12%
Mo 202.031†	164.3	0.0160990 mg/L		0.00072234	0.0160990 mg/L	0.00072234	4.49%
Na 330.237†	2565.2	5.78434 mg/L		0.236785	5.78434 mg/L	0.236785	4.09%
Ni 231.604†	2940.8	0.115422 mg/L		0.0004031	0.115422 mg/L	0.0004031	0.35%
Pb 220.353†	19703.9	4.88856 mg/L		0.010740	4.88856 mg/L	0.010740	0.22%
Sb 206.836†	127.9	0.101850 mg/L		0.0022665	0.101850 mg/L	0.0022665	2.23%
Se 196.026†	-22.8	0.0122878 mg/L		0.00819570	0.0122878 mg/L	0.00819570	66.70%
Sn 189.927†	21748.9	6.18165 mg/L		0.019765	6.18165 mg/L	0.019765	0.32%
Ti 334.940†	485362.3	1.59691 mg/L		0.008413	1.59691 mg/L	0.008413	0.53%
Tl 190.801†	-17.2	-0.0117252 mg/L		0.00215468	-0.0117252 mg/L	0.00215468	18.38%
V 290.880†	21046.1	0.230386 mg/L		0.0001329	0.230386 mg/L	0.0001329	0.06%
Zn 206.200†	73542.6	2.15635 mg/L		0.001329	2.15635 mg/L	0.001329	0.06%

Sequence No.: 38  
 Sample ID: CCV V-129808  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 9:17:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	470660.6	96.6 %	0.34			0.35%
Y 371.029	174989.8	92.3 %	0.30			0.32%
Ag 328.068†	8796.3	0.0994902 mg/L	0.00140868	0.0994902 mg/L	0.00140868	1.42%
QC value within limits for Ag		328.068 Recovery = 99.49%				
Al 308.215†	77054.0	4.92927 mg/L	0.026692	4.92927 mg/L	0.026692	0.54%
QC value within limits for Al		308.215 Recovery = 98.59%				
As 188.979†	530.8	0.480367 mg/L	0.0044025	0.480367 mg/L	0.0044025	0.92%
QC value within limits for As		188.979 Recovery = 96.07%				
Ba 233.527†	48775.2	0.497755 mg/L	0.0021859	0.497755 mg/L	0.0021859	0.44%
QC value within limits for Ba		233.527 Recovery = 99.55%				
Be 313.107†	933488.4	0.500837 mg/L	0.0005529	0.500837 mg/L	0.0005529	0.11%
QC value within limits for Be		313.107 Recovery = 100.17%				
Ca 317.933†	2406597.5	51.1172 mg/L	0.18969	51.1172 mg/L	0.18969	0.37%
QC value within limits for Ca		317.933 Recovery = 102.23%				
Cd 228.802†	13317.9	0.487870 mg/L	0.0023266	0.487870 mg/L	0.0023266	0.48%
QC value within limits for Cd		228.802 Recovery = 97.57%				
Co 228.616†	13664.9	0.504419 mg/L	0.0030393	0.504419 mg/L	0.0030393	0.60%
QC value within limits for Co		228.616 Recovery = 100.88%				
Cr 267.716†	14299.7	0.493109 mg/L	0.0027665	0.493109 mg/L	0.0027665	0.56%
QC value within limits for Cr		267.716 Recovery = 98.62%				
Cu 327.393†	37030.0	0.502094 mg/L	0.0040330	0.502094 mg/L	0.0040330	0.80%
QC value within limits for Cu		327.393 Recovery = 100.42%				
Fe 273.955†	98951.2	4.87053 mg/L	0.013998	4.87053 mg/L	0.013998	0.29%
QC value within limits for Fe		273.955 Recovery = 97.41%				
K 404.721†	1692.9	63.3371 mg/L	3.52701	63.3371 mg/L	3.52701	5.57%
Mg 279.077†	407755.5	48.8950 mg/L	0.23524	48.8950 mg/L	0.23524	0.48%
QC value within limits for Mg		279.077 Recovery = 97.79%				
Mn 257.610†	169536.5	0.490336 mg/L	0.0027408	0.490336 mg/L	0.0027408	0.56%
QC value within limits for Mn		257.610 Recovery = 98.07%				
Mo 202.031†	5460.2	0.498571 mg/L	0.0014457	0.498571 mg/L	0.0014457	0.29%
QC value within limits for Mo		202.031 Recovery = 99.71%				
Na 330.237†	22116.9	47.7219 mg/L	0.51654	47.7219 mg/L	0.51654	1.08%
QC value within limits for Na		330.237 Recovery = 95.44%				
Ni 231.604†	12847.7	0.502623 mg/L	0.0021011	0.502623 mg/L	0.0021011	0.42%
QC value within limits for Ni		231.604 Recovery = 100.52%				
Pb 220.353†	1960.7	0.487427 mg/L	0.0038373	0.487427 mg/L	0.0038373	0.79%
QC value within limits for Pb		220.353 Recovery = 97.49%				
Sb 206.836†	647.4	0.498236 mg/L	0.0023204	0.498236 mg/L	0.0023204	0.47%
QC value within limits for Sb		206.836 Recovery = 99.65%				
Se 196.026†	348.3	0.491477 mg/L	0.0050486	0.491477 mg/L	0.0050486	1.03%
QC value within limits for Se		196.026 Recovery = 98.30%				
Sn 189.927†	1756.2	0.498155 mg/L	0.0027911	0.498155 mg/L	0.0027911	0.56%
QC value within limits for Sn		189.927 Recovery = 99.63%				
Ti 334.940†	149274.7	0.490948 mg/L	0.0013301	0.490948 mg/L	0.0013301	0.27%
QC value within limits for Ti		334.940 Recovery = 98.19%				
Tl 190.801†	419.5	0.510215 mg/L	0.0030459	0.510215 mg/L	0.0030459	0.60%
QC value within limits for Tl		190.801 Recovery = 102.04%				
V 290.880†	43263.1	0.489066 mg/L	0.0010422	0.489066 mg/L	0.0010422	0.21%
QC value within limits for V		290.880 Recovery = 97.81%				
Zn 206.200†	16554.6	0.484242 mg/L	0.0014592	0.484242 mg/L	0.0014592	0.30%
QC value within limits for Zn		206.200 Recovery = 96.85%				

All analyte(s) passed QC.

Sequence No.: 39  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/12/2011 9:21:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	474254.2	97.4 %	0.12			0.12%
Y 371.029	185152.0	97.7 %	0.19			0.20%
Ag 328.068†	-17.9	0.0000856 mg/L	0.00006898	0.0000856 mg/L	0.00006898	80.62%
QC value within limits for Ag		328.068 Recovery = Not calculated				
Al 308.215†	31.0	-0.0029782 mg/L	0.00747961	-0.0029782 mg/L	0.00747961	251.15%
QC value within limits for Al		308.215 Recovery = Not calculated				
As 188.979†	-1.5	0.0007746 mg/L	0.00196374	0.0007746 mg/L	0.00196374	253.51%
QC value within limits for As		188.979 Recovery = Not calculated				
Ba 233.527†	8.4	-0.0006743 mg/L	0.00000064	-0.0006743 mg/L	0.00000064	0.10%
QC value within limits for Ba		233.527 Recovery = Not calculated				
Be 313.107†	61.8	-0.0003428 mg/L	0.00002781	-0.0003428 mg/L	0.00002781	8.11%
QC value within limits for Be		313.107 Recovery = Not calculated				
Ca 317.933†	-13.1	-0.241423 mg/L	0.0006687	-0.241423 mg/L	0.0006687	0.28%
QC value within limits for Ca		317.933 Recovery = Not calculated				
Cd 228.802†	-0.9	0.0007666 mg/L	0.00060597	0.0007666 mg/L	0.00060597	79.04%
QC value within limits for Cd		228.802 Recovery = Not calculated				
Co 228.616†	4.1	-0.0002097 mg/L	0.00045123	-0.0002097 mg/L	0.00045123	215.16%
QC value within limits for Co		228.616 Recovery = Not calculated				
Cr 267.716†	3.8	0.0014558 mg/L	0.00001433	0.0014558 mg/L	0.00001433	0.98%
QC value within limits for Cr		267.716 Recovery = Not calculated				
Cu 327.393†	29.4	0.0005563 mg/L	0.00144673	0.0005563 mg/L	0.00144673	260.08%
QC value within limits for Cu		327.393 Recovery = Not calculated				
Fe 273.955†	91.7	-0.0045373 mg/L	0.00028628	-0.0045373 mg/L	0.00028628	6.31%
QC value within limits for Fe		273.955 Recovery = Not calculated				
K 404.721†	288.3	4.70376 mg/L	13.949965	4.70376 mg/L	13.949965	296.57%
Mg 279.077†	25.6	-0.254785 mg/L	0.0032532	-0.254785 mg/L	0.0032532	1.28%
QC value within limits for Mg		279.077 Recovery = Not calculated				
Mn 257.610†	20.8	-0.0008523 mg/L	0.00005373	-0.0008523 mg/L	0.00005373	6.30%
QC value within limits for Mn		257.610 Recovery = Not calculated				
Mo 202.031†	4.7	0.0011040 mg/L	0.00233541	0.0011040 mg/L	0.00233541	211.55%
QC value within limits for Mo		202.031 Recovery = Not calculated				
Na 330.237†	63.9	0.419242 mg/L	0.1592825	0.419242 mg/L	0.1592825	37.99%
QC value within limits for Na		330.237 Recovery = Not calculated				
Ni 231.604†	-2.4	0.0007462 mg/L	0.00055468	0.0007462 mg/L	0.00055468	74.34%
QC value within limits for Ni		231.604 Recovery = Not calculated				
Pb 220.353†	1.9	-0.0005741 mg/L	0.00243211	-0.0005741 mg/L	0.00243211	423.61%
QC value within limits for Pb		220.353 Recovery = Not calculated				
Sb 206.836†	0.7	0.0028596 mg/L	0.00052217	0.0028596 mg/L	0.00052217	18.26%
QC value within limits for Sb		206.836 Recovery = Not calculated				
Se 196.026†	2.7	0.0058457 mg/L	0.00202126	0.0058457 mg/L	0.00202126	34.58%
QC value within limits for Se		196.026 Recovery = Not calculated				
Sn 189.927†	16.1	0.0041998 mg/L	0.00012354	0.0041998 mg/L	0.00012354	2.94%
QC value within limits for Sn		189.927 Recovery = Not calculated				
Ti 334.940†	78.5	0.0001515 mg/L	0.00075040	0.0001515 mg/L	0.00075040	495.35%
QC value within limits for Ti		334.940 Recovery = Not calculated				
Tl 190.801†	-3.9	-0.0028188 mg/L	0.00311040	-0.0028188 mg/L	0.00311040	110.34%
QC value within limits for Tl		190.801 Recovery = Not calculated				
V 290.880†	-1.2	-0.0006094 mg/L	0.00060280	-0.0006094 mg/L	0.00060280	98.91%
QC value within limits for V		290.880 Recovery = Not calculated				
Zn 206.200†	2.5	-0.0003337 mg/L	0.00013234	-0.0003337 mg/L	0.00013234	39.66%
QC value within limits for Zn		206.200 Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 40  
 Sample ID: 63111-019  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 91  
 Date Collected: 12/12/2011 9:24:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-019

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	470809.5	96.7 %		0.95			0.99%
Y 371.029	201900.4	106 %		0.7			0.66%
Ag 328.068†	-1673.9	0.0121939 mg/L		0.00035488	0.0121939 mg/L	0.00035488	2.91%
Al 308.215†	753742.6	48.3868 mg/L		0.07005	48.3868 mg/L	0.07005	0.14%
As 188.979†	51.8	0.0598617 mg/L		0.00217609	0.0598617 mg/L	0.00217609	3.64%
Ba 233.527†	56115.1	0.572774 mg/L		0.0013434	0.572774 mg/L	0.0013434	0.23%
Be 313.107†	4732.4	0.0021649 mg/L		0.00001811	0.0021649 mg/L	0.00001811	0.84%
Ca 317.933†	16906306.9	360.550 mg/L		0.5689	360.550 mg/L	0.5689	0.16%
Cd 228.802†	80.4	0.0038414 mg/L		0.00012406	0.0038414 mg/L	0.00012406	3.23%
Co 228.616†	1144.1	0.0365086 mg/L		0.00007550	0.0365086 mg/L	0.00007550	0.21%
Cr 267.716†	3414.9	0.118647 mg/L		0.0010335	0.118647 mg/L	0.0010335	0.87%
Cu 327.393†	16801.3	0.251377 mg/L		0.0008258	0.251377 mg/L	0.0008258	0.33%
Fe 273.955†	2196588.1	108.311 mg/L		0.1437	108.311 mg/L	0.1437	0.13%
K 404.721†	418.1	10.1232 mg/L		1.50524	10.1232 mg/L	1.50524	14.87%
Mg 279.077†	144378.4	17.1426 mg/L		0.00718	17.1426 mg/L	0.00718	0.04%
Mn 257.610†	932662.9	2.70492 mg/L		0.002412	2.70492 mg/L	0.002412	0.09%
Mo 202.031†	44.9	0.0048933 mg/L		0.00158405	0.0048933 mg/L	0.00158405	32.37%
Na 330.237†	3248.0	7.24880 mg/L		0.398825	7.24880 mg/L	0.398825	5.50%
Ni 231.604†	1813.8	0.0714969 mg/L		0.00154678	0.0714969 mg/L	0.00154678	2.16%
Pb 220.353†	3166.5	0.752022 mg/L		0.0059721	0.752022 mg/L	0.0059721	0.79%
Sb 206.836†	1.4	0.0062548 mg/L		0.00332704	0.0062548 mg/L	0.00332704	53.19%
Se 196.026†	-27.9	0.0013209 mg/L		0.00289688	0.0013209 mg/L	0.00289688	219.31%
Sn 189.927†	120.5	0.0462245 mg/L		0.00140628	0.0462245 mg/L	0.00140628	3.04%
Ti 334.940†	713656.2	2.34809 mg/L		0.007299	2.34809 mg/L	0.007299	0.31%
Tl 190.801†	-18.3	-0.0099562 mg/L		0.00407234	-0.0099562 mg/L	0.00407234	40.90%
V 290.880†	16783.6	0.183944 mg/L		0.0003322	0.183944 mg/L	0.0003322	0.18%
Zn 206.200†	20751.5	0.607841 mg/L		0.0057969	0.607841 mg/L	0.0057969	0.95%

Sequence No.: 41  
 Sample ID: 63111-020  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 92  
 Date Collected: 12/12/2011 9:28:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-020

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.		
Sc 361.383	491996.7	101 %		0.1				0.12%
Y 371.029	191362.2	101 %		0.8				0.82%
Ag 328.068†	-430.3	0.0011524 mg/L		0.00033193	0.0011524 mg/L	0.00033193		28.80%
Al 308.215†	167615.1	10.7562 mg/L		0.11033	10.7562 mg/L	0.11033		1.03%
As 188.979†	6.6	0.0129363 mg/L		0.00046219	0.0129363 mg/L	0.00046219		3.57%
Ba 233.527†	17740.5	0.180560 mg/L		0.0016486	0.180560 mg/L	0.0016486		0.91%
Be 313.107†	782.4	0.0000441 mg/L		0.00005761	0.0000441 mg/L	0.00005761		130.67%
Ca 317.933†	1741892.7	36.9319 mg/L		0.25366	36.9319 mg/L	0.25366		0.69%
Cd 228.802†	44.2	0.0024341 mg/L		0.00037714	0.0024341 mg/L	0.00037714		15.49%
Co 228.616†	274.6	0.0082599 mg/L		0.00009477	0.0082599 mg/L	0.00009477		1.15%
Cr 267.716†	35535.8	1.22214 mg/L		0.012474	1.22214 mg/L	0.012474		1.02%
Cu 327.393†	64368.8	0.870480 mg/L		0.0110754	0.870480 mg/L	0.0110754		1.27%
Fe 273.955†	474031.5	23.3669 mg/L		0.11141	23.3669 mg/L	0.11141		0.48%
K 404.721†	670.9	20.6771 mg/L		1.69324	20.6771 mg/L	1.69324		8.19%
Mg 279.077†	27461.4	3.05186 mg/L		0.042807	3.05186 mg/L	0.042807		1.40%
Mn 257.610†	130318.3	0.377152 mg/L		0.0051861	0.377152 mg/L	0.0051861		1.38%
Mo 202.031†	53.8	0.0069862 mg/L		0.00022764	0.0069862 mg/L	0.00022764		3.26%
Na 330.237†	3628.6	8.06521 mg/L		0.058550	8.06521 mg/L	0.058550		0.73%
Ni 231.604†	347.2	0.0143754 mg/L		0.00092573	0.0143754 mg/L	0.00092573		6.44%
Pb 220.353†	19865.7	4.97112 mg/L		0.067298	4.97112 mg/L	0.067298		1.35%
Sb 206.836†	7.3	0.0127491 mg/L		0.00209480	0.0127491 mg/L	0.00209480		16.43%
Se 196.026†	-2.5	0.0053846 mg/L		0.00228572	0.0053846 mg/L	0.00228572		42.45%
Sn 189.927†	8403.4	2.38382 mg/L		0.013838	2.38382 mg/L	0.013838		0.58%
Ti 334.940†	146226.6	0.480740 mg/L		0.0075981	0.480740 mg/L	0.0075981		1.58%
Tl 190.801†	-7.1	-0.0047749 mg/L		0.00020313	-0.0047749 mg/L	0.00020313		4.25%
V 290.880†	2910.8	0.0311234 mg/L		0.00122170	0.0311234 mg/L	0.00122170		3.93%
Zn 206.200†	232811.2	6.82972 mg/L		0.099920	6.82972 mg/L	0.099920		1.46%

Sequence No.: 42  
 Sample ID: 63111-022  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 93  
 Date Collected: 12/12/2011 9:31:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63111-022

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	492557.9		101 %	1.0				0.99%
Y 371.029	219573.4		116 %	0.8				0.70%
Ag 328.068†	-2049.2	0.0124739	mg/L	0.00070044	0.0124739	mg/L	0.00070044	5.62%
Al 308.215†	876801.4	56.2872	mg/L	0.30178	56.2872	mg/L	0.30178	0.54%
As 188.979†	40.9	0.0525805	mg/L	0.00059938	0.0525805	mg/L	0.00059938	1.14%
Ba 233.527†	82160.4	0.838975	mg/L	0.0001992	0.838975	mg/L	0.0001992	0.02%
Be 313.107†	6312.4	0.0030133	mg/L	0.00002423	0.0030133	mg/L	0.00002423	0.80%
Ca 317.933†	1122987.3	23.7241	mg/L	0.02555	23.7241	mg/L	0.02555	0.11%
Cd 228.802†	85.4	0.0040778	mg/L	0.00008212	0.0040778	mg/L	0.00008212	2.01%
Co 228.616†	1848.3	0.0612140	mg/L	0.00023802	0.0612140	mg/L	0.00023802	0.39%
Cr 267.716†	3709.5	0.128775	mg/L	0.0004445	0.128775	mg/L	0.0004445	0.35%
Cu 327.393†	55020.4	0.757030	mg/L	0.0017219	0.757030	mg/L	0.0017219	0.23%
Fe 273.955†	3410067.3	168.152	mg/L	0.8661	168.152	mg/L	0.8661	0.52%
K 404.721†	1003.3	34.5529	mg/L	11.78724	34.5529	mg/L	11.78724	34.11%
Mg 279.077†	116973.8	13.8400	mg/L	0.01611	13.8400	mg/L	0.01611	0.12%
Mn 257.610†	934268.6	2.70964	mg/L	0.011934	2.70964	mg/L	0.011934	0.44%
Mo 202.031†	127.9	0.0125516	mg/L	0.00208813	0.0125516	mg/L	0.00208813	16.64%
Na 330.237†	606.7	1.58340	mg/L	0.065867	1.58340	mg/L	0.065867	4.16%
Ni 231.604†	2771.6	0.108822	mg/L	0.0014213	0.108822	mg/L	0.0014213	1.31%
Pb 220.353†	8071.8	1.97788	mg/L	0.023854	1.97788	mg/L	0.023854	1.21%
Sb 206.836†	240.2	0.189232	mg/L	0.0072591	0.189232	mg/L	0.0072591	3.84%
Se 196.026†	-21.9	0.0092981	mg/L	0.00857911	0.0092981	mg/L	0.00857911	92.27%
Sn 189.927†	5835.8	1.67235	mg/L	0.023223	1.67235	mg/L	0.023223	1.39%
Ti 334.940†	891132.3	2.93205	mg/L	0.019596	2.93205	mg/L	0.019596	0.67%
Tl 190.801†	-24.3	-0.0143576	mg/L	0.00136086	-0.0143576	mg/L	0.00136086	9.48%
V 290.880†	20831.9	0.227941	mg/L	0.0000215	0.227941	mg/L	0.0000215	0.01%
Zn 206.200†	35011.0	1.02620	mg/L	0.000341	1.02620	mg/L	0.000341	0.03%

Sequence No.: 43  
 Sample ID: 63111-023  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 94  
 Date Collected: 12/12/2011 9:35:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-023

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	486849.5	100.0 %	0.93			0.93%
Y 371.029	224334.1	118 %	1.1			0.89%
Ag 328.068†	-2258.7	0.0143841 mg/L	0.00046980	0.0143841 mg/L	0.00046980	3.27%
Al 308.215†	1060195.0	68.0616 mg/L	0.07917	68.0616 mg/L	0.07917	0.12%
As 188.979†	36.4	0.0501691 mg/L	0.00382480	0.0501691 mg/L	0.00382480	7.62%
Ba 233.527†	79626.7	0.813080 mg/L	0.0019092	0.813080 mg/L	0.0019092	0.23%
Be 313.107†	6985.4	0.0033746 mg/L	0.00001320	0.0033746 mg/L	0.00001320	0.39%
Ca 317.933†	3673342.2	78.1503 mg/L	0.29891	78.1503 mg/L	0.29891	0.38%
Cd 228.802†	82.2	0.0039607 mg/L	0.00005418	0.0039607 mg/L	0.00005418	1.37%
Co 228.616†	1908.2	0.0638414 mg/L	0.00046039	0.0638414 mg/L	0.00046039	0.72%
Cr 267.716†	4590.8	0.159045 mg/L	0.0021933	0.159045 mg/L	0.0021933	1.38%
Cu 327.393†	20241.0	0.291217 mg/L	0.0006075	0.291217 mg/L	0.0006075	0.21%
Fe 273.955†	3705509.7	182.721 mg/L	0.2867	182.721 mg/L	0.2867	0.16%
K 404.721†	804.9	26.2711 mg/L	9.73511	26.2711 mg/L	9.73511	37.06%
Mg 279.077†	146830.8	17.4382 mg/L	0.04020	17.4382 mg/L	0.04020	0.23%
Mn 257.610†	945226.4	2.74137 mg/L	0.005144	2.74137 mg/L	0.005144	0.19%
Mo 202.031†	74.9	0.0076828 mg/L	0.00009161	0.0076828 mg/L	0.00009161	1.19%
Na 330.237†	1234.7	2.93041 mg/L	0.044047	2.93041 mg/L	0.044047	1.50%
Ni 231.604†	2784.3	0.109305 mg/L	0.0021706	0.109305 mg/L	0.0021706	1.99%
Pb 220.353†	7580.4	1.84590 mg/L	0.039711	1.84590 mg/L	0.039711	2.15%
Sb 206.836†	-2.7	0.0060262 mg/L	0.00089339	0.0060262 mg/L	0.00089339	14.83%
Se 196.026†	-25.8	0.0098350 mg/L	0.00366392	0.0098350 mg/L	0.00366392	37.25%
Sn 189.927†	368.7	0.124331 mg/L	0.0033494	0.124331 mg/L	0.0033494	2.69%
Ti 334.940†	833831.4	2.74350 mg/L	0.002632	2.74350 mg/L	0.002632	0.10%
Tl 190.801†	-19.7	-0.0096600 mg/L	0.00299304	-0.0096600 mg/L	0.00299304	30.98%
V 290.880†	19577.2	0.212136 mg/L	0.0001440	0.212136 mg/L	0.0001440	0.07%
Zn 206.200†	29203.6	0.855794 mg/L	0.0149953	0.855794 mg/L	0.0149953	1.75%

Sequence No.: 44  
 Sample ID: 63111-024  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 95  
 Date Collected: 12/12/2011 9:39:08 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-024

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sc 361.383	488504.3		100 %	1.7				1.72%
Y 371.029	217797.2		115 %	1.7				1.51%
Ag 328.068†	-1822.7	0.0121610	mg/L	0.00062650	0.0121610	mg/L	0.00062650	5.15%
Al 308.215†	797418.2	51.1907	mg/L	0.27445	51.1907	mg/L	0.27445	0.54%
As 188.979†	114.0	0.117074	mg/L	0.0048009	0.117074	mg/L	0.0048009	4.10%
Ba 233.527†	77847.1	0.794891	mg/L	0.0033595	0.794891	mg/L	0.0033595	0.42%
Be 313.107†	5330.7	0.0024862	mg/L	0.00009057	0.0024862	mg/L	0.00009057	3.64%
Ca 317.933†	4404899.2	93.7622	mg/L	2.04686	93.7622	mg/L	2.04686	2.18%
Cd 228.802†	159.5	0.0067402	mg/L	0.00006113	0.0067402	mg/L	0.00006113	0.91%
Co 228.616†	1412.6	0.0473987	mg/L	0.00076789	0.0473987	mg/L	0.00076789	1.62%
Cr 267.716†	3308.3	0.114990	mg/L	0.0016373	0.114990	mg/L	0.0016373	1.42%
Cu 327.393†	47981.2	0.661589	mg/L	0.0037143	0.661589	mg/L	0.0037143	0.56%
Fe 273.955†	2969329.4	146.418	mg/L	2.7664	146.418	mg/L	2.7664	1.89%
K 404.721†	608.5	18.0720	mg/L	15.36850	18.0720	mg/L	15.36850	85.04%
Mg 279.077†	112644.3	13.3182	mg/L	0.04128	13.3182	mg/L	0.04128	0.31%
Mn 257.610†	629617.2	1.82570	mg/L	0.006830	1.82570	mg/L	0.006830	0.37%
Mo 202.031†	120.9	0.0118911	mg/L	0.00065398	0.0118911	mg/L	0.00065398	5.50%
Na 330.237†	1803.4	4.15032	mg/L	0.042442	4.15032	mg/L	0.042442	1.02%
Ni 231.604†	2040.6	0.0803469	mg/L	0.00145370	0.0803469	mg/L	0.00145370	1.81%
Pb 220.353†	16051.2	3.98027	mg/L	0.038237	3.98027	mg/L	0.038237	0.96%
Sb 206.836†	332.3	0.255909	mg/L	0.0006020	0.255909	mg/L	0.0006020	0.24%
Se 196.026†	-20.2	0.0107197	mg/L	0.00278292	0.0107197	mg/L	0.00278292	25.96%
Sn 189.927†	13584.7	3.86554	mg/L	0.051252	3.86554	mg/L	0.051252	1.33%
Ti 334.940†	587947.2	1.93445	mg/L	0.037090	1.93445	mg/L	0.037090	1.92%
Tl 190.801†	-14.9	-0.0074181	mg/L	0.00706696	-0.0074181	mg/L	0.00706696	95.27%
V 290.880†	15425.7	0.166962	mg/L	0.0008515	0.166962	mg/L	0.0008515	0.51%
Zn 206.200†	31774.0	0.931255	mg/L	0.0092458	0.931255	mg/L	0.0092458	0.99%

Sequence No.: 45  
 Sample ID: 63111-026  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 96  
 Date Collected: 12/12/2011 9:42:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-026

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	474015.6	97.3	%	1.34			1.38%
Y 371.029	196021.2	103	%	1.6			1.55%
Ag 328.068†	-3849.8	0.0257138	mg/L	0.00106400	0.0257138	mg/L	0.00106400 4.14%
Al 308.215†	482717.1	30.9863	mg/L	0.02528	30.9863	mg/L	0.02528 0.08%
As 188.979†	104.2	0.127016	mg/L	0.0037282	0.127016	mg/L	0.0037282 2.94%
Ba 233.527†	157666.3	1.61070	mg/L	0.000005	1.61070	mg/L	0.000005 0.00%
Be 313.107†	2871.1	0.0011656	mg/L	0.00010279	0.0011656	mg/L	0.00010279 8.82%
Ca 317.933†	5213965.4	111.028	mg/L	0.8176	111.028	mg/L	0.8176 0.74%
Cd 228.802†	267.2	0.0108479	mg/L	0.00043064	0.0108479	mg/L	0.00043064 3.97%
Co 228.616†	1731.9	0.0597939	mg/L	0.00114421	0.0597939	mg/L	0.00114421 1.91%
Cr 267.716†	3648.2	0.126668	mg/L	0.0020006	0.126668	mg/L	0.0020006 1.58%
Cu 327.393†	247038.2	3.35011	mg/L	0.004890	3.35011	mg/L	0.004890 0.15%
Fe 273.955†	6506078.9	320.825	mg/L	1.9178	320.825	mg/L	1.9178 0.60%
K 404.721†	-228.7	-16.8776	mg/L	12.99804	-16.8776	mg/L	12.99804 77.01%
Mg 279.077†	106705.7	12.6024	mg/L	0.01430	12.6024	mg/L	0.01430 0.11%
Mn 257.610†	770533.6	2.23458	mg/L	0.000424	2.23458	mg/L	0.000424 0.02%
Mo 202.031†	99.4	0.0103210	mg/L	0.00003677	0.0103210	mg/L	0.00003677 0.36%
Na 330.237†	3261.3	7.27739	mg/L	0.300402	7.27739	mg/L	0.300402 4.13%
Ni 231.604†	5041.1	0.197210	mg/L	0.0047522	0.197210	mg/L	0.0047522 2.41%
Pb 220.353†	17535.7	4.36029	mg/L	0.046076	4.36029	mg/L	0.046076 1.06%
Sb 206.836†	44.8	0.0415381	mg/L	0.00040878	0.0415381	mg/L	0.00040878 0.98%
Se 196.026†	-50.9	0.0086303	mg/L	0.01241694	0.0086303	mg/L	0.01241694 143.88%
Sn 189.927†	2149.8	0.642401	mg/L	0.0058584	0.642401	mg/L	0.0058584 0.91%
Ti 334.940†	509569.9	1.67656	mg/L	0.000476	1.67656	mg/L	0.000476 0.03%
Tl 190.801†	-18.6	-0.0133392	mg/L	0.00433464	-0.0133392	mg/L	0.00433464 32.50%
V 290.880†	13116.9	0.131364	mg/L	0.0016823	0.131364	mg/L	0.0016823 1.28%
Zn 206.200†	96088.2	2.81765	mg/L	0.004554	2.81765	mg/L	0.004554 0.16%

Sequence No.: 46  
 Sample ID: 63111-027  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 97  
 Date Collected: 12/12/2011 9:46:16 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-027

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sc 361.383	483993.9		99.4 %	0.87				0.87%
Y 371.029	206159.8		109 %	0.6				0.58%
Ag 328.068†	-1103.4	0.0176944	mg/L	0.00050255	0.0176944	mg/L	0.00050255	2.84%
Al 308.215†	551951.8	35.4313	mg/L	0.29262	35.4313	mg/L	0.29262	0.83%
As 188.979†	80.1	0.0861393	mg/L	0.00140129	0.0861393	mg/L	0.00140129	1.63%
Ba 233.527†	185970.9	1.89999	mg/L	0.016986	1.89999	mg/L	0.016986	0.89%
Be 313.107†	4037.1	0.0017916	mg/L	0.00001086	0.0017916	mg/L	0.00001086	0.61%
Ca 317.933†	3248671.7	69.0875	mg/L	0.27613	69.0875	mg/L	0.27613	0.40%
Cd 228.802†	362.3	0.0141984	mg/L	0.00027382	0.0141984	mg/L	0.00027382	1.93%
Co 228.616†	1284.2	0.0431492	mg/L	0.00128497	0.0431492	mg/L	0.00128497	2.98%
Cr 267.716†	4387.7	0.152072	mg/L	0.0023490	0.152072	mg/L	0.0023490	1.54%
Cu 327.393†	21595.9	0.304432	mg/L	0.0014589	0.304432	mg/L	0.0014589	0.48%
Fe 273.955†	2786905.1	137.422	mg/L	0.4958	137.422	mg/L	0.4958	0.36%
K 404.721†	715.1	22.5207	mg/L	4.76354	22.5207	mg/L	4.76354	21.15%
Mg 279.077†	135170.9	16.0330	mg/L	0.19391	16.0330	mg/L	0.19391	1.21%
Mn 257.610†	709382.6	2.05709	mg/L	0.018193	2.05709	mg/L	0.018193	0.88%
Mo 202.031†	95.1	0.0100113	mg/L	0.00135691	0.0100113	mg/L	0.00135691	13.55%
Na 330.237†	3135.8	7.00831	mg/L	0.141637	7.00831	mg/L	0.141637	2.02%
Ni 231.604†	2899.8	0.113807	mg/L	0.0020685	0.113807	mg/L	0.0020685	1.82%
Pb 220.353†	22822.8	5.68888	mg/L	0.076102	5.68888	mg/L	0.076102	1.34%
Sb 206.836†	13.7	0.0166780	mg/L	0.00220684	0.0166780	mg/L	0.00220684	13.23%
Se 196.026†	-20.0	0.0071554	mg/L	0.00569196	0.0071554	mg/L	0.00569196	79.55%
Sn 189.927†	1511.7	0.443017	mg/L	0.0070189	0.443017	mg/L	0.0070189	1.58%
Ti 334.940†	519864.7	1.71043	mg/L	0.025127	1.71043	mg/L	0.025127	1.47%
Tl 190.801†	-16.4	-0.0104641	mg/L	0.00292101	-0.0104641	mg/L	0.00292101	27.91%
V 290.880†	13432.1	0.144041	mg/L	0.0002324	0.144041	mg/L	0.0002324	0.16%
Zn 206.200†	110642.2	3.24446	mg/L	0.035727	3.24446	mg/L	0.035727	1.10%

Sequence No.: 47

Autosampler Location: 7

Sample ID: ICSA V-129812

Date Collected: 12/12/2011 9:49:50 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSA V-129812

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	440965.3	90.5 %		0.84			0.92%
Y 371.029	167096.6	88.1 %		0.86			0.98%
Ag 328.068†	-3005.1	0.0175397 mg/L		0.00087653	0.0175397 mg/L	0.00087653	5.00%
Al 308.215†	7784991.7	499.808 mg/L		10.3028	499.808 mg/L	10.3028	2.06%
QC value within limits for Al 308.215 Recovery = 99.96%							
As 188.979†	-2.7	0.0018127 mg/L		0.00015042	0.0018127 mg/L	0.00015042	8.30%
Ba 233.527†	657.0	0.0059545 mg/L		0.00036209	0.0059545 mg/L	0.00036209	6.08%
Be 313.107†	-1321.0	-0.0010853 mg/L		0.00009385	-0.0010853 mg/L	0.00009385	8.65%
Ca 317.933†	23162635.2	494.064 mg/L		8.3605	494.064 mg/L	8.3605	1.69%
QC value within limits for Ca 317.933 Recovery = 98.81%							
Cd 228.802†	62.2	0.0030707 mg/L		0.00037563	0.0030707 mg/L	0.00037563	12.23%
Co 228.616†	62.8	0.0019618 mg/L		0.00002448	0.0019618 mg/L	0.00002448	1.25%
Cr 267.716†	-76.2	-0.0012959 mg/L		0.00055038	-0.0012959 mg/L	0.00055038	42.47%
Cu 327.393†	-2206.1	-0.0006961 mg/L		0.00022894	-0.0006961 mg/L	0.00022894	32.89%
Fe 273.955†	3884617.9	191.553 mg/L		4.2189	191.553 mg/L	4.2189	2.20%
QC value within limits for Fe 273.955 Recovery = 95.78%							
K 404.721†	-1009.9	-49.4830 mg/L		15.86233	-49.4830 mg/L	15.86233	32.06%
Mg 279.077†	4324653.2	520.947 mg/L		12.5700	520.947 mg/L	12.5700	2.41%
QC value within limits for Mg 279.077 Recovery = 104.19%							
Mn 257.610†	992.8	-0.0070921 mg/L		0.00007986	-0.0070921 mg/L	0.00007986	1.13%
Mo 202.031†	-18.9	-0.0010464 mg/L		0.00071400	-0.0010464 mg/L	0.00071400	68.24%
Na 330.237†	3951.8	8.75860 mg/L		0.070177	8.75860 mg/L	0.070177	0.80%
Ni 231.604†	19.2	0.0015813 mg/L		0.00007661	0.0015813 mg/L	0.00007661	4.84%
Pb 220.353†	1281.3	-0.0182643 mg/L		0.00332100	-0.0182643 mg/L	0.00332100	18.18%
Sb 206.836†	13.7	-0.0028586 mg/L		0.00373385	-0.0028586 mg/L	0.00373385	130.62%
Se 196.026†	-55.1	0.0016455 mg/L		0.00995891	0.0016455 mg/L	0.00995891	605.22%
Sn 189.927†	-20.8	0.0131372 mg/L		0.00080110	0.0131372 mg/L	0.00080110	6.10%
Ti 334.940†	-347.5	-0.0012496 mg/L		0.00050990	-0.0012496 mg/L	0.00050990	40.80%
Tl 190.801†	-7.3	-0.0036845 mg/L		0.00265456	-0.0036845 mg/L	0.00265456	72.05%
V 290.880†	10152.9	0.0193033 mg/L		0.00069404	0.0193033 mg/L	0.00069404	3.60%
Zn 206.200†	-53.0	-0.0192296 mg/L		0.00063474	-0.0192296 mg/L	0.00063474	3.30%

All analyte(s) passed QC.

Sequence No.: 48

Sample ID: ICSAB V-128667

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 12/12/2011 9:54:52 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	431539.1	88.6 %	1.05			1.19%
Y 371.029	163611.5	86.3 %	1.25			1.45%
Ag 328.068†	94906.6	1.09756 mg/L	0.000022	1.09756 mg/L	0.000022	0.00%
	QC value within limits for Ag	328.068	Recovery = 109.76%			
Al 308.215†	7713317.7	495.206 mg/L	8.7208	495.206 mg/L	8.7208	1.76%
	QC value within limits for Al	308.215	Recovery = 99.04%			
As 188.979†	1160.7	1.04603 mg/L	0.021914	1.04603 mg/L	0.021914	2.09%
	QC value within limits for As	188.979	Recovery = 104.60%			
Ba 233.527†	51647.0	0.527108 mg/L	0.0015157	0.527108 mg/L	0.0015157	0.29%
	QC value within limits for Ba	233.527	Recovery = 105.42%			
Be 313.107†	957783.2	0.513881 mg/L	0.0091827	0.513881 mg/L	0.0091827	1.79%
	QC value within limits for Be	313.107	Recovery = 102.78%			
Ca 317.933†	23751121.5	506.623 mg/L	9.0763	506.623 mg/L	9.0763	1.79%
	QC value within limits for Ca	317.933	Recovery = 101.32%			
Cd 228.802†	28567.3	1.04543 mg/L	0.019019	1.04543 mg/L	0.019019	1.82%
	QC value within limits for Cd	228.802	Recovery = 104.54%			
Co 228.616†	13552.1	0.500593 mg/L	0.0083942	0.500593 mg/L	0.0083942	1.68%
	QC value within limits for Co	228.616	Recovery = 100.12%			
Cr 267.716†	14444.2	0.497545 mg/L	0.0069249	0.497545 mg/L	0.0069249	1.39%
	QC value within limits for Cr	267.716	Recovery = 99.51%			
Cu 327.393†	37737.4	0.537465 mg/L	0.0004539	0.537465 mg/L	0.0004539	0.08%
	QC value within limits for Cu	327.393	Recovery = 107.49%			
Fe 273.955†	3853367.9	190.012 mg/L	3.5243	190.012 mg/L	3.5243	1.85%
	QC value within limits for Fe	273.955	Recovery = 95.01%			
K 404.721†	-1145.5	-55.1444 mg/L	2.78814	-55.1444 mg/L	2.78814	5.06%
Mg 279.077†	4277539.4	515.269 mg/L	9.6585	515.269 mg/L	9.6585	1.87%
	QC value within limits for Mg	279.077	Recovery = 103.05%			
Mn 257.610†	174991.5	0.497867 mg/L	0.0015150	0.497867 mg/L	0.0015150	0.30%
	QC value within limits for Mn	257.610	Recovery = 99.57%			
Mo 202.031†	-11.9	-0.0002047 mg/L	0.00000169	-0.0002047 mg/L	0.00000169	0.83%
Na 330.237†	4312.1	9.53126 mg/L	0.008155	9.53126 mg/L	0.008155	0.09%
Ni 231.604†	25051.0	0.976542 mg/L	0.0189987	0.976542 mg/L	0.0189987	1.95%
	QC value within limits for Ni	231.604	Recovery = 97.65%			
Pb 220.353†	5265.7	0.983430 mg/L	0.0057583	0.983430 mg/L	0.0057583	0.59%
	QC value within limits for Pb	220.353	Recovery = 98.34%			
Sb 206.836†	1413.3	1.04993 mg/L	0.028699	1.04993 mg/L	0.028699	2.73%
	QC value within limits for Sb	206.836	Recovery = 104.99%			
Se 196.026†	679.2	1.02694 mg/L	0.013400	1.02694 mg/L	0.013400	1.30%
	QC value within limits for Se	196.026	Recovery = 102.69%			
Sn 189.927†	-30.2	0.0103086 mg/L	0.00055880	0.0103086 mg/L	0.00055880	5.42%
Ti 334.940†	-480.9	-0.0018105 mg/L	0.00002999	-0.0018105 mg/L	0.00002999	1.66%
Tl 190.801†	828.3	1.00477 mg/L	0.000984	1.00477 mg/L	0.000984	0.10%
	QC value within limits for Tl	190.801	Recovery = 100.48%			
V 290.880†	51378.8	0.494693 mg/L	0.0013616	0.494693 mg/L	0.0013616	0.28%
	QC value within limits for V	290.880	Recovery = 98.94%			
Zn 206.200†	34531.6	0.996072 mg/L	0.0153066	0.996072 mg/L	0.0153066	1.54%
	QC value within limits for Zn	206.200	Recovery = 99.61%			

All analyte(s) passed QC.

Sequence No.: 49

Sample ID: CCV V-129808

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/12/2011 9:59:55 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	460960.6	94.6 %	0.11			0.11%
Y 371.029	177502.4	93.6 %	0.91			0.97%
Ag 328.068†	9091.8	0.102785 mg/L	0.0003715	0.102785 mg/L	0.0003715	0.36%
QC value within limits for Ag		328.068	Recovery = 102.79%			
Al 308.215†	79790.3	5.10471 mg/L	0.055564	5.10471 mg/L	0.055564	1.09%
QC value within limits for Al		308.215	Recovery = 102.09%			
As 188.979†	551.0	0.498491 mg/L	0.0034914	0.498491 mg/L	0.0034914	0.70%
QC value within limits for As		188.979	Recovery = 99.70%			
Ba 233.527†	50476.2	0.515141 mg/L	0.0049340	0.515141 mg/L	0.0049340	0.96%
QC value within limits for Ba		233.527	Recovery = 103.03%			
Be 313.107†	930735.0	0.499359 mg/L	0.0009531	0.499359 mg/L	0.0009531	0.19%
QC value within limits for Be		313.107	Recovery = 99.87%			
Ca 317.933†	2404560.1	51.0737 mg/L	0.18470	51.0737 mg/L	0.18470	0.36%
QC value within limits for Ca		317.933	Recovery = 102.15%			
Cd 228.802†	13655.0	0.500211 mg/L	0.0002819	0.500211 mg/L	0.0002819	0.06%
QC value within limits for Cd		228.802	Recovery = 100.04%			
Co 228.616†	14167.6	0.522979 mg/L	0.0058892	0.522979 mg/L	0.0058892	1.13%
QC value within limits for Co		228.616	Recovery = 104.60%			
Cr 267.716†	14842.4	0.511764 mg/L	0.0054488	0.511764 mg/L	0.0054488	1.06%
QC value within limits for Cr		267.716	Recovery = 102.35%			
Cu 327.393†	38365.4	0.520117 mg/L	0.0033728	0.520117 mg/L	0.0033728	0.65%
QC value within limits for Cu		327.393	Recovery = 104.02%			
Fe 273.955†	102529.9	5.04700 mg/L	0.051008	5.04700 mg/L	0.051008	1.01%
QC value within limits for Fe		273.955	Recovery = 100.94%			
K 404.721†	1486.0	54.7019 mg/L	4.69745	54.7019 mg/L	4.69745	8.59%
Mg 279.077†	415905.5	49.8774 mg/L	0.03628	49.8774 mg/L	0.03628	0.07%
QC value within limits for Mg		279.077	Recovery = 99.75%			
Mn 257.610†	175848.3	0.508636 mg/L	0.0050322	0.508636 mg/L	0.0050322	0.99%
QC value within limits for Mn		257.610	Recovery = 101.73%			
Mo 202.031†	5561.9	0.507842 mg/L	0.0022788	0.507842 mg/L	0.0022788	0.45%
QC value within limits for Mo		202.031	Recovery = 101.57%			
Na 330.237†	22672.8	48.9142 mg/L	0.23225	48.9142 mg/L	0.23225	0.47%
QC value within limits for Na		330.237	Recovery = 97.83%			
Ni 231.604†	13368.1	0.522919 mg/L	0.0068149	0.522919 mg/L	0.0068149	1.30%
QC value within limits for Ni		231.604	Recovery = 104.58%			
Pb 220.353†	1991.6	0.495081 mg/L	0.0016672	0.495081 mg/L	0.0016672	0.34%
QC value within limits for Pb		220.353	Recovery = 99.02%			
Sb 206.836†	665.8	0.512243 mg/L	0.0020290	0.512243 mg/L	0.0020290	0.40%
QC value within limits for Sb		206.836	Recovery = 102.45%			
Se 196.026†	353.8	0.499113 mg/L	0.0025941	0.499113 mg/L	0.0025941	0.52%
QC value within limits for Se		196.026	Recovery = 99.82%			
Sn 189.927†	1786.2	0.506692 mg/L	0.0054318	0.506692 mg/L	0.0054318	1.07%
QC value within limits for Sn		189.927	Recovery = 101.34%			
Ti 334.940†	154132.9	0.506929 mg/L	0.0083436	0.506929 mg/L	0.0083436	1.65%
QC value within limits for Ti		334.940	Recovery = 101.39%			
Tl 190.801†	427.5	0.519872 mg/L	0.0068817	0.519872 mg/L	0.0068817	1.32%
QC value within limits for Tl		190.801	Recovery = 103.97%			
V 290.880†	44996.9	0.508848 mg/L	0.0070491	0.508848 mg/L	0.0070491	1.39%
QC value within limits for V		290.880	Recovery = 101.77%			
Zn 206.200†	17440.4	0.510219 mg/L	0.0062714	0.510219 mg/L	0.0062714	1.23%
QC value within limits for Zn		206.200	Recovery = 102.04%			

All analyte(s) passed QC.

Sequence No.: 50  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/12/2011 10:03:25 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	480356.2	98.6 %	0.00			0.00%
Y 371.029	187681.9	99.0 %	0.05			0.05%
Ag 328.068†	-54.6	-0.0003197 mg/L	0.00007324	-0.0003197 mg/L	0.00007324	22.91%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 308.215†	12.2	-0.0041832 mg/L	0.00295104	-0.0041832 mg/L	0.00295104	70.54%
QC value within limits for Al 308.215		Recovery = Not calculated				
As 188.979†	-0.9	0.0012579 mg/L	0.00557427	0.0012579 mg/L	0.00557427	443.14%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	-1.8	-0.0007788 mg/L	0.00001755	-0.0007788 mg/L	0.00001755	2.25%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 313.107†	-60.9	-0.0004087 mg/L	0.00005391	-0.0004087 mg/L	0.00005391	13.19%
QC value within limits for Be 313.107		Recovery = Not calculated				
Ca 317.933†	43.5	-0.240215 mg/L	0.0013459	-0.240215 mg/L	0.0013459	0.56%
QC value within limits for Ca 317.933		Recovery = Not calculated				
Cd 228.802†	-2.4	0.0007104 mg/L	0.00034509	0.0007104 mg/L	0.00034509	48.57%
QC value within limits for Cd 228.802		Recovery = Not calculated				
Co 228.616†	-9.2	-0.0006998 mg/L	0.00001394	-0.0006998 mg/L	0.00001394	1.99%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cr 267.716†	0.4	0.0013374 mg/L	0.00009276	0.0013374 mg/L	0.00009276	6.94%
QC value within limits for Cr 267.716		Recovery = Not calculated				
Cu 327.393†	-77.8	-0.0008869 mg/L	0.00078263	-0.0008869 mg/L	0.00078263	88.24%
QC value within limits for Cu 327.393		Recovery = Not calculated				
Fe 273.955†	95.1	-0.0043686 mg/L	0.00265814	-0.0043686 mg/L	0.00265814	60.85%
QC value within limits for Fe 273.955		Recovery = Not calculated				
K 404.721†	594.9	17.5028 mg/L	0.83840	17.5028 mg/L	0.83840	4.79%
Mg 279.077†	65.3	-0.250000 mg/L	0.0047617	-0.250000 mg/L	0.0047617	1.90%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610†	55.3	-0.0007523 mg/L	0.00009119	-0.0007523 mg/L	0.00009119	12.12%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031†	4.0	0.0010409 mg/L	0.00050499	0.0010409 mg/L	0.00050499	48.52%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Na 330.237†	55.3	0.400730 mg/L	0.0063451	0.400730 mg/L	0.0063451	1.58%
QC value within limits for Na 330.237		Recovery = Not calculated				
Ni 231.604†	-26.8	-0.0002037 mg/L	0.00074164	-0.0002037 mg/L	0.00074164	364.15%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Pb 220.353†	3.1	-0.0002814 mg/L	0.00037730	-0.0002814 mg/L	0.00037730	134.09%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Sb 206.836†	-4.1	-0.0007187 mg/L	0.00120962	-0.0007187 mg/L	0.00120962	168.30%
QC value within limits for Sb 206.836		Recovery = Not calculated				
Se 196.026†	3.4	0.0067336 mg/L	0.00055006	0.0067336 mg/L	0.00055006	8.17%
QC value within limits for Se 196.026		Recovery = Not calculated				
Sn 189.927†	6.8	0.0015824 mg/L	0.00073028	0.0015824 mg/L	0.00073028	46.15%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940†	61.4	0.0000952 mg/L	0.00000879	0.0000952 mg/L	0.00000879	9.23%
QC value within limits for Ti 334.940		Recovery = Not calculated				
Tl 190.801†	-8.1	-0.0078462 mg/L	0.00578446	-0.0078462 mg/L	0.00578446	73.72%
QC value within limits for Tl 190.801		Recovery = Not calculated				
V 290.880†	-10.4	-0.0007153 mg/L	0.00022758	-0.0007153 mg/L	0.00022758	31.82%
QC value within limits for V 290.880		Recovery = Not calculated				
Zn 206.200†	11.8	-0.0000597 mg/L	0.00018975	-0.0000597 mg/L	0.00018975	317.82%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

*1st Review OA 12/13/2011**V-130565*

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100, S/N B050-9550

Technique: AA FIMS-MHS  
Autosampler Model: AS-91

*shu 12/13/11*

Sample Information File: C:\data-AA\johns\Sample Information\H13383S.sif  
Batch ID: H13383S  
Results Data Set: H13383S  
Results Library: C:\data-AA\johns\Results\Results.mdb

Method Loaded

Method Name: HgCV1 SOIL (7471A)

Method Last Saved: 10/25/2011 6:17:09 PM

Method Description: HgCV1 SOIL (7471A)

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calibration Blank

Date Collected: 12/12/2011 7:20:23 PM

Analyst:

Data Type: Original

Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.00]	[0.00]	0.0005	0.0049	0.0005	19:21:22	No
2	[0.00]	[0.00]	0.0004	0.0036	0.0004	19:21:55	No
Mean:	[0.00]	[0.00]	0.0005				
SD:	0.00	0.00	0.0001				
%RSD:	0.00	0.00	24.22				

Auto-zero performed.

Sequence No.: 2

Autosampler Location: 2

Sample ID: .2 PPB

Date Collected: 12/12/2011 7:21:56 PM

Analyst:

Data Type: Original

Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.2]	[0.2]	0.0005	0.0054	0.0010	19:22:53	No
2	[0.2]	[0.2]	0.0005	0.0047	0.0010	19:23:26	No
Mean:	[0.2]	[0.2]	0.0005				
SD:	0.0	0.0	0.0000				
%RSD:	0.0	0.0	4.04				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00264 Intercept: 0.00000

Sequence No.: 3

Autosampler Location: 3

Sample ID: .5 PPB

Date Collected: 12/12/2011 7:23:28 PM

Analyst:

Data Type: Original

Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[0.5]	[0.5]	0.0018	0.0091	0.0022	19:24:25	No
2	[0.5]	[0.5]	0.0017	0.0081	0.0022	19:24:58	No
Mean:	[0.5]	[0.5]	0.0018				
SD:	0.0	0.0	0.0000				
%RSD:	0.0	0.0	1.74				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.993590 Slope: 0.00358 Intercept: -0.00007

Sequence No.: 4

Autosampler Location: 4

Sample ID: 1 PPB

Date Collected: 12/12/2011 7:24:59 PM

Analyst:

Data Type: Original

-----  
Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1]	0.0040	0.0123	0.0044	19:25:56	No
2		[1]	0.0043	0.0170	0.0047	19:26:29	No
Mean:		[1]	0.0041				
SD:		0	0.0002				
%RSD:		0	5.61				

Standard number 3 applied. [1]

Correlation Coef.: 0.995809 Slope: 0.00421 Intercept: -0.00018

=====

Sequence No.: 5  
Sample ID: 2 PPB  
Analyst:Autosampler Location: 5  
Date Collected: 12/12/2011 7:26:31 PM  
Data Type: Original-----  
Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0090	0.0346	0.0095	19:27:27	No
2		[2]	0.0090	0.0342	0.0095	19:28:01	No
Mean:		[2]	0.0090				
SD:		0	0.0000				
%RSD:		0	0.16				

Standard number 4 applied. [2]

Correlation Coef.: 0.998218 Slope: 0.00459 Intercept: -0.00031

=====

Sequence No.: 6  
Sample ID: 5 PPB  
Analyst:Autosampler Location: 6  
Date Collected: 12/12/2011 7:28:02 PM  
Data Type: Original-----  
Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0240	0.0923	0.0244	19:28:59	No
2		[5]	0.0235	0.0914	0.0240	19:29:32	No
Mean:		[5]	0.0237				
SD:		0	0.0003				
%RSD:		0	1.46				

Standard number 5 applied. [5]

Correlation Coef.: 0.999589 Slope: 0.00481 Intercept: -0.00045

=====

Sequence No.: 7  
Sample ID: 10 PPB  
Analyst:Autosampler Location: 7  
Date Collected: 12/12/2011 7:29:34 PM  
Data Type: Original-----  
Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0460	0.1718	0.0465	19:30:30	No
2		[10]	0.0469	0.1781	0.0473	19:31:03	No
Mean:		[10]	0.0465				
SD:		0	0.0006				
%RSD:		0	1.30				

Standard number 6 applied. [10]

Correlation Coef.: 0.999828 Slope: 0.00470 Intercept: -0.00033

=====

Sequence No.: 8  
Sample ID: 25 PPB  
Analyst:Autosampler Location: 8  
Date Collected: 12/12/2011 7:31:05 PM  
Data Type: Original-----  
Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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1	[25]	0.1167	0.4336	0.1172	19:32:02	No
2	[25]	0.1173	0.4348	0.1177	19:32:35	No
Mean:	[25]	0.1170				
SD:	0	0.0004				
%RSD:	0	0.34				

Standard number 7 applied. [25]  
 Correlation Coef.: 0.999973 Slope: 0.00469 Intercept: -0.00031

Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	0.065	0.00	24.2
.2 PPB	0.0005	0.2	0.178	0.00	4.0
.5 PPB	0.0018	0.5	0.442	0.00	1.7
1 PPB	0.0041	1.0	0.945	0.00	5.6
2 PPB	0.0090	2.0	1.985	0.00	0.2
5 PPB	0.0237	5.0	5.125	0.00	1.5
10 PPB	0.0465	10.0	9.966	0.00	1.3
25 PPB	0.1170	25.0	24.993	0.00	0.3

Correlation Coef.: 0.999973 Slope: 0.00469 Intercept: -0.00031

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/12/2011 7:32:37 PM

Analyst:

Data Type: Original

Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.37	20.37	0.0953	0.3505	0.0957	19:33:36	No
2	20.46	20.46	0.0957	0.3537	0.0962	19:34:09	No
Mean:	20.41	20.41	0.0955				
SD:	0.068	0.068	0.0003				
%RSD:	0.331	0.331	0.33				

QC value within limits for Hg 253.7 Recovery = 102.07%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/12/2011 7:34:11 PM

Analyst:

Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0002	0.0019	0.0002	19:35:08	No
2	0.010	0.010	-0.0003	0.0012	0.0002	19:35:41	No
Mean:	0.015	0.015	-0.0002				
SD:	0.008	0.008	0.0000				
%RSD:	50.55	50.55	15.49				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11689 (167)

Date Collected: 12/12/2011 7:35:42 PM

Analyst:

Data Type: Original

Replicate Data: MB 11689 (167)

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0005	-0.0056	-0.0001	19:36:40	No
2	-0.062	-0.062	-0.0006	-0.0057	-0.0001	19:37:13	No
Mean:	-0.054	-0.054	-0.0006				
SD:	0.010	0.010	0.0000				
%RSD:	18.84	18.84	8.55				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCS 11689

Date Collected: 12/12/2011 7:37:14 PM

Analyst:

Data Type: Original

Replicate Data: LCS 11689

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	22.51	22.51	0.1053	0.3716	0.1058	19:38:11	No
2	22.45	22.45	0.1051	0.3682	0.1055	19:38:45	No
Mean:	22.48	22.48	0.1052				
SD:	0.040	0.040	0.0002				
%RSD:	0.177	0.177	0.18				

Sequence No.: 13

Autosampler Location: 13

Sample ID: LCS MR 11689

Date Collected: 12/12/2011 7:38:47 PM

Analyst:

Data Type: Original

Replicate Data: LCS MR 11689

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	22.25	22.25	0.1041	0.3670	0.1046	19:39:44	No
2	22.32	22.32	0.1045	0.3647	0.1049	19:40:17	No
Mean:	22.29	22.29	0.1043				
SD:	0.048	0.048	0.0002				
%RSD:	0.215	0.215	0.22				

Sequence No.: 14

Autosampler Location: 14

Sample ID: 63111-006

Date Collected: 12/12/2011 7:40:19 PM

Analyst:

Data Type: Original

Replicate Data: 63111-006

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.11	13.11	0.0612	0.2191	0.0617	19:41:16	No
2	12.73	12.73	0.0594	0.2074	0.0599	19:41:49	No
Mean:	12.92	12.92	0.0603				
SD:	0.272	0.272	0.0013				
%RSD:	2.105	2.105	2.12				

Sequence No.: 15

Autosampler Location: 15

Sample ID: 63111-006 MR

Date Collected: 12/12/2011 7:41:51 PM

Analyst:

Data Type: Original

Replicate Data: 63111-006 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	11.37	11.37	0.0530	0.1915	0.0535	19:42:48	No
2	10.77	10.77	0.0502	0.1797	0.0507	19:43:21	No
Mean:	11.07	11.07	0.0516				
SD:	0.425	0.425	0.0020				
%RSD:	3.843	3.843	3.87				

Sequence No.: 16

Autosampler Location: 16

Sample ID: 63111-006 MS1

Date Collected: 12/12/2011 7:43:23 PM

Analyst:

Data Type: Original

Replicate Data: 63111-006 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	15.77	15.77	0.0737	0.2600	0.0742	19:44:20	No
2	15.99	15.99	0.0747	0.2596	0.0752	19:44:54	No
Mean:	15.88	15.88	0.0742				

SD: 0.151 0.151 0.0007  
 %RSD: 0.951 0.951 0.95

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63111-006 MS2 Date Collected: 12/12/2011 7:44:55 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63111-006 MS2

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	277.3	277.3	1.3013	7.4148	1.3018	19:45:52	No
Sample concentration is greater than that of the highest standard.							
2	275.0	275.0	1.2904	7.3165	1.2908	19:46:26	No
Sample concentration is greater than that of the highest standard.							
Mean:	276.2	276.2	1.2958				
SD:	1.650	1.650	0.0077				
%RSD:	0.597	0.597	0.60				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 18 Autosampler Location: 18  
 Sample ID: 63111-001 Date Collected: 12/12/2011 7:46:53 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63111-001

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	144.2	144.2	0.6763	2.5456	0.6768	19:47:55	No
Sample concentration is greater than that of the highest standard.							
2	144.2	144.2	0.6765	2.5523	0.6770	19:48:29	No
Sample concentration is greater than that of the highest standard.							
Mean:	144.2	144.2	0.6764				
SD:	0.028	0.028	0.0001				
%RSD:	0.019	0.019	0.02				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 19 Autosampler Location: 19  
 Sample ID: 63111-002 Date Collected: 12/12/2011 7:48:56 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63111-002

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.40	19.40	0.0908	0.3129	0.0912	19:49:55	No
2	19.45	19.45	0.0910	0.3138	0.0914	19:50:28	No
Mean:	19.43	19.43	0.0909				
SD:	0.030	0.030	0.0001				
%RSD:	0.153	0.153	0.15				

Sequence No.: 20 Autosampler Location: 20  
 Sample ID: 63111-003 Date Collected: 12/12/2011 7:50:29 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63111-003

Repl #	SampleConc ug/L	StndConc ug/L	Blncorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	60.05	60.05	0.2815	0.9922	0.2820	19:51:26	No
Sample concentration is greater than that of the highest standard.							
2	59.55	59.55	0.2792	0.9770	0.2796	19:51:59	No
Sample concentration is greater than that of the highest standard.							
Mean:	59.80	59.80	0.2803				
SD:	0.350	0.350	0.0016				
%RSD:	0.586	0.586	0.59				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 21  
 Sample ID: CCV  
 Analyst:

Autosampler Location: 9  
 Date Collected: 12/12/2011 7:52:23 PM  
 Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.58	10.58	0.0493	0.1699	0.0498	19:53:22	No
2	10.60	10.60	0.0494	0.1781	0.0499	19:53:56	No
Mean:	10.59	10.59	0.0494				
SD:	0.016	0.016	0.0001				
%RSD:	0.148	0.148	0.15				

QC value within limits for Hg 253.7 Recovery = 105.86%  
 All analyte(s) passed QC.

Sequence No.: 22  
 Sample ID: CCB  
 Analyst:

Autosampler Location: 1  
 Date Collected: 12/12/2011 7:53:57 PM  
 Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.106	0.106	0.0002	0.0062	0.0006	19:54:55	No
2	0.074	0.074	0.0000	0.0049	0.0005	19:55:29	No
Mean:	0.090	0.090	0.0001				
SD:	0.022	0.022	0.0001				
%RSD:	24.88	24.88	91.48				

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: 63111-005  
 Analyst:

Autosampler Location: 21  
 Date Collected: 12/12/2011 7:55:30 PM  
 Data Type: Original



## Replicate Data: 63111-005

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.161	3.161	0.0145	0.0529	0.0150	19:56:29	No
2	3.012	3.012	0.0138	0.0504	0.0143	19:57:02	No
Mean:	3.086	3.086	0.0142				
SD:	0.105	0.105	0.0005				
%RSD:	3.416	3.416	3.49				

Sequence No.: 24  
 Sample ID: 63111-007  
 Analyst:

Autosampler Location: 22  
 Date Collected: 12/12/2011 7:57:04 PM  
 Data Type: Original



## Replicate Data: 63111-007

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	11.21	11.21	0.0523	0.1821	0.0528	19:58:01	No
2	11.07	11.07	0.0516	0.1790	0.0521	19:58:34	No
Mean:	11.14	11.14	0.0520				
SD:	0.101	0.101	0.0005				
%RSD:	0.906	0.906	0.91				

Sequence No.: 25  
 Sample ID: 63111-009  
 Analyst:

Autosampler Location: 23  
 Date Collected: 12/12/2011 7:58:36 PM  
 Data Type: Original



## Replicate Data: 63111-009

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.811	2.811	0.0129	0.0364	0.0133	19:59:33	No
2	2.722	2.722	0.0125	0.0395	0.0129	20:00:07	No
Mean:	2.766	2.766	0.0127				
SD:	0.063	0.063	0.0003				
%RSD:	2.280	2.280	2.33				

Sequence No.: 26  
 Sample ID: 63111-010  
 Analyst:

Autosampler Location: 24  
 Date Collected: 12/12/2011 8:00:08 PM  
 Data Type: Original

## Replicate Data: 63111-010

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.282	7.282	0.0339	0.1158	0.0343	20:01:05	No
2	7.292	7.292	0.0339	0.1185	0.0344	20:01:39	No
Mean:	7.287	7.287	0.0339				
SD:	0.007	0.007	0.0000				
%RSD:	0.099	0.099	0.10				

Sequence No.: 27  
 Sample ID: 63111-011  
 Analyst:

Autosampler Location: 25  
 Date Collected: 12/12/2011 8:01:40 PM  
 Data Type: Original

## Replicate Data: 63111-011

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.658	9.658	0.0450	0.1554	0.0455	20:02:38	No
2	9.654	9.654	0.0450	0.1562	0.0455	20:03:11	No
Mean:	9.656	9.656	0.0450				
SD:	0.003	0.003	0.0000				
%RSD:	0.031	0.031	0.03				

Sequence No.: 28  
 Sample ID: 63111-013  
 Analyst:

Autosampler Location: 26  
 Date Collected: 12/12/2011 8:03:13 PM  
 Data Type: Original

## Replicate Data: 63111-013

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.350	5.350	0.0248	0.0881	0.0253	20:04:10	No
2	5.343	5.343	0.0248	0.0875	0.0252	20:04:44	No
Mean:	5.346	5.346	0.0248				
SD:	0.005	0.005	0.0000				
%RSD:	0.096	0.096	0.10				

Sequence No.: 29  
 Sample ID: 63111-014  
 Analyst:

Autosampler Location: 27  
 Date Collected: 12/12/2011 8:04:45 PM  
 Data Type: Original

## Replicate Data: 63111-014

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	7.585	7.585	0.0353	0.1278	0.0357	20:05:42	No
2	7.461	7.461	0.0347	0.1253	0.0352	20:06:16	No
Mean:	7.523	7.523	0.0350				
SD:	0.088	0.088	0.0004				
%RSD:	1.170	1.170	1.18				

Sequence No.: 30  
 Sample ID: 63111-015  
 Analyst:

Autosampler Location: 28  
 Date Collected: 12/12/2011 8:06:17 PM  
 Data Type: Original

-----  
Replicate Data: 63111-015

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.102	1.102	0.0049	0.0205	0.0053	20:07:18	No
2	1.083	1.083	0.0048	0.0195	0.0052	20:07:51	No
Mean:	1.092	1.092	0.0048				
SD:	0.013	0.013	0.0001				
%RSD:	1.221	1.221	1.30				

=====

Sequence No.: 31  
Sample ID: 63111-017  
Analyst:Autosampler Location: 29  
Date Collected: 12/12/2011 8:07:53 PM  
Data Type: Original-----  
Replicate Data: 63111-017

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.134	3.134	0.0144	0.0515	0.0149	20:08:50	No
2	3.094	3.094	0.0142	0.0501	0.0147	20:09:23	No
Mean:	3.114	3.114	0.0143				
SD:	0.028	0.028	0.0001				
%RSD:	0.900	0.900	0.92				

=====

Sequence No.: 32  
Sample ID: 63111-019  
Analyst:Autosampler Location: 30  
Date Collected: 12/12/2011 8:09:25 PM  
Data Type: Original-----  
Replicate Data: 63111-019

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.060	2.060	0.0094	0.0332	0.0098	20:10:23	No
2	2.069	2.069	0.0094	0.0296	0.0099	20:10:56	No
Mean:	2.064	2.064	0.0094				
SD:	0.006	0.006	0.0000				
%RSD:	0.290	0.290	0.30				

=====

Sequence No.: 33  
Sample ID: CCV  
Analyst:Autosampler Location: 9  
Date Collected: 12/12/2011 8:10:58 PM  
Data Type: Original-----  
Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.85	10.85	0.0506	0.1709	0.0511	20:11:56	No
2	10.72	10.72	0.0500	0.1697	0.0505	20:12:29	No
Mean:	10.79	10.79	0.0503				
SD:	0.087	0.087	0.0004				
%RSD:	0.806	0.806	0.81				

QC value within limits for Hg 253.7 Recovery = 107.86%  
All analyte(s) passed QC.

=====

Sequence No.: 34  
Sample ID: CCB  
Analyst:Autosampler Location: 1  
Date Collected: 12/12/2011 8:12:31 PM  
Data Type: Original-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0004	0.0004	0.0001	20:13:28	No
2	0.056	0.056	-0.0000	0.0032	0.0004	20:14:02	No
Mean:	0.022	0.022	-0.0002				
SD:	0.049	0.049	0.0002				
%RSD:	222.1	222.1	111.53				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

```

=====
Sequence No.: 35                               Autosampler Location: 31
Sample ID: 63111-020                           Date Collected: 12/12/2011 8:14:03 PM
Analyst:                                         Data Type: Original
  
```



## Replicate Data: 63111-020

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.640	1.640	0.0074	0.0299	0.0078	20:15:02	No
2	1.631	1.631	0.0073	0.0290	0.0078	20:15:36	No
Mean:	1.635	1.635	0.0074				
SD:	0.006	0.006	0.0000				
%RSD:	0.390	0.390	0.41				

```

=====
Sequence No.: 36                               Autosampler Location: 32
Sample ID: 63111-022                           Date Collected: 12/12/2011 8:15:37 PM
Analyst:                                         Data Type: Original
  
```



## Replicate Data: 63111-022

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	23.24	23.24	0.1088	0.3766	0.1092	20:16:34	No
2	23.59	23.59	0.1104	0.3827	0.1108	20:17:08	No
Mean:	23.41	23.41	0.1096				
SD:	0.246	0.246	0.0012				
%RSD:	1.050	1.050	1.05				

```

=====
Sequence No.: 37                               Autosampler Location: 33
Sample ID: 63111-023                           Date Collected: 12/12/2011 8:17:10 PM
Analyst:                                         Data Type: Original
  
```



## Replicate Data: 63111-023

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.34	14.34	0.0670	0.2327	0.0675	20:18:07	No
2	14.66	14.66	0.0685	0.2355	0.0689	20:18:40	No
Mean:	14.50	14.50	0.0677				
SD:	0.221	0.221	0.0010				
%RSD:	1.523	1.523	1.53				

```

=====
Sequence No.: 38                               Autosampler Location: 34
Sample ID: 63111-024                           Date Collected: 12/12/2011 8:18:41 PM
Analyst:                                         Data Type: Original
  
```



## Replicate Data: 63111-024

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.888	4.888	0.0226	0.0800	0.0231	20:19:39	No
2	4.846	4.846	0.0224	0.0784	0.0229	20:20:12	No
Mean:	4.867	4.867	0.0225				
SD:	0.029	0.029	0.0001				
%RSD:	0.606	0.606	0.61				

```

=====
Sequence No.: 39                               Autosampler Location: 35
Sample ID: 63111-026                           Date Collected: 12/12/2011 8:20:14 PM
Analyst:                                         Data Type: Original
  
```



## Replicate Data: 63111-026

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.39	13.39	0.0626	0.2129	0.0630	20:21:11	No

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2	13.41	13.41	0.0626	0.2120	0.0631	20:21:44	No
Mean:	13.40	13.40	0.0626				
SD:	0.013	0.013	0.0001				
%RSD:	0.100	0.100	0.10				

Sequence No.: 40

Autosampler Location: 36

Sample ID: 63111-027

Date Collected: 12/12/2011 8:21:46 PM

Analyst:

Data Type: Original

Replicate Data: 63111-027

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	22.72	22.72	0.1063	0.3608	0.1068	20:22:43	No
2	22.25	22.25	0.1041	0.3467	0.1046	20:23:16	No
Mean:	22.49	22.49	0.1052				
SD:	0.333	0.333	0.0016				
%RSD:	1.481	1.481	1.49				

Sequence No.: 41

Autosampler Location: 9

Sample ID: CCV

Date Collected: 12/12/2011 8:23:17 PM

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	11.17	11.17	0.0521	0.1730	0.0526	20:24:18	No
2	11.07	11.07	0.0516	0.1763	0.0521	20:24:52	No
Mean:	11.12	11.12	0.0519				
SD:	0.074	0.074	0.0003				
%RSD:	0.667	0.667	0.67				

QC value within limits for Hg 253.7 Recovery = 111.19%

All analyte(s) passed QC.

Sequence No.: 42

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/12/2011 8:24:53 PM

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StndConc	Blncorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.012	-0.012	-0.0004	0.0003	0.0001	20:25:51	No
2	0.009	0.009	-0.0003	0.0017	0.0002	20:26:24	No
Mean:	-0.001	-0.001	-0.0003				
SD:	0.015	0.015	0.0001				
%RSD:	>999.9%	>999.9%	22.14				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

*1st Review of 12/13/2011**V-130652*

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100, S/N B050-9550

Technique: AA FIMS-MHS  
Autosampler Model: AS-91

*sh 12/13/11*

Sample Information File: C:\data-AA\johns\Sample Information\H13383Sb.sif  
Batch ID: H13383Sb  
Results Data Set: H13383Sc  
Results Library: C:\data-AA\johns\Results\Results.mdb

## Method Loaded

Method Name: HgCV1 SOIL (7471A)  
Method Description: HgCV1 SOIL (7471A)

Method Last Saved: 10/25/2011 6:17:09 PM

Sequence No.: 1  
Sample ID: Calibration Blank  
Analyst:

Autosampler Location: 1  
Date Collected: 12/13/2011 1:42:38 PM  
Data Type: Original

## Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	-0.0000	-0.0030	-0.0000	13:43:36	No
2		[0.00]	-0.0000	-0.0030	-0.0000	13:44:10	No
Mean:		[0.00]	-0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	11.54				

Auto-zero performed.

Sequence No.: 2  
Sample ID: .2 PPB  
Analyst:

Autosampler Location: 2  
Date Collected: 12/13/2011 1:44:11 PM  
Data Type: Original

## Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0014	0.0088	0.0013	13:45:08	No
2		[0.2]	0.0016	0.0110	0.0015	13:45:41	No
Mean:		[0.2]	0.0015				
SD:		0.0	0.0001				
%RSD:		0.0	9.56				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00746 Intercept: 0.00000

Sequence No.: 3  
Sample ID: .5 PPB  
Analyst:

Autosampler Location: 3  
Date Collected: 12/13/2011 1:45:42 PM  
Data Type: Original

## Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0031	0.0139	0.0030	13:46:39	No
2		[0.5]	0.0029	0.0117	0.0028	13:47:12	No
Mean:		[0.5]	0.0030				
SD:		0.0	0.0001				
%RSD:		0.0	4.34				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.993013 Slope: 0.00585 Intercept: 0.00012

Sequence No.: 4  
Sample ID: 1 PPB  
Analyst:

Autosampler Location: 4  
Date Collected: 12/13/2011 1:47:14 PM  
Data Type: Original

## Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Method: HgCV1 SOIL (7471A)

Page 2

Date: 12/13/2011 1:54:53 PM

1	[1]	0.0054	0.0194	0.0054	13:48:11	No
2	[1]	0.0054	0.0192	0.0054	13:48:44	No
Mean:	[1]	0.0054				
SD:	0	0.0000				
%RSD:	0	0.03				

Standard number 3 applied. [1]  
Correlation Coef.: 0.996670 Slope: 0.00532 Intercept: 0.00022

Sequence No.: 5  
Sample ID: 2 PPB  
Analyst:

Autosampler Location: 5  
Date Collected: 12/13/2011 1:48:46 PM  
Data Type: Original

Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[2]	[2]	0.0108	0.0371	0.0108	13:49:42	No
2	[2]	[2]	0.0109	0.0376	0.0108	13:50:16	No
Mean:	[2]	[2]	0.0109				
SD:	0	0	0.0001				
%RSD:	0	0	0.52				

Standard number 4 applied. [2]  
Correlation Coef.: 0.999256 Slope: 0.00532 Intercept: 0.00022

Sequence No.: 6  
Sample ID: 5 PPB  
Analyst:

Autosampler Location: 6  
Date Collected: 12/13/2011 1:50:17 PM  
Data Type: Original

Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[5]	[5]	0.0274	0.0880	0.0274	13:51:14	No
2	[5]	[5]	0.0273	0.0897	0.0273	13:51:47	No
Mean:	[5]	[5]	0.0274				
SD:	0	0	0.0001				
%RSD:	0	0	0.27				

Standard number 5 applied. [5]  
Correlation Coef.: 0.999858 Slope: 0.00543 Intercept: 0.00014

Sequence No.: 7  
Sample ID: 10 PPB  
Analyst:

Autosampler Location: 7  
Date Collected: 12/13/2011 1:51:49 PM  
Data Type: Original

Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[10]	[10]	0.0541	0.1835	0.0540	13:52:46	No
2	[10]	[10]	0.0546	0.1811	0.0546	13:53:19	No
Mean:	[10]	[10]	0.0543				
SD:	0	0	0.0004				
%RSD:	0	0	0.70				

Standard number 6 applied. [10]  
Correlation Coef.: 0.999968 Slope: 0.00542 Intercept: 0.00016

Sequence No.: 8  
Sample ID: 25 PPB  
Analyst:

Autosampler Location: 8  
Date Collected: 12/13/2011 1:53:21 PM  
Data Type: Original

Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[25]	[25]	0.1337	0.4595	0.1336	13:54:18	No
2	[25]	[25]	0.1347	0.4637	0.1346	13:54:51	No
Mean:	[25]	[25]	0.1342				
SD:	0	0	0.0007				
%RSD:	0	0	0.52				

Standard number 7 applied. [25]  
Correlation Coef.: 0.999984 Slope: 0.00536 Intercept: 0.00028

Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.053	0.00	11.5
.2 PPB	0.0015	0.2	0.225	0.00	9.6
.5 PPB	0.0030	0.5	0.500	0.00	4.3
1 PPB	0.0054	1.0	0.963	0.00	0.0
2 PPB	0.0109	2.0	1.971	0.00	0.5
5 PPB	0.0274	5.0	5.054	0.00	0.3
10 PPB	0.0543	10.0	10.078	0.00	0.7
25 PPB	0.1342	25.0	24.962	0.00	0.5

Correlation Coef.: 0.999984 Slope: 0.00536 Intercept: 0.00028

Sequence No.: 9 Autosampler Location: 10  
 Sample ID: ICV (2) Date Collected: 12/13/2011 1:54:53 PM  
 Analyst: Data Type: Original

Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.80	20.80	0.1118	0.3881	0.1118	13:55:52	No
2	20.96	20.96	0.1127	0.3893	0.1127	13:56:26	No
Mean:	20.88	20.88	0.1123				
SD:	0.118	0.118	0.0006				
%RSD:	0.564	0.564	0.56				

QC value within limits for Hg 253.7 Recovery = 104.41%  
 All analyte(s) passed QC.

Sequence No.: 10 Autosampler Location: 1  
 Sample ID: ICB Date Collected: 12/13/2011 1:56:27 PM  
 Analyst: Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0003	0.0029	0.0003	13:57:24	No
2	-0.009	-0.009	0.0002	0.0011	0.0002	13:57:57	No
Mean:	0.000	0.000	0.0003				
SD:	0.012	0.012	0.0001				
%RSD:	>999.9%	>999.9%	23.78				

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 11  
 Sample ID: MB 11706 (167) Date Collected: 12/13/2011 1:57:59 PM  
 Analyst: Data Type: Original



Replicate Data: MB 11706 (167)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0002	0.0014	0.0001	13:58:56	No
2	-0.040	-0.040	0.0001	-0.0002	0.0000	13:59:29	No
Mean:	-0.029	-0.029	0.0001				
SD:	0.016	0.016	0.0001				
%RSD:	55.80	55.80	67.59				

Sequence No.: 12 Autosampler Location: 12  
 Sample ID: LCS 11706 Date Collected: 12/13/2011 1:59:31 PM  
 Analyst: Data Type: Original



Replicate Data: LCS 11706

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	25.01	25.01	0.1344	0.4598	0.1344	14:00:27	No
2	24.77	24.77	0.1331	0.4521	0.1331	14:01:01	No
Mean:	24.89	24.89	0.1338				

SD: 0.166 0.166 0.0009  
 %RSD: 0.668 0.668 0.67

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCS MR 11706 Date Collected: 12/13/2011 2:01:02 PM  
 Analyst: Data Type: Original

## Replicate Data: LCS MR 11706

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	23.14	23.14	0.1244	0.4198	0.1243	14:01:59	No
2	23.15	23.15	0.1244	0.4178	0.1244	14:02:32	No
Mean:	23.14	23.14	0.1244				
SD:	0.008	0.008	0.0000				
%RSD:	0.034	0.034	0.03				

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63111-006 Date Collected: 12/13/2011 2:02:33 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-006

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.07	13.07	0.0704	0.2428	0.0703	14:03:30	No
2	12.92	12.92	0.0696	0.2393	0.0695	14:04:04	No
Mean:	12.99	12.99	0.0700				
SD:	0.107	0.107	0.0006				
%RSD:	0.821	0.821	0.82				

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63111-006 MR Date Collected: 12/13/2011 2:04:05 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-006 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	15.80	15.80	0.0850	0.2954	0.0850	14:05:02	No
2	15.76	15.76	0.0848	0.3016	0.0848	14:05:35	No
Mean:	15.78	15.78	0.0849				
SD:	0.025	0.025	0.0001				
%RSD:	0.159	0.159	0.16				

Sequence No.: 16 Autosampler Location: 12  
 Sample ID: LCS 11706 Date Collected: 12/13/2011 2:05:37 PM  
 Analyst: Data Type: Original

## Replicate Data: LCS 11706

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	24.27	24.27	0.1305	0.4542	0.1304	14:06:34	No
2	24.45	24.45	0.1314	0.4539	0.1314	14:07:07	No
Mean:	24.36	24.36	0.1309				
SD:	0.123	0.123	0.0007				
%RSD:	0.504	0.504	0.50				

Sequence No.: 17 Autosampler Location: 16  
 Sample ID: 63111-006 MS1 Date Collected: 12/13/2011 2:07:09 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-006 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	26.34	26.34	0.1416	0.4916	0.1415	14:08:07	No
2	25.93	25.93	0.1394	0.4830	0.1393	14:08:40	No
Mean:	26.14	26.14	0.1405				
SD:	0.288	0.288	0.0015				

%RSD: 1.103 1.103 1.10

Sequence No.: 18 Autosampler Location: 17  
 Sample ID: 63111-006 MS2 Date Collected: 12/13/2011 2:08:41 PM  
 Analyst: Data Type: Original

Replicate Data: 63111-006 MS2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	18.06	18.06	0.0971	0.3392	0.0971	14:09:38	No
2	18.12	18.12	0.0974	0.3390	0.0974	14:10:11	No
Mean:	18.09	18.09	0.0973				
SD:	0.043	0.043	0.0002				
%RSD:	0.236	0.236	0.24				

Sequence No.: 19 Autosampler Location: 37  
 Sample ID: 63111-001 10D Date Collected: 12/13/2011 2:10:13 PM  
 Analyst: Data Type: Original

Replicate Data: 63111-001 10D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	18.10	18.10	0.0974	0.3364	0.0973	14:11:10	No
2	17.85	17.85	0.0960	0.3273	0.0960	14:11:43	No
Mean:	17.97	17.97	0.0967				
SD:	0.176	0.176	0.0009				
%RSD:	0.981	0.981	0.98				

Sequence No.: 20 Autosampler Location: 38  
 Sample ID: 63111-003 5D Date Collected: 12/13/2011 2:11:45 PM  
 Analyst: Data Type: Original

Replicate Data: 63111-003 5D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	11.72	11.72	0.0632	0.2159	0.0631	14:12:45	No
2	11.69	11.69	0.0630	0.2137	0.0629	14:13:18	No
Mean:	11.70	11.70	0.0631				
SD:	0.027	0.027	0.0001				
%RSD:	0.228	0.228	0.23				

Sequence No.: 21 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/13/2011 2:13:19 PM  
 Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.24	10.24	0.0552	0.1922	0.0552	14:14:17	No
2	10.22	10.22	0.0551	0.1897	0.0550	14:14:50	No
Mean:	10.23	10.23	0.0551				
SD:	0.018	0.018	0.0001				
%RSD:	0.174	0.174	0.17				

QC value within limits for Hg 253.7 Recovery = 102.30%  
 All analyte(s) passed QC.

Sequence No.: 22 Autosampler Location: 1  
 Sample ID: CCB Date Collected: 12/13/2011 2:14:51 PM  
 Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0013	0.0116	0.0013	14:15:48	No
2	0.172	0.172	0.0012	0.0118	0.0012	14:16:21	No
Mean:	0.180	0.180	0.0012				

SD: 0.012 0.012 0.0001  
 %RSD: 6.742 6.742 5.21  
 QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 39  
 Sample ID: 63111-006 2D Date Collected: 12/13/2011 2:16:23 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-006 2D

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.696	6.696	0.0362	0.1283	0.0362	14:17:22	No
2	6.697	6.697	0.0362	0.1271	0.0362	14:17:55	No
Mean:	6.696	6.696	0.0362				
SD:	0.001	0.001	0.0000				
%RSD:	0.014	0.014	0.01				

Sequence No.: 24 Autosampler Location: 40  
 Sample ID: 63111-006 MR 2D Date Collected: 12/13/2011 2:17:56 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-006 MR 2D

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	8.224	8.224	0.0444	0.1550	0.0443	14:18:53	No
2	8.257	8.257	0.0446	0.1540	0.0445	14:19:26	No
Mean:	8.240	8.240	0.0445				
SD:	0.023	0.023	0.0001				
%RSD:	0.278	0.278	0.28				

Sequence No.: 25 Autosampler Location: 41  
 Sample ID: 63111-006 MS1 2D Date Collected: 12/13/2011 2:19:27 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-006 MS1 2D

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.74	13.74	0.0740	0.2558	0.0739	14:20:24	No
2	13.77	13.77	0.0741	0.2537	0.0741	14:20:58	No
Mean:	13.75	13.75	0.0740				
SD:	0.019	0.019	0.0001				
%RSD:	0.136	0.136	0.14				

Sequence No.: 26 Autosampler Location: 42  
 Sample ID: 63111-006 MS2 2D Date Collected: 12/13/2011 2:20:59 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-006 MS2 2D

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.184	9.184	0.0495	0.1688	0.0495	14:21:56	No
2	9.186	9.186	0.0496	0.1684	0.0495	14:22:29	No
Mean:	9.185	9.185	0.0495				
SD:	0.002	0.002	0.0000				
%RSD:	0.019	0.019	0.02				

Sequence No.: 27 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/13/2011 2:22:30 PM  
 Analyst: Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.40	10.40	0.0561	0.1917	0.0560	14:23:30	No
2	10.21	10.21	0.0550	0.1904	0.0550	14:24:03	No

Method: HgCV1 SOIL (7471A)

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Date: 12/13/2011 2:25:43 PM

Mean: 10.30      10.30      0.0555  
 SD: 0.136      0.136      0.0007  
 %RSD: 1.319      1.319      1.31

QC value within limits for Hg 253.7 Recovery = 103.03%  
 All analyte(s) passed QC.

Sequence No.: 28

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/13/2011 2:24:05 PM

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0004	0.0026	0.0004	14:25:01	No
2	0.130	0.130	0.0010	0.0086	0.0009	14:25:35	No
Mean:	0.076	0.076	0.0007				
SD:	0.076	0.076	0.0004				
%RSD:	99.88	99.88	59.06				

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

# Run Log

1120830 0487

Data File: W\METALS.FRM\ICPDATA\New\PEICPRAD1A\SW13377A.txt

Analysis Date: 12/10/11

Instrument: PEICPRAD1A

Sample Id	Qc DF	Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	11:17	1							V-129815(ICB/CCB)
Calib Std 1 V-128664	1	CAL	11:20	2							V-128664(ICS2- Low Std)
Calib Std 2 V-128660	1	CAL	11:23	3							V-128660(ICS3 - Middle Std)
Calib Std 3 V-129806	1	CAL	11:26	4							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	11:29	5							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	11:32	6							V-128235(ICV)
ICB V-129815	1	ICB	11:35	7							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	11:38	8							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	11:41	9							V-128667(ICSAB)
MB 11681 (1)	1	MB	11:44	10		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	11:47	11		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	11:50	12		AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	SMP	11:53	13	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MR	11:56	14	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MS	11:59	15	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MSD	12:01	16	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	PS	12:04	17	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
CCV V-128659	1	CCV	12:07	18							V-128659(CCV)
CCB	1	CCB	12:10	19							0
AC63081-011	5	SD	12:13	20	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-012	1	SMP	12:16	21	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
ICSA V-128666	1	ICSA	12:18	22							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	12:22	23							V-128667(ICSAB)
CCV V-128659	1	CCV	12:25	24							V-128659(CCV)
CCB	1	CCB	12:28	25							0
MB 11691 (1)	1	MB	12:31	26		AQUEO	AQUEO	SW846	11691		0
LCSW 11691	1	LCS	12:34	27		AQUEO	AQUEO	SW846	11691		0
LCSW MR 11691	1	LCS	12:37	28		AQUEO	AQUEO	SW846	11691		0
AC63111-047	1	SMP	12:40	29	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63111-048	1	SMP	12:43	30	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
ICSA V-128666	1	ICSA	12:46	31							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	12:49	32							V-128667(ICSAB)
CCV V-128659	1	CCV	12:52	33							V-128659(CCV)
CCB	1	CCB	12:55	34							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/12/2011 10:20:27 AM

OK

*shu* 12/14/11

# Run Log

1120830 0488

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\SW13377B2.txt

Analysis Date: 12/12/11

Instrument: PEICP2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-128658	1	CAL	14:52	1							V-128658(ICB/CCB)
Calib 1 V-128668	1	CAL	14:56	2							V-128668(ICS1 - Lowest std)
Calib 2 V-127383	1	CAL	15:00	3							V-127383(ICS2- Low Std)
Calib 3 V-127384	1	CAL	15:03	4							V-127384(ICS3 - Middle Std)
Calib 4 V-128237	1	CAL	15:07	5							V-128237(ICS4 - High std)
ICS3 V-127384	1	ICS	15:12	6							V-127384(ICS3 - Middle Std)
ICV V-128234 (2)	1	ICV	15:16	7							V-128234(ICV)
ICB V-128658	1	ICB	15:21	8							V-128658(ICB/CCB)
ICSA V-127386	1	ICSA	15:24	9							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	15:30	10							V-127387(ICSAB)
MB 11681 (1)	1	MB	15:35	11		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	15:39	12		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	15:42	13		AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	SMP	15:46	14	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MR	15:51	15	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MS	15:55	16	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MSD	15:59	17	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	PS	16:04	18	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
CCV V-128233	1	CCV	16:08	19							V-128233(CCV)
CCB	1	CCB	16:12	20						Pb failed (poss carryover)	0
AC63081-011	5	SD	16:15	21	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-012	1	SMP	16:19	22	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	SMP	16:23	23	MET-1-SOIL	AQUEO	AQUEO	SW846	11681		0
AC63077-002	1	SMP	16:27	24	MET-1-SOIL	AQUEO	AQUEO	SW846	11681		0
ICSA V-127386	1	ICSA	16:31	25						Pb failed (poss carryover)	V-127386(ICSA)
ICSAB V-127387	1	ICSAB	16:36	26							V-127387(ICSAB)
CCV V-128233	1	CCV	16:42	27							V-128233(CCV)
CCB	1	CCB	16:45	28							0

Comments/Reviewedby:

Standard/Batch/SnCI2 Lot #:

sean  
192.168.1.78 12/12/2011 4:51:00 PM

OK except Pb

*sh* 12/14/11

# Run Log

1120830 0489

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\SW13377D2.txt

Analysis Date: 12/13/11

Instrument: PEICP2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-128658	1	CAL	11:19	1							V-128658(ICB/CCB)
Calib 1 V-128668	1	CAL	11:24	2							V-128668(ICS1 - Lowest std)
Calib 2 V-127383	1	CAL	11:27	3							V-127383(ICS2- Low Std)
Calib 3 V-127384	1	CAL	11:31	4							V-127384(ICS3 - Middle Std)
Calib 4 V-128237	1	CAL	11:35	5							V-128237(ICS4 - High std)
ICS3 V-127384	1	ICS	11:40	6							V-127384(ICS3 - Middle Std)
ICV V-128234 (2)	1	ICV	11:43	7							V-128234(ICV)
ICB V-128658	1	ICB	11:48	8							V-128658(ICB/CCB)
ICSA V-127386	1	ICSA	11:52	9							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	11:57	10							V-127387(ICSAB)
CCV V-128233	1	CCV	12:03	11							V-128233(CCV)
CCB	1	CCB	12:06	12							0
MB 11691 (1)	1	MB	12:10	13		AQUEO	AQUEO	SW846	11691		0
LCSW 11691	1	LCS	12:14	14		AQUEO	AQUEO	SW846	11691		0
LCSW MR 11691	1	LCS	12:18	15		AQUEO	AQUEO	SW846	11691		0
AC63111-047	1	SMP	12:21	16	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63111-048	1	SMP	12:25	17	METALS-TAL-S	AQUEO	AQUEO	SW846	11681	Ca sat'n (Ag, As, Cu, Pb, Sb, Tl)	0
AC63111-048	2	SMP	12:29	18	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63111-048	4	NA	12:33	19	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC28525-001	1	SMP	12:37	20		AQUEO	AQUEO	SW846	11681		0
ICSA V-127386	1	ICSA	12:41	21							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	12:46	22							V-127387(ICSAB)
CCV V-128233	1	CCV	12:52	23							V-128233(CCV)
CCB	1	CCB	12:55	24							0
MB 11681 (1)	1	MB	12:59	25		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	13:02	26		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	13:06	27		AQUEO	AQUEO	SW846	11681		0
CCV V-128233	1	CCV	13:10	28							V-128233(CCV)
CCB	1	CCB	13:14	29							0
AC63081-011	1	SMP	13:17	30	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MR	13:21	31	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MS	13:26	32	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	MSD	13:30	33	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	PS	13:34	34	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-011	5	SD	13:39	35	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC63081-012	1	SMP	13:42	36	METALS-TAL-S	AQUEO	AQUEO	SW846	11681		0
AC28525-001	1	SMP	13:46	37		AQUEO	AQUEO	SW846	11681		0
ICSA V-127386	1	ICSA	13:50	38							V-127386(ICSA)
ICSAB V-127387	1	ICSAB	13:55	39							V-127387(ICSAB)
CCV V-128233	1	CCV	14:01	40							V-128233(CCV)
CCB	1	CCB	14:05	41							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/13/2011 2:17:52 PM

OK

*sh* 12/14/11

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\HGCV1A\H13377SWc.txt

Analysis Date: 12/09/11

Instrument: HGCV1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	18:20	1							0
.2 PPB	1	CAL	18:22	2							0
.5 PPB	1	CAL	18:23	3							0
1 PPB	1	CAL	18:24	4							0
2 PPB	1	CAL	18:26	5							0
5 PPB	1	CAL	18:27	6							0
10 PPB	1	CAL	18:29	7							0
25 PPB	1	CAL	18:30	8							0
ICV (2)	1	ICV	18:31	9							0
ICB	1	ICB	18:33	10							0
MB 11681 (1)	1	MB	18:34	11		AQUEO	AQUEO	SW846	11681		0
LCSW 11681	1	LCS	18:35	12		AQUEO	AQUEO	SW846	11681		0
LCSW MR 11681	1	LCS	18:37	13		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	SMP	18:38	14		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	MR	18:39	15		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	MS	18:41	16		AQUEO	AQUEO	SW846	11681		0
AC63077-001	1	MSD	18:42	17		AQUEO	AQUEO	SW846	11681		0
AC63081-011	1	NA	18:44	18	HG-W-7470	AQUEO	AQUEO	SW846	11681	sample concentration greater than that of highest standard	0
AC63081-012	1	NA	18:45	19	HG-W-7470	AQUEO	AQUEO	SW846	11681	sample concentration greater than that of highest standard	0
AC63081-011	5	SMP	18:46	20	HG-W-7470	AQUEO	AQUEO	SW846	11681		0
CCV	1	CCV	18:48	21							0
CCB	1	CCB	18:49	22							0
AC63081-012	10	SMP	18:50	23	HG-W-7470	AQUEO	AQUEO	SW846	11681		0
CCV	1	CCV	18:52	24							0
CCB	1	CCB	18:53	25							0

Comments/Reviewedby:

olufemi  
192.168.1.89 12/12/2011 1:25:06 PM

RUN IS OK

Standard/Batch/SnCl2 Lot #:

V-130396

*gh* 12/29/11

## Run Log

Data File: W\METALS\FRM\ICPDATA\New\HGCV1A\H13377SWf.txt

Analysis Date: 12/12/11

Instrument: HGCV1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	14:46	1							0
.2 PPB	1	CAL	14:47	2							0
.5 PPB	1	CAL	14:48	3							0
1 PPB	1	CAL	14:50	4							0
2 PPB	1	CAL	14:51	5							0
5 PPB	1	CAL	14:52	6							0
10 PPB	1	CAL	14:54	7							0
25 PPB	1	CAL	14:55	8							0
ICV (2)	1	ICV	14:57	9							0
ICB	1	ICB	14:58	10							0
MB 11691 (1)	1	MB	14:59	11	HG-W-7470	AQUEO	AQUEO	SW846	11691		0
LCSW 11691	1	LCS	15:01	12	HG-W-7470	AQUEO	AQUEO	SW846	11691		0
LCSW MR 11691	1	LCS	15:02	13	HG-W-7470	AQUEO	AQUEO	SW846	11691		0
AC63111-047	1	NA	15:03	14	HG-W-7470	AQUEO	AQUEO	SW846	11681	sample concentration greater than that of highest standard	0
AC63111-048	1	NA	15:05	15	HG-W-7470	AQUEO	AQUEO	SW846	11681	sample concentration greater than that of highest standard	0
AC63111-047	10	NA	15:06	16	HG-W-7470	AQUEO	AQUEO	SW846	11681	sample concentration greater than that of highest standard	0
AC63111-048	2	SMP	15:07	17	HG-W-7470	AQUEO	AQUEO	SW846	11681		0
AC63111-047	20	SMP	15:09	18	HG-W-7470	AQUEO	AQUEO	SW846	11681		0
CCV	1	CCV	15:10	19							0
CCB	1	CCB	15:12	20							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/12/2011 3:30:55 PM

V-130565

RUN IS OK

Sh 12/29/11

Analyst S Blk 12/12/11

=====  
Analysis Begun

Start Time: 12/12/2011 2:52:17 PM

Plasma On Time: 12/12/2011 10:42:35 AM

Logged In Analyst: shiamala

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 069N-na

Autosampler Model: AS-93plus

Sample Information File: C:\pe\administrator\Sample Information\12.12.11.sif

Batch ID: 11227

Results Data Set: SW13377B2

Results Library: C:\pe\administrator\Results\Results.mdb

shu 12/14/11

=====  
Method Loaded

Method Name: PE2 4300DV AXIAL

Method Last Saved: 12/3/2011 7:33:06 PM

IEC File: IEC092611B2.iec

MSF File:

Method Description: 200.716010B

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blk 1 V-128658

Date Collected: 12/12/2011 2:52:18 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----  
Mean Data: Calib Blk 1 V-128658

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1163920.2	3091.09	0.27%	100 %
Y 371.029	453405.2	907.75	0.20%	100 %
Ag 328.068†	34.1	47.90	140.42%	[0.00] mg/L
Al 308.215†	5496.9	0.64	0.01%	[0.00] mg/L
As 188.979†	-14.0	2.83	20.24%	[0.00] mg/L
Ba 233.527†	-1215.0	1.85	0.15%	[0.00] mg/L
Be 313.107†	-2409.8	47.91	1.99%	[0.00] mg/L
Ca 315.887†	-26711.1	415.01	1.55%	[0.00] mg/L
Cd 228.802†	408.5	6.36	1.56%	[0.00] mg/L
Co 228.616†	106.2	1.24	1.17%	[0.00] mg/L
Cr 267.716†	358.2	0.37	0.10%	[0.00] mg/L
Cu 327.393†	-1915.1	47.26	2.47%	[0.00] mg/L
Fe 273.955†	-5941.7	1.10	0.02%	[0.00] mg/L
K 404.721†	1002.9	73.70	7.35%	[0.00] mg/L
Mg 279.077†	-10229.8	59.99	0.59%	[0.00] mg/L
Mn 257.610†	-2823.7	1.41	0.05%	[0.00] mg/L
Mo 202.031†	16.3	2.10	12.91%	[0.00] mg/L
Na 330.237†	-729.6	84.90	11.64%	[0.00] mg/L
Ni 231.604†	155.5	1.88	1.21%	[0.00] mg/L
Pb 220.353†	36.9	4.67	12.66%	[0.00] mg/L
Sb 206.836†	-71.6	4.80	6.69%	[0.00] mg/L
Se 196.026†	64.5	4.15	6.44%	[0.00] mg/L
Sn 189.927†	11.9	0.72	6.09%	[0.00] mg/L
Ti 334.940†	3084.3	38.11	1.24%	[0.00] mg/L
Tl 190.801†	-14.0	0.89	6.37%	[0.00] mg/L
V 290.880†	2706.0	10.62	0.39%	[0.00] mg/L
Zn 206.200†	-55.5	3.31	5.96%	[0.00] mg/L

13377  
11681

all elements reported  
except Pb, Na, K

Sequence No.: 2

Sample ID: Calib 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 12/12/2011 2:56:48 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1170376.3	9578.61	0.82%	101	%
Y 371.029	455503.6	3838.65	0.84%	100	%
As 188.979†	3.0	0.16	5.34%	[0.005]	mg/L
Be 313.107†	10175.0	27.95	0.27%	[0.003]	mg/L
Cd 228.802†	141.6	7.74	5.47%	[0.003]	mg/L
Pb 220.353†	51.2	4.17	8.15%	[0.004]	mg/L
Tl 190.801†	4.6	1.28	28.08%	[0.005]	mg/L

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-127383

Date Collected: 12/12/2011 3:00:17 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 2 V-127383

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units
Sc 361.383	1171949.9	47793.01	4.08%	101 %
Y 371.029	455737.8	18302.57	4.02%	101 %
Ag 328.068†	346.8	30.78	8.88%	[0.002] mg/L
Al 308.215†	3151.4	313.88	9.96%	[0.10] mg/L
As 188.979†	12.9	4.78	37.09%	[0.010] mg/L
Ba 233.527†	1541.1	68.00	4.41%	[0.010] mg/L
Be 313.107†	31770.1	1464.96	4.61%	[0.010] mg/L
Ca 315.887†	123445.6	4910.29	3.98%	[1.0] mg/L
Cd 228.802†	435.2	27.83	6.39%	[0.010] mg/L
Co 228.616†	433.1	9.73	2.25%	[0.010] mg/L
Cr 267.716†	798.0	35.54	4.45%	[0.010] mg/L
Cu 327.393†	1379.7	136.13	9.87%	[0.010] mg/L
Fe 273.955†	954.0	127.78	13.39%	[0.10] mg/L
K 404.721†	101.6	73.99	72.82%	[1.0] mg/L
Mg 279.077†	17417.1	513.61	2.95%	[1.0] mg/L
Mn 257.610†	4955.9	145.49	2.94%	[0.010] mg/L
Mo 202.031†	136.7	0.24	0.17%	[0.010] mg/L
Na 330.237†	1132.7	38.98	3.44%	[1.0] mg/L
Ni 231.604†	521.1	26.85	5.15%	[0.010] mg/L
Pb 220.353†	133.7	23.61	17.66%	[0.010] mg/L
Sb 206.836†	17.3	0.84	4.87%	[0.010] mg/L
Se 196.026†	12.9	2.77	21.53%	[0.010] mg/L
Sn 189.927†	13.5	2.20	16.27%	[0.010] mg/L
Ti 334.940†	7498.8	414.12	5.52%	[0.010] mg/L
Tl 190.801†	10.2	1.61	15.77%	[0.010] mg/L
V 290.880†	1587.4	157.52	9.92%	[0.010] mg/L
Zn 206.200†	443.1	15.71	3.55%	[0.010] mg/L

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib 3 V-127384

Date Collected: 12/12/2011 3:03:49 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 3 V-127384

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1088039.4	25346.48	2.33%	93.5	%
Y 371.029	418622.4	9270.87	2.21%	92.3	%
Ag 328.068†	13608.6	69.29	0.51%	[0.10]	mg/L
Al 308.215†	164487.7	1690.82	1.03%	[5.0]	mg/L
As 188.979†	685.5	6.06	0.88%	[0.50]	mg/L
Ba 233.527†	73966.5	604.03	0.82%	[0.50]	mg/L
Be 313.107†	1672407.1	61511.29	3.68%	[0.50]	mg/L
Ca 315.887†	6245808.2	232345.87	3.72%	[50]	mg/L
Cd 228.802†	22224.9	190.05	0.86%	[0.50]	mg/L
Co 228.616†	20134.7	171.96	0.85%	[0.50]	mg/L
Cr 267.716†	40578.9	347.62	0.86%	[0.50]	mg/L
Cu 327.393†	64767.0	550.25	0.85%	[0.50]	mg/L
Fe 273.955†	45542.8	233.97	0.51%	[5.0]	mg/L
K 404.721†	5608.7	116.93	2.08%	[50]	mg/L
Mg 279.077†	848602.3	32308.56	3.81%	[50]	mg/L
Mn 257.610†	242417.8	1762.31	0.73%	[0.50]	mg/L
Mo 202.031†	7500.1	103.06	1.37%	[0.50]	mg/L
Na 330.237†	55818.8	462.86	0.83%	[50]	mg/L
Ni 231.604†	25211.4	238.61	0.95%	[0.50]	mg/L
Pb 220.353†	6119.9	99.86	1.63%	[0.50]	mg/L
Sb 206.836†	602.4	10.97	1.82%	[0.50]	mg/L
Se 196.026†	664.8	14.86	2.24%	[0.50]	mg/L
Sn 189.927†	818.1	11.27	1.38%	[0.50]	mg/L
Ti 334.940†	392900.6	14072.98	3.58%	[0.50]	mg/L
Tl 190.801†	541.9	6.95	1.28%	[0.50]	mg/L
V 290.880†	83193.0	813.12	0.98%	[0.50]	mg/L
Zn 206.200†	21837.5	154.36	0.71%	[0.50]	mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-128237

Date Collected: 12/12/2011 3:07:35 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: Calib 4 V-128237

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1051629.1	11563.63	1.10%	90.4	%
Y 371.029	404122.4	4411.12	1.09%	89.1	%
Ag 328.068†	28099.2	453.93	1.62%	[0.20]	mg/L
Al 308.215†	333704.8	5697.20	1.71%	[10]	mg/L
As 188.979†	1395.1	25.51	1.83%	[1.0]	mg/L
Ba 233.527†	149726.5	2743.63	1.83%	[1.0]	mg/L
Be 313.107†	3349736.9	55741.19	1.66%	[1.0]	mg/L
Ca 315.887†	12358807.1	201229.47	1.63%	[100]	mg/L
Cd 228.802†	45844.6	801.26	1.75%	[1.0]	mg/L
Co 228.616†	40811.6	741.19	1.82%	[1.0]	mg/L
Cr 267.716†	83154.3	1608.99	1.93%	[1.0]	mg/L
Cu 327.393†	132843.4	2299.52	1.73%	[1.0]	mg/L
Fe 273.955†	92591.1	1547.27	1.67%	[10]	mg/L
K 404.721†	12193.3	235.31	1.93%	[100]	mg/L
Mg 279.077†	1693800.6	31910.96	1.88%	[100]	mg/L
Mn 257.610†	492093.4	9003.57	1.83%	[1.0]	mg/L
Mo 202.031†	15095.9	306.75	2.03%	[1.0]	mg/L
Na 330.237†	120881.4	1925.56	1.59%	[100]	mg/L
Ni 231.604†	51096.0	916.73	1.79%	[1.0]	mg/L
Pb 220.353†	12336.1	234.26	1.90%	[1.0]	mg/L
Sb 206.836†	1217.6	17.86	1.47%	[1.0]	mg/L
Se 196.026†	1382.1	33.54	2.43%	[1.0]	mg/L
Sn 189.927†	1656.5	33.78	2.04%	[1.0]	mg/L
Ti 334.940†	786343.4	14565.43	1.85%	[1.0]	mg/L
Tl 190.801†	1095.3	26.95	2.46%	[1.0]	mg/L
V 290.880†	168234.8	3136.60	1.86%	[1.0]	mg/L
Zn 206.200†	44364.7	903.41	2.04%	[1.0]	mg/L

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Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-50.4	139900	0.00000	0.999855	
Al 308.215	3	Lin, Calc Int	-514.7	33340	0.00000	0.999974	
As 188.979	4	Lin, Calc Int	-3.1	1394	0.00000	0.999966	
Ba 233.527	3	Lin, Calc Int	-143.3	149500	0.00000	0.999980	
Be 313.107	4	Lin, Calc Int	-805.6	3350000	0.00000	1.000000	
Ca 315.887	3	Lin, Calc Int	12021.1	123700	0.00000	0.999985	
Cd 228.802	4	Lin, Calc Int	-92.9	45680	0.00000	0.999890	
Co 228.616	3	Lin, Calc Int	-38.0	40750	0.00000	0.999975	
Cr 267.716	3	Lin, Calc Int	-196.9	82990	0.00000	0.999924	
Cu 327.393	3	Lin, Calc Int	-277.9	132500	0.00000	0.999915	
Fe 273.955	3	Lin, Calc Int	-124.3	9244	0.00000	0.999964	
K 404.721	3	Lin, Calc Int	-98.0	121.2	0.00000	0.999150	
Mg 279.077	3	Lin, Calc Int	527.3	16940	0.00000	1.000000	
Mn 257.610	3	Lin, Calc Int	-644.6	491400	0.00000	0.999971	
Mo 202.031	3	Lin, Calc Int	-15.2	15090	0.00000	0.999995	
Na 330.237	3	Lin, Calc Int	-875.7	1201	0.00000	0.999215	
Ni 231.604	3	Lin, Calc Int	-56.7	51030	0.00000	0.999976	
Pb 220.353	4	Lin, Calc Int	-2.2	12320	0.00000	0.999992	
Sb 206.836	3	Lin, Calc Int	1.2	1214	0.00000	0.999972	
Se 196.026	3	Lin, Calc Int	-5.2	1378	0.00000	0.999809	
Sn 189.927	3	Lin, Calc Int	-3.2	1656	0.00000	0.999982	
Ti 334.940	3	Lin, Calc Int	-214.9	786500	0.00000	1.000000	
Tl 190.801	4	Lin, Calc Int	-1.2	1095	0.00000	0.999988	
V 290.880	3	Lin, Calc Int	-211.3	168100	0.00000	0.999985	
Zn 206.200	3	Lin, Calc Int	-63.0	44300	0.00000	0.999968	

Sequence No.: 6

Sample ID: ICS3 V-127384

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/12/2011 3:12:37 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICS3 V-127384

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1098702.4	94.4 %		0.24			0.26%
Y 371.029	422138.4	93.1 %		0.15			0.16%
Ag 328.068†	13661.8	0.0981135 mg/L		0.00040742	0.0981135 mg/L	0.00040742	0.42%
QC value within limits for Ag		328.068	Recovery = 98.11%				
Al 308.215†	165189.7	4.96065 mg/L		0.000135	4.96065 mg/L	0.000135	0.00%
QC value within limits for Al		308.215	Recovery = 99.21%				
As 188.979†	682.6	0.491775 mg/L		0.0026234	0.491775 mg/L	0.0026234	0.53%
QC value within limits for As		188.979	Recovery = 98.35%				
Ba 233.527†	74387.0	0.498393 mg/L		0.0000711	0.498393 mg/L	0.0000711	0.01%
QC value within limits for Ba		233.527	Recovery = 99.68%				
Be 313.107†	1662598.9	0.496226 mg/L		0.0017622	0.496226 mg/L	0.0017622	0.36%
QC value within limits for Be		313.107	Recovery = 99.25%				
Ca 315.887†	6215211.6	50.1436 mg/L		0.11850	50.1436 mg/L	0.11850	0.24%
QC value within limits for Ca		315.887	Recovery = 100.29%				
Cd 228.802†	22412.7	0.492621 mg/L		0.0000718	0.492621 mg/L	0.0000718	0.01%
QC value within limits for Cd		228.802	Recovery = 98.52%				
Co 228.616†	20291.8	0.499535 mg/L		0.0012237	0.499535 mg/L	0.0012237	0.24%
QC value within limits for Co		228.616	Recovery = 99.91%				
Cr 267.716†	40840.8	0.498081 mg/L		0.0004735	0.498081 mg/L	0.0004735	0.10%
QC value within limits for Cr		267.716	Recovery = 99.62%				
Cu 327.393†	65016.5	0.491241 mg/L		0.0008327	0.491241 mg/L	0.0008327	0.17%
QC value within limits for Cu		327.393	Recovery = 98.25%				
Fe 273.955†	45803.1	4.98828 mg/L		0.000090	4.98828 mg/L	0.000090	0.00%
QC value within limits for Fe		273.955	Recovery = 99.77%				
K 404.721†	5514.5	46.3212 mg/L		0.70229	46.3212 mg/L	0.70229	1.52%
QC value within limits for K		404.721	Recovery = 92.64%				
Mg 279.077†	845053.0	49.8584 mg/L		0.07823	49.8584 mg/L	0.07823	0.16%
QC value within limits for Mg		279.077	Recovery = 99.72%				
Mn 257.610†	243669.8	0.497512 mg/L		0.0003328	0.497512 mg/L	0.0003328	0.07%
QC value within limits for Mn		257.610	Recovery = 99.50%				
Mo 202.031†	7517.6	0.497990 mg/L		0.0016694	0.497990 mg/L	0.0016694	0.34%
QC value within limits for Mo		202.031	Recovery = 99.60%				
Na 330.237†	56017.4	47.3754 mg/L		0.11026	47.3754 mg/L	0.11026	0.23%
QC value within limits for Na		330.237	Recovery = 94.75%				
Ni 231.604†	25364.6	0.498608 mg/L		0.0004306	0.498608 mg/L	0.0004306	0.09%
QC value within limits for Ni		231.604	Recovery = 99.72%				
Pb 220.353†	6147.9	0.499543 mg/L		0.0020474	0.499543 mg/L	0.0020474	0.41%
QC value within limits for Pb		220.353	Recovery = 99.91%				
Sb 206.836†	596.4	0.492318 mg/L		0.0006448	0.492318 mg/L	0.0006448	0.13%
QC value within limits for Sb		206.836	Recovery = 98.46%				
Se 196.026†	667.8	0.488799 mg/L		0.0139256	0.488799 mg/L	0.0139256	2.85%
QC value within limits for Se		196.026	Recovery = 97.76%				
Sn 189.927†	824.8	0.499740 mg/L		0.0032381	0.499740 mg/L	0.0032381	0.65%
QC value within limits for Sn		189.927	Recovery = 99.95%				
Ti 334.940†	390638.2	0.496958 mg/L		0.0022565	0.496958 mg/L	0.0022565	0.45%
QC value within limits for Ti		334.940	Recovery = 99.39%				
Tl 190.801†	548.9	0.504525 mg/L		0.0024418	0.504525 mg/L	0.0024418	0.48%
QC value within limits for Tl		190.801	Recovery = 100.91%				
V 290.880†	83565.0	0.496162 mg/L		0.0004881	0.496162 mg/L	0.0004881	0.10%
QC value within limits for V		290.880	Recovery = 99.23%				
Zn 206.200†	21996.8	0.496371 mg/L		0.0009254	0.496371 mg/L	0.0009254	0.19%
QC value within limits for Zn		206.200	Recovery = 99.27%				

All analyte(s) passed QC.

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Sequence No.: 7                               Autosampler Location: 11
Sample ID: ICV V-128234 (2)                   Date Collected: 12/12/2011 3:16:24 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: ICV V-128234 (2)

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1100036.7	94.5 %	7.31			7.74%
Y 371.029	424196.2	93.6 %	7.11			7.60%
Ag 328.068†	26200.5	0.187829 mg/L	0.0162112	0.187829 mg/L	0.0162112	8.63%
QC value within limits for Ag 328.068 Recovery = 93.91%						
Al 308.215†	317316.8	9.51451 mg/L	0.834096	9.51451 mg/L	0.834096	8.77%
QC value within limits for Al 308.215 Recovery = 95.15%						
As 188.979†	1337.4	0.961379 mg/L	0.0547136	0.961379 mg/L	0.0547136	5.69%
QC value within limits for As 188.979 Recovery = 96.14%						
Ba 233.527†	143611.5	0.961305 mg/L	0.0795643	0.961305 mg/L	0.0795643	8.28%
QC value within limits for Ba 233.527 Recovery = 96.13%						
Be 313.107†	3262857.3	0.973633 mg/L	0.0573059	0.973633 mg/L	0.0573059	5.89%
QC value within limits for Be 313.107 Recovery = 97.36%						
Ca 315.887†	12092028.6	97.6490 mg/L	5.72308	97.6490 mg/L	5.72308	5.86%
QC value within limits for Ca 315.887 Recovery = 97.65%						
Cd 228.802†	43430.3	0.952674 mg/L	0.0827284	0.952674 mg/L	0.0827284	8.68%
QC value within limits for Cd 228.802 Recovery = 95.27%						
Co 228.616†	39047.9	0.960450 mg/L	0.0795847	0.960450 mg/L	0.0795847	8.29%
QC value within limits for Co 228.616 Recovery = 96.04%						
Cr 267.716†	78493.8	0.955160 mg/L	0.0803294	0.955160 mg/L	0.0803294	8.41%
QC value within limits for Cr 267.716 Recovery = 95.52%						
Cu 327.393†	126415.8	0.953214 mg/L	0.0827193	0.953214 mg/L	0.0827193	8.68%
QC value within limits for Cu 327.393 Recovery = 95.32%						
Fe 273.955†	86845.2	9.44588 mg/L	0.752655	9.44588 mg/L	0.752655	7.97%
QC value within limits for Fe 273.955 Recovery = 94.46%						
K 404.721†	11575.0	96.3408 mg/L	9.35805	96.3408 mg/L	9.35805	9.71%
QC value within limits for K 404.721 Recovery = 96.34%						
Mg 279.077†	1596733.0	94.2355 mg/L	7.69495	94.2355 mg/L	7.69495	8.17%
QC value within limits for Mg 279.077 Recovery = 94.24%						
Mn 257.610†	462123.1	0.942368 mg/L	0.0784823	0.942368 mg/L	0.0784823	8.33%
QC value within limits for Mn 257.610 Recovery = 94.24%						
Mo 202.031†	14645.8	0.969229 mg/L	0.0614878	0.969229 mg/L	0.0614878	6.34%
QC value within limits for Mo 202.031 Recovery = 96.92%						
Na 330.237†	114180.3	95.8082 mg/L	8.26137	95.8082 mg/L	8.26137	8.62%
QC value within limits for Na 330.237 Recovery = 95.81%						
Ni 231.604†	48394.6	0.950334 mg/L	0.0774670	0.950334 mg/L	0.0774670	8.15%
QC value within limits for Ni 231.604 Recovery = 95.03%						
Pb 220.353†	11894.8	0.966372 mg/L	0.0571061	0.966372 mg/L	0.0571061	5.91%
QC value within limits for Pb 220.353 Recovery = 96.64%						
Sb 206.836†	1162.0	0.960025 mg/L	0.0520781	0.960025 mg/L	0.0520781	5.42%
QC value within limits for Sb 206.836 Recovery = 96.00%						
Se 196.026†	1327.7	0.968010 mg/L	0.0559833	0.968010 mg/L	0.0559833	5.78%
QC value within limits for Se 196.026 Recovery = 96.80%						
Sn 189.927†	1613.4	0.975688 mg/L	0.0617503	0.975688 mg/L	0.0617503	6.33%
QC value within limits for Sn 189.927 Recovery = 97.57%						
Ti 334.940†	745155.2	0.947715 mg/L	0.0813561	0.947715 mg/L	0.0813561	8.58%
QC value within limits for Ti 334.940 Recovery = 94.77%						
Tl 190.801†	1096.9	1.00693 mg/L	0.064303	1.00693 mg/L	0.064303	6.39%
QC value within limits for Tl 190.801 Recovery = 100.69%						
V 290.880†	159911.0	0.948411 mg/L	0.0807913	0.948411 mg/L	0.0807913	8.52%
QC value within limits for V 290.880 Recovery = 94.84%						
Zn 206.200†	41984.5	0.946140 mg/L	0.0772024	0.946140 mg/L	0.0772024	8.16%
QC value within limits for Zn 206.200 Recovery = 94.61%						

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-128658  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/12/2011 3:21:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: ICB V-128658

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1144896.6	98.4 %	1.70			1.73%
Y 371.029	445670.4	98.3 %	1.50			1.52%
Ag 328.068†	-40.6	0.0000676 mg/L	0.00011338	0.0000676 mg/L	0.00011338	167.74%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 308.215†	-205.2	0.0092577 mg/L	0.00307072	0.0092577 mg/L	0.00307072	33.17%
QC value within limits for Al 308.215 Recovery = Not calculated						
As 188.979†	3.5	0.0047098 mg/L	0.00134387	0.0047098 mg/L	0.00134387	28.53%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527†	-29.4	0.0007616 mg/L	0.00016765	0.0007616 mg/L	0.00016765	22.01%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	69.9	0.0002612 mg/L	0.00001784	0.0002612 mg/L	0.00001784	6.83%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 315.887†	-312.7	-0.0997004 mg/L	0.00222265	-0.0997004 mg/L	0.00222265	2.23%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Cd 228.802†	3.8	0.0021167 mg/L	0.00020857	0.0021167 mg/L	0.00020857	9.85%
QC value within limits for Cd 228.802 Recovery = Not calculated						
Co 228.616†	8.1	0.0011359 mg/L	0.00005542	0.0011359 mg/L	0.00005542	4.88%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	4.6	0.0024366 mg/L	0.00007408	0.0024366 mg/L	0.00007408	3.04%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 327.393†	-17.0	0.0019698 mg/L	0.00104105	0.0019698 mg/L	0.00104105	52.85%
QC value within limits for Cu 327.393 Recovery = Not calculated						
Fe 273.955†	-159.5	-0.0038279 mg/L	0.01058266	-0.0038279 mg/L	0.01058266	276.46%
QC value within limits for Fe 273.955 Recovery = Not calculated						
K 404.721†	-5.2	0.765822 mg/L	0.3523569	0.765822 mg/L	0.3523569	46.01%
QC value within limits for K 404.721 Recovery = Not calculated						
Mg 279.077†	-304.2	-0.0490848 mg/L	0.00864851	-0.0490848 mg/L	0.00864851	17.62%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	-85.1	0.0011387 mg/L	0.00010865	0.0011387 mg/L	0.00010865	9.54%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	3.1	0.0012111 mg/L	0.00009363	0.0012111 mg/L	0.00009363	7.73%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 330.237†	184.8	0.883071 mg/L	0.0449721	0.883071 mg/L	0.0449721	5.09%
QC value within limits for Na 330.237 Recovery = Not calculated						
Ni 231.604†	-11.4	0.0008884 mg/L	0.00056122	0.0008884 mg/L	0.00056122	63.17%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353†	5.8	0.0006501 mg/L	0.00126610	0.0006501 mg/L	0.00126610	194.74%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	-1.2	-0.0019447 mg/L	0.00215853	-0.0019447 mg/L	0.00215853	110.99%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	8.8	0.0101372 mg/L	0.00435553	0.0101372 mg/L	0.00435553	42.97%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	2.9	0.0037159 mg/L	0.00371232	0.0037159 mg/L	0.00371232	99.90%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940†	13.1	0.0002898 mg/L	0.00001211	0.0002898 mg/L	0.00001211	4.18%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	5.2	0.0059018 mg/L	0.00198588	0.0059018 mg/L	0.00198588	33.65%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 290.880†	50.3	0.0015616 mg/L	0.00000332	0.0015616 mg/L	0.00000332	0.21%
QC value within limits for V 290.880 Recovery = Not calculated						
Zn 206.200†	25.6	0.0020010 mg/L	0.00023450	0.0020010 mg/L	0.00023450	11.72%
QC value within limits for Zn 206.200 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-127386

Date Collected: 12/12/2011 3:24:50 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-127386

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	979316.2	84.1	%	1.25				1.49%
Y 371.029	375564.9	82.8	%	1.21				1.46%
Ag 328.068†	-1244.4	0.0037138	mg/L	0.00020084	0.0037138	mg/L	0.00020084	5.41%
Al 308.215†	16548250.3	496.394	mg/L	6.4186	496.394	mg/L	6.4186	1.29%
QC value within limits for Al 308.215 Recovery = 99.28%								
As 188.979†	-31.4	0.0034013	mg/L	0.00276242	0.0034013	mg/L	0.00276242	81.22%
Ba 233.527†	267.9	0.0027495	mg/L	0.00019292	0.0027495	mg/L	0.00019292	7.02%
Be 313.107†	-2617.7	-0.0005424	mg/L	0.00001219	-0.0005424	mg/L	0.00001219	2.25%
Ca 315.887†	59997750.4	484.896	mg/L	5.9175	484.896	mg/L	5.9175	1.22%
QC value within limits for Ca 315.887 Recovery = 96.98%								
Cd 228.802†	173.5	0.0027663	mg/L	0.00011757	0.0027663	mg/L	0.00011757	4.25%
Co 228.616†	-133.9	0.0047374	mg/L	0.00048601	0.0047374	mg/L	0.00048601	10.26%
Cr 267.716†	544.6	0.0153596	mg/L	0.00007029	0.0153596	mg/L	0.00007029	0.46%
Cu 327.393†	796.1	-0.0102801	mg/L	0.00101287	-0.0102801	mg/L	0.00101287	9.85%
Fe 273.955†	1727915.6	187.134	mg/L	0.8423	187.134	mg/L	0.8423	0.45%
QC value within limits for Fe 273.955 Recovery = 93.57%								
K 404.721†	-924.3	-6.81977	mg/L	0.017356	-6.81977	mg/L	0.017356	0.25%
Mg 279.077†	8401902.1	495.993	mg/L	5.6714	495.993	mg/L	5.6714	1.14%
QC value within limits for Mg 279.077 Recovery = 99.20%								
Mn 257.610†	-5182.3	-0.0007683	mg/L	0.00009724	-0.0007683	mg/L	0.00009724	12.66%
Mo 202.031†	120.4	0.0044347	mg/L	0.00036318	0.0044347	mg/L	0.00036318	8.19%
Na 330.237†	15.3	0.741961	mg/L	0.0424699	0.741961	mg/L	0.0424699	5.72%
Ni 231.604†	-39.5	0.0003439	mg/L	0.00034882	0.0003439	mg/L	0.00034882	101.42%
Pb 220.353†	-934.0	0.0048784	mg/L	0.00205085	0.0048784	mg/L	0.00205085	42.04%
Sb 206.836†	-138.7	-0.0076580	mg/L	0.00273048	-0.0076580	mg/L	0.00273048	35.66%
Se 196.026†	28.6	0.0142633	mg/L	0.01330694	0.0142633	mg/L	0.01330694	93.30%
Sn 189.927†	42.5	0.0142640	mg/L	0.00109056	0.0142640	mg/L	0.00109056	7.65%
Ti 334.940†	1367.5	0.0020119	mg/L	0.00003792	0.0020119	mg/L	0.00003792	1.88%
Tl 190.801†	-16.1	-0.0003008	mg/L	0.00024226	-0.0003008	mg/L	0.00024226	80.55%
V 290.880†	6640.5	0.0049248	mg/L	0.00087501	0.0049248	mg/L	0.00087501	17.77%
Zn 206.200†	257.0	-0.0083110	mg/L	0.00037594	-0.0083110	mg/L	0.00037594	4.52%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-127387  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 3:30:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-127387

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	987630.5	84.9 %	1.85			2.18%
Y 371.029	376972.9	83.1 %	1.23			1.48%
Ag 328.068†	145884.1	1.05510 mg/L	0.000910	1.05510 mg/L	0.000910	0.09%
	QC value within limits for Ag	328.068 Recovery = 105.51%				
Al 308.215†	16503896.9	495.064 mg/L	2.0309	495.064 mg/L	2.0309	0.41%
	QC value within limits for Al	308.215 Recovery = 99.01%				
As 188.979†	1374.7	1.01214 mg/L	0.004467	1.01214 mg/L	0.004467	0.44%
	QC value within limits for As	188.979 Recovery = 101.21%				
Ba 233.527†	76529.5	0.512720 mg/L	0.0012108	0.512720 mg/L	0.0012108	0.24%
	QC value within limits for Ba	233.527 Recovery = 102.54%				
Be 313.107†	1694578.6	0.506126 mg/L	0.0038321	0.506126 mg/L	0.0038321	0.76%
	QC value within limits for Be	313.107 Recovery = 101.23%				
Ca 315.887†	59743469.7	482.840 mg/L	1.7918	482.840 mg/L	1.7918	0.37%
	QC value within limits for Ca	315.887 Recovery = 96.57%				
Cd 228.802†	47039.4	1.02877 mg/L	0.002955	1.02877 mg/L	0.002955	0.29%
	QC value within limits for Cd	228.802 Recovery = 102.88%				
Co 228.616†	18944.6	0.472910 mg/L	0.0004726	0.472910 mg/L	0.0004726	0.10%
	QC value within limits for Co	228.616 Recovery = 94.58%				
Cr 267.716†	41481.2	0.508932 mg/L	0.0007908	0.508932 mg/L	0.0007908	0.16%
	QC value within limits for Cr	267.716 Recovery = 101.79%				
Cu 327.393†	70507.5	0.515728 mg/L	0.0004550	0.515728 mg/L	0.0004550	0.09%
	QC value within limits for Cu	327.393 Recovery = 103.15%				
Fe 273.955†	1731447.0	187.519 mg/L	1.3777	187.519 mg/L	1.3777	0.73%
	QC value within limits for Fe	273.955 Recovery = 93.76%				
K 404.721†	-944.8	-6.98836 mg/L	0.994860	-6.98836 mg/L	0.994860	14.24%
Mg 279.077†	8514103.4	502.617 mg/L	6.0575	502.617 mg/L	6.0575	1.21%
	QC value within limits for Mg	279.077 Recovery = 100.52%				
Mn 257.610†	234693.9	0.487377 mg/L	0.0004138	0.487377 mg/L	0.0004138	0.08%
	QC value within limits for Mn	257.610 Recovery = 97.48%				
Mo 202.031†	117.6	0.0042772 mg/L	0.00033104	0.0042772 mg/L	0.00033104	7.74%
Na 330.237†	364.6	1.03283 mg/L	0.062875	1.03283 mg/L	0.062875	6.09%
Ni 231.604†	47531.8	0.932569 mg/L	0.0021798	0.932569 mg/L	0.0021798	0.23%
	QC value within limits for Ni	231.604 Recovery = 93.26%				
Pb 220.353†	10790.0	0.956169 mg/L	0.0009432	0.956169 mg/L	0.0009432	0.10%
	QC value within limits for Pb	220.353 Recovery = 95.62%				
Sb 206.836†	1049.7	0.971108 mg/L	0.0041993	0.971108 mg/L	0.0041993	0.43%
	QC value within limits for Sb	206.836 Recovery = 97.11%				
Se 196.026†	1394.7	1.00548 mg/L	0.012986	1.00548 mg/L	0.012986	1.29%
	QC value within limits for Se	196.026 Recovery = 100.55%				
Sn 189.927†	28.7	0.0059541 mg/L	0.00194255	0.0059541 mg/L	0.00194255	32.63%
Ti 334.940†	1636.7	0.0023542 mg/L	0.00006258	0.0023542 mg/L	0.00006258	2.66%
Tl 190.801†	1056.1	0.978902 mg/L	0.0044923	0.978902 mg/L	0.0044923	0.46%
	QC value within limits for Tl	190.801 Recovery = 97.89%				
V 290.880†	87419.4	0.484988 mg/L	0.0012892	0.484988 mg/L	0.0012892	0.27%
	QC value within limits for V	290.880 Recovery = 97.00%				
Zn 206.200†	43719.2	0.972505 mg/L	0.0061632	0.972505 mg/L	0.0061632	0.63%
	QC value within limits for Zn	206.200 Recovery = 97.25%				

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 38

Sample ID: MB 11681 (1)

Date Collected: 12/12/2011 3:35:40 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: MB 11681 (1)

Analyte	Mean Corrected		Calib		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	1159894.5	99.7	%	1.08				1.08%
Y 371.029	451761.4	99.6	%	0.89				0.90%
Ag 328.068†	53.9	0.0007523	mg/L	0.00025669	0.0007523	mg/L	0.00025669	34.12%
Al 308.215†	731.6	0.0373606	mg/L	0.00203588	0.0373606	mg/L	0.00203588	5.45%
As 188.979†	2.8	0.0042476	mg/L	0.00027548	0.0042476	mg/L	0.00027548	6.49%
Ba 233.527†	68.2	0.0014142	mg/L	0.00015019	0.0014142	mg/L	0.00015019	10.62%
Be 313.107†	-7.0	0.0002381	mg/L	0.00001919	0.0002381	mg/L	0.00001919	8.06%
Ca 315.887†	117832.8	0.855331	mg/L	0.0117124	0.855331	mg/L	0.0117124	1.37%
Cd 228.802†	15.4	0.0023692	mg/L	0.00017818	0.0023692	mg/L	0.00017818	7.52%
Co 228.616†	5.4	0.0010684	mg/L	0.00001180	0.0010684	mg/L	0.00001180	1.10%
Cr 267.716†	-0.2	0.0023797	mg/L	0.00006510	0.0023797	mg/L	0.00006510	2.74%
Cu 327.393†	302.1	0.0043661	mg/L	0.00013099	0.0043661	mg/L	0.00013099	3.00%
Fe 273.955†	316.0	0.0476244	mg/L	0.00706013	0.0476244	mg/L	0.00706013	14.82%
K 404.721†	-69.2	0.238070	mg/L	0.5627656	0.238070	mg/L	0.5627656	236.39%
Mg 279.077†	460.9	-0.0039198	mg/L	0.00923810	-0.0039198	mg/L	0.00923810	235.68%
Mn 257.610†	127.7	0.0015739	mg/L	0.00001166	0.0015739	mg/L	0.00001166	0.74%
Mo 202.031†	-0.3	0.0009706	mg/L	0.00008774	0.0009706	mg/L	0.00008774	9.04%
Na 330.237†	179.3	0.878540	mg/L	0.0877286	0.878540	mg/L	0.0877286	9.99%
Ni 231.604†	16.7	0.0014392	mg/L	0.00021092	0.0014392	mg/L	0.00021092	14.66%
Pb 220.353†	2.7	0.0003932	mg/L	0.00050111	0.0003932	mg/L	0.00050111	127.45%
Sb 206.836†	1.1	-0.0000222	mg/L	0.00019485	-0.0000222	mg/L	0.00019485	876.27%
Se 196.026†	3.4	0.0062208	mg/L	0.00504438	0.0062208	mg/L	0.00504438	81.09%
Sn 189.927†	0.1	0.0019857	mg/L	0.00010122	0.0019857	mg/L	0.00010122	5.10%
Ti 334.940†	65.0	0.0003559	mg/L	0.00001440	0.0003559	mg/L	0.00001440	4.05%
Tl 190.801†	3.0	0.0038444	mg/L	0.00120382	0.0038444	mg/L	0.00120382	31.31%
V 290.880†	43.0	0.0015137	mg/L	0.00024196	0.0015137	mg/L	0.00024196	15.98%
Zn 206.200†	232.3	0.0066663	mg/L	0.00039071	0.0066663	mg/L	0.00039071	5.86%

Sequence No.: 12

Sample ID: LCSW 11681

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 12/12/2011 3:39:11 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW 11681

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Calib Units		Conc.	Units	Std.Dev.	
Sc 361.383	1110679.9	95.4	%	0.90				0.95%
Y 371.029	426230.7	94.0	%	0.77				0.82%
Ag 328.068†	12467.5	0.0895820	mg/L	0.00076830	0.0895820	mg/L	0.00076830	0.86%
Al 308.215†	155096.4	4.65845	mg/L	0.016708	4.65845	mg/L	0.016708	0.36%
As 188.979†	643.4	0.463670	mg/L	0.0014554	0.463670	mg/L	0.0014554	0.31%
Ba 233.527†	70913.9	0.475168	mg/L	0.0024825	0.475168	mg/L	0.0024825	0.52%
Be 313.107†	1571934.0	0.469180	mg/L	0.0031028	0.469180	mg/L	0.0031028	0.66%
Ca 315.887†	6057019.7	48.8649	mg/L	0.28151	48.8649	mg/L	0.28151	0.58%
Cd 228.802†	21042.0	0.462618	mg/L	0.0020891	0.462618	mg/L	0.0020891	0.45%
Co 228.616†	19545.3	0.481182	mg/L	0.0031013	0.481182	mg/L	0.0031013	0.64%
Cr 267.716†	38587.6	0.470726	mg/L	0.0024849	0.470726	mg/L	0.0024849	0.53%
Cu 327.393†	62291.8	0.470743	mg/L	0.0020917	0.470743	mg/L	0.0020917	0.44%
Fe 273.955†	43113.6	4.69631	mg/L	0.022460	4.69631	mg/L	0.022460	0.48%
K 404.721†	5287.5	44.4484	mg/L	0.17686	44.4484	mg/L	0.17686	0.40%
Mg 279.077†	801928.1	47.3124	mg/L	0.21890	47.3124	mg/L	0.21890	0.46%
Mn 257.610†	229033.0	0.467707	mg/L	0.0021734	0.467707	mg/L	0.0021734	0.46%
Mo 202.031†	7091.3	0.469772	mg/L	0.0008623	0.469772	mg/L	0.0008623	0.18%
Na 330.237†	52041.8	44.0649	mg/L	0.27593	44.0649	mg/L	0.27593	0.63%
Ni 231.604†	24255.3	0.476846	mg/L	0.0027518	0.476846	mg/L	0.0027518	0.58%
Pb 220.353†	5845.1	0.474927	mg/L	0.0012332	0.474927	mg/L	0.0012332	0.26%
Sb 206.836†	554.0	0.457246	mg/L	0.0027193	0.457246	mg/L	0.0027193	0.59%
Se 196.026†	636.8	0.466275	mg/L	0.0045591	0.466275	mg/L	0.0045591	0.98%
Sn 189.927†	794.2	0.481303	mg/L	0.0000563	0.481303	mg/L	0.0000563	0.01%
Ti 334.940†	367822.4	0.467948	mg/L	0.0038829	0.467948	mg/L	0.0038829	0.83%
Tl 190.801†	542.9	0.498956	mg/L	0.0008418	0.498956	mg/L	0.0008418	0.17%
V 290.880†	78799.0	0.467918	mg/L	0.0019674	0.467918	mg/L	0.0019674	0.42%
Zn 206.200†	21007.9	0.474127	mg/L	0.0040527	0.474127	mg/L	0.0040527	0.85%

Sequence No.: 13

Sample ID: LCSW MR 11681

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 12/12/2011 3:42:59 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW MR 11681

Analyte	Mean Corrected		Calib		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	1106365.0	95.1	%	0.11				0.12%
Y 371.029	424298.3	93.6	%	0.10				0.10%
Ag 328.068†	12696.6	0.0912195	mg/L	0.00130801	0.0912195	mg/L	0.00130801	1.43%
Al 308.215†	157071.1	4.71740	mg/L	0.072466	4.71740	mg/L	0.072466	1.54%
As 188.979†	664.0	0.478403	mg/L	0.0024772	0.478403	mg/L	0.0024772	0.52%
Ba 233.527†	72000.0	0.482431	mg/L	0.0083687	0.482431	mg/L	0.0083687	1.73%
Be 313.107†	1610161.5	0.480584	mg/L	0.0007226	0.480584	mg/L	0.0007226	0.15%
Ca 315.887†	6205019.3	50.0612	mg/L	0.09824	50.0612	mg/L	0.09824	0.20%
Cd 228.802†	21418.3	0.470854	mg/L	0.0074146	0.470854	mg/L	0.0074146	1.57%
Co 228.616†	19852.6	0.488744	mg/L	0.0086581	0.488744	mg/L	0.0086581	1.77%
Cr 267.716†	39183.5	0.478001	mg/L	0.0080481	0.478001	mg/L	0.0080481	1.68%
Cu 327.393†	63199.2	0.477555	mg/L	0.0060028	0.477555	mg/L	0.0060028	1.26%
Fe 273.955†	43720.8	4.76249	mg/L	0.079834	4.76249	mg/L	0.079834	1.68%
K 404.721†	5338.3	44.8675	mg/L	0.10987	44.8675	mg/L	0.10987	0.24%
Mg 279.077†	822713.9	48.5396	mg/L	0.08757	48.5396	mg/L	0.08757	0.18%
Mn 257.610†	232600.1	0.474972	mg/L	0.0083655	0.474972	mg/L	0.0083655	1.76%
Mo 202.031†	7302.4	0.483731	mg/L	0.0058970	0.483731	mg/L	0.0058970	1.22%
Na 330.237†	52981.5	44.8474	mg/L	0.67000	44.8474	mg/L	0.67000	1.49%
Ni 231.604†	24623.5	0.484073	mg/L	0.0080049	0.484073	mg/L	0.0080049	1.65%
Pb 220.353†	6028.1	0.489786	mg/L	0.0074908	0.489786	mg/L	0.0074908	1.53%
Sb 206.836†	576.2	0.475566	mg/L	0.0049096	0.475566	mg/L	0.0049096	1.03%
Se 196.026†	657.9	0.481554	mg/L	0.0092765	0.481554	mg/L	0.0092765	1.93%
Sn 189.927†	819.0	0.496223	mg/L	0.0137632	0.496223	mg/L	0.0137632	2.77%
Ti 334.940†	376380.9	0.478830	mg/L	0.0006924	0.478830	mg/L	0.0006924	0.14%
Tl 190.801†	564.7	0.518914	mg/L	0.0036147	0.518914	mg/L	0.0036147	0.70%
V 290.880†	80196.7	0.476182	mg/L	0.0077424	0.476182	mg/L	0.0077424	1.63%
Zn 206.200†	21341.7	0.481624	mg/L	0.0095038	0.481624	mg/L	0.0095038	1.97%

Sequence No.: 14  
 Sample ID: 63081-011  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 12/12/2011 3:46:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	1208461.6	104	%	0.9			0.83%	
Y 371.029	781177.5	172	%	0.3			0.19%	
Ag 328.068†	-2548.3	0.0065396	mg/L	0.00037157	0.0065396	mg/L	0.00037157	5.68%
Al 308.215†	6500439.3	195.013	mg/L	3.1953	195.013	mg/L	3.1953	1.64%
As 188.979†	400.3	0.360213	mg/L	0.0021113	0.360213	mg/L	0.0021113	0.59%
Ba 233.527†	899457.1	6.01573	mg/L	0.088786	6.01573	mg/L	0.088786	1.48%
Be 313.107†	57520.8	0.0144758	mg/L	0.00021422	0.0144758	mg/L	0.00021422	1.48%
Ca 315.887†	43670603.9	352.915	mg/L	3.6854	352.915	mg/L	3.6854	1.04%
Cd 228.802†	1021.6	0.0163256	mg/L	0.00022581	0.0163256	mg/L	0.00022581	1.38%
Co 228.616†	8344.6	0.200826	mg/L	0.0004256	0.200826	mg/L	0.0004256	0.21%
Cr 267.716†	39117.2	0.495139	mg/L	0.0041819	0.495139	mg/L	0.0041819	0.84%
Cu 327.393†	430973.9	3.24541	mg/L	0.023380	3.24541	mg/L	0.023380	0.72%
Fe 273.955†	4551744.4	492.434	mg/L	7.1280	492.434	mg/L	7.1280	1.45%
K 404.721†	5129.6	43.1446	mg/L	0.38402	43.1446	mg/L	0.38402	0.89%
Mg 279.077†	945674.0	55.7988	mg/L	0.83237	55.7988	mg/L	0.83237	1.49%
Mn 257.610†	3233627.2	6.60379	mg/L	0.099676	6.60379	mg/L	0.099676	1.51%
Mo 202.031†	1277.9	0.0803248	mg/L	0.00039564	0.0803248	mg/L	0.00039564	0.49%
Na 330.237†	47634.3	40.3947	mg/L	0.30561	40.3947	mg/L	0.30561	0.76%
Ni 231.604†	21869.7	0.429753	mg/L	0.0014276	0.429753	mg/L	0.0014276	0.33%
Pb 220.353†	216671.9	17.5971	mg/L	0.19158	17.5971	mg/L	0.19158	1.09%
Sb 206.836†	-86.1	0.0366531	mg/L	0.00554824	0.0366531	mg/L	0.00554824	15.14%
Se 196.026†	-49.0	0.0230643	mg/L	0.00678465	0.0230643	mg/L	0.00678465	29.42%
Sn 189.927†	7496.5	4.50307	mg/L	0.014478	4.50307	mg/L	0.014478	0.32%
Ti 334.940†	3230274.3	4.10747	mg/L	0.070896	4.10747	mg/L	0.070896	1.73%
Tl 190.801†	-43.0	-0.0133751	mg/L	0.00110798	-0.0133751	mg/L	0.00110798	8.28%
V 290.880†	126063.0	0.737264	mg/L	0.0063702	0.737264	mg/L	0.0063702	0.86%
Zn 206.200†	258486.9	5.83421	mg/L	0.074586	5.83421	mg/L	0.074586	1.28%

Sequence No.: 15

Autosampler Location: 42

Sample ID: 63081-011 MR

Date Collected: 12/12/2011 3:51:05 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63081-011 MR

Analyte	Mean Corrected		Calib		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	1188398.2	102	%	0.2				0.22%
Y 371.029	753640.8	166	%	0.4				0.23%
Ag 328.068†	-2261.6	0.0065481	mg/L	0.00008028	0.0065481	mg/L	0.00008028	1.23%
Al 308.215†	5857515.9	175.726	mg/L	0.0705	175.726	mg/L	0.0705	0.04%
As 188.979†	375.8	0.335988	mg/L	0.0022841	0.335988	mg/L	0.0022841	0.68%
Ba 233.527†	829088.2	5.54517	mg/L	0.009648	5.54517	mg/L	0.009648	0.17%
Be 313.107†	52978.7	0.0134514	mg/L	0.00020068	0.0134514	mg/L	0.00020068	1.49%
Ca 315.887†	43491235.8	351.465	mg/L	2.9771	351.465	mg/L	2.9771	0.85%
Cd 228.802†	933.5	0.0151266	mg/L	0.00020471	0.0151266	mg/L	0.00020471	1.35%
Co 228.616†	7525.3	0.181330	mg/L	0.0009575	0.181330	mg/L	0.0009575	0.53%
Cr 267.716†	35702.6	0.452158	mg/L	0.0058031	0.452158	mg/L	0.0058031	1.28%
Cu 327.393†	374279.2	2.81807	mg/L	0.034181	2.81807	mg/L	0.034181	1.21%
Fe 273.955†	4140455.3	447.940	mg/L	1.1480	447.940	mg/L	1.1480	0.26%
K 404.721†	4968.8	41.8175	mg/L	0.08059	41.8175	mg/L	0.08059	0.19%
Mg 279.077†	895010.2	52.8077	mg/L	0.19637	52.8077	mg/L	0.19637	0.37%
Mn 257.610†	3001130.4	6.12866	mg/L	0.012629	6.12866	mg/L	0.012629	0.21%
Mo 202.031†	1216.7	0.0760697	mg/L	0.00028917	0.0760697	mg/L	0.00028917	0.38%
Na 330.237†	47003.3	39.8693	mg/L	0.59095	39.8693	mg/L	0.59095	1.48%
Ni 231.604†	19321.5	0.379814	mg/L	0.0030098	0.379814	mg/L	0.0030098	0.79%
Pb 220.353†	199425.8	16.1958	mg/L	0.23926	16.1958	mg/L	0.23926	1.48%
Sb 206.836†	-72.8	0.0377419	mg/L	0.00185193	0.0377419	mg/L	0.00185193	4.91%
Se 196.026†	-43.1	0.0224420	mg/L	0.00070795	0.0224420	mg/L	0.00070795	3.15%
Sn 189.927†	6403.8	3.84604	mg/L	0.025392	3.84604	mg/L	0.025392	0.66%
Ti 334.940†	2865447.3	3.64360	mg/L	0.002055	3.64360	mg/L	0.002055	0.06%
Tl 190.801†	-41.1	-0.0141848	mg/L	0.00666591	-0.0141848	mg/L	0.00666591	46.99%
V 290.880†	116979.6	0.684297	mg/L	0.0090640	0.684297	mg/L	0.0090640	1.32%
Zn 206.200†	240221.7	5.42203	mg/L	0.091739	5.42203	mg/L	0.091739	1.69%

Sequence No.: 16

Autosampler Location: 43

Sample ID: 63081-011 MS 1

Date Collected: 12/12/2011 3:55:24 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63081-011 MS 1

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1170722.1	101	%	0.0				0.03%
Y 371.029	747227.5	165	%	0.0				0.03%
Ag 328.068†	9786.1	0.0922436	mg/L	0.00036780	0.0922436	mg/L	0.00036780	0.40%
Al 308.215†	6599694.2	197.981	mg/L	0.3410	197.981	mg/L	0.3410	0.17%
As 188.979†	975.7	0.764669	mg/L	0.0000546	0.764669	mg/L	0.0000546	0.01%
Ba 233.527†	872230.1	5.83366	mg/L	0.007695	5.83366	mg/L	0.007695	0.13%
Be 313.107†	1526684.1	0.453038	mg/L	0.0006376	0.453038	mg/L	0.0006376	0.14%
Ca 315.887†	48252514.8	389.953	mg/L	1.6750	389.953	mg/L	1.6750	0.43%
Cd 228.802†	21184.1	0.458564	mg/L	0.0021106	0.458564	mg/L	0.0021106	0.46%
Co 228.616†	25300.5	0.618089	mg/L	0.0019450	0.618089	mg/L	0.0019450	0.31%
Cr 267.716†	72143.8	0.893751	mg/L	0.0022485	0.893751	mg/L	0.0022485	0.25%
Cu 327.393†	411831.1	3.09996	mg/L	0.001946	3.09996	mg/L	0.001946	0.06%
Fe 273.955†	4081914.2	441.624	mg/L	0.4786	441.624	mg/L	0.4786	0.11%
K 404.721†	11537.3	96.0293	mg/L	0.37019	96.0293	mg/L	0.37019	0.39%
Mg 279.077†	1622293.7	95.7445	mg/L	0.09973	95.7445	mg/L	0.09973	0.10%
Mn 257.610†	3175954.3	6.48423	mg/L	0.006900	6.48423	mg/L	0.006900	0.11%
Mo 202.031†	7232.1	0.474002	mg/L	0.0018247	0.474002	mg/L	0.0018247	0.38%
Na 330.237†	103628.3	87.0215	mg/L	0.04038	87.0215	mg/L	0.04038	0.05%
Ni 231.604†	41665.4	0.818028	mg/L	0.0009685	0.818028	mg/L	0.0009685	0.12%
Pb 220.353†	194697.1	15.8165	mg/L	0.02455	15.8165	mg/L	0.02455	0.16%
Sb 206.836†	275.5	0.327298	mg/L	0.0035469	0.327298	mg/L	0.0035469	1.08%
Se 196.026†	491.7	0.407725	mg/L	0.0023236	0.407725	mg/L	0.0023236	0.57%
Sn 189.927†	6736.4	4.04663	mg/L	0.016410	4.04663	mg/L	0.016410	0.41%
Ti 334.940†	3265274.0	4.15197	mg/L	0.006611	4.15197	mg/L	0.006611	0.16%
Tl 190.801†	430.1	0.418614	mg/L	0.0052130	0.418614	mg/L	0.0052130	1.25%
V 290.880†	189238.4	1.11255	mg/L	0.001453	1.11255	mg/L	0.001453	0.13%
Zn 206.200†	249740.9	5.63555	mg/L	0.011044	5.63555	mg/L	0.011044	0.20%

Sequence No.: 17  
 Sample ID: 63081-011 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 44  
 Date Collected: 12/12/2011 3:59:43 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 MS 2

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1184837.7		102 %	0.7				0.71%
Y 371.029	752905.5		166 %	1.1				0.64%
Ag 328.068†	9546.3	0.0904706	mg/L	0.00022032	0.0904706	mg/L	0.00022032	0.24%
Al 308.215†	6576277.1	197.279	mg/L	0.0663	197.279	mg/L	0.0663	0.03%
As 188.979†	961.9	0.754598	mg/L	0.0046458	0.754598	mg/L	0.0046458	0.62%
Ba 233.527†	855194.5	5.71975	mg/L	0.002149	5.71975	mg/L	0.002149	0.04%
Be 313.107†	1511002.8	0.448367	mg/L	0.0004833	0.448367	mg/L	0.0004833	0.11%
Ca 315.887†	48096626.4	388.693	mg/L	2.4606	388.693	mg/L	2.4606	0.63%
Cd 228.802†	20759.2	0.449284	mg/L	0.0027729	0.449284	mg/L	0.0027729	0.62%
Co 228.616†	24931.3	0.609039	mg/L	0.0047233	0.609039	mg/L	0.0047233	0.78%
Cr 267.716†	71913.2	0.890892	mg/L	0.0042720	0.890892	mg/L	0.0042720	0.48%
Cu 327.393†	397345.5	2.99068	mg/L	0.007960	2.99068	mg/L	0.007960	0.27%
Fe 273.955†	4070585.9	440.399	mg/L	0.1614	440.399	mg/L	0.1614	0.04%
K 404.721†	11375.7	94.6955	mg/L	0.25049	94.6955	mg/L	0.25049	0.26%
Mg 279.077†	1617355.8	95.4530	mg/L	0.17248	95.4530	mg/L	0.17248	0.18%
Mn 257.610†	3164352.2	6.46056	mg/L	0.002795	6.46056	mg/L	0.002795	0.04%
Mo 202.031†	7175.5	0.470267	mg/L	0.0031887	0.470267	mg/L	0.0031887	0.68%
Na 330.237†	102994.9	86.4940	mg/L	0.34114	86.4940	mg/L	0.34114	0.39%
Ni 231.604†	41850.6	0.821654	mg/L	0.0048764	0.821654	mg/L	0.0048764	0.59%
Pb 220.353†	190551.4	15.4799	mg/L	0.10898	15.4799	mg/L	0.10898	0.70%
Sb 206.836†	285.4	0.335147	mg/L	0.0018839	0.335147	mg/L	0.0018839	0.56%
Se 196.026†	490.8	0.406903	mg/L	0.0007226	0.406903	mg/L	0.0007226	0.18%
Sn 189.927†	6522.5	3.91755	mg/L	0.020171	3.91755	mg/L	0.020171	0.51%
Ti 334.940†	3252931.0	4.13628	mg/L	0.003654	4.13628	mg/L	0.003654	0.09%
Tl 190.801†	420.8	0.409977	mg/L	0.0065203	0.409977	mg/L	0.0065203	1.59%
V 290.880†	188172.2	1.10624	mg/L	0.004983	1.10624	mg/L	0.004983	0.45%
Zn 206.200†	247043.0	5.57466	mg/L	0.054529	5.57466	mg/L	0.054529	0.98%

Sequence No.: 18

Sample ID: 63081-011 PS

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 45

Date Collected: 12/12/2011 4:04:03 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-011 PS

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1188685.7		102 %	0.4				0.43%
Y 371.029	761249.6		168 %	0.7				0.40%
Ag 328.068†	9240.3	0.0901209	mg/L	0.00111975	0.0901209	mg/L	0.00111975	1.24%
Al 308.215†	6448521.5	193.447	mg/L	0.1076	193.447	mg/L	0.1076	0.06%
As 188.979†	991.4	0.782023	mg/L	0.0044810	0.782023	mg/L	0.0044810	0.57%
Ba 233.527†	930727.9	6.22485	mg/L	0.001458	6.22485	mg/L	0.001458	0.02%
Be 313.107†	1494234.2	0.443177	mg/L	0.0004466	0.443177	mg/L	0.0004466	0.10%
Ca 315.887†	47250347.9	381.852	mg/L	0.2371	381.852	mg/L	0.2371	0.06%
Cd 228.802†	20827.5	0.450106	mg/L	0.0012820	0.450106	mg/L	0.0012820	0.28%
Co 228.616†	25326.2	0.618246	mg/L	0.0013722	0.618246	mg/L	0.0013722	0.22%
Cr 267.716†	72596.6	0.900882	mg/L	0.0078418	0.900882	mg/L	0.0078418	0.87%
Cu 327.393†	478768.8	3.60514	mg/L	0.034836	3.60514	mg/L	0.034836	0.97%
Fe 273.955†	4449046.0	481.340	mg/L	0.1635	481.340	mg/L	0.1635	0.03%
K 404.721†	10926.9	90.9919	mg/L	0.86678	90.9919	mg/L	0.86678	0.95%
Mg 279.077†	1618651.9	95.5295	mg/L	0.09429	95.5295	mg/L	0.09429	0.10%
Mn 257.610†	3332697.2	6.80499	mg/L	0.002561	6.80499	mg/L	0.002561	0.04%
Mo 202.031†	7524.0	0.493459	mg/L	0.0013335	0.493459	mg/L	0.0013335	0.27%
Na 330.237†	101457.7	85.2139	mg/L	0.73422	85.2139	mg/L	0.73422	0.86%
Ni 231.604†	42335.7	0.831181	mg/L	0.0061824	0.831181	mg/L	0.0061824	0.74%
Pb 220.353†	213945.4	17.3759	mg/L	0.15477	17.3759	mg/L	0.15477	0.89%
Sb 206.836†	438.0	0.466719	mg/L	0.0073960	0.466719	mg/L	0.0073960	1.58%
Se 196.026†	544.2	0.452147	mg/L	0.0036432	0.452147	mg/L	0.0036432	0.81%
Sn 189.927†	8052.4	4.83928	mg/L	0.010241	4.83928	mg/L	0.010241	0.21%
Ti 334.940†	3456128.7	4.39463	mg/L	0.003986	4.39463	mg/L	0.003986	0.09%
Tl 190.801†	427.6	0.417388	mg/L	0.0047778	0.417388	mg/L	0.0047778	1.14%
V 290.880†	192213.4	1.12938	mg/L	0.009732	1.12938	mg/L	0.009732	0.86%
Zn 206.200†	266153.2	6.00601	mg/L	0.054935	6.00601	mg/L	0.054935	0.91%

Sequence No.: 19  
 Sample ID: CCV V-128233  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/12/2011 4:08:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1099309.6	94.4 %	0.55			0.58%
Y 371.029	421643.6	93.0 %	0.41			0.44%
Ag 328.068†	13817.5	0.0992229 mg/L	0.00018544	0.0992229 mg/L	0.00018544	0.19%
	QC value within limits for Ag	328.068	Recovery = 99.22%			
Al 308.215†	167891.8	5.04126 mg/L	0.027264	5.04126 mg/L	0.027264	0.54%
	QC value within limits for Al	308.215	Recovery = 100.83%			
As 188.979†	706.8	0.509152 mg/L	0.0019530	0.509152 mg/L	0.0019530	0.38%
	QC value within limits for As	188.979	Recovery = 101.83%			
Ba 233.527†	76756.7	0.514239 mg/L	0.0037103	0.514239 mg/L	0.0037103	0.72%
	QC value within limits for Ba	233.527	Recovery = 102.85%			
Be 313.107†	1700560.1	0.507550 mg/L	0.0054899	0.507550 mg/L	0.0054899	1.08%
	QC value within limits for Be	313.107	Recovery = 101.51%			
Ca 315.887†	6391294.6	51.5670 mg/L	0.54664	51.5670 mg/L	0.54664	1.06%
	QC value within limits for Ca	315.887	Recovery = 103.13%			
Cd 228.802†	23069.2	0.506992 mg/L	0.0030480	0.506992 mg/L	0.0030480	0.60%
	QC value within limits for Cd	228.802	Recovery = 101.40%			
Co 228.616†	21161.7	0.520926 mg/L	0.0040540	0.520926 mg/L	0.0040540	0.78%
	QC value within limits for Co	228.616	Recovery = 104.19%			
Cr 267.716†	41843.9	0.510311 mg/L	0.0031123	0.510311 mg/L	0.0031123	0.61%
	QC value within limits for Cr	267.716	Recovery = 102.06%			
Cu 327.393†	66680.5	0.503757 mg/L	0.0026759	0.503757 mg/L	0.0026759	0.53%
	QC value within limits for Cu	327.393	Recovery = 100.75%			
Fe 273.955†	46576.0	5.07249 mg/L	0.022629	5.07249 mg/L	0.022629	0.45%
	QC value within limits for Fe	273.955	Recovery = 101.45%			
K 404.721†	5654.8	47.4796 mg/L	1.24826	47.4796 mg/L	1.24826	2.63%
	QC value within limits for K	404.721	Recovery = 94.96%			
Mg 279.077†	870508.0	51.3612 mg/L	0.58661	51.3612 mg/L	0.58661	1.14%
	QC value within limits for Mg	279.077	Recovery = 102.72%			
Mn 257.610†	249675.7	0.509743 mg/L	0.0038069	0.509743 mg/L	0.0038069	0.75%
	QC value within limits for Mn	257.610	Recovery = 101.95%			
Mo 202.031†	7838.5	0.519216 mg/L	0.0004743	0.519216 mg/L	0.0004743	0.09%
	QC value within limits for Mo	202.031	Recovery = 103.84%			
Na 330.237†	56698.6	47.9426 mg/L	0.08406	47.9426 mg/L	0.08406	0.18%
	QC value within limits for Na	330.237	Recovery = 95.89%			
Ni 231.604†	26347.1	0.517882 mg/L	0.0048503	0.517882 mg/L	0.0048503	0.94%
	QC value within limits for Ni	231.604	Recovery = 103.58%			
Pb 220.353†	6689.6	0.543528 mg/L	0.0019647	0.543528 mg/L	0.0019647	0.36%
	QC value within limits for Pb	220.353	Recovery = 108.71%			
Sb 206.836†	614.3	0.507057 mg/L	0.0035761	0.507057 mg/L	0.0035761	0.71%
	QC value within limits for Sb	206.836	Recovery = 101.41%			
Se 196.026†	711.4	0.520421 mg/L	0.0006483	0.520421 mg/L	0.0006483	0.12%
	QC value within limits for Se	196.026	Recovery = 104.08%			
Sn 189.927†	879.5	0.532769 mg/L	0.0017307	0.532769 mg/L	0.0017307	0.32%
	QC value within limits for Sn	189.927	Recovery = 106.55%			
Ti 334.940†	399481.9	0.508202 mg/L	0.0060534	0.508202 mg/L	0.0060534	1.19%
	QC value within limits for Ti	334.940	Recovery = 101.64%			
Tl 190.801†	590.3	0.542363 mg/L	0.0007815	0.542363 mg/L	0.0007815	0.14%
	QC value within limits for Tl	190.801	Recovery = 108.47%			
V 290.880†	85784.8	0.509309 mg/L	0.0051056	0.509309 mg/L	0.0051056	1.00%
	QC value within limits for V	290.880	Recovery = 101.86%			
Zn 206.200†	23268.8	0.525034 mg/L	0.0027870	0.525034 mg/L	0.0027870	0.53%
	QC value within limits for Zn	206.200	Recovery = 105.01%			

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/12/2011 4:12:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1172094.0	101 %		0.6			0.55%
Y 371.029	455549.2	100 %		0.5			0.45%
Ag 328.068†	61.6	0.0007982 mg/L		0.00046040	0.0007982 mg/L	0.00046040	57.68%
QC value within limits for Ag		328.068	Recovery = Not calculated				
Al 308.215†	-64.4	0.0134783 mg/L		0.00206466	0.0134783 mg/L	0.00206466	15.32%
QC value within limits for Al		308.215	Recovery = Not calculated				
As 188.979†	3.1	0.0044034 mg/L		0.00032346	0.0044034 mg/L	0.00032346	7.35%
QC value within limits for As		188.979	Recovery = Not calculated				
Ba 233.527†	-65.2	0.0005223 mg/L		0.00008943	0.0005223 mg/L	0.00008943	17.12%
QC value within limits for Ba		233.527	Recovery = Not calculated				
Be 313.107†	41.3	0.0002525 mg/L		0.00000679	0.0002525 mg/L	0.00000679	2.69%
QC value within limits for Be		313.107	Recovery = Not calculated				
Ca 315.887†	464.0	-0.0934219 mg/L		0.00174970	-0.0934219 mg/L	0.00174970	1.87%
QC value within limits for Ca		315.887	Recovery = Not calculated				
Cd 228.802†	10.0	0.0022519 mg/L		0.00007254	0.0022519 mg/L	0.00007254	3.22%
QC value within limits for Cd		228.802	Recovery = Not calculated				
Co 228.616†	16.2	0.0013348 mg/L		0.00012065	0.0013348 mg/L	0.00012065	9.04%
QC value within limits for Co		228.616	Recovery = Not calculated				
Cr 267.716†	-0.9	0.0023710 mg/L		0.00004801	0.0023710 mg/L	0.00004801	2.03%
QC value within limits for Cr		267.716	Recovery = Not calculated				
Cu 327.393†	128.4	0.0030675 mg/L		0.00074221	0.0030675 mg/L	0.00074221	24.20%
QC value within limits for Cu		327.393	Recovery = Not calculated				
Fe 273.955†	-135.7	-0.0012607 mg/L		0.00302899	-0.0012607 mg/L	0.00302899	240.26%
QC value within limits for Fe		273.955	Recovery = Not calculated				
K 404.721†	-46.0	0.429797 mg/L		0.1903483	0.429797 mg/L	0.1903483	44.29%
QC value within limits for K		404.721	Recovery = Not calculated				
Mg 279.077†	-438.2	-0.0569972 mg/L		0.00379318	-0.0569972 mg/L	0.00379318	6.66%
QC value within limits for Mg		279.077	Recovery = Not calculated				
Mn 257.610†	-1.2	0.0013094 mg/L		0.00004277	0.0013094 mg/L	0.00004277	3.27%
QC value within limits for Mn		257.610	Recovery = Not calculated				
Mo 202.031†	4.2	0.0012861 mg/L		0.00009010	0.0012861 mg/L	0.00009010	7.01%
QC value within limits for Mo		202.031	Recovery = Not calculated				
Na 330.237†	80.4	0.796177 mg/L		0.0579748	0.796177 mg/L	0.0579748	7.28%
QC value within limits for Na		330.237	Recovery = Not calculated				
Ni 231.604†	-3.3	0.0010463 mg/L		0.00016058	0.0010463 mg/L	0.00016058	15.35%
QC value within limits for Ni		231.604	Recovery = Not calculated				
Pb 220.353†	166.7	0.0137118 mg/L		0.00132955	0.0137118 mg/L	0.00132955	9.70%
QC value within limits for Pb		220.353	Recovery = Not calculated				
Sb 206.836†	-0.4	-0.0013146 mg/L		0.00001119	-0.0013146 mg/L	0.00001119	0.85%
QC value within limits for Sb		206.836	Recovery = Not calculated				
Se 196.026†	5.2	0.0075456 mg/L		0.00624203	0.0075456 mg/L	0.00624203	82.72%
QC value within limits for Se		196.026	Recovery = Not calculated				
Sn 189.927†	3.4	0.0040233 mg/L		0.00145415	0.0040233 mg/L	0.00145415	36.14%
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940†	122.8	0.0004294 mg/L		0.00019391	0.0004294 mg/L	0.00019391	45.16%
QC value within limits for Ti		334.940	Recovery = Not calculated				
Tl 190.801†	5.0	0.0057180 mg/L		0.00238051	0.0057180 mg/L	0.00238051	41.63%
QC value within limits for Tl		190.801	Recovery = Not calculated				
V 290.880†	-32.7	0.0010682 mg/L		0.00026483	0.0010682 mg/L	0.00026483	24.79%
QC value within limits for V		290.880	Recovery = Not calculated				
Zn 206.200†	231.4	0.0066482 mg/L		0.00016754	0.0066482 mg/L	0.00016754	2.52%
QC value within limits for Zn		206.200	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63081-011 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 12/12/2011 4:15:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 SD

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1144257.2	98.3	%	0.49				0.49%
Y 371.029	506871.3	112	%	0.5				0.43%
Ag 328.068†	-416.8	0.0032613	mg/L	0.00029172	0.0032613	mg/L	0.00029172	8.94%
Al 308.215†	1433780.1	43.0252	mg/L	0.07911	43.0252	mg/L	0.07911	0.18%
As 188.979†	90.4	0.0841673	mg/L	0.00098260	0.0841673	mg/L	0.00098260	1.17%
Ba 233.527†	202961.9	1.35819	mg/L	0.002010	1.35819	mg/L	0.002010	0.15%
Be 313.107†	12696.3	0.0033833	mg/L	0.00003508	0.0033833	mg/L	0.00003508	1.04%
Ca 315.887†	10212810.0	82.4583	mg/L	0.65959	82.4583	mg/L	0.65959	0.80%
Cd 228.802†	225.1	0.0050160	mg/L	0.00009236	0.0050160	mg/L	0.00009236	1.84%
Co 228.616†	1912.4	0.0468039	mg/L	0.00035344	0.0468039	mg/L	0.00035344	0.76%
Cr 267.716†	8742.7	0.112852	mg/L	0.0000407	0.112852	mg/L	0.0000407	0.04%
Cu 327.393†	93161.9	0.703092	mg/L	0.0008665	0.703092	mg/L	0.0008665	0.12%
Fe 273.955†	1096585.3	118.645	mg/L	0.1869	118.645	mg/L	0.1869	0.16%
K 404.721†	1089.2	9.79858	mg/L	0.360560	9.79858	mg/L	0.360560	3.68%
Mg 279.077†	218078.9	12.8436	mg/L	0.02052	12.8436	mg/L	0.02052	0.16%
Mn 257.610†	737141.7	1.50671	mg/L	0.001782	1.50671	mg/L	0.001782	0.12%
Mo 202.031†	357.0	0.0233771	mg/L	0.00051342	0.0233771	mg/L	0.00051342	2.20%
Na 330.237†	9425.1	8.57757	mg/L	0.040483	8.57757	mg/L	0.040483	0.47%
Ni 231.604†	5019.3	0.0994917	mg/L	0.00095688	0.0994917	mg/L	0.00095688	0.96%
Pb 220.353†	50354.3	4.08899	mg/L	0.008759	4.08899	mg/L	0.008759	0.21%
Sb 206.836†	-17.3	0.0103642	mg/L	0.00643309	0.0103642	mg/L	0.00643309	62.07%
Se 196.026†	-9.5	0.0105123	mg/L	0.00706076	0.0105123	mg/L	0.00706076	67.17%
Sn 189.927†	1693.3	1.01837	mg/L	0.008595	1.01837	mg/L	0.008595	0.84%
Ti 334.940†	712100.2	0.905687	mg/L	0.0007751	0.905687	mg/L	0.0007751	0.09%
Tl 190.801†	-10.1	-0.0025620	mg/L	0.00259473	-0.0025620	mg/L	0.00259473	101.28%
V 290.880†	28351.6	0.166548	mg/L	0.0000095	0.166548	mg/L	0.0000095	0.01%
Zn 206.200†	59121.0	1.33549	mg/L	0.003369	1.33549	mg/L	0.003369	0.25%

Sequence No.: 22  
 Sample ID: 63081-012  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 12/12/2011 4:19:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-012

Analyte	Mean Corrected		Calib		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	1140486.1	98.0	%	0.24				0.24%
Y 371.029	581054.0	128	%	0.2				0.17%
Ag 328.068†	-744.1	0.0072690	mg/L	0.00032793	0.0072690	mg/L	0.00032793	4.51%
Al 308.215†	3283689.0	98.5185	mg/L	0.43395	98.5185	mg/L	0.43395	0.44%
As 188.979†	425.2	0.335607	mg/L	0.0029857	0.335607	mg/L	0.0029857	0.89%
Ba 233.527†	1072122.0	7.17036	mg/L	0.033297	7.17036	mg/L	0.033297	0.46%
Be 313.107†	28923.9	0.0072131	mg/L	0.00005738	0.0072131	mg/L	0.00005738	0.80%
Ca 315.887†	51752183.7	418.243	mg/L	0.1883	418.243	mg/L	0.1883	0.05%
Cd 228.802†	1405.8	0.0293007	mg/L	0.00015417	0.0293007	mg/L	0.00015417	0.53%
Co 228.616†	4223.6	0.101670	mg/L	0.0001089	0.101670	mg/L	0.0001089	0.11%
Cr 267.716†	41616.2	0.513460	mg/L	0.0017373	0.513460	mg/L	0.0017373	0.34%
Cu 327.393†	187561.5	1.40995	mg/L	0.009068	1.40995	mg/L	0.009068	0.64%
Fe 273.955†	1977873.0	213.992	mg/L	0.8845	213.992	mg/L	0.8845	0.41%
K 404.721†	3836.4	32.4718	mg/L	0.86095	32.4718	mg/L	0.86095	2.65%
Mg 279.077†	702283.6	41.4297	mg/L	0.16044	41.4297	mg/L	0.16044	0.39%
Mn 257.610†	1570709.5	3.20728	mg/L	0.015900	3.20728	mg/L	0.015900	0.50%
Mo 202.031†	832.5	0.0482128	mg/L	0.00019449	0.0482128	mg/L	0.00019449	0.40%
Na 330.237†	32187.0	27.5316	mg/L	0.20081	27.5316	mg/L	0.20081	0.73%
Ni 231.604†	13019.8	0.256301	mg/L	0.0001255	0.256301	mg/L	0.0001255	0.05%
Pb 220.353†	367733.3	29.8545	mg/L	0.12751	29.8545	mg/L	0.12751	0.43%
Sb 206.836†	-23.7	0.0277483	mg/L	0.00161997	0.0277483	mg/L	0.00161997	5.84%
Se 196.026†	37.8	0.0537398	mg/L	0.00404735	0.0537398	mg/L	0.00404735	7.53%
Sn 189.927†	3384.1	2.03621	mg/L	0.007685	2.03621	mg/L	0.007685	0.38%
Ti 334.940†	1828257.6	2.32485	mg/L	0.009526	2.32485	mg/L	0.009526	0.41%
Tl 190.801†	-28.3	-0.0088284	mg/L	0.00132751	-0.0088284	mg/L	0.00132751	15.04%
V 290.880†	65253.2	0.382720	mg/L	0.0025800	0.382720	mg/L	0.0025800	0.67%
Zn 206.200†	743373.0	16.7795	mg/L	0.06351	16.7795	mg/L	0.06351	0.38%

Sequence No.: 23  
 Sample ID: 63077-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 12/12/2011 4:23:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63077-001

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Sc 361.383	1063037.5	91.3	%	0.69			0.75%
Y 371.029	407988.0	90.0	%	0.62			0.69%
Ag 328.068†	100.6	0.0019244	mg/L	0.00005207	0.0019244	mg/L	0.00005207 2.71%
Al 308.215†	4723.2	0.156876	mg/L	0.0032186	0.156876	mg/L	0.0032186 2.05%
As 188.979†	15.4	0.0118435	mg/L	0.00196123	0.0118435	mg/L	0.00196123 16.56%
Ba 233.527†	125870.9	0.842672	mg/L	0.0012362	0.842672	mg/L	0.0012362 0.15%
Be 313.107†	-622.4	0.0000531	mg/L	0.00002042	0.0000531	mg/L	0.00002042 38.47%
Ca 315.887†	18640363.3	150.583	mg/L	0.1584	150.583	mg/L	0.1584 0.11%
Cd 228.802†	57.7	0.0032959	mg/L	0.00025880	0.0032959	mg/L	0.00025880 7.85%
Co 228.616†	28.2	0.0016552	mg/L	0.00021158	0.0016552	mg/L	0.00021158 12.78%
Cr 267.716†	318.4	0.0065850	mg/L	0.00017000	0.0065850	mg/L	0.00017000 2.58%
Cu 327.393†	754.6	0.0051469	mg/L	0.00043052	0.0051469	mg/L	0.00043052 8.36%
Fe 273.955†	140.9	0.0567390	mg/L	0.00378350	0.0567390	mg/L	0.00378350 6.67%
K 404.721†	831.0	7.66744	mg/L	1.382923	7.66744	mg/L	1.382923 18.04%
Mg 279.077†	1188092.1	70.1105	mg/L	0.49773	70.1105	mg/L	0.49773 0.71%
Mn 257.610†	241158.6	0.492053	mg/L	0.0012327	0.492053	mg/L	0.0012327 0.25%
Mo 202.031†	147.4	0.0074822	mg/L	0.00041369	0.0074822	mg/L	0.00041369 5.53%
Na 330.237†	76639.7	64.5477	mg/L	0.11433	64.5477	mg/L	0.11433 0.18%
Ni 231.604†	130.2	0.0036716	mg/L	0.00014313	0.0036716	mg/L	0.00014313 3.90%
Pb 220.353†	471.2	0.0364420	mg/L	0.00424666	0.0364420	mg/L	0.00424666 11.65%
Sb 206.836†	-3.8	-0.0031837	mg/L	0.00326430	-0.0031837	mg/L	0.00326430 102.53%
Se 196.026†	9.7	0.0109794	mg/L	0.00168036	0.0109794	mg/L	0.00168036 15.30%
Sn 189.927†	21.2	0.0162205	mg/L	0.00034936	0.0162205	mg/L	0.00034936 2.15%
Ti 334.940†	1562.0	0.0022593	mg/L	0.00001338	0.0022593	mg/L	0.00001338 0.59%
Tl 190.801†	-3.0	-0.0004284	mg/L	0.00417109	-0.0004284	mg/L	0.00417109 973.66%
V 290.880†	3928.6	0.0202920	mg/L	0.00078078	0.0202920	mg/L	0.00078078 3.85%
Zn 206.200†	1291.5	0.0283774	mg/L	0.00149053	0.0283774	mg/L	0.00149053 5.25%

Sequence No.: 24

Sample ID: 63077-002

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 49

Date Collected: 12/12/2011 4:27:28 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63077-002

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	1053563.5	90.5 %	0.44			0.49%	
Y 371.029	404434.4	89.2 %	0.35			0.39%	
Ag 328.068†	58.9	0.0017745 mg/L	0.00029755	0.0017745 mg/L	0.00029755	16.77%	
Al 308.215†	2045.7	0.0765467 mg/L	0.00111937	0.0765467 mg/L	0.00111937	1.46%	
As 188.979†	4.1	0.0037061 mg/L	0.00222237	0.0037061 mg/L	0.00222237	59.97%	
Ba 233.527†	112166.0	0.751025 mg/L	0.0024071	0.751025 mg/L	0.0024071	0.32%	
Be 313.107†	-652.6	0.0000452 mg/L	0.00000123	0.0000452 mg/L	0.00000123	2.71%	
Ca 315.887†	19106084.8	154.347 mg/L	2.9016	154.347 mg/L	2.9016	1.88%	
Cd 228.802†	42.0	0.0029549 mg/L	0.00007985	0.0029549 mg/L	0.00007985	2.70%	
Co 228.616†	14.5	0.0013218 mg/L	0.00012292	0.0013218 mg/L	0.00012292	9.30%	
Cr 267.716†	348.9	0.0066427 mg/L	0.00005437	0.0066427 mg/L	0.00005437	0.82%	
Cu 327.393†	414.0	0.0025213 mg/L	0.00055813	0.0025213 mg/L	0.00055813	22.14%	
Fe 273.955†	-1529.6	-0.123530 mg/L	0.0034972	-0.123530 mg/L	0.0034972	2.83%	
K 404.721†	839.8	7.74035 mg/L	0.302542	7.74035 mg/L	0.302542	3.91%	
Mg 279.077†	1206599.2	71.2031 mg/L	0.02283	71.2031 mg/L	0.02283	0.03%	
Mn 257.610†	229.2	0.0017740 mg/L	0.00002257	0.0017740 mg/L	0.00002257	1.27%	
Mo 202.031†	154.2	0.0078481 mg/L	0.00008656	0.0078481 mg/L	0.00008656	1.10%	
Na 330.237†	91326.1	76.7772 mg/L	0.24072	76.7772 mg/L	0.24072	0.31%	
Ni 231.604†	-29.7	0.0005389 mg/L	0.00082558	0.0005389 mg/L	0.00082558	153.19%	
Pb 220.353†	256.2	0.0189386 mg/L	0.00103288	0.0189386 mg/L	0.00103288	5.45%	
Sb 206.836†	1.4	0.0011312 mg/L	0.00069793	0.0011312 mg/L	0.00069793	61.70%	
Se 196.026†	18.0	0.0174023 mg/L	0.00615077	0.0174023 mg/L	0.00615077	35.34%	
Sn 189.927†	20.9	0.0161234 mg/L	0.00208367	0.0161234 mg/L	0.00208367	12.92%	
Ti 334.940†	286.6	0.0006376 mg/L	0.00010351	0.0006376 mg/L	0.00010351	16.23%	
Tl 190.801†	-1.1	0.0016626 mg/L	0.00188259	0.0016626 mg/L	0.00188259	113.23%	
V 290.880†	3870.1	0.0198809 mg/L	0.00006917	0.0198809 mg/L	0.00006917	0.35%	
Zn 206.200†	820.2	0.0177059 mg/L	0.00043845	0.0177059 mg/L	0.00043845	2.48%	

Sequence No.: 25  
 Sample ID: ICESA V-127386  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/12/2011 4:31:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICESA V-127386

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	984893.3	84.6 %		0.06			0.08%
Y 371.029	376779.9	83.1 %		0.01			0.01%
Ag 328.068†	-1266.4	0.0038611 mg/L		0.00025151	0.0038611 mg/L	0.00025151	6.51%
Al 308.215†	16832591.8	504.924 mg/L		1.7998	504.924 mg/L	1.7998	0.36%
QC value within limits for Al 308.215 Recovery = 100.98%							
As 188.979†	-35.9	0.0007414 mg/L		0.00336229	0.0007414 mg/L	0.00336229	453.53%
Ba 233.527†	217.7	0.0024141 mg/L		0.00018711	0.0024141 mg/L	0.00018711	7.75%
Be 313.107†	-2881.1	-0.0006213 mg/L		0.00001175	-0.0006213 mg/L	0.00001175	1.89%
Ca 315.887†	61400780.3	496.237 mg/L		0.9434	496.237 mg/L	0.9434	0.19%
QC value within limits for Ca 315.887 Recovery = 99.25%							
Cd 228.802†	179.2	0.0028141 mg/L		0.00007550	0.0028141 mg/L	0.00007550	2.68%
Co 228.616†	-138.0	0.0047557 mg/L		0.00030312	0.0047557 mg/L	0.00030312	6.37%
Cr 267.716†	491.7	0.0148818 mg/L		0.00009199	0.0148818 mg/L	0.00009199	0.62%
Cu 327.393†	863.8	-0.0101874 mg/L		0.00061326	-0.0101874 mg/L	0.00061326	6.02%
Fe 273.955†	1771614.3	191.867 mg/L		0.1804	191.867 mg/L	0.1804	0.09%
QC value within limits for Fe 273.955 Recovery = 95.93%							
K 404.721†	-960.9	-7.12150 mg/L		0.463002	-7.12150 mg/L	0.463002	6.50%
Mg 279.077†	8635119.5	509.762 mg/L		1.1102	509.762 mg/L	1.1102	0.22%
QC value within limits for Mg 279.077 Recovery = 101.95%							
Mn 257.610†	-5254.5	-0.0007011 mg/L		0.00005883	-0.0007011 mg/L	0.00005883	8.39%
Mo 202.031†	117.0	0.0040632 mg/L		0.00015247	0.0040632 mg/L	0.00015247	3.75%
Na 330.237†	1.9	0.730839 mg/L		0.1087597	0.730839 mg/L	0.1087597	14.88%
Ni 231.604†	-28.9	0.0005517 mg/L		0.00009336	0.0005517 mg/L	0.00009336	16.92%
Pb 220.353†	-845.9	0.0132364 mg/L		0.00053861	0.0132364 mg/L	0.00053861	4.07%
Sb 206.836†	-149.5	-0.0145100 mg/L		0.00151036	-0.0145100 mg/L	0.00151036	10.41%
Se 196.026†	26.4	0.0127677 mg/L		0.00833467	0.0127677 mg/L	0.00833467	65.28%
Sn 189.927†	33.1	0.0083434 mg/L		0.01030301	0.0083434 mg/L	0.01030301	123.49%
Ti 334.940†	1635.4	0.0023525 mg/L		0.00020582	0.0023525 mg/L	0.00020582	8.75%
Tl 190.801†	-18.9	-0.0026140 mg/L		0.00568916	-0.0026140 mg/L	0.00568916	217.64%
V 290.880†	6620.6	0.0038237 mg/L		0.00044650	0.0038237 mg/L	0.00044650	11.68%
Zn 206.200†	484.8	-0.0035996 mg/L		0.00018818	-0.0035996 mg/L	0.00018818	5.23%

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: ICSAB V-127387  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/12/2011 4:36:43 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB V-127387

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	984850.8	84.6 %		0.17			0.20%
Y 371.029	377080.0	83.2 %		0.28			0.33%
Ag 328.068†	147925.9	1.06987 mg/L		0.001895	1.06987 mg/L	0.001895	0.18%
	QC value within limits for Ag	328.068	Recovery = 106.99%				
Al 308.215†	16752463.3	502.520 mg/L		4.4621	502.520 mg/L	4.4621	0.89%
	QC value within limits for Al	308.215	Recovery = 100.50%				
As 188.979†	1401.9	1.03193 mg/L		0.002840	1.03193 mg/L	0.002840	0.28%
	QC value within limits for As	188.979	Recovery = 103.19%				
Ba 233.527†	76840.1	0.514797 mg/L		0.0009993	0.514797 mg/L	0.0009993	0.19%
	QC value within limits for Ba	233.527	Recovery = 102.96%				
Be 313.107†	1706818.5	0.509780 mg/L		0.0011344	0.509780 mg/L	0.0011344	0.22%
	QC value within limits for Be	313.107	Recovery = 101.96%				
Ca 315.887†	61001800.0	493.012 mg/L		4.9514	493.012 mg/L	4.9514	1.00%
	QC value within limits for Ca	315.887	Recovery = 98.60%				
Cd 228.802†	47418.8	1.03704 mg/L		0.001982	1.03704 mg/L	0.001982	0.19%
	QC value within limits for Cd	228.802	Recovery = 103.70%				
Co 228.616†	19217.4	0.479712 mg/L		0.0008787	0.479712 mg/L	0.0008787	0.18%
	QC value within limits for Co	228.616	Recovery = 95.94%				
Cr 267.716†	41777.8	0.512590 mg/L		0.0007004	0.512590 mg/L	0.0007004	0.14%
	QC value within limits for Cr	267.716	Recovery = 102.52%				
Cu 327.393†	70860.8	0.518145 mg/L		0.0004363	0.518145 mg/L	0.0004363	0.08%
	QC value within limits for Cu	327.393	Recovery = 103.63%				
Fe 273.955†	1752738.8	189.823 mg/L		0.4818	189.823 mg/L	0.4818	0.25%
	QC value within limits for Fe	273.955	Recovery = 94.91%				
K 404.721†	-973.6	-7.22642 mg/L		0.601712	-7.22642 mg/L	0.601712	8.33%
Mg 279.077†	8562538.2	505.477 mg/L		5.8402	505.477 mg/L	5.8402	1.16%
	QC value within limits for Mg	279.077	Recovery = 101.10%				
Mn 257.610†	236312.4	0.490775 mg/L		0.0011092	0.490775 mg/L	0.0011092	0.23%
	QC value within limits for Mn	257.610	Recovery = 98.15%				
Mo 202.031†	124.9	0.0046279 mg/L		0.00213942	0.0046279 mg/L	0.00213942	46.23%
Na 330.237†	341.0	1.01320 mg/L		0.062069	1.01320 mg/L	0.062069	6.13%
Ni 231.604†	47963.0	0.941020 mg/L		0.0023213	0.941020 mg/L	0.0023213	0.25%
	QC value within limits for Ni	231.604	Recovery = 94.10%				
Pb 220.353†	11086.0	0.981472 mg/L		0.0013725	0.981472 mg/L	0.0013725	0.14%
	QC value within limits for Pb	220.353	Recovery = 98.15%				
Sb 206.836†	1080.4	0.997976 mg/L		0.0006894	0.997976 mg/L	0.0006894	0.07%
	QC value within limits for Sb	206.836	Recovery = 99.80%				
Se 196.026†	1425.4	1.02749 mg/L		0.003739	1.02749 mg/L	0.003739	0.36%
	QC value within limits for Se	196.026	Recovery = 102.75%				
Sn 189.927†	41.2	0.0133434 mg/L		0.00518868	0.0133434 mg/L	0.00518868	38.89%
Ti 334.940†	1760.4	0.0025115 mg/L		0.00006153	0.0025115 mg/L	0.00006153	2.45%
Tl 190.801†	1058.1	0.981000 mg/L		0.0027629	0.981000 mg/L	0.0027629	0.28%
	QC value within limits for Tl	190.801	Recovery = 98.10%				
V 290.880†	87897.0	0.487590 mg/L		0.0010714	0.487590 mg/L	0.0010714	0.22%
	QC value within limits for V	290.880	Recovery = 97.52%				
Zn 206.200†	44526.3	0.990634 mg/L		0.0003186	0.990634 mg/L	0.0003186	0.03%
	QC value within limits for Zn	206.200	Recovery = 99.06%				

All analyte(s) passed QC.

Sequence No.: 27

Autosampler Location: 6

Sample ID: CCV V-128233

Date Collected: 12/12/2011 4:42:09 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1113617.9	95.7 %	0.61			0.64%
Y 371.029	426407.3	94.0 %	0.57			0.61%
Ag 328.068†	13841.2	0.0993912 mg/L	0.00095483	0.0993912 mg/L	0.00095483	0.96%
	QC value within limits for Ag	328.068	Recovery = 99.39%			
Al 308.215†	168561.6	5.06128 mg/L	0.069208	5.06128 mg/L	0.069208	1.37%
	QC value within limits for Al	308.215	Recovery = 101.23%			
As 188.979†	717.6	0.516886 mg/L	0.0041094	0.516886 mg/L	0.0041094	0.80%
	QC value within limits for As	188.979	Recovery = 103.38%			
Ba 233.527†	76871.9	0.515010 mg/L	0.0063482	0.515010 mg/L	0.0063482	1.23%
	QC value within limits for Ba	233.527	Recovery = 103.00%			
Be 313.107†	1703262.2	0.508358 mg/L	0.0042423	0.508358 mg/L	0.0042423	0.83%
	QC value within limits for Be	313.107	Recovery = 101.67%			
Ca 315.887†	6408658.8	51.7074 mg/L	0.39116	51.7074 mg/L	0.39116	0.76%
	QC value within limits for Ca	315.887	Recovery = 103.41%			
Cd 228.802†	23111.4	0.507915 mg/L	0.0063777	0.507915 mg/L	0.0063777	1.26%
	QC value within limits for Cd	228.802	Recovery = 101.58%			
Co 228.616†	21162.9	0.520966 mg/L	0.0074478	0.520966 mg/L	0.0074478	1.43%
	QC value within limits for Co	228.616	Recovery = 104.19%			
Cr 267.716†	42030.9	0.512583 mg/L	0.0075542	0.512583 mg/L	0.0075542	1.47%
	QC value within limits for Cr	267.716	Recovery = 102.52%			
Cu 327.393†	66719.0	0.504044 mg/L	0.0049958	0.504044 mg/L	0.0049958	0.99%
	QC value within limits for Cu	327.393	Recovery = 100.81%			
Fe 273.955†	46523.7	5.06691 mg/L	0.065122	5.06691 mg/L	0.065122	1.29%
	QC value within limits for Fe	273.955	Recovery = 101.34%			
K 404.721†	5693.5	47.7990 mg/L	1.75145	47.7990 mg/L	1.75145	3.66%
	QC value within limits for K	404.721	Recovery = 95.60%			
Mg 279.077†	873868.2	51.5596 mg/L	0.42061	51.5596 mg/L	0.42061	0.82%
	QC value within limits for Mg	279.077	Recovery = 103.12%			
Mn 257.610†	249785.6	0.509967 mg/L	0.0068368	0.509967 mg/L	0.0068368	1.34%
	QC value within limits for Mn	257.610	Recovery = 101.99%			
Mo 202.031†	7881.3	0.522053 mg/L	0.0078708	0.522053 mg/L	0.0078708	1.51%
	QC value within limits for Mo	202.031	Recovery = 104.41%			
Na 330.237†	56992.9	48.1877 mg/L	0.65132	48.1877 mg/L	0.65132	1.35%
	QC value within limits for Na	330.237	Recovery = 96.38%			
Ni 231.604†	26398.1	0.518883 mg/L	0.0077607	0.518883 mg/L	0.0077607	1.50%
	QC value within limits for Ni	231.604	Recovery = 103.78%			
Pb 220.353†	6508.7	0.528846 mg/L	0.0078818	0.528846 mg/L	0.0078818	1.49%
	QC value within limits for Pb	220.353	Recovery = 105.77%			
Sb 206.836†	621.4	0.512967 mg/L	0.0065024	0.512967 mg/L	0.0065024	1.27%
	QC value within limits for Sb	206.836	Recovery = 102.59%			
Se 196.026†	717.9	0.525116 mg/L	0.0078444	0.525116 mg/L	0.0078444	1.49%
	QC value within limits for Se	196.026	Recovery = 105.02%			
Sn 189.927†	889.5	0.538768 mg/L	0.0081628	0.538768 mg/L	0.0081628	1.52%
	QC value within limits for Sn	189.927	Recovery = 107.75%			
Ti 334.940†	398505.5	0.506961 mg/L	0.0045172	0.506961 mg/L	0.0045172	0.89%
	QC value within limits for Ti	334.940	Recovery = 101.39%			
Tl 190.801†	592.4	0.544304 mg/L	0.0120441	0.544304 mg/L	0.0120441	2.21%
	QC value within limits for Tl	190.801	Recovery = 108.86%			
V 290.880†	85766.1	0.509189 mg/L	0.0069864	0.509189 mg/L	0.0069864	1.37%
	QC value within limits for V	290.880	Recovery = 101.84%			
Zn 206.200†	23125.9	0.521802 mg/L	0.0073089	0.521802 mg/L	0.0073089	1.40%
	QC value within limits for Zn	206.200	Recovery = 104.36%			

All analyte(s) passed QC.

Sequence No.: 28

Autosampler Location: 2

Sample ID: CCB

Date Collected: 12/12/2011 4:45:55 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1220612.8	105 %	4.2			4.04%
Y 371.029	474243.2	105 %	4.3			4.10%
Ag 328.068†	-46.5	0.0000272 mg/L	0.00043907	0.0000272 mg/L	0.00043907	>999.9%
QC value within limits for Ag		328.068	Recovery = Not calculated			
Al 308.215†	-218.7	0.0088616 mg/L	0.01114660	0.0088616 mg/L	0.01114660	125.79%
QC value within limits for Al		308.215	Recovery = Not calculated			
As 188.979†	-0.6	0.0017564 mg/L	0.00037783	0.0017564 mg/L	0.00037783	21.51%
QC value within limits for As		188.979	Recovery = Not calculated			
Ba 233.527†	-37.0	0.0007105 mg/L	0.00036214	0.0007105 mg/L	0.00036214	50.97%
QC value within limits for Ba		233.527	Recovery = Not calculated			
Be 313.107†	88.4	0.0002667 mg/L	0.00004549	0.0002667 mg/L	0.00004549	17.05%
QC value within limits for Be		313.107	Recovery = Not calculated			
Ca 315.887†	1279.5	-0.0868299 mg/L	0.00740980	-0.0868299 mg/L	0.00740980	8.53%
QC value within limits for Ca		315.887	Recovery = Not calculated			
Cd 228.802†	0.9	0.0020515 mg/L	0.00053897	0.0020515 mg/L	0.00053897	26.27%
QC value within limits for Cd		228.802	Recovery = Not calculated			
Co 228.616†	4.2	0.0010368 mg/L	0.00016282	0.0010368 mg/L	0.00016282	15.70%
QC value within limits for Co		228.616	Recovery = Not calculated			
Cr 267.716†	-16.4	0.0021812 mg/L	0.00023464	0.0021812 mg/L	0.00023464	10.76%
QC value within limits for Cr		267.716	Recovery = Not calculated			
Cu 327.393†	113.1	0.0029518 mg/L	0.00019690	0.0029518 mg/L	0.00019690	6.67%
QC value within limits for Cu		327.393	Recovery = Not calculated			
Fe 273.955†	13.3	0.0148697 mg/L	0.03058861	0.0148697 mg/L	0.03058861	205.71%
QC value within limits for Fe		273.955	Recovery = Not calculated			
K 404.721†	-80.1	0.147575 mg/L	0.2751905	0.147575 mg/L	0.2751905	186.48%
QC value within limits for K		404.721	Recovery = Not calculated			
Mg 279.077†	-62.2	-0.0347998 mg/L	0.03009928	-0.0347998 mg/L	0.03009928	86.49%
QC value within limits for Mg		279.077	Recovery = Not calculated			
Mn 257.610†	-4.5	0.0013034 mg/L	0.00026417	0.0013034 mg/L	0.00026417	20.27%
QC value within limits for Mn		257.610	Recovery = Not calculated			
Mo 202.031†	-4.2	0.0007293 mg/L	0.00016520	0.0007293 mg/L	0.00016520	22.65%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Na 330.237†	91.6	0.805478 mg/L	0.0129214	0.805478 mg/L	0.0129214	1.60%
QC value within limits for Na		330.237	Recovery = Not calculated			
Ni 231.604†	-25.8	0.0006047 mg/L	0.00045786	0.0006047 mg/L	0.00045786	75.71%
QC value within limits for Ni		231.604	Recovery = Not calculated			
Pb 220.353†	38.3	0.0032872 mg/L	0.00012781	0.0032872 mg/L	0.00012781	3.89%
QC value within limits for Pb		220.353	Recovery = Not calculated			
Sb 206.836†	1.7	0.0004508 mg/L	0.00396597	0.0004508 mg/L	0.00396597	879.78%
QC value within limits for Sb		206.836	Recovery = Not calculated			
Se 196.026†	4.6	0.0071236 mg/L	0.00524843	0.0071236 mg/L	0.00524843	73.68%
QC value within limits for Se		196.026	Recovery = Not calculated			
Sn 189.927†	2.2	0.0032771 mg/L	0.00326677	0.0032771 mg/L	0.00326677	99.68%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940†	-40.6	0.0002215 mg/L	0.00016155	0.0002215 mg/L	0.00016155	72.93%
QC value within limits for Ti		334.940	Recovery = Not calculated			
Tl 190.801†	3.4	0.0041973 mg/L	0.00057485	0.0041973 mg/L	0.00057485	13.70%
QC value within limits for Tl		190.801	Recovery = Not calculated			
V 290.880†	-99.7	0.0006670 mg/L	0.00089857	0.0006670 mg/L	0.00089857	134.71%
QC value within limits for V		290.880	Recovery = Not calculated			
Zn 206.200†	112.3	0.0039576 mg/L	0.00005359	0.0039576 mg/L	0.00005359	1.35%
QC value within limits for Zn		206.200	Recovery = Not calculated			

All analyte(s) passed QC.

Analyst J. Blh 12/13/11

=====  
Analysis Begun

Start Time: 12/13/2011 11:19:45 AM Plasma On Time: 12/13/2011 9:36:41 AM  
Logged In Analyst: shiamala Technique: ICP Continuous  
Spectrometer Model: Optima 4300 DV, S/N 069N-na Autosampler Model: AS-93plus

Sample Information File: C:\pe\administrator\Sample Information\12.13.11.sif  
Batch ID: 11227  
Results Data Set: SW13377D2  
Results Library: C:\pe\administrator\Results\Results.mdb

sh 12/14/11

=====  
Method Loaded

Method Name: PE2 4300DV AXIAL Method Last Saved: 12/3/2011 7:33:06 PM  
IEC File: IEC092611B2.iec MSF File:  
Method Description: 200.7/6010B

=====  
Sequence No.: 1 Autosampler Location: 1  
Sample ID: Calib Blk 1 V-128658 Date Collected: 12/13/2011 11:19:45 AM  
Analyst: Data Type: Original  
Initial Sample Wt: Initial Sample Vol:  
Dilution: Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-128658

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	987384.6	3866.58	0.39%	100 %
Y 371.029	395300.7	1618.08	0.41%	100 %
Ag 328.068†	-117.9	95.68	81.16%	[0.00] mg/L
Al 308.215†	7514.1	83.20	1.11%	[0.00] mg/L
As 188.979†	-12.2	3.12	25.56%	[0.00] mg/L
Ba 233.527†	-1221.1	38.35	3.14%	[0.00] mg/L
Be 313.107†	-2434.9	82.25	3.38%	[0.00] mg/L
Ca 315.887†	-43642.8	59.61	0.14%	[0.00] mg/L
Cd 228.802†	362.3	3.72	1.03%	[0.00] mg/L
Co 228.616†	115.9	6.21	5.35%	[0.00] mg/L
Cr 267.716†	371.7	3.07	0.83%	[0.00] mg/L
Cu 327.393†	-2564.3	137.93	5.38%	[0.00] mg/L
Fe 273.955†	-5696.1	1.81	0.03%	[0.00] mg/L
K 404.721†	1205.6	176.48	14.64%	[0.00] mg/L
Mg 279.077†	-9584.4	60.47	0.63%	[0.00] mg/L
Mn 257.610†	-2769.0	0.36	0.01%	[0.00] mg/L
Mo 202.031†	11.0	4.70	42.77%	[0.00] mg/L
Na 330.237†	-716.9	29.10	4.06%	[0.00] mg/L
Ni 231.604†	60.2	6.82	11.34%	[0.00] mg/L
Pb 220.353†	-22.9	3.53	15.40%	[0.00] mg/L
Sb 206.836†	-64.6	4.52	6.99%	[0.00] mg/L
Se 196.026†	60.5	1.51	2.49%	[0.00] mg/L
Sn 189.927†	9.8	3.62	36.95%	[0.00] mg/L
Ti 334.940†	2845.5	33.45	1.18%	[0.00] mg/L
Tl 190.801†	-15.7	0.02	0.10%	[0.00] mg/L
V 290.880†	3680.2	26.91	0.73%	[0.00] mg/L
Zn 206.200†	-50.6	3.68	7.26%	[0.00] mg/L

13377  
11681

Pb reported

reset

13377  
11691

all elements reported

CS111-048 2D Ag, As, Ca, Cu, Pb, Sb, Tl reported

Sequence No.: 2

Sample ID: Calib 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 12/13/2011 11:24:24 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	1011668.6	5993.65	0.59%	102	%
Y 371.029	400993.8	2194.96	0.55%	101	%
As 188.979†	5.5	1.48	26.70%	[0.005]	mg/L
Be 313.107†	7522.1	97.95	1.30%	[0.003]	mg/L
Cd 228.802†	113.7	12.84	11.29%	[0.003]	mg/L
Pb 220.353†	66.6	1.20	1.81%	[0.004]	mg/L
Tl 190.801†	6.7	1.28	19.30%	[0.005]	mg/L

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-127383

Date Collected: 12/13/2011 11:27:53 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 2 V-127383

Analyte	Mean Corrected		RSD		Calib
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	990240.2	1780.98	0.18%	100	%
Y 371.029	393747.6	656.35	0.17%	99.6	%
Ag 328.068†	209.3	43.98	21.01%	[0.002]	mg/L
Al 308.215†	2497.8	62.62	2.51%	[0.10]	mg/L
As 188.979†	13.2	0.44	3.33%	[0.010]	mg/L
Ba 233.527†	1169.9	10.28	0.88%	[0.010]	mg/L
Be 313.107†	24315.0	280.74	1.15%	[0.010]	mg/L
Ca 315.887†	100788.3	883.94	0.88%	[1.0]	mg/L
Cd 228.802†	363.9	2.81	0.77%	[0.010]	mg/L
Co 228.616†	334.8	4.66	1.39%	[0.010]	mg/L
Cr 267.716†	593.3	14.95	2.52%	[0.010]	mg/L
Cu 327.393†	1404.1	72.82	5.19%	[0.010]	mg/L
Fe 273.955†	680.3	39.60	5.82%	[0.10]	mg/L
K 404.721†	135.8	253.55	186.77%	[1.0]	mg/L
Mg 279.077†	14078.2	131.82	0.94%	[1.0]	mg/L
Mn 257.610†	4446.1	11.13	0.25%	[0.010]	mg/L
Mo 202.031†	116.0	0.59	0.51%	[0.010]	mg/L
Na 330.237†	872.5	14.88	1.71%	[1.0]	mg/L
Ni 231.604†	427.7	0.29	0.07%	[0.010]	mg/L
Pb 220.353†	95.6	2.14	2.24%	[0.010]	mg/L
Sb 206.836†	12.4	1.54	12.45%	[0.010]	mg/L
Se 196.026†	5.7	0.88	15.51%	[0.010]	mg/L
Sn 189.927†	16.1	2.01	12.53%	[0.010]	mg/L
Ti 334.940†	5715.4	5.99	0.10%	[0.010]	mg/L
Tl 190.801†	9.5	1.00	10.48%	[0.010]	mg/L
V 290.880†	1272.5	73.98	5.81%	[0.010]	mg/L
Zn 206.200†	359.6	10.93	3.04%	[0.010]	mg/L

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib 3 V-127384

Date Collected: 12/13/2011 11:31:25 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: Calib 3 V-127384

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Units
Sc 361.383	940719.0	1510.89	0.16%	95.3	%
Y 371.029	366862.9	493.99	0.13%	92.8	%
Ag 328.068†	13388.5	55.87	0.42%	[0.10]	mg/L
Al 308.215†	132038.9	321.15	0.24%	[5.0]	mg/L
As 188.979†	574.1	1.31	0.23%	[0.50]	mg/L
Ba 233.527†	60158.6	127.33	0.21%	[0.50]	mg/L
Be 313.107†	1262052.6	5066.25	0.40%	[0.50]	mg/L
Ca 315.887†	5013790.8	16145.07	0.32%	[50]	mg/L
Cd 228.802†	19156.8	50.23	0.26%	[0.50]	mg/L
Co 228.616†	16560.4	32.01	0.19%	[0.50]	mg/L
Cr 267.716†	33806.1	96.16	0.28%	[0.50]	mg/L
Cu 327.393†	60056.6	115.09	0.19%	[0.50]	mg/L
Fe 273.955†	37718.7	70.70	0.19%	[5.0]	mg/L
K 404.721†	4785.2	15.62	0.33%	[50]	mg/L
Mg 279.077†	672711.6	2277.82	0.34%	[50]	mg/L
Mn 257.610†	199099.6	322.85	0.16%	[0.50]	mg/L
Mo 202.031†	6629.6	2.12	0.03%	[0.50]	mg/L
Na 330.237†	51194.9	46.15	0.09%	[50]	mg/L
Ni 231.604†	21246.8	91.21	0.43%	[0.50]	mg/L
Pb 220.353†	5386.1	7.12	0.13%	[0.50]	mg/L
Sb 206.836†	551.6	2.84	0.51%	[0.50]	mg/L
Se 196.026†	550.0	2.18	0.40%	[0.50]	mg/L
Sn 189.927†	888.6	5.06	0.57%	[0.50]	mg/L
Ti 334.940†	296283.9	1381.42	0.47%	[0.50]	mg/L
Tl 190.801†	491.8	3.42	0.70%	[0.50]	mg/L
V 290.880†	67581.2	168.95	0.25%	[0.50]	mg/L
Zn 206.200†	18521.9	41.23	0.22%	[0.50]	mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-128237

Date Collected: 12/13/2011 11:35:13 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 4 V-128237

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	915126.0	6343.30	0.69%	92.7 %
Y 371.029	358303.2	2792.61	0.78%	90.6 %
Ag 328.068†	26821.0	104.90	0.39%	[0.20] mg/L
Al 308.215†	262723.2	227.16	0.09%	[10] mg/L
As 188.979†	1164.0	7.51	0.65%	[1.0] mg/L
Ba 233.527†	119662.6	53.99	0.05%	[1.0] mg/L
Be 313.107†	2540687.7	12103.78	0.48%	[1.0] mg/L
Ca 315.887†	9990001.5	51412.80	0.51%	[100] mg/L
Cd 228.802†	38552.1	42.12	0.11%	[1.0] mg/L
Co 228.616†	33151.5	139.97	0.42%	[1.0] mg/L
Cr 267.716†	67471.7	31.45	0.05%	[1.0] mg/L
Cu 327.393†	120125.0	43.53	0.04%	[1.0] mg/L
Fe 273.955†	74997.9	54.31	0.07%	[10] mg/L
K 404.721†	10467.9	92.22	0.88%	[100] mg/L
Mg 279.077†	1332633.2	839.00	0.06%	[100] mg/L
Mn 257.610†	396889.7	21.91	0.01%	[1.0] mg/L
Mo 202.031†	13193.4	60.97	0.46%	[1.0] mg/L
Na 330.237†	108704.2	306.16	0.28%	[100] mg/L
Ni 231.604†	42056.5	65.19	0.16%	[1.0] mg/L
Pb 220.353†	10764.2	38.00	0.35%	[1.0] mg/L
Sb 206.836†	1091.3	10.52	0.96%	[1.0] mg/L
Se 196.026†	1133.1	6.48	0.57%	[1.0] mg/L
Sn 189.927†	1776.2	12.53	0.71%	[1.0] mg/L
Ti 334.940†	590568.3	506.88	0.09%	[1.0] mg/L
Tl 190.801†	976.4	8.39	0.86%	[1.0] mg/L
V 290.880†	133786.3	7.40	0.01%	[1.0] mg/L
Zn 206.200†	36814.4	9.89	0.03%	[1.0] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-30.7	134200	0.00000	0.999998	
Al 308.215	3	Lin, Calc Int	64.5	26290	0.00000	0.999996	
As 188.979	4	Lin, Calc Int	-0.6	1162	0.00000	0.999976	
Ba 233.527	3	Lin, Calc Int	47.4	119700	0.00000	0.999996	
Be 313.107	4	Lin, Calc Int	-1404.9	2539000	0.00000	0.999995	
Ca 315.887	3	Lin, Calc Int	3823.1	99930	0.00000	0.999998	
Cd 228.802	4	Lin, Calc Int	-22.2	38530	0.00000	0.999996	
Co 228.616	3	Lin, Calc Int	-1.3	33150	0.00000	1.000000	
Cr 267.716	3	Lin, Calc Int	-24.2	67530	0.00000	0.999998	
Cu 327.393	3	Lin, Calc Int	91.0	120000	0.00000	0.999999	
Fe 273.955	3	Lin, Calc Int	8.3	7508	0.00000	0.999994	
K 404.721	3	Lin, Calc Int	-67.6	103.7	0.00000	0.998961	
Mg 279.077	3	Lin, Calc Int	1505.2	13330	0.00000	0.999988	
Mn 257.610	3	Lin, Calc Int	335.8	396700	0.00000	0.999998	
Mo 202.031	3	Lin, Calc Int	-1.2	13210	0.00000	0.999995	
Na 330.237	3	Lin, Calc Int	-672.0	1083	0.00000	0.999559	
Ni 231.604	3	Lin, Calc Int	43.0	42090	0.00000	0.999986	
Pb 220.353	4	Lin, Calc Int	4.2	10760	0.00000	0.999996	
Sb 206.836	3	Lin, Calc Int	1.7	1092	0.00000	0.999985	
Se 196.026	3	Lin, Calc Int	-5.6	1133	0.00000	0.999895	
Sn 189.927	3	Lin, Calc Int	-0.7	1777	0.00000	1.000000	
Ti 334.940	3	Lin, Calc Int	95.6	590900	0.00000	0.999998	
Tl 190.801	4	Lin, Calc Int	0.9	976.7	0.00000	0.999993	
V 290.880	3	Lin, Calc Int	95.6	133900	0.00000	0.999985	
Zn 206.200	3	Lin, Calc Int	17.0	36840	0.00000	0.999995	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-127384

Date Collected: 12/13/2011 11:40:08 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICS3 V-127384

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	956968.8	96.9 %	0.03			0.04%
Y 371.029	373157.9	94.4 %	0.02			0.02%
Ag 328.068†	13199.2	0.0986679 mg/L	0.00083139	0.0986679 mg/L	0.00083139	0.84%
QC value within limits for Ag	328.068	Recovery = 98.67%				
Al 308.215†	130131.3	4.93743 mg/L	0.023341	4.93743 mg/L	0.023341	0.47%
QC value within limits for Al	308.215	Recovery = 98.75%				
As 188.979†	566.7	0.488251 mg/L	0.0010626	0.488251 mg/L	0.0010626	0.22%
QC value within limits for As	188.979	Recovery = 97.65%				
Ba 233.527†	59605.4	0.497411 mg/L	0.0021351	0.497411 mg/L	0.0021351	0.43%
QC value within limits for Ba	233.527	Recovery = 99.48%				
Be 313.107†	1254762.8	0.494382 mg/L	0.0008925	0.494382 mg/L	0.0008925	0.51%
QC value within limits for Be	313.107	Recovery = 98.88%				
Ca 315.887†	4990369.7	49.9009 mg/L	0.27560	49.9009 mg/L	0.27560	0.55%
QC value within limits for Ca	315.887	Recovery = 99.80%				
Cd 228.802†	19019.2	0.494102 mg/L	0.0008925	0.494102 mg/L	0.0008925	0.18%
QC value within limits for Cd	228.802	Recovery = 98.82%				
Co 228.616†	16453.7	0.497042 mg/L	0.0018945	0.497042 mg/L	0.0018945	0.38%
QC value within limits for Co	228.616	Recovery = 99.41%				
Cr 267.716†	33551.1	0.500774 mg/L	0.0024141	0.500774 mg/L	0.0024141	0.48%
QC value within limits for Cr	267.716	Recovery = 100.15%				
Cu 327.393†	59304.5	0.491903 mg/L	0.0029175	0.491903 mg/L	0.0029175	0.59%
QC value within limits for Cu	327.393	Recovery = 98.38%				
Fe 273.955†	37328.3	4.99115 mg/L	0.016525	4.99115 mg/L	0.016525	0.33%
QC value within limits for Fe	273.955	Recovery = 99.82%				
K 404.721†	4782.5	46.7684 mg/L	0.70964	46.7684 mg/L	0.70964	1.52%
QC value within limits for K	404.721	Recovery = 93.54%				
Mg 279.077†	672478.6	50.3213 mg/L	0.26842	50.3213 mg/L	0.26842	0.53%
QC value within limits for Mg	279.077	Recovery = 100.64%				
Mn 257.610†	197177.1	0.496486 mg/L	0.0015319	0.496486 mg/L	0.0015319	0.31%
QC value within limits for Mn	257.610	Recovery = 99.30%				
Mo 202.031†	6516.1	0.492412 mg/L	0.0018011	0.492412 mg/L	0.0018011	0.37%
QC value within limits for Mo	202.031	Recovery = 98.48%				
Na 330.237†	50643.9	47.4043 mg/L	0.04148	47.4043 mg/L	0.04148	0.09%
QC value within limits for Na	330.237	Recovery = 94.81%				
Ni 231.604†	21126.9	0.501339 mg/L	0.0012618	0.501339 mg/L	0.0012618	0.25%
QC value within limits for Ni	231.604	Recovery = 100.27%				
Pb 220.353†	5337.4	0.495806 mg/L	0.0026697	0.495806 mg/L	0.0026697	0.54%
QC value within limits for Pb	220.353	Recovery = 99.16%				
Sb 206.836†	537.0	0.492166 mg/L	0.0031919	0.492166 mg/L	0.0031919	0.65%
QC value within limits for Sb	206.836	Recovery = 98.43%				
Se 196.026†	549.7	0.490324 mg/L	0.0060791	0.490324 mg/L	0.0060791	1.24%
QC value within limits for Se	196.026	Recovery = 98.06%				
Sn 189.927†	877.9	0.494191 mg/L	0.0042617	0.494191 mg/L	0.0042617	0.86%
QC value within limits for Sn	189.927	Recovery = 98.84%				
Ti 334.940†	293330.3	0.496292 mg/L	0.0027952	0.496292 mg/L	0.0027952	0.56%
QC value within limits for Ti	334.940	Recovery = 99.26%				
Tl 190.801†	490.2	0.502834 mg/L	0.0052625	0.502834 mg/L	0.0052625	1.05%
QC value within limits for Tl	190.801	Recovery = 100.57%				
V 290.880†	66681.6	0.494923 mg/L	0.0015756	0.494923 mg/L	0.0015756	0.32%
QC value within limits for V	290.880	Recovery = 98.98%				
Zn 206.200†	18542.6	0.501294 mg/L	0.0001997	0.501294 mg/L	0.0001997	0.04%
QC value within limits for Zn	206.200	Recovery = 100.26%				

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICV V-128234 (2)

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 12/13/2011 11:43:55 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICV V-128234 (2)

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	927477.5	93.9 %	0.78			0.83%
Y 371.029	363087.9	91.9 %	0.71			0.77%
Ag 328.068†	26211.9	0.195710 mg/L	0.0000514	0.195710 mg/L	0.0000514	0.03%
QC value within limits for Ag		328.068	Recovery = 97.86%			
Al 308.215†	261060.0	9.90756 mg/L	0.011353	9.90756 mg/L	0.011353	0.11%
QC value within limits for Al		308.215	Recovery = 99.08%			
As 188.979†	1143.8	0.984988 mg/L	0.0090627	0.984988 mg/L	0.0090627	0.92%
QC value within limits for As		188.979	Recovery = 98.50%			
Ba 233.527†	120590.6	1.00674 mg/L	0.001659	1.00674 mg/L	0.001659	0.16%
QC value within limits for Ba		233.527	Recovery = 100.67%			
Be 313.107†	2516532.4	0.990968 mg/L	0.0004888	0.990968 mg/L	0.0004888	0.05%
QC value within limits for Be		313.107	Recovery = 99.10%			
Ca 315.887†	9947746.2	99.5098 mg/L	0.04504	99.5098 mg/L	0.04504	0.05%
QC value within limits for Ca		315.887	Recovery = 99.51%			
Cd 228.802†	38573.5	1.00152 mg/L	0.001636	1.00152 mg/L	0.001636	0.16%
QC value within limits for Cd		228.802	Recovery = 100.15%			
Co 228.616†	33191.9	1.00264 mg/L	0.003714	1.00264 mg/L	0.003714	0.37%
QC value within limits for Co		228.616	Recovery = 100.26%			
Cr 267.716†	67029.3	1.00013 mg/L	0.002218	1.00013 mg/L	0.002218	0.22%
QC value within limits for Cr		267.716	Recovery = 100.01%			
Cu 327.393†	119679.5	0.993501 mg/L	0.0026404	0.993501 mg/L	0.0026404	0.27%
QC value within limits for Cu		327.393	Recovery = 99.35%			
Fe 273.955†	73983.2	9.89326 mg/L	0.045186	9.89326 mg/L	0.045186	0.46%
QC value within limits for Fe		273.955	Recovery = 98.93%			
K 404.721†	10376.8	100.714 mg/L	0.6323	100.714 mg/L	0.6323	0.63%
QC value within limits for K		404.721	Recovery = 100.71%			
Mg 279.077†	1328538.5	99.5241 mg/L	0.49093	99.5241 mg/L	0.49093	0.49%
QC value within limits for Mg		279.077	Recovery = 99.52%			
Mn 257.610†	392591.8	0.989374 mg/L	0.0022547	0.989374 mg/L	0.0022547	0.23%
QC value within limits for Mn		257.610	Recovery = 98.94%			
Mo 202.031†	13092.0	0.989263 mg/L	0.0172744	0.989263 mg/L	0.0172744	1.75%
QC value within limits for Mo		202.031	Recovery = 98.93%			
Na 330.237†	107577.5	99.9982 mg/L	0.26760	99.9982 mg/L	0.26760	0.27%
QC value within limits for Na		330.237	Recovery = 100.00%			
Ni 231.604†	42145.0	1.00112 mg/L	0.004000	1.00112 mg/L	0.004000	0.40%
QC value within limits for Ni		231.604	Recovery = 100.11%			
Pb 220.353†	10667.7	0.991379 mg/L	0.0169970	0.991379 mg/L	0.0169970	1.71%
QC value within limits for Pb		220.353	Recovery = 99.14%			
Sb 206.836†	1064.5	0.977169 mg/L	0.0142926	0.977169 mg/L	0.0142926	1.46%
QC value within limits for Sb		206.836	Recovery = 97.72%			
Se 196.026†	1124.0	0.997460 mg/L	0.0120419	0.997460 mg/L	0.0120419	1.21%
QC value within limits for Se		196.026	Recovery = 99.75%			
Sn 189.927†	1763.3	0.992187 mg/L	0.0178132	0.992187 mg/L	0.0178132	1.80%
QC value within limits for Sn		189.927	Recovery = 99.22%			
Ti 334.940†	588533.0	0.995915 mg/L	0.0000386	0.995915 mg/L	0.0000386	0.00%
QC value within limits for Ti		334.940	Recovery = 99.59%			
Tl 190.801†	999.1	1.02577 mg/L	0.018789	1.02577 mg/L	0.018789	1.83%
QC value within limits for Tl		190.801	Recovery = 102.58%			
V 290.880†	133384.5	0.990800 mg/L	0.0022224	0.990800 mg/L	0.0022224	0.22%
QC value within limits for V		290.880	Recovery = 99.08%			
Zn 206.200†	36870.9	0.997268 mg/L	0.0068615	0.997268 mg/L	0.0068615	0.69%
QC value within limits for Zn		206.200	Recovery = 99.73%			

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICB V-128658

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/13/2011 11:48:51 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICB V-128658

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	994784.0	101 %	0.1			0.13%
Y 371.029	395502.2	100 %	0.2			0.17%
Ag 328.068†	-23.6	0.0000535 mg/L	0.00054724	0.0000535 mg/L	0.00054724	>999.9%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 308.215†	-359.8	-0.0161360 mg/L	0.00032963	-0.0161360 mg/L	0.00032963	2.04%
QC value within limits for Al 308.215		Recovery = Not calculated				
As 188.979†	4.7	0.0045845 mg/L	0.00270558	0.0045845 mg/L	0.00270558	59.02%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	18.9	-0.0002382 mg/L	0.00014007	-0.0002382 mg/L	0.00014007	58.81%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 313.107†	84.2	0.0005865 mg/L	0.00001486	0.0005865 mg/L	0.00001486	2.53%
QC value within limits for Be 313.107		Recovery = Not calculated				
Ca 315.887†	360.3	-0.0346523 mg/L	0.00109381	-0.0346523 mg/L	0.00109381	3.16%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cd 228.802†	-0.0	0.0005757 mg/L	0.00032024	0.0005757 mg/L	0.00032024	55.62%
QC value within limits for Cd 228.802		Recovery = Not calculated				
Co 228.616†	-9.7	-0.0002532 mg/L	0.00010320	-0.0002532 mg/L	0.00010320	40.76%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cr 267.716†	-52.8	-0.0004248 mg/L	0.00004562	-0.0004248 mg/L	0.00004562	10.74%
QC value within limits for Cr 267.716		Recovery = Not calculated				
Cu 327.393†	99.8	0.0000751 mg/L	0.00112793	0.0000751 mg/L	0.00112793	>999.9%
QC value within limits for Cu 327.393		Recovery = Not calculated				
Fe 273.955†	104.8	0.0128059 mg/L	0.00062272	0.0128059 mg/L	0.00062272	4.86%
QC value within limits for Fe 273.955		Recovery = Not calculated				
K 404.721†	-11.8	0.537396 mg/L	0.3924494	0.537396 mg/L	0.3924494	73.03%
QC value within limits for K 404.721		Recovery = Not calculated				
Mg 279.077†	138.8	-0.102476 mg/L	0.0017502	-0.102476 mg/L	0.0017502	1.71%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610†	71.8	-0.0006649 mg/L	0.00003453	-0.0006649 mg/L	0.00003453	5.19%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031†	-2.6	-0.0001032 mg/L	0.00042315	-0.0001032 mg/L	0.00042315	409.92%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Na 330.237†	-77.8	0.548923 mg/L	0.0039222	0.548923 mg/L	0.0039222	0.71%
QC value within limits for Na 330.237		Recovery = Not calculated				
Ni 231.604†	7.0	-0.0008553 mg/L	0.00014347	-0.0008553 mg/L	0.00014347	16.77%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Pb 220.353†	-7.0	-0.0010370 mg/L	0.00193988	-0.0010370 mg/L	0.00193988	187.06%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Sb 206.836†	0.5	-0.0011750 mg/L	0.00066037	-0.0011750 mg/L	0.00066037	56.20%
QC value within limits for Sb 206.836		Recovery = Not calculated				
Se 196.026†	-7.8	-0.0019141 mg/L	0.00038712	-0.0019141 mg/L	0.00038712	20.22%
QC value within limits for Se 196.026		Recovery = Not calculated				
Sn 189.927†	4.3	0.0027990 mg/L	0.00084085	0.0027990 mg/L	0.00084085	30.04%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940†	56.5	-0.0000662 mg/L	0.00004464	-0.0000662 mg/L	0.00004464	67.43%
QC value within limits for Ti 334.940		Recovery = Not calculated				
Tl 190.801†	1.7	0.0007530 mg/L	0.00089166	0.0007530 mg/L	0.00089166	118.42%
QC value within limits for Tl 190.801		Recovery = Not calculated				
V 290.880†	-10.6	-0.0007867 mg/L	0.00001229	-0.0007867 mg/L	0.00001229	1.56%
QC value within limits for V 290.880		Recovery = Not calculated				
Zn 206.200†	2.7	-0.0003846 mg/L	0.00028509	-0.0003846 mg/L	0.00028509	74.13%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 9  
 Sample ID: ICSA V-127386  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/13/2011 11:52:20 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-127386

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	900268.3	91.2 %		0.29			0.32%
Y 371.029	353006.8	89.3 %		0.73			0.82%
Ag 328.068†	-1133.4	0.0037405 mg/L		0.00054940	0.0037405 mg/L	0.00054940	14.69%
Al 308.215†	12523565.5	476.332 mg/L		4.8133	476.332 mg/L	4.8133	1.01%
QC value within limits for Al 308.215 Recovery = 95.27%							
As 188.979†	-35.6	-0.0068294 mg/L		0.00422143	-0.0068294 mg/L	0.00422143	61.81%
Ba 233.527†	291.5	0.0020387 mg/L		0.00015908	0.0020387 mg/L	0.00015908	7.80%
Be 313.107†	-2001.7	-0.0002358 mg/L		0.00000724	-0.0002358 mg/L	0.00000724	3.07%
Ca 315.887†	46538687.1	465.679 mg/L		4.8688	465.679 mg/L	4.8688	1.05%
QC value within limits for Ca 315.887 Recovery = 93.14%							
Cd 228.802†	126.9	0.0008616 mg/L		0.00002350	0.0008616 mg/L	0.00002350	2.73%
Co 228.616†	-105.6	0.0036649 mg/L		0.00001884	0.0036649 mg/L	0.00001884	0.51%
Cr 267.716†	152.5	0.0089316 mg/L		0.00016650	0.0089316 mg/L	0.00016650	1.86%
Cu 327.393†	1014.3	-0.0101167 mg/L		0.00007790	-0.0101167 mg/L	0.00007790	0.77%
Fe 273.955†	1377527.4	183.681 mg/L		0.1127	183.681 mg/L	0.1127	0.06%
QC value within limits for Fe 273.955 Recovery = 91.84%							
K 404.721†	-825.3	-7.30631 mg/L		1.555298	-7.30631 mg/L	1.555298	21.29%
Mg 279.077†	6517194.7	488.660 mg/L		0.0634	488.660 mg/L	0.0634	0.01%
QC value within limits for Mg 279.077 Recovery = 97.73%							
Mn 257.610†	-4139.1	-0.0029690 mg/L		0.00007923	-0.0029690 mg/L	0.00007923	2.67%
Mo 202.031†	137.1	0.0060969 mg/L		0.00024991	0.0060969 mg/L	0.00024991	4.10%
Na 330.237†	-68.0	0.558014 mg/L		0.0088974	0.558014 mg/L	0.0088974	1.59%
Ni 231.604†	-33.9	-0.0018187 mg/L		0.00007100	-0.0018187 mg/L	0.00007100	3.90%
Pb 220.353†	-675.4	0.0027889 mg/L		0.00045460	0.0027889 mg/L	0.00045460	16.30%
Sb 206.836†	-98.5	0.0072195 mg/L		0.00411952	0.0072195 mg/L	0.00411952	57.06%
Se 196.026†	8.5	0.0032420 mg/L		0.00991642	0.0032420 mg/L	0.00991642	305.87%
Sn 189.927†	15.9	-0.0036549 mg/L		0.00027915	-0.0036549 mg/L	0.00027915	7.64%
Ti 334.940†	743.3	0.0010963 mg/L		0.00003158	0.0010963 mg/L	0.00003158	2.88%
Tl 190.801†	-13.1	-0.0015793 mg/L		0.00062815	-0.0015793 mg/L	0.00062815	39.77%
V 290.880†	6073.1	0.0093459 mg/L		0.00011502	0.0093459 mg/L	0.00011502	1.23%
Zn 206.200†	224.2	-0.0096792 mg/L		0.00043490	-0.0096792 mg/L	0.00043490	4.49%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-127387  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/13/2011 11:57:44 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB V-127387

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	913212.3	92.5 %	2.44			2.64%
Y 371.029	355468.6	89.9 %	2.31			2.57%
Ag 328.068†	129958.9	0.980168 mg/L	0.0328152	0.980168 mg/L	0.0328152	3.35%
	QC value within limits for Ag	328.068	Recovery = 98.02%			
Al 308.215†	12448219.0	473.466 mg/L	12.3097	473.466 mg/L	12.3097	2.60%
	QC value within limits for Al	308.215	Recovery = 94.69%			
As 188.979†	1087.0	0.959791 mg/L	0.0413894	0.959791 mg/L	0.0413894	4.31%
	QC value within limits for As	188.979	Recovery = 95.98%			
Ba 233.527†	58071.8	0.484602 mg/L	0.0145205	0.484602 mg/L	0.0145205	3.00%
	QC value within limits for Ba	233.527	Recovery = 96.92%			
Be 313.107†	1233029.0	0.486176 mg/L	0.0167495	0.486176 mg/L	0.0167495	3.45%
	QC value within limits for Be	313.107	Recovery = 97.24%			
Ca 315.887†	46300749.5	463.298 mg/L	12.2132	463.298 mg/L	12.2132	2.64%
	QC value within limits for Ca	315.887	Recovery = 92.66%			
Cd 228.802†	37487.3	0.970461 mg/L	0.0329574	0.970461 mg/L	0.0329574	3.40%
	QC value within limits for Cd	228.802	Recovery = 97.05%			
Co 228.616†	15155.8	0.464037 mg/L	0.0145572	0.464037 mg/L	0.0145572	3.14%
	QC value within limits for Co	228.616	Recovery = 92.81%			
Cr 267.716†	31860.4	0.478805 mg/L	0.0164529	0.478805 mg/L	0.0164529	3.44%
	QC value within limits for Cr	267.716	Recovery = 95.76%			
Cu 327.393†	60568.4	0.486124 mg/L	0.0162115	0.486124 mg/L	0.0162115	3.33%
	QC value within limits for Cu	327.393	Recovery = 97.22%			
Fe 273.955†	1385175.5	184.701 mg/L	6.4339	184.701 mg/L	6.4339	3.48%
	QC value within limits for Fe	273.955	Recovery = 92.35%			
K 404.721†	-922.6	-8.24455 mg/L	0.256082	-8.24455 mg/L	0.256082	3.11%
Mg 279.077†	6566502.4	492.358 mg/L	17.7660	492.358 mg/L	17.7660	3.61%
	QC value within limits for Mg	279.077	Recovery = 98.47%			
Mn 257.610†	182508.2	0.467518 mg/L	0.0152012	0.467518 mg/L	0.0152012	3.25%
	QC value within limits for Mn	257.610	Recovery = 93.50%			
Mo 202.031†	130.5	0.0056187 mg/L	0.00061040	0.0056187 mg/L	0.00061040	10.86%
Na 330.237†	244.2	0.846411 mg/L	0.0832888	0.846411 mg/L	0.0832888	9.84%
Ni 231.604†	38216.1	0.906905 mg/L	0.0297054	0.906905 mg/L	0.0297054	3.28%
	QC value within limits for Ni	231.604	Recovery = 90.69%			
Pb 220.353†	9165.3	0.916669 mg/L	0.0285857	0.916669 mg/L	0.0285857	3.12%
	QC value within limits for Pb	220.353	Recovery = 91.67%			
Sb 206.836†	939.2	0.957457 mg/L	0.0275977	0.957457 mg/L	0.0275977	2.88%
	QC value within limits for Sb	206.836	Recovery = 95.75%			
Se 196.026†	1090.0	0.957684 mg/L	0.0326511	0.957684 mg/L	0.0326511	3.41%
	QC value within limits for Se	196.026	Recovery = 95.77%			
Sn 189.927†	20.3	-0.0011718 mg/L	0.00551635	-0.0011718 mg/L	0.00551635	470.77%
Ti 334.940†	989.5	0.0015130 mg/L	0.00008110	0.0015130 mg/L	0.00008110	5.36%
Tl 190.801†	887.7	0.920305 mg/L	0.0276271	0.920305 mg/L	0.0276271	3.00%
	QC value within limits for Tl	190.801	Recovery = 92.03%			
V 290.880†	67532.7	0.467928 mg/L	0.0162508	0.467928 mg/L	0.0162508	3.47%
	QC value within limits for V	290.880	Recovery = 93.59%			
Zn 206.200†	34678.9	0.925464 mg/L	0.0314156	0.925464 mg/L	0.0314156	3.39%
	QC value within limits for Zn	206.200	Recovery = 92.55%			

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 6

Sample ID: CCV V-128233

Date Collected: 12/13/2011 12:03:10 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	954940.0	96.7 %		0.56			0.58%
Y 371.029	372739.0	94.3 %		0.58			0.61%
Ag 328.068†	12758.2	0.0953765 mg/L	0.00053145	0.00053145	0.0953765 mg/L	0.00053145	0.56%
QC value within limits for Ag		328.068	Recovery = 95.38%				
Al 308.215†	128486.1	4.87485 mg/L	0.028822	0.028822	4.87485 mg/L	0.028822	0.59%
QC value within limits for Al		308.215	Recovery = 97.50%				
As 188.979†	555.7	0.478832 mg/L	0.0016308	0.0016308	0.478832 mg/L	0.0016308	0.34%
QC value within limits for As		188.979	Recovery = 95.77%				
Ba 233.527†	59565.5	0.497078 mg/L	0.0023738	0.0023738	0.497078 mg/L	0.0023738	0.48%
QC value within limits for Ba		233.527	Recovery = 99.42%				
Be 313.107†	1238252.3	0.487880 mg/L	0.0005238	0.0005238	0.487880 mg/L	0.0005238	0.11%
QC value within limits for Be		313.107	Recovery = 97.58%				
Ca 315.887†	4941272.6	49.4095 mg/L	0.04963	0.04963	49.4095 mg/L	0.04963	0.10%
QC value within limits for Ca		315.887	Recovery = 98.82%				
Cd 228.802†	18816.3	0.488839 mg/L	0.0034616	0.0034616	0.488839 mg/L	0.0034616	0.71%
QC value within limits for Cd		228.802	Recovery = 97.77%				
Co 228.616†	16428.6	0.496286 mg/L	0.0008871	0.0008871	0.496286 mg/L	0.0008871	0.18%
QC value within limits for Co		228.616	Recovery = 99.26%				
Cr 267.716†	33032.1	0.493082 mg/L	0.0028088	0.0028088	0.493082 mg/L	0.0028088	0.57%
QC value within limits for Cr		267.716	Recovery = 98.62%				
Cu 327.393†	58974.5	0.489171 mg/L	0.0035323	0.0035323	0.489171 mg/L	0.0035323	0.72%
QC value within limits for Cu		327.393	Recovery = 97.83%				
Fe 273.955†	36508.8	4.88165 mg/L	0.009052	0.009052	4.88165 mg/L	0.009052	0.19%
QC value within limits for Fe		273.955	Recovery = 97.63%				
K 404.721†	4732.4	46.2855 mg/L	0.95907	0.95907	46.2855 mg/L	0.95907	2.07%
QC value within limits for K		404.721	Recovery = 92.57%				
Mg 279.077†	661003.6	49.4607 mg/L	0.08052	0.08052	49.4607 mg/L	0.08052	0.16%
QC value within limits for Mg		279.077	Recovery = 98.92%				
Mn 257.610†	194346.1	0.489346 mg/L	0.0032260	0.0032260	0.489346 mg/L	0.0032260	0.66%
QC value within limits for Mn		257.610	Recovery = 97.87%				
Mo 202.031†	6521.0	0.492787 mg/L	0.0025350	0.0025350	0.492787 mg/L	0.0025350	0.51%
QC value within limits for Mo		202.031	Recovery = 98.56%				
Na 330.237†	49739.8	46.5692 mg/L	0.23796	0.23796	46.5692 mg/L	0.23796	0.51%
QC value within limits for Na		330.237	Recovery = 93.14%				
Ni 231.604†	20881.7	0.495513 mg/L	0.0034745	0.0034745	0.495513 mg/L	0.0034745	0.70%
QC value within limits for Ni		231.604	Recovery = 99.10%				
Pb 220.353†	5295.3	0.491907 mg/L	0.0000274	0.0000274	0.491907 mg/L	0.0000274	0.01%
QC value within limits for Pb		220.353	Recovery = 98.38%				
Sb 206.836†	523.2	0.479509 mg/L	0.0002436	0.0002436	0.479509 mg/L	0.0002436	0.05%
QC value within limits for Sb		206.836	Recovery = 95.90%				
Se 196.026†	544.0	0.485339 mg/L	0.0076747	0.0076747	0.485339 mg/L	0.0076747	1.58%
QC value within limits for Se		196.026	Recovery = 97.07%				
Sn 189.927†	878.6	0.494584 mg/L	0.0000838	0.0000838	0.494584 mg/L	0.0000838	0.02%
QC value within limits for Sn		189.927	Recovery = 98.92%				
Ti 334.940†	293193.5	0.496060 mg/L	0.0007590	0.0007590	0.496060 mg/L	0.0007590	0.15%
QC value within limits for Ti		334.940	Recovery = 99.21%				
Tl 190.801†	505.6	0.518593 mg/L	0.0001231	0.0001231	0.518593 mg/L	0.0001231	0.02%
QC value within limits for Tl		190.801	Recovery = 103.72%				
V 290.880†	66107.8	0.490697 mg/L	0.0027177	0.0027177	0.490697 mg/L	0.0027177	0.55%
QC value within limits for V		290.880	Recovery = 98.14%				
Zn 206.200†	18188.4	0.491707 mg/L	0.0031284	0.0031284	0.491707 mg/L	0.0031284	0.64%
QC value within limits for Zn		206.200	Recovery = 98.34%				

All analyte(s) passed QC.

Sequence No.: 12

Autosampler Location: 2

Sample ID: CCB

Date Collected: 12/13/2011 12:06:56 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	981254.7	99.4 %	0.21			0.21%
Y 371.029	394928.9	99.9 %	0.22			0.22%
Ag 328.068†	-14.5	0.0001200 mg/L	0.00044140	0.0001200 mg/L	0.00044140	367.70%
QC value within limits for Ag		328.068				Recovery = Not calculated
Al 308.215†	-163.7	-0.0086718 mg/L	0.00051905	-0.0086718 mg/L	0.00051905	5.99%
QC value within limits for Al		308.215				Recovery = Not calculated
As 188.979†	-2.6	-0.0016893 mg/L	0.00323522	-0.0016893 mg/L	0.00323522	191.51%
QC value within limits for As		188.979				Recovery = Not calculated
Ba 233.527†	-25.9	-0.0006126 mg/L	0.00013435	-0.0006126 mg/L	0.00013435	21.93%
QC value within limits for Ba		233.527				Recovery = Not calculated
Be 313.107†	54.1	0.0005747 mg/L	0.00002966	0.0005747 mg/L	0.00002966	5.16%
QC value within limits for Be		313.107				Recovery = Not calculated
Ca 315.887†	-283.2	-0.0410928 mg/L	0.00088691	-0.0410928 mg/L	0.00088691	2.16%
QC value within limits for Ca		315.887				Recovery = Not calculated
Cd 228.802†	11.8	0.0008838 mg/L	0.00013378	0.0008838 mg/L	0.00013378	15.14%
QC value within limits for Cd		228.802				Recovery = Not calculated
Co 228.616†	-5.8	-0.0001357 mg/L	0.00030926	-0.0001357 mg/L	0.00030926	227.89%
QC value within limits for Co		228.616				Recovery = Not calculated
Cr 267.716†	-62.0	-0.0005637 mg/L	0.00038992	-0.0005637 mg/L	0.00038992	69.17%
QC value within limits for Cr		267.716				Recovery = Not calculated
Cu 327.393†	71.4	-0.0001607 mg/L	0.00100636	-0.0001607 mg/L	0.00100636	626.31%
QC value within limits for Cu		327.393				Recovery = Not calculated
Fe 273.955†	-113.1	-0.0162347 mg/L	0.00181698	-0.0162347 mg/L	0.00181698	11.19%
QC value within limits for Fe		273.955				Recovery = Not calculated
K 404.721†	38.0	1.01818 mg/L	0.385359	1.01818 mg/L	0.385359	37.85%
QC value within limits for K		404.721				Recovery = Not calculated
Mg 279.077†	-196.9	-0.127656 mg/L	0.0072314	-0.127656 mg/L	0.0072314	5.66%
QC value within limits for Mg		279.077				Recovery = Not calculated
Mn 257.610†	-32.4	-0.0009289 mg/L	0.00000608	-0.0009289 mg/L	0.00000608	0.65%
QC value within limits for Mn		257.610				Recovery = Not calculated
Mo 202.031†	-5.3	-0.0003084 mg/L	0.00005525	-0.0003084 mg/L	0.00005525	17.92%
QC value within limits for Mo		202.031				Recovery = Not calculated
Na 330.237†	13.8	0.633520 mg/L	0.0239560	0.633520 mg/L	0.0239560	3.78%
QC value within limits for Na		330.237				Recovery = Not calculated
Ni 231.604†	-2.9	-0.0010902 mg/L	0.00043169	-0.0010902 mg/L	0.00043169	39.60%
QC value within limits for Ni		231.604				Recovery = Not calculated
Pb 220.353†	-4.4	-0.0007916 mg/L	0.00214805	-0.0007916 mg/L	0.00214805	271.36%
QC value within limits for Pb		220.353				Recovery = Not calculated
Sb 206.836†	4.3	0.0023296 mg/L	0.00010756	0.0023296 mg/L	0.00010756	4.62%
QC value within limits for Sb		206.836				Recovery = Not calculated
Se 196.026†	2.5	0.0070890 mg/L	0.00011860	0.0070890 mg/L	0.00011860	1.67%
QC value within limits for Se		196.026				Recovery = Not calculated
Sn 189.927†	2.4	0.0017535 mg/L	0.00252404	0.0017535 mg/L	0.00252404	143.94%
QC value within limits for Sn		189.927				Recovery = Not calculated
Ti 334.940†	25.9	-0.0001179 mg/L	0.00001290	-0.0001179 mg/L	0.00001290	10.94%
QC value within limits for Ti		334.940				Recovery = Not calculated
Tl 190.801†	1.4	0.0005178 mg/L	0.00063443	0.0005178 mg/L	0.00063443	122.52%
QC value within limits for Tl		190.801				Recovery = Not calculated
V 290.880†	49.0	-0.0003401 mg/L	0.00054028	-0.0003401 mg/L	0.00054028	158.85%
QC value within limits for V		290.880				Recovery = Not calculated
Zn 206.200†	-14.2	-0.0008421 mg/L	0.00009891	-0.0008421 mg/L	0.00009891	11.75%
QC value within limits for Zn		206.200				Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 13  
 Sample ID: MB 11691 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 50  
 Date Collected: 12/13/2011 12:10:35 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11691 (1)

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	994016.5	101	%	3.3			3.32%
Y 371.029	394055.7	99.7	%	3.39			3.40%
Ag 328.068†	39.9	0.0005347	mg/L	0.00046637	0.0005347	mg/L	0.00046637 87.22%
Al 308.215†	-205.1	-0.0102443	mg/L	0.00783990	-0.0102443	mg/L	0.00783990 76.53%
As 188.979†	2.8	0.0029671	mg/L	0.00389752	0.0029671	mg/L	0.00389752 131.36%
Ba 233.527†	17.7	-0.0002483	mg/L	0.00045683	-0.0002483	mg/L	0.00045683 183.96%
Be 313.107†	49.5	0.0005727	mg/L	0.00002764	0.0005727	mg/L	0.00002764 4.83%
Ca 315.887†	33376.9	0.295747	mg/L	0.0081608	0.295747	mg/L	0.0081608 2.76%
Cd 228.802†	-1.4	0.0005384	mg/L	0.00016435	0.0005384	mg/L	0.00016435 30.53%
Co 228.616†	-7.5	-0.0001884	mg/L	0.00015281	-0.0001884	mg/L	0.00015281 81.11%
Cr 267.716†	-44.8	-0.0003037	mg/L	0.00007713	-0.0003037	mg/L	0.00007713 25.40%
Cu 327.393†	184.9	0.0007805	mg/L	0.00090071	0.0007805	mg/L	0.00090071 115.40%
Fe 273.955†	958.6	0.126537	mg/L	0.0193696	0.126537	mg/L	0.0193696 15.31%
K 404.721†	94.3	1.56086	mg/L	0.056330	1.56086	mg/L	0.056330 3.61%
Mg 279.077†	182.9	-0.0991679	mg/L	0.02396742	-0.0991679	mg/L	0.02396742 24.17%
Mn 257.610†	373.1	0.0000996	mg/L	0.00022379	0.0000996	mg/L	0.00022379 224.59%
Mo 202.031†	-6.3	-0.0003917	mg/L	0.00030387	-0.0003917	mg/L	0.00030387 77.58%
Na 330.237†	143.9	0.753753	mg/L	0.0104401	0.753753	mg/L	0.0104401 1.39%
Ni 231.604†	6.3	-0.0008733	mg/L	0.00015818	-0.0008733	mg/L	0.00015818 18.11%
Pb 220.353†	-4.2	-0.0007842	mg/L	0.00183708	-0.0007842	mg/L	0.00183708 234.27%
Sb 206.836†	-0.2	-0.0017401	mg/L	0.00346638	-0.0017401	mg/L	0.00346638 199.21%
Se 196.026†	-0.4	0.0045664	mg/L	0.00612583	0.0045664	mg/L	0.00612583 134.15%
Sn 189.927†	-0.0	0.0003594	mg/L	0.00198745	0.0003594	mg/L	0.00198745 552.99%
Ti 334.940†	161.4	0.0001114	mg/L	0.00003810	0.0001114	mg/L	0.00003810 34.21%
Tl 190.801†	2.6	0.0017179	mg/L	0.00099633	0.0017179	mg/L	0.00099633 58.00%
V 290.880†	4.4	-0.0006784	mg/L	0.00047885	-0.0006784	mg/L	0.00047885 70.59%
Zn 206.200†	150.7	0.0036318	mg/L	0.00010544	0.0036318	mg/L	0.00010544 2.90%

Sequence No.: 14

Autosampler Location: 51

Sample ID: LCSW 11691

Date Collected: 12/13/2011 12:14:16 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: LCSW 11691

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	985327.1		99.8 %	2.07				2.07%
Y 371.029	384522.1		97.3 %	2.05				2.10%
Ag 328.068†	12385.8	0.0926055	mg/L	0.00236113	0.0926055	mg/L	0.00236113	2.55%
Al 308.215†	124931.4	4.74002	mg/L	0.122370	4.74002	mg/L	0.122370	2.58%
As 188.979†	538.4	0.463875	mg/L	0.0082973	0.463875	mg/L	0.0082973	1.79%
Ba 233.527†	58361.8	0.487024	mg/L	0.0131530	0.487024	mg/L	0.0131530	2.70%
Be 313.107†	1203533.2	0.474211	mg/L	0.0172635	0.474211	mg/L	0.0172635	3.64%
Ca 315.887†	4818652.3	48.1825	mg/L	1.75622	48.1825	mg/L	1.75622	3.64%
Cd 228.802†	18389.3	0.477757	mg/L	0.0133781	0.477757	mg/L	0.0133781	2.80%
Co 228.616†	16161.3	0.488183	mg/L	0.0130394	0.488183	mg/L	0.0130394	2.67%
Cr 267.716†	32311.4	0.482288	mg/L	0.0131480	0.482288	mg/L	0.0131480	2.73%
Cu 327.393†	57877.6	0.480069	mg/L	0.0116156	0.480069	mg/L	0.0116156	2.42%
Fe 273.955†	35987.6	4.81164	mg/L	0.113447	4.81164	mg/L	0.113447	2.36%
K 404.721†	4423.7	43.3093	mg/L	1.44225	43.3093	mg/L	1.44225	3.33%
Mg 279.077†	641707.3	48.0135	mg/L	1.81745	48.0135	mg/L	1.81745	3.79%
Mn 257.610†	189771.4	0.477808	mg/L	0.0126077	0.477808	mg/L	0.0126077	2.64%
Mo 202.031†	6286.6	0.475070	mg/L	0.0085956	0.475070	mg/L	0.0085956	1.81%
Na 330.237†	48957.3	45.8463	mg/L	1.16527	45.8463	mg/L	1.16527	2.54%
Ni 231.604†	20478.4	0.485917	mg/L	0.0132033	0.485917	mg/L	0.0132033	2.72%
Pb 220.353†	5159.8	0.479297	mg/L	0.0070985	0.479297	mg/L	0.0070985	1.48%
Sb 206.836†	513.8	0.470785	mg/L	0.0060190	0.470785	mg/L	0.0060190	1.28%
Se 196.026†	530.7	0.473620	mg/L	0.0098891	0.473620	mg/L	0.0098891	2.09%
Sn 189.927†	849.3	0.478106	mg/L	0.0058103	0.478106	mg/L	0.0058103	1.22%
Ti 334.940†	288304.4	0.487786	mg/L	0.0123502	0.487786	mg/L	0.0123502	2.53%
Tl 190.801†	490.5	0.503126	mg/L	0.0018757	0.503126	mg/L	0.0018757	0.37%
V 290.880†	64456.6	0.478429	mg/L	0.0122285	0.478429	mg/L	0.0122285	2.56%
Zn 206.200†	17951.3	0.485316	mg/L	0.0154394	0.485316	mg/L	0.0154394	3.18%

Sequence No.: 15  
 Sample ID: LCSW MR 11691  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 52  
 Date Collected: 12/13/2011 12:18:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSW MR 11691

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	956583.6		96.9 %	2.01			2.07%
Y 371.029	373662.7		94.5 %	1.78			1.89%
Ag 328.068†	12730.7	0.0951765	mg/L	0.00026878	0.0951765	mg/L	0.00026878 0.28%
Al 308.215†	127924.6	4.85350	mg/L	0.051322	4.85350	mg/L	0.051322 1.06%
As 188.979†	559.9	0.482444	mg/L	0.0087633	0.482444	mg/L	0.0087633 1.82%
Ba 233.527†	59665.9	0.497916	mg/L	0.0044684	0.497916	mg/L	0.0044684 0.90%
Be 313.107†	1248463.1	0.491899	mg/L	0.0124572	0.491899	mg/L	0.0124572 2.53%
Ca 315.887†	4995462.9	49.9518	mg/L	1.24093	49.9518	mg/L	1.24093 2.48%
Cd 228.802†	18754.8	0.487240	mg/L	0.0054599	0.487240	mg/L	0.0054599 1.12%
Co 228.616†	16514.3	0.498868	mg/L	0.0053560	0.498868	mg/L	0.0053560 1.07%
Cr 267.716†	33062.2	0.493528	mg/L	0.0047860	0.493528	mg/L	0.0047860 0.97%
Cu 327.393†	59104.7	0.490244	mg/L	0.0049500	0.490244	mg/L	0.0049500 1.01%
Fe 273.955†	36752.1	4.91422	mg/L	0.033535	4.91422	mg/L	0.033535 0.68%
K 404.721†	4676.1	45.7425	mg/L	0.49192	45.7425	mg/L	0.49192 1.08%
Mg 279.077†	666170.7	49.8482	mg/L	1.25826	49.8482	mg/L	1.25826 2.52%
Mn 257.610†	193921.7	0.488278	mg/L	0.0043583	0.488278	mg/L	0.0043583 0.89%
Mo 202.031†	6520.2	0.492714	mg/L	0.0114742	0.492714	mg/L	0.0114742 2.33%
Na 330.237†	49768.1	46.5953	mg/L	0.39135	46.5953	mg/L	0.39135 0.84%
Ni 231.604†	20910.2	0.496191	mg/L	0.0050003	0.496191	mg/L	0.0050003 1.01%
Pb 220.353†	5374.0	0.499202	mg/L	0.0096357	0.499202	mg/L	0.0096357 1.93%
Sb 206.836†	524.0	0.480252	mg/L	0.0139814	0.480252	mg/L	0.0139814 2.91%
Se 196.026†	551.5	0.491920	mg/L	0.0159984	0.491920	mg/L	0.0159984 3.25%
Sn 189.927†	871.9	0.490802	mg/L	0.0108127	0.490802	mg/L	0.0108127 2.20%
Ti 334.940†	294451.3	0.498189	mg/L	0.0131415	0.498189	mg/L	0.0131415 2.64%
Tl 190.801†	506.7	0.519767	mg/L	0.0155466	0.519767	mg/L	0.0155466 2.99%
V 290.880†	66136.1	0.490884	mg/L	0.0046282	0.490884	mg/L	0.0046282 0.94%
Zn 206.200†	18275.0	0.494046	mg/L	0.0050035	0.494046	mg/L	0.0050035 1.01%

Sequence No.: 16  
 Sample ID: 63111-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 53  
 Date Collected: 12/13/2011 12:21:50 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63111-047

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	998846.3	101	%	0.2				0.23%
Y 371.029	473984.7	120	%	0.4				0.36%
Ag 328.068†	-710.1	0.0076367	mg/L	0.00000905	0.0076367	mg/L	0.00000905	0.12%
Al 308.215†	2028804.2	77.1703	mg/L	0.05023	77.1703	mg/L	0.05023	0.07%
As 188.979†	610.3	0.558322	mg/L	0.0062272	0.558322	mg/L	0.0062272	1.12%
Ba 233.527†	654697.6	5.46745	mg/L	0.007854	5.46745	mg/L	0.007854	0.14%
Be 313.107†	16531.0	0.0052591	mg/L	0.00001268	0.0052591	mg/L	0.00001268	0.24%
Ca 315.887†	30854236.0	308.723	mg/L	0.1226	308.723	mg/L	0.1226	0.04%
Cd 228.802†	917.5	0.0205525	mg/L	0.00036048	0.0205525	mg/L	0.00036048	1.75%
Co 228.616†	2799.4	0.0808345	mg/L	0.00072355	0.0808345	mg/L	0.00072355	0.90%
Cr 267.716†	20150.7	0.308496	mg/L	0.0010340	0.308496	mg/L	0.0010340	0.34%
Cu 327.393†	500309.1	4.16168	mg/L	0.000425	4.16168	mg/L	0.000425	0.01%
Fe 273.955†	1756543.7	233.994	mg/L	0.2219	233.994	mg/L	0.2219	0.09%
K 404.721†	4523.6	44.2723	mg/L	0.03418	44.2723	mg/L	0.03418	0.08%
Mg 279.077†	807088.8	60.4167	mg/L	0.06412	60.4167	mg/L	0.06412	0.11%
Mn 257.610†	972479.9	2.46087	mg/L	0.001550	2.46087	mg/L	0.001550	0.06%
Mo 202.031†	480.5	0.0306644	mg/L	0.00034133	0.0306644	mg/L	0.00034133	1.11%
Na 330.237†	106616.4	99.1103	mg/L	0.26784	99.1103	mg/L	0.26784	0.27%
Ni 231.604†	7624.6	0.180151	mg/L	0.0000452	0.180151	mg/L	0.0000452	0.03%
Pb 220.353†	315240.6	29.2921	mg/L	0.02597	29.2921	mg/L	0.02597	0.09%
Sb 206.836†	148.9	0.183529	mg/L	0.0027378	0.183529	mg/L	0.0027378	1.49%
Se 196.026†	-18.0	0.0172546	mg/L	0.00461420	0.0172546	mg/L	0.00461420	26.74%
Sn 189.927†	17428.4	9.79657	mg/L	0.024002	9.79657	mg/L	0.024002	0.24%
Ti 334.940†	1491696.5	2.52450	mg/L	0.004551	2.52450	mg/L	0.004551	0.18%
Tl 190.801†	-13.0	0.0017902	mg/L	0.00281079	0.0017902	mg/L	0.00281079	157.01%
V 290.880†	35671.6	0.257318	mg/L	0.0004173	0.257318	mg/L	0.0004173	0.16%
Zn 206.200†	206266.5	5.59668	mg/L	0.005276	5.59668	mg/L	0.005276	0.09%

Sequence No.: 17  
 Sample ID: 63111-048  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 54  
 Date Collected: 12/13/2011 12:25:48 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-048

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1039087.1	105	%	0.4				0.39%
Y 371.029	637818.8	161	%	0.2				0.12%
Ag 328.068†	-2628.3	0.0000380	mg/L	0.00028667	0.0000380	mg/L	0.00028667	754.34%
Al 308.215†	5248240.8	199.633	mg/L	1.4099	199.633	mg/L	1.4099	0.71%
As 188.979†	328.3	0.349227	mg/L	0.0010776	0.349227	mg/L	0.0010776	0.31%
Ba 233.527†	443568.5	3.70416	mg/L	0.027429	3.70416	mg/L	0.027429	0.74%
Be 313.107†	41298.8	0.0124973	mg/L	0.00020308	0.0124973	mg/L	0.00020308	1.62%
Ca 315.887†	Saturated3							
Cd 228.802†	802.0	0.0141961	mg/L	0.00033975	0.0141961	mg/L	0.00033975	2.39%
Co 228.616†	6237.1	0.179529	mg/L	0.0005937	0.179529	mg/L	0.0005937	0.33%
Cr 267.716†	40717.1	0.622974	mg/L	0.0044477	0.622974	mg/L	0.0044477	0.71%
Cu 327.393†	201242.5	1.67014	mg/L	0.014627	1.67014	mg/L	0.014627	0.88%
Fe 273.955†	3295302.4	438.964	mg/L	3.6272	438.964	mg/L	3.6272	0.83%
K 404.721†	5409.9	52.8184	mg/L	0.16752	52.8184	mg/L	0.16752	0.32%
Mg 279.077†	1035218.1	77.5258	mg/L	0.71529	77.5258	mg/L	0.71529	0.92%
Mn 257.610†	2793654.3	7.06039	mg/L	0.058915	7.06039	mg/L	0.058915	0.83%
Mo 202.031†	618.9	0.0493832	mg/L	0.00017518	0.0493832	mg/L	0.00017518	0.35%
Na 330.237†	66188.6	61.7642	mg/L	0.52333	61.7642	mg/L	0.52333	0.85%
Ni 231.604†	15380.5	0.364421	mg/L	0.0006452	0.364421	mg/L	0.0006452	0.18%
Pb 220.353†	96635.5	8.98895	mg/L	0.044682	8.98895	mg/L	0.044682	0.50%
Sb 206.836†	-77.3	0.0238527	mg/L	0.00165770	0.0238527	mg/L	0.00165770	6.95%
Se 196.026†	-12.4	0.0398476	mg/L	0.01200167	0.0398476	mg/L	0.01200167	30.12%
Sn 189.927†	2783.7	1.53909	mg/L	0.005792	1.53909	mg/L	0.005792	0.38%
Ti 334.940†	3571433.5	6.04440	mg/L	0.042017	6.04440	mg/L	0.042017	0.70%
Tl 190.801†	-40.3	-0.0125195	mg/L	0.00107308	-0.0125195	mg/L	0.00107308	8.57%
V 290.880†	91977.9	0.673535	mg/L	0.0060231	0.673535	mg/L	0.0060231	0.89%
Zn 206.200†	221762.6	6.01678	mg/L	0.030810	6.01678	mg/L	0.030810	0.51%

Sequence No.: 18  
 Sample ID: 63111-048 2D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 55  
 Date Collected: 12/13/2011 12:29:39 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63111-048 2D

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	1007174.7	102	%	0.4			0.38%	
Y 371.029	517749.8	131	%	0.4			0.33%	
Ag 328.068†	-1280.2	0.0049939	mg/L	0.00038939	0.0049939	mg/L	0.00038939	7.80%
Al 308.215†	2916502.0	110.937	mg/L	0.0735	110.937	mg/L	0.0735	0.07%
As 188.979†	175.1	0.184903	mg/L	0.0021386	0.184903	mg/L	0.0021386	1.16%
Ba 233.527†	248930.9	2.07860	mg/L	0.000817	2.07860	mg/L	0.000817	0.04%
Be 313.107†	22871.0	0.0071662	mg/L	0.00003384	0.0071662	mg/L	0.00003384	0.47%
Ca 315.887†	47647565.8	476.776	mg/L	4.3490	476.776	mg/L	4.3490	0.91%
Cd 228.802†	421.1	0.0073626	mg/L	0.00007283	0.0073626	mg/L	0.00007283	0.99%
Co 228.616†	3488.6	0.100499	mg/L	0.0005897	0.100499	mg/L	0.0005897	0.59%
Cr 267.716†	22833.6	0.349772	mg/L	0.0007879	0.349772	mg/L	0.0007879	0.23%
Cu 327.393†	111191.1	0.916942	mg/L	0.0002480	0.916942	mg/L	0.0002480	0.03%
Fe 273.955†	1897082.3	252.708	mg/L	0.0696	252.708	mg/L	0.0696	0.03%
K 404.721†	2720.1	26.8813	mg/L	0.93421	26.8813	mg/L	0.93421	3.48%
Mg 279.077†	586926.0	43.9051	mg/L	0.04179	43.9051	mg/L	0.04179	0.10%
Mn 257.610†	1568693.0	3.96446	mg/L	0.000535	3.96446	mg/L	0.000535	0.01%
Mo 202.031†	418.2	0.0226814	mg/L	0.00058291	0.0226814	mg/L	0.00058291	2.57%
Na 330.237†	34926.3	32.8848	mg/L	0.11834	32.8848	mg/L	0.11834	0.36%
Ni 231.604†	8562.2	0.202423	mg/L	0.0000732	0.202423	mg/L	0.0000732	0.04%
Pb 220.353†	54841.9	5.09719	mg/L	0.009895	5.09719	mg/L	0.009895	0.19%
Sb 206.836†	-42.2	0.0174561	mg/L	0.00303694	0.0174561	mg/L	0.00303694	17.40%
Se 196.026†	-11.7	0.0214044	mg/L	0.00239954	0.0214044	mg/L	0.00239954	11.21%
Sn 189.927†	1567.2	0.871204	mg/L	0.0024976	0.871204	mg/L	0.0024976	0.29%
Ti 334.940†	1979223.8	3.34962	mg/L	0.004864	3.34962	mg/L	0.004864	0.15%
Tl 190.801†	-21.1	-0.0013311	mg/L	0.00315141	-0.0013311	mg/L	0.00315141	236.75%
V 290.880†	51535.3	0.376838	mg/L	0.0001509	0.376838	mg/L	0.0001509	0.04%
Zn 206.200†	125959.2	3.41728	mg/L	0.003316	3.41728	mg/L	0.003316	0.10%

Sequence No.: 19  
 Sample ID: 63111-048 4D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 56  
 Date Collected: 12/13/2011 12:33:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-048 4D

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	994481.9		101 %	0.6				0.64%
Y 371.029	452870.8		115 %	0.6				0.55%
Ag 328.068†	-602.1	0.0035413	mg/L	0.00002996	0.0035413	mg/L	0.00002996	0.85%
Al 308.215†	1536643.2	58.4489	mg/L	0.12556	58.4489	mg/L	0.12556	0.21%
As 188.979†	95.1	0.100693	mg/L	0.0018608	0.100693	mg/L	0.0018608	1.85%
Ba 233.527†	132576.5	1.10684	mg/L	0.007260	1.10684	mg/L	0.007260	0.66%
Be 313.107†	11921.1	0.0039894	mg/L	0.00002805	0.0039894	mg/L	0.00002805	0.70%
Ca 315.887†	26159672.7	261.744	mg/L	1.3084	261.744	mg/L	1.3084	0.50%
Cd 228.802†	212.0	0.0038256	mg/L	0.00014266	0.0038256	mg/L	0.00014266	3.73%
Co 228.616†	1857.1	0.0535678	mg/L	0.00014824	0.0535678	mg/L	0.00014824	0.28%
Cr 267.716†	12158.6	0.186550	mg/L	0.0012568	0.186550	mg/L	0.0012568	0.67%
Cu 327.393†	58602.0	0.482779	mg/L	0.0027207	0.482779	mg/L	0.0027207	0.56%
Fe 273.955†	1031316.1	137.380	mg/L	0.0375	137.380	mg/L	0.0375	0.03%
K 404.721†	1158.3	11.8205	mg/L	0.80856	11.8205	mg/L	0.80856	6.84%
Mg 279.077†	318597.9	23.7811	mg/L	0.14412	23.7811	mg/L	0.14412	0.61%
Mn 257.610†	840017.0	2.12263	mg/L	0.001307	2.12263	mg/L	0.001307	0.06%
Mo 202.031†	284.4	0.0166158	mg/L	0.00025876	0.0166158	mg/L	0.00025876	1.56%
Na 330.237†	17769.6	17.0359	mg/L	0.11781	17.0359	mg/L	0.11781	0.69%
Ni 231.604†	4726.0	0.111276	mg/L	0.0007857	0.111276	mg/L	0.0007857	0.71%
Pb 220.353†	29725.5	2.76225	mg/L	0.018829	2.76225	mg/L	0.018829	0.68%
Sb 206.836†	-21.6	0.0097966	mg/L	0.00108999	0.0097966	mg/L	0.00108999	11.13%
Se 196.026†	1.9	0.0214183	mg/L	0.00115111	0.0214183	mg/L	0.00115111	5.37%
Sn 189.927†	846.9	0.471041	mg/L	0.0004065	0.471041	mg/L	0.0004065	0.09%
Ti 334.940†	1040570.5	1.76098	mg/L	0.003523	1.76098	mg/L	0.003523	0.20%
Tl 190.801†	-14.3	-0.0042714	mg/L	0.00072660	-0.0042714	mg/L	0.00072660	17.01%
V 290.880†	27569.7	0.201172	mg/L	0.0011671	0.201172	mg/L	0.0011671	0.58%
Zn 206.200†	68302.1	1.85283	mg/L	0.009886	1.85283	mg/L	0.009886	0.53%

Sequence No.: 20  
 Sample ID: 28525-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 30  
 Date Collected: 12/13/2011 12:37:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 28525-001

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	999703.6	101	%	2.8				2.79%
Y 371.029	403784.8	102	%	2.7				2.67%
Ag 328.068†	135.1	0.0012358	mg/L	0.00061652	0.0012358	mg/L	0.00061652	49.89%
Al 308.215†	-457.4	-0.0198503	mg/L	0.00624404	-0.0198503	mg/L	0.00624404	31.46%
As 188.979†	2.5	0.0026305	mg/L	0.00123580	0.0026305	mg/L	0.00123580	46.98%
Ba 233.527†	6.0	-0.0003457	mg/L	0.00038890	-0.0003457	mg/L	0.00038890	112.50%
Be 313.107†	50.9	0.0005733	mg/L	0.00003221	0.0005733	mg/L	0.00003221	5.62%
Ca 315.887†	667.3	-0.0315808	mg/L	0.01380277	-0.0315808	mg/L	0.01380277	43.71%
Cd 228.802†	-14.0	0.0002133	mg/L	0.00012051	0.0002133	mg/L	0.00012051	56.50%
Co 228.616†	-4.6	-0.0001012	mg/L	0.00007130	-0.0001012	mg/L	0.00007130	70.48%
Cr 267.716†	-72.5	-0.0007159	mg/L	0.00013258	-0.0007159	mg/L	0.00013258	18.52%
Cu 327.393†	167.5	0.0006392	mg/L	0.00027316	0.0006392	mg/L	0.00027316	42.74%
Fe 273.955†	42.0	0.0044385	mg/L	0.02137592	0.0044385	mg/L	0.02137592	481.60%
K 404.721†	-7.8	0.575955	mg/L	0.0067914	0.575955	mg/L	0.0067914	1.18%
Mg 279.077†	-8.5	-0.113529	mg/L	0.0224303	-0.113529	mg/L	0.0224303	19.76%
Mn 257.610†	-66.6	-0.0010141	mg/L	0.00017580	-0.0010141	mg/L	0.00017580	17.34%
Mo 202.031†	-1.4	-0.0000128	mg/L	0.00001835	-0.0000128	mg/L	0.00001835	143.35%
Na 330.237†	1.4	0.622082	mg/L	0.0141775	0.622082	mg/L	0.0141775	2.28%
Ni 231.604†	-6.7	-0.0011813	mg/L	0.00020945	-0.0011813	mg/L	0.00020945	17.73%
Pb 220.353†	34.8	0.0028463	mg/L	0.00035934	0.0028463	mg/L	0.00035934	12.62%
Sb 206.836†	-2.2	-0.0036228	mg/L	0.00628018	-0.0036228	mg/L	0.00628018	173.35%
Se 196.026†	-2.8	0.0024480	mg/L	0.00597334	0.0024480	mg/L	0.00597334	244.01%
Sn 189.927†	2.4	0.0017598	mg/L	0.00293405	0.0017598	mg/L	0.00293405	166.73%
Ti 334.940†	118.7	0.0000392	mg/L	0.00009449	0.0000392	mg/L	0.00009449	241.05%
Tl 190.801†	2.2	0.0013407	mg/L	0.00208341	0.0013407	mg/L	0.00208341	155.39%
V 290.880†	10.7	-0.0006266	mg/L	0.00076669	-0.0006266	mg/L	0.00076669	122.36%
Zn 206.200†	34.7	0.0004852	mg/L	0.00012700	0.0004852	mg/L	0.00012700	26.17%

Sequence No.: 21  
 Sample ID: ICSA V-127386  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/13/2011 12:41:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-127386

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	897713.6	90.9 %	0.33				0.37%
Y 371.029	347582.7	87.9 %	0.41				0.47%
Ag 328.068†	-998.3	0.0047895 mg/L	0.00014608	0.0047895 mg/L	0.00014608		3.05%
Al 308.215†	12582928.8	478.590 mg/L	0.3257	478.590 mg/L	0.3257		0.07%
QC value within limits for Al 308.215 Recovery = 95.72%							
As 188.979†	-29.2	-0.0012398 mg/L	0.00351665	-0.0012398 mg/L	0.00351665		283.65%
Ba 233.527†	256.4	0.0017454 mg/L	0.00009385	0.0017454 mg/L	0.00009385		5.38%
Be 313.107†	-1866.3	-0.0001825 mg/L	0.00004002	-0.0001825 mg/L	0.00004002		21.93%
Ca 315.887†	46794963.6	468.244 mg/L	0.0702	468.244 mg/L	0.0702		0.01%
QC value within limits for Ca 315.887 Recovery = 93.65%							
Cd 228.802†	136.3	0.0010969 mg/L	0.00025378	0.0010969 mg/L	0.00025378		23.14%
Co 228.616†	-102.1	0.0037979 mg/L	0.00027554	0.0037979 mg/L	0.00027554		7.26%
Cr 267.716†	142.1	0.0087883 mg/L	0.00045875	0.0087883 mg/L	0.00045875		5.22%
Cu 327.393†	1096.4	-0.0095314 mg/L	0.00114802	-0.0095314 mg/L	0.00114802		12.04%
Fe 273.955†	1381469.2	184.207 mg/L	0.1855	184.207 mg/L	0.1855		0.10%
QC value within limits for Fe 273.955 Recovery = 92.10%							
K 404.721†	-938.2	-8.39591 mg/L	1.494752	-8.39591 mg/L	1.494752		17.80%
Mg 279.077†	6558283.9	491.742 mg/L	0.9119	491.742 mg/L	0.9119		0.19%
QC value within limits for Mg 279.077 Recovery = 98.35%							
Mn 257.610†	-4015.1	-0.0026332 mg/L	0.00001751	-0.0026332 mg/L	0.00001751		0.67%
Mo 202.031†	121.1	0.0048620 mg/L	0.00090145	0.0048620 mg/L	0.00090145		18.54%
Na 330.237†	50.5	0.667489 mg/L	0.0345381	0.667489 mg/L	0.0345381		5.17%
Ni 231.604†	-17.2	-0.0014225 mg/L	0.00025357	-0.0014225 mg/L	0.00025357		17.82%
Pb 220.353†	-665.0	0.0040696 mg/L	0.00214774	0.0040696 mg/L	0.00214774		52.78%
Sb 206.836†	-95.7	0.0102185 mg/L	0.00301903	0.0102185 mg/L	0.00301903		29.54%
Se 196.026†	5.8	0.0007827 mg/L	0.00381469	0.0007827 mg/L	0.00381469		487.37%
Sn 189.927†	20.6	-0.0010214 mg/L	0.00265662	-0.0010214 mg/L	0.00265662		260.11%
Ti 334.940†	765.6	0.0011340 mg/L	0.00002036	0.0011340 mg/L	0.00002036		1.80%
Tl 190.801†	-12.2	-0.0006248 mg/L	0.00059030	-0.0006248 mg/L	0.00059030		94.48%
V 290.880†	6082.1	0.0092060 mg/L	0.00001052	0.0092060 mg/L	0.00001052		0.11%
Zn 206.200†	227.9	-0.0096758 mg/L	0.00002106	-0.0096758 mg/L	0.00002106		0.22%

All analyte(s) passed QC.

Sequence No.: 22

Autosampler Location: 8

Sample ID: ICSAB V-127387

Date Collected: 12/13/2011 12:46:44 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-127387

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	898891.1	91.0 %	0.59			0.64%
Y 371.029	349541.6	88.4 %	0.34			0.38%
Ag 328.068†	132498.4	0.999224 mg/L	0.0008194	0.999224 mg/L	0.0008194	0.08%
	QC value within limits for Ag	328.068 Recovery = 99.92%				
Al 308.215†	12633423.0	480.511 mg/L	2.6995	480.511 mg/L	2.6995	0.56%
	QC value within limits for Al	308.215 Recovery = 96.10%				
As 188.979†	1110.5	0.980232 mg/L	0.0022993	0.980232 mg/L	0.0022993	0.23%
	QC value within limits for As	188.979 Recovery = 98.02%				
Ba 233.527†	59809.7	0.499117 mg/L	0.0009104	0.499117 mg/L	0.0009104	0.18%
	QC value within limits for Ba	233.527 Recovery = 99.82%				
Be 313.107†	1243635.9	0.490353 mg/L	0.0015460	0.490353 mg/L	0.0015460	0.32%
	QC value within limits for Be	313.107 Recovery = 98.07%				
Ca 315.887†	47221243.8	472.509 mg/L	1.8100	472.509 mg/L	1.8100	0.38%
	QC value within limits for Ca	315.887 Recovery = 94.50%				
Cd 228.802†	38591.2	0.999084 mg/L	0.0003805	0.999084 mg/L	0.0003805	0.04%
	QC value within limits for Cd	228.802 Recovery = 99.91%				
Co 228.616†	15550.3	0.476039 mg/L	0.0006375	0.476039 mg/L	0.0006375	0.13%
	QC value within limits for Co	228.616 Recovery = 95.21%				
Cr 267.716†	32781.8	0.492513 mg/L	0.0002825	0.492513 mg/L	0.0002825	0.06%
	QC value within limits for Cr	267.716 Recovery = 98.50%				
Cu 327.393†	61894.0	0.496890 mg/L	0.0006381	0.496890 mg/L	0.0006381	0.13%
	QC value within limits for Cu	327.393 Recovery = 99.38%				
Fe 273.955†	1397846.6	186.391 mg/L	0.6971	186.391 mg/L	0.6971	0.37%
	QC value within limits for Fe	273.955 Recovery = 93.20%				
K 404.721†	-815.0	-7.20695 mg/L	0.126568	-7.20695 mg/L	0.126568	1.76%
Mg 279.077†	6651883.6	498.761 mg/L	2.2574	498.761 mg/L	2.2574	0.45%
	QC value within limits for Mg	279.077 Recovery = 99.75%				
Mn 257.610†	187610.3	0.480454 mg/L	0.0003500	0.480454 mg/L	0.0003500	0.07%
	QC value within limits for Mn	257.610 Recovery = 96.09%				
Mo 202.031†	125.1	0.0050909 mg/L	0.00032446	0.0050909 mg/L	0.00032446	6.37%
Na 330.237†	215.8	0.820143 mg/L	0.0732020	0.820143 mg/L	0.0732020	8.93%
Ni 231.604†	39427.7	0.935690 mg/L	0.0003826	0.935690 mg/L	0.0003826	0.04%
	QC value within limits for Ni	231.604 Recovery = 93.57%				
Pb 220.353†	9382.8	0.937911 mg/L	0.0044429	0.937911 mg/L	0.0044429	0.47%
	QC value within limits for Pb	220.353 Recovery = 93.79%				
Sb 206.836†	948.0	0.966795 mg/L	0.0173432	0.966795 mg/L	0.0173432	1.79%
	QC value within limits for Sb	206.836 Recovery = 96.68%				
Se 196.026†	1128.9	0.991673 mg/L	0.0004345	0.991673 mg/L	0.0004345	0.04%
	QC value within limits for Se	196.026 Recovery = 99.17%				
Sn 189.927†	20.1	-0.0014125 mg/L	0.00184373	-0.0014125 mg/L	0.00184373	130.53%
Ti 334.940†	1025.3	0.0015735 mg/L	0.00008016	0.0015735 mg/L	0.00008016	5.09%
Tl 190.801†	904.9	0.938086 mg/L	0.0009979	0.938086 mg/L	0.0009979	0.11%
	QC value within limits for Tl	190.801 Recovery = 93.81%				
V 290.880†	69223.6	0.480109 mg/L	0.0009012	0.480109 mg/L	0.0009012	0.19%
	QC value within limits for V	290.880 Recovery = 96.02%				
Zn 206.200†	36004.3	0.961241 mg/L	0.0034705	0.961241 mg/L	0.0034705	0.36%
	QC value within limits for Zn	206.200 Recovery = 96.12%				

All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: CCV V-128233  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/13/2011 12:52:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	944186.5	95.6 %	1.63			1.71%
Y 371.029	369415.1	93.5 %	1.60			1.72%
Ag 328.068†	13062.1	0.0976440 mg/L	0.00001674	0.0976440 mg/L	0.00001674	0.02%
	QC value within limits for Ag	328.068 Recovery = 97.64%				
Al 308.215†	130146.8	4.93795 mg/L	0.005278	4.93795 mg/L	0.005278	0.11%
	QC value within limits for Al	308.215 Recovery = 98.76%				
As 188.979†	564.5	0.486335 mg/L	0.0070949	0.486335 mg/L	0.0070949	1.46%
	QC value within limits for As	188.979 Recovery = 97.27%				
Ba 233.527†	60846.2	0.507773 mg/L	0.0006520	0.507773 mg/L	0.0006520	0.13%
	QC value within limits for Ba	233.527 Recovery = 101.55%				
Be 313.107†	1259437.0	0.496213 mg/L	0.0048597	0.496213 mg/L	0.0048597	0.98%
	QC value within limits for Be	313.107 Recovery = 99.24%				
Ca 315.887†	5037339.9	50.3709 mg/L	0.50947	50.3709 mg/L	0.50947	1.01%
	QC value within limits for Ca	315.887 Recovery = 100.74%				
Cd 228.802†	19140.4	0.497248 mg/L	0.0013568	0.497248 mg/L	0.0013568	0.27%
	QC value within limits for Cd	228.802 Recovery = 99.45%				
Co 228.616†	16782.7	0.506958 mg/L	0.0007797	0.506958 mg/L	0.0007797	0.15%
	QC value within limits for Co	228.616 Recovery = 101.39%				
Cr 267.716†	33688.1	0.502832 mg/L	0.0007012	0.502832 mg/L	0.0007012	0.14%
	QC value within limits for Cr	267.716 Recovery = 100.57%				
Cu 327.393†	59728.2	0.495420 mg/L	0.0000577	0.495420 mg/L	0.0000577	0.01%
	QC value within limits for Cu	327.393 Recovery = 99.08%				
Fe 273.955†	36970.6	4.94360 mg/L	0.013422	4.94360 mg/L	0.013422	0.27%
	QC value within limits for Fe	273.955 Recovery = 98.87%				
K 404.721†	4763.3	46.5842 mg/L	0.50197	46.5842 mg/L	0.50197	1.08%
	QC value within limits for K	404.721 Recovery = 93.17%				
Mg 279.077†	675491.4	50.5472 mg/L	0.49227	50.5472 mg/L	0.49227	0.97%
	QC value within limits for Mg	279.077 Recovery = 101.09%				
Mn 257.610†	197831.3	0.498134 mg/L	0.0002908	0.498134 mg/L	0.0002908	0.06%
	QC value within limits for Mn	257.610 Recovery = 99.63%				
Mo 202.031†	6581.4	0.497346 mg/L	0.0090393	0.497346 mg/L	0.0090393	1.82%
	QC value within limits for Mo	202.031 Recovery = 99.47%				
Na 330.237†	50415.9	47.1938 mg/L	0.09190	47.1938 mg/L	0.09190	0.19%
	QC value within limits for Na	330.237 Recovery = 94.39%				
Ni 231.604†	21410.6	0.508084 mg/L	0.0009924	0.508084 mg/L	0.0009924	0.20%
	QC value within limits for Ni	231.604 Recovery = 101.62%				
Pb 220.353†	5392.2	0.500905 mg/L	0.0078416	0.500905 mg/L	0.0078416	1.57%
	QC value within limits for Pb	220.353 Recovery = 100.18%				
Sb 206.836†	529.6	0.485381 mg/L	0.0097758	0.485381 mg/L	0.0097758	2.01%
	QC value within limits for Sb	206.836 Recovery = 97.08%				
Se 196.026†	555.2	0.495240 mg/L	0.0111174	0.495240 mg/L	0.0111174	2.24%
	QC value within limits for Se	196.026 Recovery = 99.05%				
Sn 189.927†	885.0	0.498163 mg/L	0.0110179	0.498163 mg/L	0.0110179	2.21%
	QC value within limits for Sn	189.927 Recovery = 99.63%				
Ti 334.940†	301273.2	0.509735 mg/L	0.0000669	0.509735 mg/L	0.0000669	0.01%
	QC value within limits for Ti	334.940 Recovery = 101.95%				
Tl 190.801†	512.9	0.526088 mg/L	0.0087436	0.526088 mg/L	0.0087436	1.66%
	QC value within limits for Tl	190.801 Recovery = 105.22%				
V 290.880†	67295.5	0.499510 mg/L	0.0012944	0.499510 mg/L	0.0012944	0.26%
	QC value within limits for V	290.880 Recovery = 99.90%				
Zn 206.200†	18664.8	0.504604 mg/L	0.0002125	0.504604 mg/L	0.0002125	0.04%
	QC value within limits for Zn	206.200 Recovery = 100.92%				

All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 2

Sample ID: CCB

Date Collected: 12/13/2011 12:55:56 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	976630.4	98.9 %	0.13			0.13%
Y 371.029	393621.3	99.6 %	0.11			0.11%
Ag 328.068†	36.2	0.0004985 mg/L	0.00013313	0.0004985 mg/L	0.00013313	26.71%
QC value within limits for Ag		328.068	Recovery = Not calculated			
Al 308.215†	-266.2	-0.0125606 mg/L	0.00211308	-0.0125606 mg/L	0.00211308	16.82%
QC value within limits for Al		308.215	Recovery = Not calculated			
As 188.979†	-0.6	-0.0000016 mg/L	0.00184492	-0.0000016 mg/L	0.00184492	>999.9%
QC value within limits for As		188.979	Recovery = Not calculated			
Ba 233.527†	-47.2	-0.0007902 mg/L	0.00007505	-0.0007902 mg/L	0.00007505	9.50%
QC value within limits for Ba		233.527	Recovery = Not calculated			
Be 313.107†	82.4	0.0005857 mg/L	0.00001490	0.0005857 mg/L	0.00001490	2.54%
QC value within limits for Be		313.107	Recovery = Not calculated			
Ca 315.887†	888.0	-0.0293716 mg/L	0.00194354	-0.0293716 mg/L	0.00194354	6.62%
QC value within limits for Ca		315.887	Recovery = Not calculated			
Cd 228.802†	5.5	0.0007207 mg/L	0.00021391	0.0007207 mg/L	0.00021391	29.68%
QC value within limits for Cd		228.802	Recovery = Not calculated			
Co 228.616†	4.6	0.0001737 mg/L	0.00022839	0.0001737 mg/L	0.00022839	131.46%
QC value within limits for Co		228.616	Recovery = Not calculated			
Cr 267.716†	-54.0	-0.0004477 mg/L	0.00014370	-0.0004477 mg/L	0.00014370	32.10%
QC value within limits for Cr		267.716	Recovery = Not calculated			
Cu 327.393†	193.7	0.0008574 mg/L	0.00055661	0.0008574 mg/L	0.00055661	64.92%
QC value within limits for Cu		327.393	Recovery = Not calculated			
Fe 273.955†	-157.0	-0.0220714 mg/L	0.00237247	-0.0220714 mg/L	0.00237247	10.75%
QC value within limits for Fe		273.955	Recovery = Not calculated			
K 404.721†	119.5	1.80350 mg/L	0.479842	1.80350 mg/L	0.479842	26.61%
QC value within limits for K		404.721	Recovery = Not calculated			
Mg 279.077†	-156.6	-0.124631 mg/L	0.0107135	-0.124631 mg/L	0.0107135	8.60%
QC value within limits for Mg		279.077	Recovery = Not calculated			
Mn 257.610†	-72.4	-0.0010302 mg/L	0.00002485	-0.0010302 mg/L	0.00002485	2.41%
QC value within limits for Mn		257.610	Recovery = Not calculated			
Mo 202.031†	-10.7	-0.0007189 mg/L	0.00028661	-0.0007189 mg/L	0.00028661	39.87%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Na 330.237†	17.7	0.637113 mg/L	0.0522721	0.637113 mg/L	0.0522721	8.20%
QC value within limits for Na		330.237	Recovery = Not calculated			
Ni 231.604†	2.6	-0.0009604 mg/L	0.00023852	-0.0009604 mg/L	0.00023852	24.83%
QC value within limits for Ni		231.604	Recovery = Not calculated			
Pb 220.353†	5.0	0.0000810 mg/L	0.00106137	0.0000810 mg/L	0.00106137	>999.9%
QC value within limits for Pb		220.353	Recovery = Not calculated			
Sb 206.836†	1.8	0.0000636 mg/L	0.00444666	0.0000636 mg/L	0.00444666	>999.9%
QC value within limits for Sb		206.836	Recovery = Not calculated			
Se 196.026†	-5.0	0.0004747 mg/L	0.00178736	0.0004747 mg/L	0.00178736	376.50%
QC value within limits for Se		196.026	Recovery = Not calculated			
Sn 189.927†	4.9	0.0031487 mg/L	0.00155668	0.0031487 mg/L	0.00155668	49.44%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940†	146.0	0.0000854 mg/L	0.00003951	0.0000854 mg/L	0.00003951	46.25%
QC value within limits for Ti		334.940	Recovery = Not calculated			
Tl 190.801†	4.5	0.0036386 mg/L	0.00103914	0.0036386 mg/L	0.00103914	28.56%
QC value within limits for Tl		190.801	Recovery = Not calculated			
V 290.880†	20.2	-0.0005555 mg/L	0.00044029	-0.0005555 mg/L	0.00044029	79.26%
QC value within limits for V		290.880	Recovery = Not calculated			
Zn 206.200†	-9.4	-0.0007117 mg/L	0.00032783	-0.0007117 mg/L	0.00032783	46.06%
QC value within limits for Zn		206.200	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 25  
 Sample ID: MB 11681 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 12/13/2011 12:59:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11681 (1)

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	1012926.3		103 %	1.2			1.13%
Y 371.029	402494.9		102 %	1.0			1.02%
Ag 328.068†	96.0	0.0009533	mg/L	0.00006965	0.0009533	mg/L	0.00006965 7.31%
Al 308.215†	-88.4	-0.0058101	mg/L	0.00138592	-0.0058101	mg/L	0.00138592 23.85%
As 188.979†	2.5	0.0026371	mg/L	0.00083946	0.0026371	mg/L	0.00083946 31.83%
Ba 233.527†	119.3	0.0006005	mg/L	0.00016903	0.0006005	mg/L	0.00016903 28.15%
Be 313.107†	127.7	0.0006036	mg/L	0.00003867	0.0006036	mg/L	0.00003867 6.41%
Ca 315.887†	95917.9	0.921601	mg/L	0.0031742	0.921601	mg/L	0.0031742 0.34%
Cd 228.802†	-5.0	0.0004469	mg/L	0.00008603	0.0004469	mg/L	0.00008603 19.25%
Co 228.616†	-8.6	-0.0002207	mg/L	0.00015597	-0.0002207	mg/L	0.00015597 70.68%
Cr 267.716†	-52.1	-0.0004121	mg/L	0.00010849	-0.0004121	mg/L	0.00010849 26.33%
Cu 327.393†	316.4	0.0018687	mg/L	0.00036113	0.0018687	mg/L	0.00036113 19.32%
Fe 273.955†	432.9	0.0565260	mg/L	0.00321836	0.0565260	mg/L	0.00321836 5.69%
K 404.721†	13.1	0.777945	mg/L	0.4929380	0.777945	mg/L	0.4929380 63.36%
Mg 279.077†	720.1	-0.0588844	mg/L	0.00316292	-0.0588844	mg/L	0.00316292 5.37%
Mn 257.610†	227.0	-0.0002719	mg/L	0.00005852	-0.0002719	mg/L	0.00005852 21.52%
Mo 202.031†	-3.3	-0.0001737	mg/L	0.00021822	-0.0001737	mg/L	0.00021822 125.62%
Na 330.237†	40.6	0.658340	mg/L	0.0432991	0.658340	mg/L	0.0432991 6.58%
Ni 231.604†	24.4	-0.0004430	mg/L	0.00008596	-0.0004430	mg/L	0.00008596 19.40%
Pb 220.353†	5.3	0.0000974	mg/L	0.00057538	0.0000974	mg/L	0.00057538 590.68%
Sb 206.836†	-2.2	-0.0035711	mg/L	0.00116181	-0.0035711	mg/L	0.00116181 32.53%
Se 196.026†	-1.4	0.0037327	mg/L	0.00328666	0.0037327	mg/L	0.00328666 88.05%
Sn 189.927†	1.3	0.0011366	mg/L	0.00069973	0.0011366	mg/L	0.00069973 61.56%
Ti 334.940†	99.4	0.0000065	mg/L	0.00012628	0.0000065	mg/L	0.00012628 >999.9%
Tl 190.801†	2.9	0.0020466	mg/L	0.00088484	0.0020466	mg/L	0.00088484 43.24%
V 290.880†	-94.5	-0.0014172	mg/L	0.00061260	-0.0014172	mg/L	0.00061260 43.23%
Zn 206.200†	152.1	0.0036696	mg/L	0.00030091	0.0036696	mg/L	0.00030091 8.20%

Sequence No.: 26

Autosampler Location: 39

Sample ID: LCSW 11681

Date Collected: 12/13/2011 1:02:58 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: LCSW 11681

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	976761.0	98.9 %		0.25			0.25%
Y 371.029	381694.3	96.6 %		0.22			0.23%
Ag 328.068†	12032.8	0.0899853 mg/L	0.00013795	0.0899853	mg/L	0.00013795	0.15%
Al 308.215†	122597.8	4.65158 mg/L	0.032607	4.65158	mg/L	0.032607	0.70%
As 188.979†	528.3	0.455226 mg/L	0.0087220	0.455226	mg/L	0.0087220	1.92%
Ba 233.527†	57305.6	0.478203 mg/L	0.0029966	0.478203	mg/L	0.0029966	0.63%
Be 313.107†	1176544.4	0.463590 mg/L	0.0041623	0.463590	mg/L	0.0041623	0.90%
Ca 315.887†	4836876.4	48.3648 mg/L	0.43487	48.3648	mg/L	0.43487	0.90%
Cd 228.802†	17964.0	0.466720 mg/L	0.0032895	0.466720	mg/L	0.0032895	0.70%
Co 228.616†	15817.5	0.477785 mg/L	0.0037820	0.477785	mg/L	0.0037820	0.79%
Cr 267.716†	31668.3	0.472660 mg/L	0.0036434	0.472660	mg/L	0.0036434	0.77%
Cu 327.393†	56793.6	0.471051 mg/L	0.0033849	0.471051	mg/L	0.0033849	0.72%
Fe 273.955†	35387.4	4.73137 mg/L	0.025908	4.73137	mg/L	0.025908	0.55%
K 404.721†	4454.8	43.6085 mg/L	0.01407	43.6085	mg/L	0.01407	0.03%
Mg 279.077†	630744.4	47.1913 mg/L	0.43963	47.1913	mg/L	0.43963	0.93%
Mn 257.610†	185926.1	0.468108 mg/L	0.0028671	0.468108	mg/L	0.0028671	0.61%
Mo 202.031†	6082.6	0.459616 mg/L	0.0062465	0.459616	mg/L	0.0062465	1.36%
Na 330.237†	47305.2	44.3202 mg/L	0.33044	44.3202	mg/L	0.33044	0.75%
Ni 231.604†	20127.7	0.477571 mg/L	0.0024215	0.477571	mg/L	0.0024215	0.51%
Pb 220.353†	5052.0	0.469257 mg/L	0.0081474	0.469257	mg/L	0.0081474	1.74%
Sb 206.836†	491.1	0.449976 mg/L	0.0045549	0.449976	mg/L	0.0045549	1.01%
Se 196.026†	521.0	0.465057 mg/L	0.0077575	0.465057	mg/L	0.0077575	1.67%
Sn 189.927†	822.6	0.463082 mg/L	0.0038003	0.463082	mg/L	0.0038003	0.82%
Ti 334.940†	281309.5	0.475947 mg/L	0.0033336	0.475947	mg/L	0.0033336	0.70%
Tl 190.801†	477.4	0.489629 mg/L	0.0092835	0.489629	mg/L	0.0092835	1.90%
V 290.880†	63285.0	0.469704 mg/L	0.0032791	0.469704	mg/L	0.0032791	0.70%
Zn 206.200†	17655.5	0.477314 mg/L	0.0022848	0.477314	mg/L	0.0022848	0.48%

Sequence No.: 27

Sample ID: LCSW MR 11681

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 12/13/2011 1:06:45 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW MR 11681

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Calib Units		Conc.	Units	Std.Dev.	
Sc 361.383	970625.6	98.3	%	0.85				0.87%
Y 371.029	378955.5	95.9	%	0.71				0.74%
Ag 328.068†	12242.2	0.0915511	mg/L	0.00066452	0.0915511	mg/L	0.00066452	0.73%
Al 308.215†	125168.1	4.74910	mg/L	0.023086	4.74910	mg/L	0.023086	0.49%
As 188.979†	540.2	0.465432	mg/L	0.0067213	0.465432	mg/L	0.0067213	1.44%
Ba 233.527†	58662.4	0.489535	mg/L	0.0000815	0.489535	mg/L	0.0000815	0.02%
Be 313.107†	1216864.1	0.479464	mg/L	0.0049573	0.479464	mg/L	0.0049573	1.03%
Ca 315.887†	5002313.9	50.0204	mg/L	0.47153	50.0204	mg/L	0.47153	0.94%
Cd 228.802†	18380.0	0.477514	mg/L	0.0011181	0.477514	mg/L	0.0011181	0.23%
Co 228.616†	16242.8	0.490637	mg/L	0.0000839	0.490637	mg/L	0.0000839	0.02%
Cr 267.716†	32458.4	0.484443	mg/L	0.0017266	0.484443	mg/L	0.0017266	0.36%
Cu 327.393†	58008.1	0.481124	mg/L	0.0022670	0.481124	mg/L	0.0022670	0.47%
Fe 273.955†	36141.1	4.83249	mg/L	0.000382	4.83249	mg/L	0.000382	0.01%
K 404.721†	4524.0	44.2763	mg/L	0.30097	44.2763	mg/L	0.30097	0.68%
Mg 279.077†	654836.8	48.9982	mg/L	0.42518	48.9982	mg/L	0.42518	0.87%
Mn 257.610†	190235.5	0.478977	mg/L	0.0005963	0.478977	mg/L	0.0005963	0.12%
Mo 202.031†	6235.0	0.471125	mg/L	0.0069192	0.471125	mg/L	0.0069192	1.47%
Na 330.237†	48513.4	45.4363	mg/L	0.04559	45.4363	mg/L	0.04559	0.10%
Ni 231.604†	20661.6	0.490267	mg/L	0.0000401	0.490267	mg/L	0.0000401	0.01%
Pb 220.353†	5180.5	0.481193	mg/L	0.0064810	0.481193	mg/L	0.0064810	1.35%
Sb 206.836†	502.8	0.460747	mg/L	0.0057268	0.460747	mg/L	0.0057268	1.24%
Se 196.026†	528.2	0.471366	mg/L	0.0007721	0.471366	mg/L	0.0007721	0.16%
Sn 189.927†	839.8	0.472728	mg/L	0.0092311	0.472728	mg/L	0.0092311	1.95%
Ti 334.940†	286124.3	0.484096	mg/L	0.0053538	0.484096	mg/L	0.0053538	1.11%
Tl 190.801†	490.4	0.502976	mg/L	0.0086601	0.502976	mg/L	0.0086601	1.72%
V 290.880†	64721.8	0.480339	mg/L	0.0010886	0.480339	mg/L	0.0010886	0.23%
Zn 206.200†	18145.6	0.490559	mg/L	0.0018986	0.490559	mg/L	0.0018986	0.39%

Sequence No.: 28

Sample ID: CCV V-128233

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/13/2011 1:10:32 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	947505.5	96.0 %	0.05			0.05%
Y 371.029	369923.0	93.6 %	0.02			0.03%
Ag 328.068†	12950.2	0.0968091 mg/L	0.00099016	0.0968091 mg/L	0.00099016	1.02%
	QC value within limits for Ag 328.068 Recovery = 96.81%					
Al 308.215†	130010.3	4.93274 mg/L	0.047305	4.93274 mg/L	0.047305	0.96%
	QC value within limits for Al 308.215 Recovery = 98.65%					
As 188.979†	565.2	0.486988 mg/L	0.0007362	0.486988 mg/L	0.0007362	0.15%
	QC value within limits for As 188.979 Recovery = 97.40%					
Ba 233.527†	60735.9	0.506853 mg/L	0.0050308	0.506853 mg/L	0.0050308	0.99%
	QC value within limits for Ba 233.527 Recovery = 101.37%					
Be 313.107†	1251883.2	0.493243 mg/L	0.0005657	0.493243 mg/L	0.0005657	0.11%
	QC value within limits for Be 313.107 Recovery = 98.65%					
Ca 315.887†	5013103.2	50.1284 mg/L	0.08494	50.1284 mg/L	0.08494	0.17%
	QC value within limits for Ca 315.887 Recovery = 100.26%					
Cd 228.802†	19153.1	0.497577 mg/L	0.0040069	0.497577 mg/L	0.0040069	0.81%
	QC value within limits for Cd 228.802 Recovery = 99.52%					
Co 228.616†	16804.7	0.507636 mg/L	0.0050669	0.507636 mg/L	0.0050669	1.00%
	QC value within limits for Co 228.616 Recovery = 101.53%					
Cr 267.716†	33628.7	0.501952 mg/L	0.0060135	0.501952 mg/L	0.0060135	1.20%
	QC value within limits for Cr 267.716 Recovery = 100.39%					
Cu 327.393†	59661.5	0.494872 mg/L	0.0060214	0.494872 mg/L	0.0060214	1.22%
	QC value within limits for Cu 327.393 Recovery = 98.97%					
Fe 273.955†	36947.3	4.94044 mg/L	0.056389	4.94044 mg/L	0.056389	1.14%
	QC value within limits for Fe 273.955 Recovery = 98.81%					
K 404.721†	4759.1	46.5433 mg/L	0.32153	46.5433 mg/L	0.32153	0.69%
	QC value within limits for K 404.721 Recovery = 93.09%					
Mg 279.077†	673795.9	50.4201 mg/L	0.11334	50.4201 mg/L	0.11334	0.22%
	QC value within limits for Mg 279.077 Recovery = 100.84%					
Mn 257.610†	197612.0	0.497581 mg/L	0.0055226	0.497581 mg/L	0.0055226	1.11%
	QC value within limits for Mn 257.610 Recovery = 99.52%					
Mo 202.031†	6580.7	0.497297 mg/L	0.0013847	0.497297 mg/L	0.0013847	0.28%
	QC value within limits for Mo 202.031 Recovery = 99.46%					
Na 330.237†	50614.7	47.3774 mg/L	0.30933	47.3774 mg/L	0.30933	0.65%
	QC value within limits for Na 330.237 Recovery = 94.75%					
Ni 231.604†	21339.3	0.506390 mg/L	0.0057790	0.506390 mg/L	0.0057790	1.14%
	QC value within limits for Ni 231.604 Recovery = 101.28%					
Pb 220.353†	5408.4	0.502407 mg/L	0.0018251	0.502407 mg/L	0.0018251	0.36%
	QC value within limits for Pb 220.353 Recovery = 100.48%					
Sb 206.836†	533.3	0.488744 mg/L	0.0004429	0.488744 mg/L	0.0004429	0.09%
	QC value within limits for Sb 206.836 Recovery = 97.75%					
Se 196.026†	562.1	0.501334 mg/L	0.0069608	0.501334 mg/L	0.0069608	1.39%
	QC value within limits for Se 196.026 Recovery = 100.27%					
Sn 189.927†	890.2	0.501100 mg/L	0.0023737	0.501100 mg/L	0.0023737	0.47%
	QC value within limits for Sn 189.927 Recovery = 100.22%					
Ti 334.940†	296911.6	0.502353 mg/L	0.0000714	0.502353 mg/L	0.0000714	0.01%
	QC value within limits for Ti 334.940 Recovery = 100.47%					
Tl 190.801†	514.0	0.527225 mg/L	0.0030015	0.527225 mg/L	0.0030015	0.57%
	QC value within limits for Tl 190.801 Recovery = 105.44%					
V 290.880†	67193.8	0.498754 mg/L	0.0055504	0.498754 mg/L	0.0055504	1.11%
	QC value within limits for V 290.880 Recovery = 99.75%					
Zn 206.200†	18661.0	0.504504 mg/L	0.0071693	0.504504 mg/L	0.0071693	1.42%
	QC value within limits for Zn 206.200 Recovery = 100.90%					

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/13/2011 1:14:18 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	981402.7	99.4 %	0.91			0.91%
Y 371.029	395686.8	100 %	0.9			0.88%
Ag 328.068†	24.6	0.0004122 mg/L	0.00022033	0.0004122 mg/L	0.00022033	53.46%
QC value within limits for Ag		328.068 Recovery =	Not calculated			
Al 308.215†	-384.1	-0.0170633 mg/L	0.00308098	-0.0170633 mg/L	0.00308098	18.06%
QC value within limits for Al		308.215 Recovery =	Not calculated			
As 188.979†	-2.1	-0.0013036 mg/L	0.00071469	-0.0013036 mg/L	0.00071469	54.82%
QC value within limits for As		188.979 Recovery =	Not calculated			
Ba 233.527†	-17.1	-0.0005390 mg/L	0.00001674	-0.0005390 mg/L	0.00001674	3.11%
QC value within limits for Ba		233.527 Recovery =	Not calculated			
Be 313.107†	88.1	0.0005879 mg/L	0.00004300	0.0005879 mg/L	0.00004300	7.31%
QC value within limits for Be		313.107 Recovery =	Not calculated			
Ca 315.887†	742.7	-0.0308259 mg/L	0.00395036	-0.0308259 mg/L	0.00395036	12.82%
QC value within limits for Ca		315.887 Recovery =	Not calculated			
Cd 228.802†	-5.3	0.0004388 mg/L	0.00020117	0.0004388 mg/L	0.00020117	45.85%
QC value within limits for Cd		228.802 Recovery =	Not calculated			
Co 228.616†	-5.4	-0.0001257 mg/L	0.00002643	-0.0001257 mg/L	0.00002643	21.02%
QC value within limits for Co		228.616 Recovery =	Not calculated			
Cr 267.716†	-49.1	-0.0003700 mg/L	0.00003686	-0.0003700 mg/L	0.00003686	9.96%
QC value within limits for Cr		267.716 Recovery =	Not calculated			
Cu 327.393†	218.1	0.0010612 mg/L	0.00002481	0.0010612 mg/L	0.00002481	2.34%
QC value within limits for Cu		327.393 Recovery =	Not calculated			
Fe 273.955†	-35.9	-0.0059492 mg/L	0.00407059	-0.0059492 mg/L	0.00407059	68.42%
QC value within limits for Fe		273.955 Recovery =	Not calculated			
K 404.721†	-48.6	0.182774 mg/L	0.4445016	0.182774 mg/L	0.4445016	243.20%
QC value within limits for K		404.721 Recovery =	Not calculated			
Mg 279.077†	-118.3	-0.121764 mg/L	0.0075215	-0.121764 mg/L	0.0075215	6.18%
QC value within limits for Mg		279.077 Recovery =	Not calculated			
Mn 257.610†	-6.3	-0.0008626 mg/L	0.00006642	-0.0008626 mg/L	0.00006642	7.70%
QC value within limits for Mn		257.610 Recovery =	Not calculated			
Mo 202.031†	-0.7	0.0000403 mg/L	0.00020946	0.0000403 mg/L	0.00020946	519.89%
QC value within limits for Mo		202.031 Recovery =	Not calculated			
Na 330.237†	-32.2	0.591012 mg/L	0.0146669	0.591012 mg/L	0.0146669	2.48%
QC value within limits for Na		330.237 Recovery =	Not calculated			
Ni 231.604†	-4.3	-0.0011227 mg/L	0.00020346	-0.0011227 mg/L	0.00020346	18.12%
QC value within limits for Ni		231.604 Recovery =	Not calculated			
Pb 220.353†	-6.5	-0.0009942 mg/L	0.00078240	-0.0009942 mg/L	0.00078240	78.70%
QC value within limits for Pb		220.353 Recovery =	Not calculated			
Sb 206.836†	-2.1	-0.0035348 mg/L	0.00342007	-0.0035348 mg/L	0.00342007	96.75%
QC value within limits for Sb		206.836 Recovery =	Not calculated			
Se 196.026†	1.3	0.0061018 mg/L	0.00276682	0.0061018 mg/L	0.00276682	45.34%
QC value within limits for Se		196.026 Recovery =	Not calculated			
Sn 189.927†	3.8	0.0025381 mg/L	0.00366215	0.0025381 mg/L	0.00366215	144.29%
QC value within limits for Sn		189.927 Recovery =	Not calculated			
Ti 334.940†	168.9	0.0001241 mg/L	0.00009794	0.0001241 mg/L	0.00009794	78.95%
QC value within limits for Ti		334.940 Recovery =	Not calculated			
Tl 190.801†	1.0	0.0001006 mg/L	0.00057535	0.0001006 mg/L	0.00057535	571.91%
QC value within limits for Tl		190.801 Recovery =	Not calculated			
V 290.880†	-2.1	-0.0007212 mg/L	0.00002679	-0.0007212 mg/L	0.00002679	3.71%
QC value within limits for V		290.880 Recovery =	Not calculated			
Zn 206.200†	-12.2	-0.0007882 mg/L	0.00011180	-0.0007882 mg/L	0.00011180	14.18%
QC value within limits for Zn		206.200 Recovery =	Not calculated			

All analyte(s) passed QC.

Sequence No.: 30  
 Sample ID: 63081-011  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 12/13/2011 1:17:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	1061172.2		107 %	2.6			2.40%
Y 371.029	685205.6		173 %	3.0			1.72%
Ag 328.068†	-2328.0	0.0074324	mg/L	0.00056342	0.0074324	mg/L	0.00056342 7.58%
Al 308.215†	4978855.3	189.380	mg/L	5.1995	189.380	mg/L	5.1995 2.75%
As 188.979†	330.1	0.356087	mg/L	0.0103439	0.356087	mg/L	0.0103439 2.90%
Ba 233.527†	713531.3	5.95881	mg/L	0.164840	5.95881	mg/L	0.164840 2.77%
Be 313.107†	44643.7	0.0151971	mg/L	0.00020734	0.0151971	mg/L	0.00020734 1.36%
Ca 315.887†	34928096.9	349.491	mg/L	13.9642	349.491	mg/L	13.9642 4.00%
Cd 228.802†	801.4	0.0132438	mg/L	0.00039443	0.0132438	mg/L	0.00039443 2.98%
Co 228.616†	6641.1	0.195422	mg/L	0.0051027	0.195422	mg/L	0.0051027 2.61%
Cr 267.716†	31576.4	0.489524	mg/L	0.0100689	0.489524	mg/L	0.0100689 2.06%
Cu 327.393†	375487.4	3.11917	mg/L	0.056517	3.11917	mg/L	0.056517 1.81%
Fe 273.955†	3724193.1	496.083	mg/L	13.5942	496.083	mg/L	13.5942 2.74%
K 404.721†	4036.1	39.5718	mg/L	2.77336	39.5718	mg/L	2.77336 7.01%
Mg 279.077†	726967.6	54.4078	mg/L	1.00668	54.4078	mg/L	1.00668 1.85%
Mn 257.610†	2613325.9	6.60847	mg/L	0.180780	6.60847	mg/L	0.180780 2.74%
Mo 202.031†	1136.7	0.0808235	mg/L	0.00155043	0.0808235	mg/L	0.00155043 1.92%
Na 330.237†	41562.3	39.0150	mg/L	0.80572	39.0150	mg/L	0.80572 2.07%
Ni 231.604†	17710.2	0.419803	mg/L	0.0120548	0.419803	mg/L	0.0120548 2.87%
Pb 220.353†	185228.1	17.2145	mg/L	0.32072	17.2145	mg/L	0.32072 1.86%
Sb 206.836†	-69.3	0.0413107	mg/L	0.00234758	0.0413107	mg/L	0.00234758 5.68%
Se 196.026†	-39.5	0.0259585	mg/L	0.00260256	0.0259585	mg/L	0.00260256 10.03%
Sn 189.927†	7025.8	3.92871	mg/L	0.113503	3.92871	mg/L	0.113503 2.89%
Ti 334.940†	2428968.6	4.11080	mg/L	0.127617	4.11080	mg/L	0.127617 3.10%
Tl 190.801†	-31.8	-0.0088202	mg/L	0.00040906	-0.0088202	mg/L	0.00040906 4.64%
V 290.880†	100019.3	0.732159	mg/L	0.0146010	0.732159	mg/L	0.0146010 1.99%
Zn 206.200†	210567.7	5.71362	mg/L	0.107812	5.71362	mg/L	0.107812 1.89%

Sequence No.: 31  
 Sample ID: 63081-011 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 42  
 Date Collected: 12/13/2011 1:21:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 MR

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1072778.0		109 %	1.5				1.36%
Y 371.029	668819.0		169 %	0.7				0.39%
Ag 328.068†	-2016.3	0.0071168	mg/L	0.00062404	0.0071168	mg/L	0.00062404	8.77%
Al 308.215†	4394016.5	167.134	mg/L	2.6550	167.134	mg/L	2.6550	1.59%
As 188.979†	302.0	0.323513	mg/L	0.0141049	0.323513	mg/L	0.0141049	4.36%
Ba 233.527†	642846.5	5.36847	mg/L	0.092905	5.36847	mg/L	0.092905	1.73%
Be 313.107†	40132.7	0.0138081	mg/L	0.00025914	0.0138081	mg/L	0.00025914	1.88%
Ca 315.887†	33908085.5	339.283	mg/L	8.0113	339.283	mg/L	8.0113	2.36%
Cd 228.802†	719.6	0.0120454	mg/L	0.00069586	0.0120454	mg/L	0.00069586	5.78%
Co 228.616†	5863.5	0.172670	mg/L	0.0006812	0.172670	mg/L	0.0006812	0.39%
Cr 267.716†	28124.4	0.436055	mg/L	0.0067820	0.436055	mg/L	0.0067820	1.56%
Cu 327.393†	318132.9	2.64194	mg/L	0.047859	2.64194	mg/L	0.047859	1.81%
Fe 273.955†	3300538.6	439.650	mg/L	6.0986	439.650	mg/L	6.0986	1.39%
K 404.721†	3931.8	38.5654	mg/L	0.77579	38.5654	mg/L	0.77579	2.01%
Mg 279.077†	673867.8	50.4255	mg/L	0.83225	50.4255	mg/L	0.83225	1.65%
Mn 257.610†	2369758.3	5.99201	mg/L	0.084979	5.99201	mg/L	0.084979	1.42%
Mo 202.031†	1046.9	0.0739765	mg/L	0.00060485	0.0739765	mg/L	0.00060485	0.82%
Na 330.237†	40226.2	37.7807	mg/L	0.66532	37.7807	mg/L	0.66532	1.76%
Ni 231.604†	15362.9	0.364032	mg/L	0.0026867	0.364032	mg/L	0.0026867	0.74%
Pb 220.353†	166095.4	15.4359	mg/L	0.24989	15.4359	mg/L	0.24989	1.62%
Sb 206.836†	-51.9	0.0452470	mg/L	0.00125097	0.0452470	mg/L	0.00125097	2.76%
Se 196.026†	-36.6	0.0221440	mg/L	0.00965782	0.0221440	mg/L	0.00965782	43.61%
Sn 189.927†	5892.4	3.29419	mg/L	0.023680	3.29419	mg/L	0.023680	0.72%
Ti 334.940†	2108617.5	3.56862	mg/L	0.057044	3.56862	mg/L	0.057044	1.60%
Tl 190.801†	-31.4	-0.0114026	mg/L	0.00311540	-0.0114026	mg/L	0.00311540	27.32%
V 290.880†	90297.2	0.660966	mg/L	0.0111328	0.660966	mg/L	0.0111328	1.68%
Zn 206.200†	190775.7	5.17650	mg/L	0.082446	5.17650	mg/L	0.082446	1.59%

Sequence No.: 32  
 Sample ID: 63081-011 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 43  
 Date Collected: 12/13/2011 1:26:05 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 MS 1

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	1041157.1	105 %		0.6			0.60%
Y 371.029	673119.7	170 %		0.2			0.12%
Ag 328.068†	9216.0	0.0907843 mg/L	0.00007042	0.0907843	mg/L	0.00007042	0.08%
Al 308.215†	5052416.9	192.169 mg/L	0.5588	192.169	mg/L	0.5588	0.29%
As 188.979†	794.7	0.747237 mg/L	0.0016865	0.747237	mg/L	0.0016865	0.23%
Ba 233.527†	689360.0	5.75694 mg/L	0.009733	5.75694	mg/L	0.009733	0.17%
Be 313.107†	1135594.7	0.444836 mg/L	0.0007326	0.444836	mg/L	0.0007326	0.16%
Ca 315.887†	38280687.3	383.040 mg/L	1.6100	383.040	mg/L	1.6100	0.42%
Cd 228.802†	17448.1	0.446169 mg/L	0.0002103	0.446169	mg/L	0.0002103	0.05%
Co 228.616†	20136.2	0.603699 mg/L	0.0005988	0.603699	mg/L	0.0005988	0.10%
Cr 267.716†	59093.2	0.897487 mg/L	0.0036005	0.897487	mg/L	0.0036005	0.40%
Cu 327.393†	365024.9	3.03105 mg/L	0.019268	3.03105	mg/L	0.019268	0.64%
Fe 273.955†	3314423.5	441.517 mg/L	0.4496	441.517	mg/L	0.4496	0.10%
K 404.721†	9251.9	89.8667 mg/L	0.51214	89.8667	mg/L	0.51214	0.57%
Mg 279.077†	1250376.9	93.6622 mg/L	0.14745	93.6622	mg/L	0.14745	0.16%
Mn 257.610†	2553797.1	6.45606 mg/L	0.006469	6.45606	mg/L	0.006469	0.10%
Mo 202.031†	6265.1	0.468401 mg/L	0.0003835	0.468401	mg/L	0.0003835	0.08%
Na 330.237†	91678.5	85.3111 mg/L	0.64808	85.3111	mg/L	0.64808	0.76%
Ni 231.604†	34414.8	0.817008 mg/L	0.0039354	0.817008	mg/L	0.0039354	0.48%
Pb 220.353†	169403.7	15.7475 mg/L	0.07380	15.7475	mg/L	0.07380	0.47%
Sb 206.836†	253.3	0.328869 mg/L	0.0005805	0.328869	mg/L	0.0005805	0.18%
Se 196.026†	399.5	0.405005 mg/L	0.0016469	0.405005	mg/L	0.0016469	0.41%
Sn 189.927†	6285.6	3.51485 mg/L	0.009301	3.51485	mg/L	0.009301	0.26%
Ti 334.940†	2452429.0	4.15051 mg/L	0.006389	4.15051	mg/L	0.006389	0.15%
Tl 190.801†	369.7	0.401964 mg/L	0.0028184	0.401964	mg/L	0.0028184	0.70%
V 290.880†	152204.1	1.12140 mg/L	0.006614	1.12140	mg/L	0.006614	0.59%
Zn 206.200†	207568.7	5.63098 mg/L	0.024050	5.63098	mg/L	0.024050	0.43%

Sequence No.: 33  
 Sample ID: 63081-011 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 44  
 Date Collected: 12/13/2011 1:30:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 MS 2

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1054053.1	107	%	0.0				0.01%
Y 371.029	667678.4	169	%	0.1				0.04%
Ag 328.068†	8799.6	0.0874911	mg/L	0.00001143	0.0874911	mg/L	0.00001143	0.01%
Al 308.215†	5007281.4	190.452	mg/L	0.2546	190.452	mg/L	0.2546	0.13%
As 188.979†	768.1	0.723813	mg/L	0.0006340	0.723813	mg/L	0.0006340	0.09%
Ba 233.527†	672982.5	5.62016	mg/L	0.002693	5.62016	mg/L	0.002693	0.05%
Be 313.107†	1116348.7	0.437281	mg/L	0.0004478	0.437281	mg/L	0.0004478	0.10%
Ca 315.887†	37871413.4	378.945	mg/L	0.4495	378.945	mg/L	0.4495	0.12%
Cd 228.802†	17043.4	0.435731	mg/L	0.0001167	0.435731	mg/L	0.0001167	0.03%
Co 228.616†	19798.0	0.593514	mg/L	0.0015969	0.593514	mg/L	0.0015969	0.27%
Cr 267.716†	57510.1	0.873822	mg/L	0.0035834	0.873822	mg/L	0.0035834	0.41%
Cu 327.393†	344884.6	2.86333	mg/L	0.008141	2.86333	mg/L	0.008141	0.28%
Fe 273.955†	3285509.9	437.666	mg/L	0.3974	437.666	mg/L	0.3974	0.09%
K 404.721†	9164.9	89.0277	mg/L	0.30336	89.0277	mg/L	0.30336	0.34%
Mg 279.077†	1240075.7	92.8896	mg/L	0.10855	92.8896	mg/L	0.10855	0.12%
Mn 257.610†	2528412.4	6.39190	mg/L	0.003116	6.39190	mg/L	0.003116	0.05%
Mo 202.031†	6160.4	0.460543	mg/L	0.0005935	0.460543	mg/L	0.0005935	0.13%
Na 330.237†	89209.3	83.0301	mg/L	0.22256	83.0301	mg/L	0.22256	0.27%
Ni 231.604†	33725.6	0.800629	mg/L	0.0048230	0.800629	mg/L	0.0048230	0.60%
Pb 220.353†	161632.2	15.0252	mg/L	0.07530	15.0252	mg/L	0.07530	0.50%
Sb 206.836†	259.8	0.333987	mg/L	0.0000314	0.333987	mg/L	0.0000314	0.01%
Se 196.026†	396.7	0.402135	mg/L	0.0022795	0.402135	mg/L	0.0022795	0.57%
Sn 189.927†	6021.8	3.36661	mg/L	0.002591	3.36661	mg/L	0.002591	0.08%
Ti 334.940†	2431438.5	4.11498	mg/L	0.003228	4.11498	mg/L	0.003228	0.08%
Tl 190.801†	367.6	0.399610	mg/L	0.0002572	0.399610	mg/L	0.0002572	0.06%
V 290.880†	148015.6	1.09024	mg/L	0.004698	1.09024	mg/L	0.004698	0.43%
Zn 206.200†	200228.9	5.43177	mg/L	0.031472	5.43177	mg/L	0.031472	0.58%

Sequence No.: 34  
 Sample ID: 63081-011 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 12/13/2011 1:34:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63081-011 PS

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1046877.4		106 %	0.1			0.14%	
Y 371.029	669077.2		169 %	0.6			0.34%	
Ag 328.068†	8667.4	0.0884573	mg/L	0.00122946	0.0884573	mg/L	0.00122946	1.39%
Al 308.215†	4923113.5		187.251 mg/L	1.0971	187.251	mg/L	1.0971	0.59%
As 188.979†	816.1	0.771619	mg/L	0.0022492	0.771619	mg/L	0.0022492	0.29%
Ba 233.527†	735530.2		6.14254 mg/L	0.026449	6.14254	mg/L	0.026449	0.43%
Be 313.107†	1116009.9	0.436953	mg/L	0.0020401	0.436953	mg/L	0.0020401	0.47%
Ca 315.887†	37713077.5		377.360 mg/L	0.3105	377.360	mg/L	0.3105	0.08%
Cd 228.802†	17384.8	0.443889	mg/L	0.0000381	0.443889	mg/L	0.0000381	0.01%
Co 228.616†	20388.6	0.610862	mg/L	0.0012721	0.610862	mg/L	0.0012721	0.21%
Cr 267.716†	59802.1	0.909664	mg/L	0.0065556	0.909664	mg/L	0.0065556	0.72%
Cu 327.393†	424385.1	3.52570	mg/L	0.019827	3.52570	mg/L	0.019827	0.56%
Fe 273.955†	3607403.4		480.542 mg/L	2.0471	480.542	mg/L	2.0471	0.43%
K 404.721†	8816.1	85.6649	mg/L	0.04122	85.6649	mg/L	0.04122	0.05%
Mg 279.077†	1248165.0	93.4963	mg/L	0.42206	93.4963	mg/L	0.42206	0.45%
Mn 257.610†	2675632.4		6.76492 mg/L	0.029957	6.76492	mg/L	0.029957	0.44%
Mo 202.031†	6595.6	0.493493	mg/L	0.0004473	0.493493	mg/L	0.0004473	0.09%
Na 330.237†	90255.9	83.9969	mg/L	0.37953	83.9969	mg/L	0.37953	0.45%
Ni 231.604†	35042.0	0.831932	mg/L	0.0054193	0.831932	mg/L	0.0054193	0.65%
Pb 220.353†	186354.8		17.3195 mg/L	0.13432	17.3195	mg/L	0.13432	0.78%
Sb 206.836†	399.4	0.468090	mg/L	0.0028970	0.468090	mg/L	0.0028970	0.62%
Se 196.026†	443.0	0.449678	mg/L	0.0052143	0.449678	mg/L	0.0052143	1.16%
Sn 189.927†	7562.8	4.23167	mg/L	0.011125	4.23167	mg/L	0.011125	0.26%
Ti 334.940†	2592492.6		4.38756 mg/L	0.027192	4.38756	mg/L	0.027192	0.62%
Tl 190.801†	371.1	0.404359	mg/L	0.0038090	0.404359	mg/L	0.0038090	0.94%
V 290.880†	155483.3	1.14503	mg/L	0.007323	1.14503	mg/L	0.007323	0.64%
Zn 206.200†	221906.2	6.02018	mg/L	0.048892	6.02018	mg/L	0.048892	0.81%

Sequence No.: 35  
 Sample ID: 63081-011 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 12/13/2011 1:39:05 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 SD

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sc 361.383	997604.5		101 %	0.7				0.69%
Y 371.029	447304.6		113 %	0.5				0.48%
Ag 328.068†	-345.1	0.0035176	mg/L	0.00032274	0.0035176	mg/L	0.00032274	9.18%
Al 308.215†	1103055.3	41.9546	mg/L	0.40248	41.9546	mg/L	0.40248	0.96%
As 188.979†	72.2	0.0797350	mg/L	0.00060188	0.0797350	mg/L	0.00060188	0.75%
Ba 233.527†	160734.4	1.34201	mg/L	0.012287	1.34201	mg/L	0.012287	0.92%
Be 313.107†	9859.2	0.0037917	mg/L	0.00003567	0.0037917	mg/L	0.00003567	0.94%
Ca 315.887†	8045683.0	80.4757	mg/L	1.79714	80.4757	mg/L	1.79714	2.23%
Cd 228.802†	176.0	0.0032019	mg/L	0.00024880	0.0032019	mg/L	0.00024880	7.77%
Co 228.616†	1515.5	0.0446922	mg/L	0.00056890	0.0446922	mg/L	0.00056890	1.27%
Cr 267.716†	7089.3	0.110468	mg/L	0.0009989	0.110468	mg/L	0.0009989	0.90%
Cu 327.393†	82741.6	0.686691	mg/L	0.0054112	0.686691	mg/L	0.0054112	0.79%
Fe 273.955†	889390.8	118.471	mg/L	1.1056	118.471	mg/L	1.1056	0.93%
K 404.721†	783.2	8.20396	mg/L	0.481228	8.20396	mg/L	0.481228	5.87%
Mg 279.077†	171828.9	12.7738	mg/L	0.13363	12.7738	mg/L	0.13363	1.05%
Mn 257.610†	596334.8	1.50757	mg/L	0.014311	1.50757	mg/L	0.014311	0.95%
Mo 202.031†	316.4	0.0228025	mg/L	0.00021820	0.0228025	mg/L	0.00021820	0.96%
Na 330.237†	8491.3	8.46483	mg/L	0.018709	8.46483	mg/L	0.018709	0.22%
Ni 231.604†	4075.0	0.0958113	mg/L	0.00090554	0.0958113	mg/L	0.00090554	0.95%
Pb 220.353†	43224.4	4.01628	mg/L	0.037297	4.01628	mg/L	0.037297	0.93%
Sb 206.836†	-10.9	0.0133871	mg/L	0.00539055	0.0133871	mg/L	0.00539055	40.27%
Se 196.026†	-9.0	0.0106725	mg/L	0.00090839	0.0106725	mg/L	0.00090839	8.51%
Sn 189.927†	1610.5	0.900744	mg/L	0.0106551	0.900744	mg/L	0.0106551	1.18%
Ti 334.940†	532838.6	0.901653	mg/L	0.0066287	0.901653	mg/L	0.0066287	0.74%
Tl 190.801†	-7.7	-0.0033308	mg/L	0.00049101	-0.0033308	mg/L	0.00049101	14.74%
V 290.880†	22484.0	0.163802	mg/L	0.0016114	0.163802	mg/L	0.0016114	0.98%
Zn 206.200†	48623.9	1.31902	mg/L	0.016729	1.31902	mg/L	0.016729	1.27%

Sequence No.: 36

Sample ID: 63081-012

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 47

Date Collected: 12/13/2011 1:42:52 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-012

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1006855.2		102 %	0.2				0.20%
Y 371.029	517187.7		131 %	0.2				0.18%
Ag 328.068†	-638.5	0.0074961	mg/L	0.00015871	0.0074961	mg/L	0.00015871	2.12%
Al 308.215†	2500552.1	95.1122	mg/L	0.03146	95.1122	mg/L	0.03146	0.03%
As 188.979†	339.3	0.320715	mg/L	0.0031481	0.320715	mg/L	0.0031481	0.98%
Ba 233.527†	847680.3	7.07918	mg/L	0.009090	7.07918	mg/L	0.009090	0.13%
Be 313.107†	22530.6	0.0077730	mg/L	0.00001407	0.0077730	mg/L	0.00001407	0.18%
Ca 315.887†	40426201.9	404.511	mg/L	0.8859	404.511	mg/L	0.8859	0.22%
Cd 228.802†	1106.4	0.0258252	mg/L	0.00020475	0.0258252	mg/L	0.00020475	0.79%
Co 228.616†	3284.8	0.0961947	mg/L	0.00065763	0.0961947	mg/L	0.00065763	0.68%
Cr 267.716†	33282.9	0.502748	mg/L	0.0005566	0.502748	mg/L	0.0005566	0.11%
Cu 327.393†	163737.0	1.35626	mg/L	0.000857	1.35626	mg/L	0.000857	0.06%
Fe 273.955†	1586877.0	211.387	mg/L	0.3865	211.387	mg/L	0.3865	0.18%
K 404.721†	3035.6	29.9238	mg/L	0.64658	29.9238	mg/L	0.64658	2.16%
Mg 279.077†	540562.1	40.4279	mg/L	0.10734	40.4279	mg/L	0.10734	0.27%
Mn 257.610†	1252461.1	3.16554	mg/L	0.005153	3.16554	mg/L	0.005153	0.16%
Mo 202.031†	717.5	0.0467345	mg/L	0.00068943	0.0467345	mg/L	0.00068943	1.48%
Na 330.237†	27027.3	25.5879	mg/L	0.02262	25.5879	mg/L	0.02262	0.09%
Ni 231.604†	10356.7	0.245075	mg/L	0.0021534	0.245075	mg/L	0.0021534	0.88%
Pb 220.353†	312097.3	29.0043	mg/L	0.08615	29.0043	mg/L	0.08615	0.30%
Sb 206.836†	-17.1	0.0290916	mg/L	0.00569977	0.0290916	mg/L	0.00569977	19.59%
Se 196.026†	15.9	0.0413726	mg/L	0.00601193	0.0413726	mg/L	0.00601193	14.53%
Sn 189.927†	3120.8	1.74759	mg/L	0.012322	1.74759	mg/L	0.012322	0.71%
Ti 334.940†	1366982.2	2.31342	mg/L	0.000096	2.31342	mg/L	0.000096	0.00%
Tl 190.801†	-18.5	-0.0042038	mg/L	0.00205677	-0.0042038	mg/L	0.00205677	48.93%
V 290.880†	51281.8	0.375592	mg/L	0.0001381	0.375592	mg/L	0.0001381	0.04%
Zn 206.200†	603086.1	16.3688	mg/L	0.05474	16.3688	mg/L	0.05474	0.33%

Sequence No.: 37  
 Sample ID: 28525-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 30  
 Date Collected: 12/13/2011 1:46:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 28525-001

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1001267.7		101 %	1.8				1.81%
Y 371.029	403525.9		102 %	1.9				1.90%
Ag 328.068†	188.7	0.0016354	mg/L	0.00027515	0.0016354	mg/L	0.00027515	16.82%
Al 308.215†	-533.5	-0.0227421	mg/L	0.01141468	-0.0227421	mg/L	0.01141468	50.19%
As 188.979†	-0.4	0.0001306	mg/L	0.00123400	0.0001306	mg/L	0.00123400	945.06%
Ba 233.527†	44.1	-0.0000281	mg/L	0.00003267	-0.0000281	mg/L	0.00003267	116.41%
Be 313.107†	42.2	0.0005699	mg/L	0.00003212	0.0005699	mg/L	0.00003212	5.64%
Ca 315.887†	2352.2	-0.0147193	mg/L	0.00373843	-0.0147193	mg/L	0.00373843	25.40%
Cd 228.802†	0.3	0.0005852	mg/L	0.00001740	0.0005852	mg/L	0.00001740	2.97%
Co 228.616†	-5.4	-0.0001241	mg/L	0.00019435	-0.0001241	mg/L	0.00019435	156.67%
Cr 267.716†	-58.6	-0.0005107	mg/L	0.00013969	-0.0005107	mg/L	0.00013969	27.35%
Cu 327.393†	145.7	0.0004573	mg/L	0.00012935	0.0004573	mg/L	0.00012935	28.29%
Fe 273.955†	71.2	0.0083216	mg/L	0.01030847	0.0083216	mg/L	0.01030847	123.88%
K 404.721†	50.5	1.13843	mg/L	0.706203	1.13843	mg/L	0.706203	62.03%
Mg 279.077†	-0.3	-0.112911	mg/L	0.0064988	-0.112911	mg/L	0.0064988	5.76%
Mn 257.610†	-34.9	-0.0009339	mg/L	0.00005340	-0.0009339	mg/L	0.00005340	5.72%
Mo 202.031†	-2.0	-0.0000565	mg/L	0.00030278	-0.0000565	mg/L	0.00030278	535.98%
Na 330.237†	24.1	0.643075	mg/L	0.0709536	0.643075	mg/L	0.0709536	11.03%
Ni 231.604†	-5.1	-0.0011425	mg/L	0.00029363	-0.0011425	mg/L	0.00029363	25.70%
Pb 220.353†	58.4	0.0050354	mg/L	0.00021553	0.0050354	mg/L	0.00021553	4.28%
Sb 206.836†	2.0	0.0002421	mg/L	0.00115272	0.0002421	mg/L	0.00115272	476.18%
Se 196.026†	-8.1	-0.0022584	mg/L	0.00019960	-0.0022584	mg/L	0.00019960	8.84%
Sn 189.927†	5.9	0.0037104	mg/L	0.00300541	0.0037104	mg/L	0.00300541	81.00%
Ti 334.940†	117.9	0.0000377	mg/L	0.00012317	0.0000377	mg/L	0.00012317	326.29%
Tl 190.801†	-0.8	-0.0017300	mg/L	0.00348242	-0.0017300	mg/L	0.00348242	201.29%
V 290.880†	-60.1	-0.0011554	mg/L	0.00081553	-0.0011554	mg/L	0.00081553	70.58%
Zn 206.200†	112.5	0.0025961	mg/L	0.00033297	0.0025961	mg/L	0.00033297	12.83%

Sequence No.: 38

Autosampler Location: 7

Sample ID: ICSA V-127386

Date Collected: 12/13/2011 1:50:31 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-127386

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	893029.0		90.4 %	0.38				0.42%
Y 371.029	348062.2		88.0 %	0.27				0.31%
Ag 328.068†	-1043.7	0.0047620	mg/L	0.00037679	0.0047620	mg/L	0.00037679	7.91%
Al 308.215†	12696027.4	482.892	mg/L	9.0174	482.892	mg/L	9.0174	1.87%
QC value within limits for Al 308.215 Recovery = 96.58%								
As 188.979†	-23.2	0.0047315	mg/L	0.00426938	0.0047315	mg/L	0.00426938	90.23%
Ba 233.527†	297.5	0.0020888	mg/L	0.00004927	0.0020888	mg/L	0.00004927	2.36%
Be 313.107†	-2030.9	-0.0002476	mg/L	0.00000260	-0.0002476	mg/L	0.00000260	1.05%
Ca 315.887†	47509132.2	475.390	mg/L	8.8074	475.390	mg/L	8.8074	1.85%
QC value within limits for Ca 315.887 Recovery = 95.08%								
Cd 228.802†	138.5	0.0010661	mg/L	0.00085743	0.0010661	mg/L	0.00085743	80.43%
Co 228.616†	-104.3	0.0037938	mg/L	0.00010692	0.0037938	mg/L	0.00010692	2.82%
Cr 267.716†	170.4	0.0093940	mg/L	0.00003851	0.0093940	mg/L	0.00003851	0.41%
Cu 327.393†	1057.1	-0.0102127	mg/L	0.00054705	-0.0102127	mg/L	0.00054705	5.36%
Fe 273.955†	1422274.7	189.649	mg/L	0.8424	189.649	mg/L	0.8424	0.44%
QC value within limits for Fe 273.955 Recovery = 94.82%								
K 404.721†	-766.2	-6.73641	mg/L	0.607210	-6.73641	mg/L	0.607210	9.01%
Mg 279.077†	6780349.4	508.396	mg/L	3.1538	508.396	mg/L	3.1538	0.62%
QC value within limits for Mg 279.077 Recovery = 101.68%								
Mn 257.610†	-4217.4	-0.0028969	mg/L	0.00015267	-0.0028969	mg/L	0.00015267	5.27%
Mo 202.031†	126.0	0.0051303	mg/L	0.00071148	0.0051303	mg/L	0.00071148	13.87%
Na 330.237†	26.7	0.645498	mg/L	0.0441467	0.645498	mg/L	0.0441467	6.84%
Ni 231.604†	-34.8	-0.0018404	mg/L	0.00010290	-0.0018404	mg/L	0.00010290	5.59%
Pb 220.353†	-657.9	0.0049130	mg/L	0.00131217	0.0049130	mg/L	0.00131217	26.71%
Sb 206.836†	-104.4	0.0037674	mg/L	0.00128413	0.0037674	mg/L	0.00128413	34.09%
Se 196.026†	4.2	-0.0000381	mg/L	0.01274162	-0.0000381	mg/L	0.01274162	>999.9%
Sn 189.927†	16.7	-0.0034974	mg/L	0.00065378	-0.0034974	mg/L	0.00065378	18.69%
Ti 334.940†	978.4	0.0014941	mg/L	0.00005773	0.0014941	mg/L	0.00005773	3.86%
Tl 190.801†	-11.2	0.0005463	mg/L	0.00375439	0.0005463	mg/L	0.00375439	687.20%
V 290.880†	6235.3	0.0091700	mg/L	0.00114446	0.0091700	mg/L	0.00114446	12.48%
Zn 206.200†	248.3	-0.0096442	mg/L	0.00046022	-0.0096442	mg/L	0.00046022	4.77%

All analyte(s) passed QC.

Sequence No.: 39

Autosampler Location: 8

Sample ID: ICSAB V-127387

Date Collected: 12/13/2011 1:55:55 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-127387

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	904341.6	91.6 %	0.77			0.84%
Y 371.029	352561.9	89.2 %	0.76			0.85%
Ag 328.068†	132894.2	1.00213 mg/L	0.000949	1.00213 mg/L	0.000949	0.09%
QC value within limits for Ag		328.068	Recovery = 100.21%			
Al 308.215†	12556360.0	477.579 mg/L	3.9626	477.579 mg/L	3.9626	0.83%
QC value within limits for Al		308.215	Recovery = 95.52%			
As 188.979†	1116.1	0.985056 mg/L	0.0159013	0.985056 mg/L	0.0159013	1.61%
QC value within limits for As		188.979	Recovery = 98.51%			
Ba 233.527†	59972.2	0.500474 mg/L	0.0007120	0.500474 mg/L	0.0007120	0.14%
QC value within limits for Ba		233.527	Recovery = 100.09%			
Be 313.107†	1239795.0	0.488841 mg/L	0.0064332	0.488841 mg/L	0.0064332	1.32%
QC value within limits for Be		313.107	Recovery = 97.77%			
Ca 315.887†	46873391.0	469.028 mg/L	3.7567	469.028 mg/L	3.7567	0.80%
QC value within limits for Ca		315.887	Recovery = 93.81%			
Cd 228.802†	38582.3	0.998859 mg/L	0.0032893	0.998859 mg/L	0.0032893	0.33%
QC value within limits for Cd		228.802	Recovery = 99.89%			
Co 228.616†	15527.6	0.475312 mg/L	0.0089678	0.475312 mg/L	0.0089678	1.89%
QC value within limits for Co		228.616	Recovery = 95.06%			
Cr 267.716†	32836.0	0.493306 mg/L	0.0000355	0.493306 mg/L	0.0000355	0.01%
QC value within limits for Cr		267.716	Recovery = 98.66%			
Cu 327.393†	62049.7	0.498284 mg/L	0.0001195	0.498284 mg/L	0.0001195	0.02%
QC value within limits for Cu		327.393	Recovery = 99.66%			
Fe 273.955†	1394744.8	185.978 mg/L	2.4143	185.978 mg/L	2.4143	1.30%
QC value within limits for Fe		273.955	Recovery = 92.99%			
K 404.721†	-809.6	-7.15507 mg/L	0.083175	-7.15507 mg/L	0.083175	1.16%
Mg 279.077†	6632150.9	497.281 mg/L	6.4088	497.281 mg/L	6.4088	1.29%
QC value within limits for Mg		279.077	Recovery = 99.46%			
Mn 257.610†	188039.0	0.481516 mg/L	0.0001639	0.481516 mg/L	0.0001639	0.03%
QC value within limits for Mn		257.610	Recovery = 96.30%			
Mo 202.031†	132.8	0.0057122 mg/L	0.00066170	0.0057122 mg/L	0.00066170	11.58%
Na 330.237†	311.2	0.908287 mg/L	0.0002477	0.908287 mg/L	0.0002477	0.03%
Ni 231.604†	39376.7	0.934477 mg/L	0.0009933	0.934477 mg/L	0.0009933	0.11%
QC value within limits for Ni		231.604	Recovery = 93.45%			
Pb 220.353†	9398.4	0.938892 mg/L	0.0170439	0.938892 mg/L	0.0170439	1.82%
QC value within limits for Pb		220.353	Recovery = 93.89%			
Sb 206.836†	944.9	0.963512 mg/L	0.0101782	0.963512 mg/L	0.0101782	1.06%
QC value within limits for Sb		206.836	Recovery = 96.35%			
Se 196.026†	1111.8	0.976761 mg/L	0.0190836	0.976761 mg/L	0.0190836	1.95%
QC value within limits for Se		196.026	Recovery = 97.68%			
Sn 189.927†	20.5	-0.001166 mg/L	0.00628715	-0.001166 mg/L	0.00628715	563.05%
Ti 334.940†	1007.8	0.0015439 mg/L	0.00003360	0.0015439 mg/L	0.00003360	2.18%
Tl 190.801†	903.3	0.936453 mg/L	0.0141940	0.936453 mg/L	0.0141940	1.52%
QC value within limits for Tl		190.801	Recovery = 93.65%			
V 290.880†	69297.0	0.480761 mg/L	0.0002283	0.480761 mg/L	0.0002283	0.05%
QC value within limits for V		290.880	Recovery = 96.15%			
Zn 206.200†	35911.4	0.958767 mg/L	0.0019672	0.958767 mg/L	0.0019672	0.21%
QC value within limits for Zn		206.200	Recovery = 95.88%			

All analyte(s) passed QC.

Sequence No.: 40

Autosampler Location: 6

Sample ID: CCV V-128233

Date Collected: 12/13/2011 2:01:21 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-128233

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	957356.1	97.0 %	0.14			0.14%
Y 371.029	374058.0	94.6 %	0.03			0.03%
Ag 328.068†	12874.1	0.0962456 mg/L	0.00042646	0.0962456 mg/L	0.00042646	0.44%
	QC value within limits for Ag	328.068 Recovery = 96.25%				
Al 308.215†	129055.7	4.89647 mg/L	0.026339	4.89647 mg/L	0.026339	0.54%
	QC value within limits for Al	308.215 Recovery = 97.93%				
As 188.979†	562.1	0.484293 mg/L	0.0031420	0.484293 mg/L	0.0031420	0.65%
	QC value within limits for As	188.979 Recovery = 96.86%				
Ba 233.527†	60424.0	0.504247 mg/L	0.0029096	0.504247 mg/L	0.0029096	0.58%
	QC value within limits for Ba	233.527 Recovery = 100.85%				
Be 313.107†	1261593.2	0.497066 mg/L	0.0029072	0.497066 mg/L	0.0029072	0.58%
	QC value within limits for Be	313.107 Recovery = 99.41%				
Ca 315.887†	5059822.0	50.5959 mg/L	0.27589	50.5959 mg/L	0.27589	0.55%
	QC value within limits for Ca	315.887 Recovery = 101.19%				
Cd 228.802†	19025.7	0.494271 mg/L	0.0034266	0.494271 mg/L	0.0034266	0.69%
	QC value within limits for Cd	228.802 Recovery = 98.85%				
Co 228.616†	16738.2	0.505619 mg/L	0.0044435	0.505619 mg/L	0.0044435	0.88%
	QC value within limits for Co	228.616 Recovery = 101.12%				
Cr 267.716†	33478.9	0.499724 mg/L	0.0032935	0.499724 mg/L	0.0032935	0.66%
	QC value within limits for Cr	267.716 Recovery = 99.94%				
Cu 327.393†	59283.8	0.491711 mg/L	0.0040124	0.491711 mg/L	0.0040124	0.82%
	QC value within limits for Cu	327.393 Recovery = 98.34%				
Fe 273.955†	36819.6	4.92368 mg/L	0.028324	4.92368 mg/L	0.028324	0.58%
	QC value within limits for Fe	273.955 Recovery = 98.47%				
K 404.721†	4679.6	45.7768 mg/L	0.10203	45.7768 mg/L	0.10203	0.22%
	QC value within limits for K	404.721 Recovery = 91.55%				
Mg 279.077†	681845.4	51.0238 mg/L	0.28858	51.0238 mg/L	0.28858	0.57%
	QC value within limits for Mg	279.077 Recovery = 102.05%				
Mn 257.610†	196496.6	0.494769 mg/L	0.0028307	0.494769 mg/L	0.0028307	0.57%
	QC value within limits for Mn	257.610 Recovery = 98.95%				
Mo 202.031†	6563.2	0.495963 mg/L	0.0001031	0.495963 mg/L	0.0001031	0.02%
	QC value within limits for Mo	202.031 Recovery = 99.19%				
Na 330.237†	50070.6	46.8748 mg/L	0.25604	46.8748 mg/L	0.25604	0.55%
	QC value within limits for Na	330.237 Recovery = 93.75%				
Ni 231.604†	21273.9	0.504836 mg/L	0.0023210	0.504836 mg/L	0.0023210	0.46%
	QC value within limits for Ni	231.604 Recovery = 100.97%				
Pb 220.353†	5432.0	0.504582 mg/L	0.0006175	0.504582 mg/L	0.0006175	0.12%
	QC value within limits for Pb	220.353 Recovery = 100.92%				
Sb 206.836†	527.3	0.483247 mg/L	0.0013293	0.483247 mg/L	0.0013293	0.28%
	QC value within limits for Sb	206.836 Recovery = 96.65%				
Se 196.026†	564.3	0.503234 mg/L	0.0051491	0.503234 mg/L	0.0051491	1.02%
	QC value within limits for Se	196.026 Recovery = 100.65%				
Sn 189.927†	895.0	0.503809 mg/L	0.0018923	0.503809 mg/L	0.0018923	0.38%
	QC value within limits for Sn	189.927 Recovery = 100.76%				
Ti 334.940†	298535.3	0.505101 mg/L	0.0032304	0.505101 mg/L	0.0032304	0.64%
	QC value within limits for Ti	334.940 Recovery = 101.02%				
Tl 190.801†	510.2	0.523313 mg/L	0.0035550	0.523313 mg/L	0.0035550	0.68%
	QC value within limits for Tl	190.801 Recovery = 104.66%				
V 290.880†	66691.2	0.494965 mg/L	0.0023416	0.494965 mg/L	0.0023416	0.47%
	QC value within limits for V	290.880 Recovery = 98.99%				
Zn 206.200†	18627.0	0.503563 mg/L	0.0036363	0.503563 mg/L	0.0036363	0.72%
	QC value within limits for Zn	206.200 Recovery = 100.71%				

All analyte(s) passed QC.

Sequence No.: 41

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/13/2011 2:05:07 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	979378.5	99.2 %	0.72			0.72%
Y 371.029	392960.7	99.4 %	0.57			0.58%
Ag 328.068†	-15.3	0.0001149 mg/L	0.00031968	0.0001149 mg/L	0.00031968	278.22%
QC value within limits for Ag	328.068	Recovery = Not calculated				
Al 308.215†	-290.8	-0.0135088 mg/L	0.00023860	-0.0135088 mg/L	0.00023860	1.77%
QC value within limits for Al	308.215	Recovery = Not calculated				
As 188.979†	4.0	0.0039140 mg/L	0.00140326	0.0039140 mg/L	0.00140326	35.85%
QC value within limits for As	188.979	Recovery = Not calculated				
Ba 233.527†	-11.8	-0.0004944 mg/L	0.00014439	-0.0004944 mg/L	0.00014439	29.20%
QC value within limits for Ba	233.527	Recovery = Not calculated				
Be 313.107†	137.2	0.0006073 mg/L	0.00002801	0.0006073 mg/L	0.00002801	4.61%
QC value within limits for Be	313.107	Recovery = Not calculated				
Ca 315.887†	1435.4	-0.0238937 mg/L	0.00425812	-0.0238937 mg/L	0.00425812	17.82%
QC value within limits for Ca	315.887	Recovery = Not calculated				
Cd 228.802†	-3.7	0.0004819 mg/L	0.00018293	0.0004819 mg/L	0.00018293	37.96%
QC value within limits for Cd	228.802	Recovery = Not calculated				
Co 228.616†	-12.0	-0.0003257 mg/L	0.00025863	-0.0003257 mg/L	0.00025863	79.42%
QC value within limits for Co	228.616	Recovery = Not calculated				
Cr 267.716†	-48.7	-0.0003653 mg/L	0.00024644	-0.0003653 mg/L	0.00024644	67.47%
QC value within limits for Cr	267.716	Recovery = Not calculated				
Cu 327.393†	168.4	0.0006466 mg/L	0.00045653	0.0006466 mg/L	0.00045653	70.60%
QC value within limits for Cu	327.393	Recovery = Not calculated				
Fe 273.955†	-88.6	-0.0129577 mg/L	0.00346101	-0.0129577 mg/L	0.00346101	26.71%
QC value within limits for Fe	273.955	Recovery = Not calculated				
K 404.721†	64.9	1.27778 mg/L	0.425361	1.27778 mg/L	0.425361	33.29%
QC value within limits for K	404.721	Recovery = Not calculated				
Mg 279.077†	-95.6	-0.120057 mg/L	0.0026742	-0.120057 mg/L	0.0026742	2.23%
QC value within limits for Mg	279.077	Recovery = Not calculated				
Mn 257.610†	23.6	-0.0007877 mg/L	0.00006187	-0.0007877 mg/L	0.00006187	7.85%
QC value within limits for Mn	257.610	Recovery = Not calculated				
Mo 202.031†	-4.5	-0.0002480 mg/L	0.00013667	-0.0002480 mg/L	0.00013667	55.10%
QC value within limits for Mo	202.031	Recovery = Not calculated				
Na 330.237†	50.0	0.666980 mg/L	0.0303818	0.666980 mg/L	0.0303818	4.56%
QC value within limits for Na	330.237	Recovery = Not calculated				
Ni 231.604†	15.0	-0.0006656 mg/L	0.00033080	-0.0006656 mg/L	0.00033080	49.70%
QC value within limits for Ni	231.604	Recovery = Not calculated				
Pb 220.353†	21.1	0.0015745 mg/L	0.00007689	0.0015745 mg/L	0.00007689	4.88%
QC value within limits for Pb	220.353	Recovery = Not calculated				
Sb 206.836†	-2.9	-0.0043055 mg/L	0.00237153	-0.0043055 mg/L	0.00237153	55.08%
QC value within limits for Sb	206.836	Recovery = Not calculated				
Se 196.026†	0.0	0.0049372 mg/L	0.00194010	0.0049372 mg/L	0.00194010	39.30%
QC value within limits for Se	196.026	Recovery = Not calculated				
Sn 189.927†	2.7	0.0019165 mg/L	0.00134827	0.0019165 mg/L	0.00134827	70.35%
QC value within limits for Sn	189.927	Recovery = Not calculated				
Ti 334.940†	119.5	0.0000406 mg/L	0.00007640	0.0000406 mg/L	0.00007640	188.32%
QC value within limits for Ti	334.940	Recovery = Not calculated				
Tl 190.801†	2.0	0.0010582 mg/L	0.00125233	0.0010582 mg/L	0.00125233	118.35%
QC value within limits for Tl	190.801	Recovery = Not calculated				
V 290.880†	11.1	-0.0006234 mg/L	0.00028603	-0.0006234 mg/L	0.00028603	45.88%
QC value within limits for V	290.880	Recovery = Not calculated				
Zn 206.200†	0.9	-0.0004338 mg/L	0.00018891	-0.0004338 mg/L	0.00018891	43.55%
QC value within limits for Zn	206.200	Recovery = Not calculated				

All analyte(s) passed QC.

File SW13377A

1120830 0561  
Batch 13377 SW846 + 13377 SW846  
Date: 12/10/2011 11:19:10 AM

Method: PE 1 3000DV RADIAL

Page 1

Analyst S BL 12/12/11

=====  
Analysis Begun

Start Time: 12/10/2011 11:16:18 AM Plasma On Time: 12/10/2011 10:42:53 AM  
Logged In Analyst: shiamala Technique: ICP Continuous  
Spectrometer Model: Optima 3300 DV, S/N 069N5072002 Autosampler Model: AS-91

Sample Information File: C:\pe\Administrator\Sample Information\12.09.11.sif  
Batch ID: 8336  
Results Data Set: PROFILE1  
Results Library: C:\pe\Administrator\Results\Results.mdb

sh 12/14/11

=====  
Method Loaded

Method Name: PE 1 3000DV RADIAL  
IEC File: IEC080111r.iec  
Method Description: 200.7/6010B

Method Last Saved: 12/5/2011 11:34:35 AM  
MSF File:

=====  
Sequence No.: 1

Sample ID: Calib Blk 1 V-129815  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 1  
Date Collected: 12/10/2011 11:17:19 AM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Al 308.215	59.1	1.01	1.72%	[0.00] mg/L
Ca 315.887	-280.0	0.19	0.07%	[0.00] mg/L
Fe 273.955	9.8	0.12	1.19%	[0.00] mg/L
Mg 279.077	-16.4	6.42	39.07%	[0.00] mg/L
Mn 257.610	-28.3	3.40	12.01%	[0.00] mg/L
K 766.490	-1202.5	24.10	2.00%	[0.00] mg/L
Na 589.592	513.1	59.58	11.61%	[0.00] mg/L
Ti 334.940	2.6	2.98	114.06%	[0.00] mg/L

13377  
11681

Na, K reported

reset  
13377  
11691

Na, K reported

Sequence No.: 2

Sample ID: Calib Std 1 V-128664

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 160

Date Collected: 12/10/2011 11:20:16 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

-----  
Mean Data: Calib Std 1 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	14.9	1.64	10.99%	[0.1]	mg/L
Ca 315.887	692.6	1.24	0.18%	[1]	mg/L
Fe 273.955	15.4	4.39	28.44%	[0.1]	mg/L
Mg 279.077	173.5	6.54	3.77%	[1]	mg/L
Mn 257.610	30.8	0.74	2.40%	[0.01]	mg/L
K 766.490	1198.7	52.70	4.40%	[1]	mg/L
Na 589.592	2979.1	12.52	0.42%	[1]	mg/L
Ti 334.940	31.0	0.23	0.75%	[0.01]	mg/L

Sequence No.: 3

Sample ID: Calib Std 2 V-128660

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/10/2011 11:23:16 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 2 V-128660

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	676.4	0.68	0.10%	[5]	mg/L
Ca 315.887	34228.6	391.75	1.14%	[50]	mg/L
Fe 273.955	815.1	1.33	0.16%	[5]	mg/L
Mg 279.077	8625.2	10.72	0.12%	[50]	mg/L
Mn 257.610	1723.5	0.83	0.05%	[0.5]	mg/L
K 766.490	59812.5	845.82	1.41%	[50]	mg/L
Na 589.592	143067.9	1709.51	1.19%	[50]	mg/L
Ti 334.940	1628.4	5.71	0.35%	[0.5]	mg/L

Sequence No.: 4

Autosampler Location: 2

Sample ID: Calib Std 3 V-129806

Date Collected: 12/10/2011 11:26:16 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib Std 3 V-129806

Analyte	Mean Corrected	Std.Dev.	RSD	Conc.	Units
Al 308.215	1334.2	1.34	0.10%	[10]	mg/L
Ca 315.887	66590.0	1298.10	1.95%	[100]	mg/L
Fe 273.955	1618.1	1.90	0.12%	[10]	mg/L
Mg 279.077	17064.8	64.29	0.38%	[100]	mg/L
Mn 257.610	3429.0	14.04	0.41%	[1.0]	mg/L
K 766.490	123363.0	3640.63	2.95%	[100]	mg/L
Na 589.592	286495.9	6868.41	2.40%	[100]	mg/L
Ti 334.940	3243.6	14.09	0.43%	[1.0]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	2.4	133.5	0.00000	0.999976	
Ca 315.887	3	Lin, Calc Int	182.0	667.4	0.00000	0.999897	
Fe 273.955	3	Lin, Calc Int	0.8	162.0	0.00000	0.999992	
Mg 279.077	3	Lin, Calc Int	18.2	170.8	0.00000	0.999984	
Mn 257.610	3	Lin, Calc Int	0.1	3433	0.00000	0.999995	
K 766.490	3	Lin, Calc Int	-356.0	1230	0.00000	0.999878	
Na 589.592	3	Lin, Calc Int	19.1	2864	0.00000	1.000000	
Ti 334.940	3	Lin, Calc Int	0.6	3246	0.00000	0.999997	

Sequence No.: 5

Sample ID: ICS3 V-128660

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 12/10/2011 11:29:15 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICS3 V-128660

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	693.5	5.17674 mg/L	0.025324	5.17674 mg/L	0.025324	0.49%
QC value within limits for Al 308.215 Recovery = 103.53%						
Ca 315.887	35014.8	52.1889 mg/L	0.27675	52.1889 mg/L	0.27675	0.53%
QC value within limits for Ca 315.887 Recovery = 104.38%						
Fe 273.955	830.4	5.12221 mg/L	0.037278	5.12221 mg/L	0.037278	0.73%
QC value within limits for Fe 273.955 Recovery = 102.44%						
Mg 279.077	8776.2	51.2768 mg/L	0.16335	51.2768 mg/L	0.16335	0.32%
QC value within limits for Mg 279.077 Recovery = 102.55%						
Mn 257.610	1749.0	0.509916 mg/L	0.0033192	0.509916 mg/L	0.0033192	0.65%
QC value within limits for Mn 257.610 Recovery = 101.98%						
K 766.490	63044.3	51.5261 mg/L	0.03595	51.5261 mg/L	0.03595	0.07%
QC value within limits for K 766.490 Recovery = 103.05%						
Na 589.592	147324.2	51.4330 mg/L	0.19303	51.4330 mg/L	0.19303	0.38%
QC value within limits for Na 589.592 Recovery = 102.87%						
Ti 334.940	1659.2	0.511044 mg/L	0.0014869	0.511044 mg/L	0.0014869	0.29%
QC value within limits for Ti 334.940 Recovery = 102.21%						

All analyte(s) passed QC.

Sequence No.: 6  
 Sample ID: ICV V-128235 (2)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 159  
 Date Collected: 12/10/2011 11:32:14 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	1344.5	10.0532 mg/L	0.07328	10.0532 mg/L	0.07328	0.73%
QC value within limits for Al 308.215 Recovery = 100.53%						
Ca 315.887	67731.5	101.207 mg/L	0.2781	101.207 mg/L	0.2781	0.27%
QC value within limits for Ca 315.887 Recovery = 101.21%						
Fe 273.955	1607.6	9.92124 mg/L	0.036195	9.92124 mg/L	0.036195	0.36%
QC value within limits for Fe 273.955 Recovery = 99.21%						
Mg 279.077	17090.6	99.9559 mg/L	0.09394	99.9559 mg/L	0.09394	0.09%
QC value within limits for Mg 279.077 Recovery = 99.96%						
Mn 257.610	3405.7	0.992946 mg/L	0.0032241	0.992946 mg/L	0.0032241	0.32%
QC value within limits for Mn 257.610 Recovery = 99.29%						
K 766.490	127843.0	104.189 mg/L	1.3010	104.189 mg/L	1.3010	1.25%
QC value within limits for K 766.490 Recovery = 104.19%						
Na 589.592	289977.8	101.242 mg/L	0.7314	101.242 mg/L	0.7314	0.72%
QC value within limits for Na 589.592 Recovery = 101.24%						
Ti 334.940	3266.1	1.00615 mg/L	0.000124	1.00615 mg/L	0.000124	0.01%
QC value within limits for Ti 334.940 Recovery = 100.61%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB V-129815

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 12/10/2011 11:35:14 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	2.8	0.0032478	mg/L	0.02755358	0.0032478	0.02755358	848.38%
QC value within limits for Al 308.215 Recovery = Not calculated							
Ca 315.887	18.7	-0.244754	mg/L	0.0274720	-0.244754	0.0274720	11.22%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Fe 273.955	1.8	0.0065660	mg/L	0.00904996	0.0065660	0.00904996	137.83%
QC value within limits for Fe 273.955 Recovery = Not calculated							
Mg 279.077	3.4	-0.0865152	mg/L	0.01624118	-0.0865152	0.01624118	18.77%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mn 257.610	-3.5	-0.0010437	mg/L	0.00036042	-0.0010437	0.00036042	34.53%
QC value within limits for Mn 257.610 Recovery = Not calculated							
K 766.490	1739.8	1.70332	mg/L	0.040870	1.70332	0.040870	2.40%
QC value within limits for K 766.490 Recovery = Not calculated							
Na 589.592	983.1	0.336587	mg/L	0.0293391	0.336587	0.0293391	8.72%
QC value within limits for Na 589.592 Recovery = Not calculated							
Ti 334.940	2.6	0.0006212	mg/L	0.00030363	0.0006212	0.00030363	48.88%
QC value within limits for Ti 334.940 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICSA V-128666

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 12/10/2011 11:38:11 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	65875.8	493.439 mg/L	4.8941	493.439 mg/L	4.8941	0.99%
QC value within limits for Al 308.215 Recovery = 98.69%						
Ca 315.887	330813.9	495.375 mg/L	6.5314	495.375 mg/L	6.5314	1.32%
QC value within limits for Ca 315.887 Recovery = 99.08%						
Fe 273.955	30497.8	188.301 mg/L	2.1640	188.301 mg/L	2.1640	1.15%
QC value within limits for Fe 273.955 Recovery = 94.15%						
Mg 279.077	85384.8	499.806 mg/L	7.9669	499.806 mg/L	7.9669	1.59%
QC value within limits for Mg 279.077 Recovery = 99.96%						
Mn 257.610	-9.9	0.0118064 mg/L	0.00025319	0.0118064 mg/L	0.00025319	2.14%
K 766.490	2855.7	2.61022 mg/L	0.110228	2.61022 mg/L	0.110228	4.22%
Na 589.592	1290.1	0.443781 mg/L	0.0077338	0.443781 mg/L	0.0077338	1.74%
Ti 334.940	-11.9	-0.0038581 mg/L	0.00104192	-0.0038581 mg/L	0.00104192	27.01%

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSAB V-128667

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/10/2011 11:41:32 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	66816.3	500.485 mg/L		3.5551	500.485 mg/L		3.5551	0.71%
			QC value within limits for Al 308.215	Recovery = 100.10%				
Ca 315.887	335685.1	502.674 mg/L		4.0052	502.674 mg/L		4.0052	0.80%
			QC value within limits for Ca 315.887	Recovery = 100.53%				
Fe 273.955	30563.9	188.710 mg/L		0.2158	188.710 mg/L		0.2158	0.11%
			QC value within limits for Fe 273.955	Recovery = 94.35%				
Mg 279.077	86437.4	505.969 mg/L		4.0630	505.969 mg/L		4.0630	0.80%
			QC value within limits for Mg 279.077	Recovery = 101.19%				
Mn 257.610	1683.5	0.505182 mg/L		0.0021218	0.505182 mg/L		0.0021218	0.42%
			QC value within limits for Mn 257.610	Recovery = 101.04%				
K 766.490	1521.2	1.52565 mg/L		0.001677	1.52565 mg/L		0.001677	0.11%
Na 589.592	1050.4	0.360111 mg/L		0.0160000	0.360111 mg/L		0.0160000	4.44%
Ti 334.940	-11.4	-0.0036999 mg/L		0.00147426	-0.0036999 mg/L		0.00147426	39.85%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: MB 11681 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 113  
 Date Collected: 12/10/2011 11:44:55 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11681 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	25.5	0.172757	mg/L	0.0063894	0.172757	mg/L	0.0063894	3.70%
Ca 315.887	772.7	0.885009	mg/L	0.0001588	0.885009	mg/L	0.0001588	0.02%
Fe 273.955	18.1	0.106928	mg/L	0.0014188	0.106928	mg/L	0.0014188	1.33%
Mg 279.077	35.3	0.100381	mg/L	0.0006594	0.100381	mg/L	0.0006594	0.66%
Mn 257.610	-3.4	-0.0010098	mg/L	0.00188002	-0.0010098	mg/L	0.00188002	186.18%
K 766.490	331.5	0.558772	mg/L	0.0922063	0.558772	mg/L	0.0922063	16.50%
Na 589.592	523.5	0.176133	mg/L	0.0291975	0.176133	mg/L	0.0291975	16.58%
Ti 334.940	-2.0	-0.0007979	mg/L	0.00122416	-0.0007979	mg/L	0.00122416	153.42%

Sequence No.: 11  
 Sample ID: LCSW 11681  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 114  
 Date Collected: 12/10/2011 11:47:54 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW 11681

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	699.7	5.22348	mg/L	0.049222	5.22348	mg/L	0.049222 0.94%
Ca 315.887	35771.4	53.3224	mg/L	0.15486	53.3224	mg/L	0.15486 0.29%
Fe 273.955	829.5	5.11708	mg/L	0.037500	5.11708	mg/L	0.037500 0.73%
Mg 279.077	8720.9	50.9528	mg/L	0.07671	50.9528	mg/L	0.07671 0.15%
Mn 257.610	1728.9	0.504077	mg/L	0.0005728	0.504077	mg/L	0.0005728 0.11%
K 766.490	60189.4	49.2059	mg/L	0.35437	49.2059	mg/L	0.35437 0.72%
Na 589.592	142724.5	49.8270	mg/L	0.22247	49.8270	mg/L	0.22247 0.45%
Ti 334.940	1654.9	0.509714	mg/L	0.0030490	0.509714	mg/L	0.0030490 0.60%

Sequence No.: 12  
 Sample ID: LCSW MR 11681  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 115  
 Date Collected: 12/10/2011 11:50:54 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW MR 11681

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	700.4	5.22883	mg/L	0.012117	5.22883	0.012117	0.23%
Ca 315.887	36352.3	54.1928	mg/L	0.07975	54.1928	0.07975	0.15%
Fe 273.955	837.3	5.16509	mg/L	0.054208	5.16509	0.054208	1.05%
Mg 279.077	8855.8	51.7423	mg/L	0.08341	51.7423	0.08341	0.16%
Mn 257.610	1754.5	0.511537	mg/L	0.0015255	0.511537	0.0015255	0.30%
K 766.490	62115.0	50.7708	mg/L	0.01649	50.7708	0.01649	0.03%
Na 589.592	145983.1	50.9648	mg/L	0.10877	50.9648	0.10877	0.21%
Ti 334.940	1680.8	0.517686	mg/L	0.0011599	0.517686	0.0011599	0.22%

Sequence No.: 13  
Sample ID: 63081-011  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 116  
Date Collected: 12/10/2011 11:53:55 AM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

## Mean Data: 63081-011

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	29778.2	223.042	mg/L	0.3256	223.042 mg/L	0.3256	0.15%
Ca 315.887	284961.8	426.677	mg/L	7.4029	426.677 mg/L	7.4029	1.74%
Fe 273.955	96835.2	597.896	mg/L	1.2700	597.896 mg/L	1.2700	0.21%
Mg 279.077	11316.9	66.1520	mg/L	0.03748	66.1520 mg/L	0.03748	0.06%
Mn 257.610	26936.8	7.89423	mg/L	0.032436	7.89423 mg/L	0.032436	0.41%
K 766.490	65729.8	53.7086	mg/L	0.05668	53.7086 mg/L	0.05668	0.11%
Na 589.592	139078.9	48.5541	mg/L	0.93183	48.5541 mg/L	0.93183	1.92%
Ti 334.940	15770.2	4.85878	mg/L	0.043394	4.85878 mg/L	0.043394	0.89%

Sequence No.: 14  
Sample ID: 63081-011 MR  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 117  
Date Collected: 12/10/2011 11:56:40 AM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

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Mean Data: 63081-011 MR

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	27160.7	203.435	mg/L	1.7842	203.435	mg/L	1.7842	0.88%
Ca 315.887	283276.0	424.151	mg/L	3.3731	424.151	mg/L	3.3731	0.80%
Fe 273.955	88724.9	547.820	mg/L	3.3881	547.820	mg/L	3.3881	0.62%
Mg 279.077	10847.7	63.4050	mg/L	0.24629	63.4050	mg/L	0.24629	0.39%
Mn 257.610	25306.7	7.41543	mg/L	0.043037	7.41543	mg/L	0.043037	0.58%
K 766.490	63173.5	51.6311	mg/L	0.48059	51.6311	mg/L	0.48059	0.93%
Na 589.592	136864.4	47.7809	mg/L	0.35109	47.7809	mg/L	0.35109	0.73%
Ti 334.940	14205.0	4.37654	mg/L	0.030893	4.37654	mg/L	0.030893	0.71%

Sequence No.: 15  
 Sample ID: 63081-011 MS 1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 118  
 Date Collected: 12/10/2011 11:59:17 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 MS 1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	30553.4	228.849 mg/L		2.1968	228.849 mg/L		2.1968	0.96%
Ca 315.887	315226.2	472.021 mg/L		2.9314	472.021 mg/L		2.9314	0.62%
Fe 273.955	87591.5	540.822 mg/L		4.2828	540.822 mg/L		4.2828	0.79%
Mg 279.077	19625.1	114.795 mg/L		0.9004	114.795 mg/L		0.9004	0.78%
Mn 257.610	26734.2	7.83074 mg/L		0.069164	7.83074 mg/L		0.069164	0.88%
K 766.490	131900.8	107.486 mg/L		1.1542	107.486 mg/L		1.1542	1.07%
Na 589.592	284011.0	99.1586 mg/L		0.32966	99.1586 mg/L		0.32966	0.33%
Ti 334.940	16234.2	5.00175 mg/L		0.086698	5.00175 mg/L		0.086698	1.73%

Sequence No.: 16  
 Sample ID: 63081-011 MS 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 119  
 Date Collected: 12/10/2011 12:01:56 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 MS 2

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	30196.9	226.178	mg/L	1.3449	226.178	mg/L	1.3449 0.59%
Ca 315.887	311528.7	466.481	mg/L	3.4517	466.481	mg/L	3.4517 0.74%
Fe 273.955	86172.4	532.059	mg/L	4.3297	532.059	mg/L	4.3297 0.81%
Mg 279.077	19288.9	112.827	mg/L	0.4463	112.827	mg/L	0.4463 0.40%
Mn 257.610	26338.1	7.71467	mg/L	0.055375	7.71467	mg/L	0.055375 0.72%
K 766.490	130326.0	106.207	mg/L	0.8876	106.207	mg/L	0.8876 0.84%
Na 589.592	285321.1	99.6160	mg/L	0.34356	99.6160	mg/L	0.34356 0.34%
Ti 334.940	15927.9	4.90737	mg/L	0.046355	4.90737	mg/L	0.046355 0.94%

Sequence No.: 17  
 Sample ID: 63081-011 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 120  
 Date Collected: 12/10/2011 12:04:35 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-011 PS

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.	Units		Conc.	Units		
Al 308.215	29332.3	219.702	mg/L	4.0318	219.702	mg/L	4.0318	1.84%
Ca 315.887	304446.9	455.871	mg/L	8.3073	455.871	mg/L	8.3073	1.82%
Fe 273.955	94656.6	584.444	mg/L	10.3647	584.444	mg/L	10.3647	1.77%
Mg 279.077	19298.8	112.885	mg/L	2.1847	112.885	mg/L	2.1847	1.94%
Mn 257.610	27702.9	8.11638	mg/L	0.159479	8.11638	mg/L	0.159479	1.96%
K 766.490	129376.6	105.435	mg/L	2.0405	105.435	mg/L	2.0405	1.94%
Na 589.592	276937.3	96.6888	mg/L	0.98912	96.6888	mg/L	0.98912	1.02%
Ti 334.940	16710.0	5.14834	mg/L	0.092672	5.14834	mg/L	0.092672	1.80%

Sequence No.: 18  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/10/2011 12:07:14 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	717.7	5.35828 mg/L	0.092385	5.35828 mg/L	0.092385	1.72%
QC value within limits for Al 308.215 Recovery = 107.17%						
Ca 315.887	36033.1	53.7145 mg/L	1.17325	53.7145 mg/L	1.17325	2.18%
QC value within limits for Ca 315.887 Recovery = 107.43%						
Fe 273.955	878.5	5.41971 mg/L	0.006231	5.41971 mg/L	0.006231	0.11%
QC value within limits for Fe 273.955 Recovery = 108.39%						
Mg 279.077	8973.2	52.4302 mg/L	0.26084	52.4302 mg/L	0.26084	0.50%
QC value within limits for Mg 279.077 Recovery = 104.86%						
Mn 257.610	1803.8	0.525925 mg/L	0.0018292	0.525925 mg/L	0.0018292	0.35%
QC value within limits for Mn 257.610 Recovery = 105.18%						
K 766.490	64345.2	52.5833 mg/L	1.45123	52.5833 mg/L	1.45123	2.76%
QC value within limits for K 766.490 Recovery = 105.17%						
Na 589.592	148433.4	51.8203 mg/L	1.39263	51.8203 mg/L	1.39263	2.69%
QC value within limits for Na 589.592 Recovery = 103.64%						
Ti 334.940	1722.9	0.530678 mg/L	0.0014335	0.530678 mg/L	0.0014335	0.27%
QC value within limits for Ti 334.940 Recovery = 106.14%						

All analyte(s) passed QC.

Sequence No.: 19

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 12/10/2011 12:10:17 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Units	Std.Dev.	RSD
Al 308.215	13.0	0.0793934	mg/L	0.01912654	0.0793934	mg/L	0.01912654	24.09%
QC value within limits for Al 308.215 Recovery = Not calculated								
Ca 315.887	95.3	-0.129968	mg/L	0.0152453	-0.129968	mg/L	0.0152453	11.73%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Fe 273.955	27.7	0.166322	mg/L	0.0044905	0.166322	mg/L	0.0044905	2.70%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077	6.6	-0.0678585	mg/L	0.02060255	-0.0678585	mg/L	0.02060255	30.36%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	0.8	0.0002343	mg/L	0.00035294	0.0002343	mg/L	0.00035294	150.64%
QC value within limits for Mn 257.610 Recovery = Not calculated								
K 766.490	1451.0	1.46854	mg/L	0.083517	1.46854	mg/L	0.083517	5.69%
QC value within limits for K 766.490 Recovery = Not calculated								
Na 589.592	1033.0	0.354015	mg/L	0.0099387	0.354015	mg/L	0.0099387	2.81%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ti 334.940	7.6	0.0021513	mg/L	0.00112834	0.0021513	mg/L	0.00112834	52.45%
QC value within limits for Ti 334.940 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: 63081-011 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 121  
 Date Collected: 12/10/2011 12:13:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-011 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	6241.4	46.7343	mg/L	0.01147	46.7343	mg/L	0.01147 0.02%
Ca 315.887	60141.1	89.8348	mg/L	0.94507	89.8348	mg/L	0.94507 1.05%
Fe 273.955	20645.9	127.472	mg/L	0.1179	127.472	mg/L	0.1179 0.09%
Mg 279.077	2423.0	14.0800	mg/L	0.03214	14.0800	mg/L	0.03214 0.23%
Mn 257.610	5705.7	1.67219	mg/L	0.005642	1.67219	mg/L	0.005642 0.34%
K 766.490	13191.4	11.0101	mg/L	0.13788	11.0101	mg/L	0.13788 1.25%
Na 589.592	27958.5	9.75533	mg/L	0.088329	9.75533	mg/L	0.088329 0.91%
Ti 334.940	3309.4	1.01949	mg/L	0.004457	1.01949	mg/L	0.004457 0.44%

Sequence No.: 21  
 Sample ID: 63081-012  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 122  
 Date Collected: 12/10/2011 12:16:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-012

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.	Units		Conc.	Units		
Al 308.215	14410.1	107.924	mg/L	0.8407	107.924	mg/L	0.8407	0.78%
Ca 315.887	319098.1	477.822	mg/L	4.0081	477.822	mg/L	4.0081	0.84%
Fe 273.955	38652.4	238.651	mg/L	2.2067	238.651	mg/L	2.2067	0.92%
Mg 279.077	8031.9	46.9188	mg/L	0.28587	46.9188	mg/L	0.28587	0.61%
Mn 257.610	12399.3	3.63093	mg/L	0.023097	3.63093	mg/L	0.023097	0.64%
K 766.490	42368.5	34.7226	mg/L	0.27086	34.7226	mg/L	0.27086	0.78%
Na 589.592	75241.1	26.2645	mg/L	0.24902	26.2645	mg/L	0.24902	0.95%
Ti 334.940	8614.5	2.65405	mg/L	0.021800	2.65405	mg/L	0.021800	0.82%

Sequence No.: 22  
 Sample ID: ICESA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/10/2011 12:18:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICESA V-128666

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	68062.2	509.817 mg/L	5.9642	509.817 mg/L	5.9642	1.17%
QC value within limits for Al 308.215 Recovery = 101.96%						
Ca 315.887	340967.8	510.589 mg/L	6.7345	510.589 mg/L	6.7345	1.32%
QC value within limits for Ca 315.887 Recovery = 102.12%						
Fe 273.955	31450.5	194.184 mg/L	2.6387	194.184 mg/L	2.6387	1.36%
QC value within limits for Fe 273.955 Recovery = 97.09%						
Mg 279.077	87943.2	514.785 mg/L	7.3034	514.785 mg/L	7.3034	1.42%
QC value within limits for Mg 279.077 Recovery = 102.96%						
Mn 257.610	1.4	0.0155408 mg/L	0.00141315	0.0155408 mg/L	0.00141315	9.09%
K 766.490	2494.9	2.31699 mg/L	0.325643	2.31699 mg/L	0.325643	14.05%
Na 589.592	1405.1	0.483937 mg/L	0.0239361	0.483937 mg/L	0.0239361	4.95%
Ti 334.940	-11.6	-0.0037417 mg/L	0.00032485	-0.0037417 mg/L	0.00032485	8.68%

All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/10/2011 12:22:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.	Units		Conc.	Units		
Al 308.215	67645.1	506.693	mg/L	0.4988	506.693	mg/L	0.4988	0.10%
QC value within limits for Al 308.215 Recovery = 101.34%								
Ca 315.887	339423.2	508.274	mg/L	0.8426	508.274	mg/L	0.8426	0.17%
QC value within limits for Ca 315.887 Recovery = 101.65%								
Fe 273.955	30989.5	191.337	mg/L	0.2419	191.337	mg/L	0.2419	0.13%
QC value within limits for Fe 273.955 Recovery = 95.67%								
Mg 279.077	87538.5	512.415	mg/L	1.3280	512.415	mg/L	1.3280	0.26%
QC value within limits for Mg 279.077 Recovery = 102.48%								
Mn 257.610	1710.6	0.513271	mg/L	0.0010153	0.513271	mg/L	0.0010153	0.20%
QC value within limits for Mn 257.610 Recovery = 102.65%								
K 766.490	2026.1	1.93597	mg/L	0.005078	1.93597	mg/L	0.005078	0.26%
Na 589.592	978.2	0.334878	mg/L	0.0127793	0.334878	mg/L	0.0127793	3.82%
Ti 334.940	-7.3	-0.0024377	mg/L	0.00138542	-0.0024377	mg/L	0.00138542	56.83%

All analyte(s) passed QC.

Sequence No.: 24  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/10/2011 12:25:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	713.6	5.32747 mg/L	0.023447	5.32747 mg/L	0.023447	0.44%
QC value within limits for Al 308.215 Recovery = 106.55%						
Ca 315.887	35551.6	52.9931 mg/L	0.61005	52.9931 mg/L	0.61005	1.15%
QC value within limits for Ca 315.887 Recovery = 105.99%						
Fe 273.955	846.9	5.22421 mg/L	0.012929	5.22421 mg/L	0.012929	0.25%
QC value within limits for Fe 273.955 Recovery = 104.48%						
Mg 279.077	8850.4	51.7108 mg/L	0.10444	51.7108 mg/L	0.10444	0.20%
QC value within limits for Mg 279.077 Recovery = 103.42%						
Mn 257.610	1756.4	0.512087 mg/L	0.0002080	0.512087 mg/L	0.0002080	0.04%
QC value within limits for Mn 257.610 Recovery = 102.42%						
K 766.490	61369.2	50.1647 mg/L	1.06960	50.1647 mg/L	1.06960	2.13%
QC value within limits for K 766.490 Recovery = 100.33%						
Na 589.592	144795.4	50.5501 mg/L	0.77970	50.5501 mg/L	0.77970	1.54%
QC value within limits for Na 589.592 Recovery = 101.10%						
Ti 334.940	1685.8	0.519241 mg/L	0.0007060	0.519241 mg/L	0.0007060	0.14%
QC value within limits for Ti 334.940 Recovery = 103.85%						

All analyte(s) passed QC.

Sequence No.: 25

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 12/10/2011 12:28:45 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Al 308.215	22.9	0.153395	mg/L	0.0223928	0.153395	mg/L	0.0223928 14.60%
QC value within limits for Al 308.215 Recovery = Not calculated							
Ca 315.887	111.1	-0.106243	mg/L	0.0075897	-0.106243	mg/L	0.0075897 7.14%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Fe 273.955	16.2	0.0952002	mg/L	0.02107043	0.0952002	mg/L	0.02107043 22.13%
QC value within limits for Fe 273.955 Recovery = Not calculated							
Mg 279.077	19.5	0.0079146	mg/L	0.03611646	0.0079146	mg/L	0.03611646 456.32%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mn 257.610	-5.1	-0.0014886	mg/L	0.00075886	-0.0014886	mg/L	0.00075886 50.98%
QC value within limits for Mn 257.610 Recovery = Not calculated							
K 766.490	853.4	0.982884	mg/L	0.0121250	0.982884	mg/L	0.0121250 1.23%
QC value within limits for K 766.490 Recovery = Not calculated							
Na 589.592	620.5	0.210009	mg/L	0.0051758	0.210009	mg/L	0.0051758 2.46%
QC value within limits for Na 589.592 Recovery = Not calculated							
Ti 334.940	-1.2	-0.0005617	mg/L	0.00254088	-0.0005617	mg/L	0.00254088 452.36%
QC value within limits for Ti 334.940 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: MB 11691 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 123  
 Date Collected: 12/10/2011 12:31:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11691 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	14.3	0.0888489	mg/L	0.01727571	0.0888489	mg/L	0.01727571	19.44%
Ca 315.887	308.5	0.189503	mg/L	0.0023839	0.189503	mg/L	0.0023839	1.26%
Fe 273.955	33.7	0.203185	mg/L	0.0024712	0.203185	mg/L	0.0024712	1.22%
Mg 279.077	13.1	-0.0298598	mg/L	0.03451225	-0.0298598	mg/L	0.03451225	115.58%
Mn 257.610	-1.4	-0.0003983	mg/L	0.00063685	-0.0003983	mg/L	0.00063685	159.91%
K 766.490	452.8	0.657330	mg/L	0.0851380	0.657330	mg/L	0.0851380	12.95%
Na 589.592	1116.9	0.383316	mg/L	0.0019722	0.383316	mg/L	0.0019722	0.51%
Ti 334.940	6.4	0.0017993	mg/L	0.00158659	0.0017993	mg/L	0.00158659	88.18%

Sequence No.: 27  
 Sample ID: LCSW 11691  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 124  
 Date Collected: 12/10/2011 12:34:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCSW 11691

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	719.6	5.37250	mg/L	0.114829	5.37250	mg/L	0.114829	2.14%
Ca 315.887	36405.9	54.2731	mg/L	0.45747	54.2731	mg/L	0.45747	0.84%
Fe 273.955	868.6	5.35832	mg/L	0.032257	5.35832	mg/L	0.032257	0.60%
Mg 279.077	9117.1	53.2726	mg/L	0.12182	53.2726	mg/L	0.12182	0.23%
Mn 257.610	1815.8	0.529391	mg/L	0.0006034	0.529391	mg/L	0.0006034	0.11%
K 766.490	62609.3	51.1725	mg/L	0.16106	51.1725	mg/L	0.16106	0.31%
Na 589.592	148301.7	51.7744	mg/L	0.39374	51.7744	mg/L	0.39374	0.76%
Ti 334.940	1740.3	0.536024	mg/L	0.0014021	0.536024	mg/L	0.0014021	0.26%

Sequence No.: 28  
 Sample ID: LCSW MR 11691  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 125  
 Date Collected: 12/10/2011 12:37:44 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: LCSW MR 11691

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	712.9	5.32223	mg/L	0.012511	5.32223	mg/L	0.012511	0.24%
Ca 315.887	36019.8	53.6947	mg/L	0.37092	53.6947	mg/L	0.37092	0.69%
Fe 273.955	863.2	5.32494	mg/L	0.050235	5.32494	mg/L	0.050235	0.94%
Mg 279.077	9071.3	53.0042	mg/L	0.15965	53.0042	mg/L	0.15965	0.30%
Mn 257.610	1794.7	0.523256	mg/L	0.0046741	0.523256	mg/L	0.0046741	0.89%
K 766.490	62356.3	50.9669	mg/L	0.50442	50.9669	mg/L	0.50442	0.99%
Na 589.592	147213.1	51.3943	mg/L	0.28766	51.3943	mg/L	0.28766	0.56%
Ti 334.940	1727.0	0.531935	mg/L	0.0000514	0.531935	mg/L	0.0000514	0.01%

Sequence No.: 29  
 Sample ID: 63111-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 126  
 Date Collected: 12/10/2011 12:40:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: 63111-047

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units	Units		
Al 308.215	11575.1	86.6877	mg/L	0.05983	86.6877	mg/L	0.05983	0.07%
Ca 315.887	237503.7	355.572	mg/L	4.7242	355.572	mg/L	4.7242	1.33%
Fe 273.955	42282.9	261.067	mg/L	1.3439	261.067	mg/L	1.3439	0.51%
Mg 279.077	11778.0	68.8515	mg/L	0.28667	68.8515	mg/L	0.28667	0.42%
Mn 257.610	9489.9	2.78508	mg/L	0.001029	2.78508	mg/L	0.001029	0.04%
K 766.490	68809.1	56.2111	mg/L	0.06030	56.2111	mg/L	0.06030	0.11%
Na 589.592	306008.1	106.839	mg/L	1.5048	106.839	mg/L	1.5048	1.41%
Ti 334.940	9214.0	2.83875	mg/L	0.002422	2.83875	mg/L	0.002422	0.09%

Sequence No.: 30  
 Sample ID: 63111-048  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 127  
 Date Collected: 12/10/2011 12:43:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: 63111-048

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Al 308.215	31900.7	238.941	mg/L	2.3687	238.941	mg/L	0.99%
Ca 315.887	701972.9	1051.47	mg/L	1.554	1051.47	mg/L	0.15%
Fe 273.955	87461.7	540.020	mg/L	3.6345	540.020	mg/L	0.67%
Mg 279.077	16253.4	95.0543	mg/L	0.86694	95.0543	mg/L	0.91%
Mn 257.610	29211.4	8.55238	mg/L	0.079514	8.55238	mg/L	0.93%
K 766.490	84755.2	69.1707	mg/L	0.83068	69.1707	mg/L	1.20%
Na 589.592	212910.5	74.3331	mg/L	0.02726	74.3331	mg/L	0.04%
Ti 334.940	23374.6	7.20179	mg/L	0.116063	7.20179	mg/L	1.61%

Sequence No.: 31  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/10/2011 12:46:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	68247.1	511.202 mg/L		1.1918	511.202 mg/L	1.1918	0.23%
QC value within limits for Al 308.215 Recovery = 102.24%							
Ca 315.887	343428.4	514.275 mg/L		1.3059	514.275 mg/L	1.3059	0.25%
QC value within limits for Ca 315.887 Recovery = 102.86%							
Fe 273.955	31701.3	195.732 mg/L		0.9816	195.732 mg/L	0.9816	0.50%
QC value within limits for Fe 273.955 Recovery = 97.87%							
Mg 279.077	88465.9	517.845 mg/L		0.6769	517.845 mg/L	0.6769	0.13%
QC value within limits for Mg 279.077 Recovery = 103.57%							
Mn 257.610	-3.5	0.0142417 mg/L		0.00115031	0.0142417 mg/L	0.00115031	8.08%
K 766.490	2972.4	2.70503 mg/L		0.003050	2.70503 mg/L	0.003050	0.11%
Na 589.592	1850.3	0.639390 mg/L		0.0476875	0.639390 mg/L	0.0476875	7.46%
Ti 334.940	-7.7	-0.0025442 mg/L		0.00038473	-0.0025442 mg/L	0.00038473	15.12%

All analyte(s) passed QC.

```

=====
Sequence No.: 32                               Autosampler Location: 6
Sample ID: ICSAB V-128667                     Date Collected: 12/10/2011 12:49:32 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                            Initial Sample Vol:
Dilution:                                    Sample Prep Vol:
=====
    
```

-----  
Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	68185.8	510.743 mg/L	2.2398	510.743 mg/L	2.2398	0.44%
QC value within limits for Al 308.215 Recovery = 102.15%						
Ca 315.887	342304.7	512.592 mg/L	1.7334	512.592 mg/L	1.7334	0.34%
QC value within limits for Ca 315.887 Recovery = 102.52%						
Fe 273.955	31209.6	192.696 mg/L	0.9062	192.696 mg/L	0.9062	0.47%
QC value within limits for Fe 273.955 Recovery = 96.35%						
Mg 279.077	88392.0	517.413 mg/L	1.7222	517.413 mg/L	1.7222	0.33%
QC value within limits for Mg 279.077 Recovery = 103.48%						
Mn 257.610	1718.4	0.515656 mg/L	0.0044924	0.515656 mg/L	0.0044924	0.87%
QC value within limits for Mn 257.610 Recovery = 103.13%						
K 766.490	1537.0	1.53845 mg/L	0.037784	1.53845 mg/L	0.037784	2.46%
Na 589.592	1181.4	0.405848 mg/L	0.0179329	0.405848 mg/L	0.0179329	4.42%
Ti 334.940	-8.1	-0.0026742 mg/L	0.00146324	-0.0026742 mg/L	0.00146324	54.72%

All analyte(s) passed QC.

Sequence No.: 33  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/10/2011 12:52:54 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.	Units		Conc.	Units		
Al 308.215	735.7	5.49269	mg/L	0.076271	5.49269	mg/L	0.076271	1.39%
QC value within limits for Al 308.215 Recovery = 109.85%								
Ca 315.887	36000.7	53.6660	mg/L	0.10093	53.6660	mg/L	0.10093	0.19%
QC value within limits for Ca 315.887 Recovery = 107.33%								
Fe 273.955	869.6	5.36432	mg/L	0.010610	5.36432	mg/L	0.010610	0.20%
QC value within limits for Fe 273.955 Recovery = 107.29%								
Mg 279.077	9060.6	52.9418	mg/L	0.16051	52.9418	mg/L	0.16051	0.30%
QC value within limits for Mg 279.077 Recovery = 105.88%								
Mn 257.610	1805.0	0.526270	mg/L	0.0022240	0.526270	mg/L	0.0022240	0.42%
QC value within limits for Mn 257.610 Recovery = 105.25%								
K 766.490	61945.8	50.6333	mg/L	0.18135	50.6333	mg/L	0.18135	0.36%
QC value within limits for K 766.490 Recovery = 101.27%								
Na 589.592	146155.3	51.0249	mg/L	0.13380	51.0249	mg/L	0.13380	0.26%
QC value within limits for Na 589.592 Recovery = 102.05%								
Ti 334.940	1723.9	0.530968	mg/L	0.0012511	0.530968	mg/L	0.0012511	0.24%
QC value within limits for Ti 334.940 Recovery = 106.19%								

All analyte(s) passed QC.

Sequence No.: 34  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/10/2011 12:55:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	17.6	0.114167 mg/L	0.0174240	0.114167 mg/L	0.0174240	15.26%
QC value within limits for Al 308.215 Recovery = Not calculated						
Ca 315.887	134.2	-0.0716242 mg/L	0.00247355	-0.0716242 mg/L	0.00247355	3.45%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Fe 273.955	14.6	0.0851623 mg/L	0.00010462	0.0851623 mg/L	0.00010462	0.12%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Mg 279.077	19.2	0.0059667 mg/L	0.01925474	0.0059667 mg/L	0.01925474	322.71%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610	-7.4	-0.0021640 mg/L	0.00138888	-0.0021640 mg/L	0.00138888	64.18%
QC value within limits for Mn 257.610 Recovery = Not calculated						
K 766.490	805.6	0.944016 mg/L	0.1226004	0.944016 mg/L	0.1226004	12.99%
QC value within limits for K 766.490 Recovery = Not calculated						
Na 589.592	660.5	0.223963 mg/L	0.0260093	0.223963 mg/L	0.0260093	11.61%
QC value within limits for Na 589.592 Recovery = Not calculated						
Ti 334.940	4.7	0.0012729 mg/L	0.00037704	0.0012729 mg/L	0.00037704	29.62%
QC value within limits for Ti 334.940 Recovery = Not calculated						

All analyte(s) passed QC.

1st Review of 12/12/2011

V-130396

Analysis Begun

Logged In Analyst: johns  
Spectrometer Model: FIMS-100, S/N B050-9550

Technique: AA FIMS-MHS  
Autosampler Model: AS-91

gh 12/29/11

Sample Information File: C:\data-AA\johns\Sample Information\H13377Swc.sif  
Batch ID: H13377Swc  
Results Data Set: H13377Swc  
Results Library: C:\data-AA\johns\Results\Results.mdb

Method Loaded

Method Name: HgCV1 SWH20 (7470A)  
Method Description: HgCV1 SW846H20

Method Last Saved: 6/20/2011 2:11:26 PM

Sequence No.: 1  
Sample ID: Calibration Blank  
Analyst:

Autosampler Location: 1  
Date Collected: 12/9/2011 6:20:49 PM  
Data Type: Original

Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	0.0010	0.0001	18:21:37	Yes
2		[0.00]	0.0001	0.0009	0.0001	18:22:11	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	8.82				

Auto-zero performed.

Sequence No.: 2  
Sample ID: .2 PPB  
Analyst:

Autosampler Location: 2  
Date Collected: 12/9/2011 6:22:12 PM  
Data Type: Original

Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0010	0.0036	0.0012	18:22:59	Yes
2		[0.2]	0.0006	-0.0029	0.0007	18:23:33	Yes
Mean:		[0.2]	0.0008				
SD:		0.0	0.0003				
%RSD:		0.0	36.15				

Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000 Slope: 0.00407 Intercept: 0.00000

Sequence No.: 3  
Sample ID: .5 PPB  
Analyst:

Autosampler Location: 3  
Date Collected: 12/9/2011 6:23:34 PM  
Data Type: Original

Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0022	0.0033	0.0023	18:24:21	Yes
2		[0.5]	0.0022	0.0044	0.0024	18:24:55	Yes
Mean:		[0.5]	0.0022				
SD:		0.0	0.0000				
%RSD:		0.0	0.89				

Standard number 2 applied. [0.5]  
Correlation Coef.: 0.999323 Slope: 0.00445 Intercept: -0.00003

Sequence No.: 4  
Sample ID: 1 PPB  
Analyst:

Autosampler Location: 4  
Date Collected: 12/9/2011 6:24:57 PM  
Data Type: Original

Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Method: HgCV1 SWH2O (7470A)

Page 2

Date: 12/9/2011 6:31:46 PM

1	[1]	0.0051	0.0187	0.0052	18:25:44	Yes
2	[1]	0.0049	0.0167	0.0050	18:26:17	Yes
Mean:	[1]	0.0050				
SD:	0	0.0002				
%RSD:	0	3.37				

Standard number 3 applied. [1]  
Correlation Coef.: 0.997954 Slope: 0.00503 Intercept: -0.00013

Sequence No.: 5 Autosampler Location: 5  
Sample ID: 2 PPB Date Collected: 12/9/2011 6:26:19 PM  
Analyst: Data Type: Original

Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[2]	[2]	0.0108	0.0423	0.0109	18:27:06	Yes
2	[2]	[2]	0.0108	0.0415	0.0109	18:27:39	Yes
Mean:	[2]	[2]	0.0108				
SD:	0	0	0.0000				
%RSD:	0	0	0.10				

Standard number 4 applied. [2]  
Correlation Coef.: 0.998745 Slope: 0.00546 Intercept: -0.00027

Sequence No.: 6 Autosampler Location: 6  
Sample ID: 5 PPB Date Collected: 12/9/2011 6:27:41 PM  
Analyst: Data Type: Original

Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[5]	[5]	0.0268	0.0935	0.0269	18:28:27	Yes
2	[5]	[5]	0.0270	0.0934	0.0272	18:29:00	Yes
Mean:	[5]	[5]	0.0269				
SD:	0	0	0.0002				
%RSD:	0	0	0.72				

Standard number 5 applied. [5]  
Correlation Coef.: 0.999816 Slope: 0.00544 Intercept: -0.00026

Sequence No.: 7 Autosampler Location: 7  
Sample ID: 10 PPB Date Collected: 12/9/2011 6:29:01 PM  
Analyst: Data Type: Original

Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[10]	[10]	0.0532	0.1819	0.0533	18:29:49	Yes
2	[10]	[10]	0.0534	0.1824	0.0535	18:30:23	Yes
Mean:	[10]	[10]	0.0533				
SD:	0	0	0.0002				
%RSD:	0	0	0.29				

Standard number 6 applied. [10]  
Correlation Coef.: 0.999932 Slope: 0.00536 Intercept: -0.00018

Sequence No.: 8 Autosampler Location: 8  
Sample ID: 25 PPB Date Collected: 12/9/2011 6:30:24 PM  
Analyst: Data Type: Original

Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[25]	[25]	0.1304	0.4439	0.1305	18:31:11	Yes
2	[25]	[25]	0.1310	0.4440	0.1311	18:31:45	Yes
Mean:	[25]	[25]	0.1307				
SD:	0	0	0.0004				
%RSD:	0	0	0.32				

Standard number 7 applied. [25]  
Correlation Coef.: 0.999940 Slope: 0.00524 Intercept: 0.00008

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.015	0.00	8.8
.2 PPB	0.0008	0.2	0.140	0.00	36.1
.5 PPB	0.0022	0.5	0.407	0.00	0.9
1 PPB	0.0050	1.0	0.938	0.00	3.4
2 PPB	0.0108	2.0	2.043	0.00	0.1
5 PPB	0.0269	5.0	5.118	0.00	0.7
10 PPB	0.0533	10.0	10.151	0.00	0.3
25 PPB	0.1307	25.0	24.917	0.00	0.3

Correlation Coef.: 0.999940 Slope: 0.00524 Intercept: 0.00008

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/9/2011 6:31:46 PM

Analyst:

Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.73	20.73	0.1088	0.3615	0.1089	18:32:36	Yes
2	20.66	20.66	0.1084	0.3637	0.1085	18:33:09	Yes
Mean:	20.70	20.70	0.1086				
SD:	0.048	0.048	0.0003				
%RSD:	0.234	0.234	0.23				

QC value within limits for Hg 253.7 Recovery = 103.49%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/9/2011 6:33:11 PM

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0000	-0.0002	0.0001	18:33:58	Yes
2	-0.043	-0.043	-0.0001	-0.0021	-0.0000	18:34:31	Yes
Mean:	-0.029	-0.029	-0.0001				
SD:	0.020	0.020	0.0001				
%RSD:	67.90	67.90	140.40				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11681 (1)

Date Collected: 12/9/2011 6:34:33 PM

Analyst:

Data Type: Original

## Replicate Data: MB 11681 (1)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0000	0.0010	0.0001	18:35:20	Yes
2	0.098	0.098	0.0006	0.0065	0.0007	18:35:54	Yes
Mean:	0.040	0.040	0.0003				
SD:	0.082	0.082	0.0004				
%RSD:	207.3	207.3	150.37				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCSW 11681

Date Collected: 12/9/2011 6:35:55 PM

Analyst:

Data Type: Original

## Replicate Data: LCSW 11681

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.46	10.46	0.0549	0.1893	0.0550	18:36:41	Yes
2	10.49	10.49	0.0550	0.1880	0.0552	18:37:15	Yes
Mean:	10.47	10.47	0.0550				

SD: 0.019 0.019 0.0001  
 %RSD: 0.180 0.180 0.18

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCSW MR 11681 Date Collected: 12/9/2011 6:37:16 PM  
 Analyst: Data Type: Original

## Replicate Data: LCSW MR 11681

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.55	10.55	0.0554	0.1882	0.0555	18:38:03	Yes
2	10.57	10.57	0.0555	0.1884	0.0556	18:38:36	Yes
Mean:	10.56	10.56	0.0554				
SD:	0.019	0.019	0.0001				
%RSD:	0.181	0.181	0.18				

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63077-001 Date Collected: 12/9/2011 6:38:38 PM  
 Analyst: Data Type: Original

## Replicate Data: 63077-001

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0001	0.0010	0.0002	18:39:24	Yes
2	-0.021	-0.021	-0.0000	0.0001	0.0001	18:39:58	Yes
Mean:	-0.011	-0.011	0.0000				
SD:	0.014	0.014	0.0001				
%RSD:	132.5	132.5	316.44				

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63077-001 MR Date Collected: 12/9/2011 6:39:59 PM  
 Analyst: Data Type: Original

## Replicate Data: 63077-001 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.030	-0.030	-0.0001	-0.0000	0.0001	18:40:46	Yes
2	-0.037	-0.037	-0.0001	-0.0005	0.0000	18:41:19	Yes
Mean:	-0.034	-0.034	-0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	14.36	14.36	25.83				

Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63077-001 MS1 Date Collected: 12/9/2011 6:41:21 PM  
 Analyst: Data Type: Original

## Replicate Data: 63077-001 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.31	10.31	0.0541	0.1770	0.0542	18:42:07	Yes
2	10.22	10.22	0.0536	0.1803	0.0538	18:42:41	Yes
Mean:	10.26	10.26	0.0539				
SD:	0.064	0.064	0.0003				
%RSD:	0.623	0.623	0.62				

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63077-001 MS2 Date Collected: 12/9/2011 6:42:42 PM  
 Analyst: Data Type: Original

## Replicate Data: 63077-001 MS2

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.944	9.944	0.0522	0.1753	0.0523	18:43:29	Yes
2	9.895	9.895	0.0519	0.1739	0.0521	18:44:02	Yes
Mean:	9.920	9.920	0.0521				
SD:	0.035	0.035	0.0002				

%RSD: 0.351 0.351 0.35

Sequence No.: 18 Autosampler Location: 18  
 Sample ID: 63081-011 Date Collected: 12/9/2011 6:44:04 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-011

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	56.19	56.19	0.2946	1.0328	0.2947	18:44:50	Yes
Sample concentration is greater than that of the highest standard.							
2	57.23	57.23	0.3001	1.0454	0.3002	18:45:24	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	56.71	56.71	0.2973				
SD:	0.740	0.740	0.0039				
%RSD:	1.305	1.305	1.30				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 19 Autosampler Location: 19  
 Sample ID: 63081-012 Date Collected: 12/9/2011 6:45:25 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-012

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	107.9	107.9	0.5655	2.0611	0.5657	18:46:16	Yes
Sample concentration is greater than that of the highest standard.							
2	108.0	108.0	0.5664	2.0610	0.5665	18:46:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	108.0	108.0	0.5659				
SD:	0.113	0.113	0.0006				
%RSD:	0.105	0.105	0.11				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 20 Autosampler Location: 20  
 Sample ID: 63081-011 5D Date Collected: 12/9/2011 6:46:51 PM  
 Analyst: Data Type: Original

## Replicate Data: 63081-011 5D

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	13.60	13.60	0.0714	0.2419	0.0715	18:47:37	Yes
2	13.71	13.71	0.0719	0.2435	0.0721	18:48:11	Yes
Mean:	13.65	13.65	0.0717				
SD:	0.076	0.076	0.0004				
%RSD:	0.559	0.559	0.56				

Sequence No.: 21 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/9/2011 6:48:12 PM  
 Analyst: Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.62	10.62	0.0557	0.1894	0.0559	18:48:59	Yes
2	10.59	10.59	0.0556	0.1886	0.0557	18:49:33	Yes
Mean:	10.60	10.60	0.0556				
SD:	0.021	0.021	0.0001				
%RSD:	0.199	0.199	0.20				

QC value within limits for Hg 253.7 Recovery = 106.00%  
 All analyte(s) passed QC.

Sequence No.: 22 Autosampler Location: 1  
 Sample ID: CCB Date Collected: 12/9/2011 6:49:34 PM  
 Analyst: Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0000	-0.0002	0.0001	18:50:21	Yes
2	-0.026	-0.026	-0.0001	-0.0013	0.0001	18:50:55	Yes
Mean:	-0.021	-0.021	-0.0000				
SD:	0.007	0.007	0.0000				
%RSD:	35.02	35.02	124.98				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 23

Sample ID: 63081-012 10D

Analyst:

Autosampler Location: 21

Date Collected: 12/9/2011 6:50:56 PM

Data Type: Original

## Replicate Data: 63081-012 10D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.23	14.23	0.0747	0.2497	0.0748	18:51:44	Yes
2	14.21	14.21	0.0746	0.2463	0.0747	18:52:18	Yes
Mean:	14.22	14.22	0.0746				
SD:	0.015	0.015	0.0001				
%RSD:	0.102	0.102	0.10				

Sequence No.: 24

Sample ID: CCV

Analyst:

Autosampler Location: 9

Date Collected: 12/9/2011 6:52:19 PM

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.41	10.41	0.0546	0.1836	0.0548	18:53:07	Yes
2	10.33	10.33	0.0542	0.1826	0.0544	18:53:40	Yes
Mean:	10.37	10.37	0.0544				
SD:	0.055	0.055	0.0003				
%RSD:	0.532	0.532	0.53				

QC value within limits for Hg 253.7 Recovery = 103.71%  
All analyte(s) passed QC.

Sequence No.: 25

Sample ID: CCB

Analyst:

Autosampler Location: 1

Date Collected: 12/9/2011 6:53:41 PM

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0016	0.0002	18:54:28	Yes
2	0.096	0.096	0.0006	0.0068	0.0007	18:55:01	Yes
Mean:	0.051	0.051	0.0003				
SD:	0.063	0.063	0.0003				
%RSD:	124.8	124.8	96.33				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

*1st Review of 12/12/2011*

*V-130565*

Analysis Begun

Logged In Analyst: johns      Technique: AA FIMS-MHS  
Spectrometer Model: FIMS-100, S/N B050-9550      Autosampler Model: AS-91

Sample Information File: C:\data-AA\johns\Sample Information\H13377SWf.sif  
Batch ID: H13377SWf  
Results Data Set: H13377SWf  
Results Library: C:\data-AA\johns\Results\Results.mdb

*sh 12/29/11*

Method Loaded

Method Name: HgCV1 SWH20 (7470A)      Method Last Saved: 6/20/2011 2:11:26 PM  
Method Description: HgCV1 SW846H20

Sequence No.: 1      Autosampler Location: 1  
Sample ID: Calibration Blank      Date Collected: 12/12/2011 2:46:09 PM  
Analyst:      Data Type: Original

Replicate Data: Calibration Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	-0.0001	-0.0026	-0.0001	14:46:57	Yes
2		[0.00]	0.0003	0.0021	0.0003	14:47:30	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0002				
%RSD:		0.00	298.00				

Auto-zero performed.

Sequence No.: 2      Autosampler Location: 2  
Sample ID: .2 PPB      Date Collected: 12/12/2011 2:47:32 PM  
Analyst:      Data Type: Original

Replicate Data: .2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0009	0.0016	0.0010	14:48:18	Yes
2		[0.2]	0.0012	0.0054	0.0012	14:48:52	Yes
Mean:		[0.2]	0.0010				
SD:		0.0	0.0002				
%RSD:		0.0	16.12				

Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000      Slope: 0.00521      Intercept: 0.00000

Sequence No.: 3      Autosampler Location: 3  
Sample ID: .5 PPB      Date Collected: 12/12/2011 2:48:53 PM  
Analyst:      Data Type: Original

Replicate Data: .5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0029	0.0153	0.0030	14:49:40	Yes
2		[0.5]	0.0031	0.0173	0.0032	14:50:13	Yes
Mean:		[0.5]	0.0030				
SD:		0.0	0.0002				
%RSD:		0.0	5.68				

Standard number 2 applied. [0.5]  
Correlation Coef.: 0.998138      Slope: 0.00606      Intercept: -0.00006

Sequence No.: 4      Autosampler Location: 4  
Sample ID: 1 PPB      Date Collected: 12/12/2011 2:50:14 PM  
Analyst:      Data Type: Original

Replicate Data: 1 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Method: HgCV1 SWH2O (7470A)

Page 2

Date: 12/12/2011 2:57:02 PM

1 [1] 0.0058 0.0251 0.0059 14:51:01 Yes  
 2 [1] 0.0057 0.0229 0.0058 14:51:34 Yes  
 Mean: [1] 0.0057  
 SD: 0 0.0001  
 %RSD: 0 1.09  
 Standard number 3 applied. [1]  
 Correlation Coef.: 0.999213 Slope: 0.00578 Intercept: -0.00001

=====  
 Sequence No.: 5 Autosampler Location: 5  
 Sample ID: 2 PPB Date Collected: 12/12/2011 2:51:36 PM  
 Analyst: Data Type: Original

Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[2]	[2]	0.0111	0.0409	0.0112	14:52:22	Yes
2	[2]	[2]	0.0111	0.0411	0.0112	14:52:56	Yes
Mean:	[2]	[2]	0.0111				
SD:	0	0	0.0000				
%RSD:	0	0	0.05				

Standard number 4 applied. [2]  
 Correlation Coef.: 0.999612 Slope: 0.00558 Intercept: 0.00006

=====  
 Sequence No.: 6 Autosampler Location: 6  
 Sample ID: 5 PPB Date Collected: 12/12/2011 2:52:57 PM  
 Analyst: Data Type: Original

Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[5]	[5]	0.0276	0.0969	0.0277	14:53:44	Yes
2	[5]	[5]	0.0276	0.0971	0.0277	14:54:17	Yes
Mean:	[5]	[5]	0.0276				
SD:	0	0	0.0000				
%RSD:	0	0	0.08				

Standard number 5 applied. [5]  
 Correlation Coef.: 0.999932 Slope: 0.00551 Intercept: 0.00009

=====  
 Sequence No.: 7 Autosampler Location: 7  
 Sample ID: 10 PPB Date Collected: 12/12/2011 2:54:18 PM  
 Analyst: Data Type: Original

Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[10]	[10]	0.0549	0.1923	0.0550	14:55:05	Yes
2	[10]	[10]	0.0554	0.1936	0.0555	14:55:38	Yes
Mean:	[10]	[10]	0.0552				
SD:	0	0	0.0004				
%RSD:	0	0	0.67				

Standard number 6 applied. [10]  
 Correlation Coef.: 0.999985 Slope: 0.00551 Intercept: 0.00010

=====  
 Sequence No.: 8 Autosampler Location: 8  
 Sample ID: 25 PPB Date Collected: 12/12/2011 2:55:40 PM  
 Analyst: Data Type: Original

Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[25]	[25]	0.1359	0.4742	0.1360	14:56:27	Yes
2	[25]	[25]	0.1357	0.4711	0.1358	14:57:00	Yes
Mean:	[25]	[25]	0.1358				
SD:	0	0	0.0002				
%RSD:	0	0	0.12				

Standard number 7 applied. [25]  
 Correlation Coef.: 0.999979 Slope: 0.00543 Intercept: 0.00026

Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.049	0.00	298.0
.2 PPB	0.0010	0.2	0.143	0.00	16.1
.5 PPB	0.0030	0.5	0.505	0.00	5.7
1 PPB	0.0057	1.0	1.005	0.00	1.1
2 PPB	0.0111	2.0	2.000	0.00	0.0
5 PPB	0.0276	5.0	5.037	0.00	0.1
10 PPB	0.0552	10.0	10.108	0.00	0.7
25 PPB	0.1358	25.0	24.949	0.00	0.1

Correlation Coef.: 0.999979 Slope: 0.00543 Intercept: 0.00026

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/12/2011 2:57:02 PM

Analyst:

Data Type: Original

Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.25	20.25	0.1103	0.3822	0.1104	14:57:52	Yes
2	20.31	20.31	0.1106	0.3804	0.1107	14:58:25	Yes
Mean:	20.28	20.28	0.1104				
SD:	0.041	0.041	0.0002				
%RSD:	0.203	0.203	0.20				

QC value within limits for Hg 253.7 Recovery = 101.40%  
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/12/2011 2:58:27 PM

Analyst:

Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0002	-0.0041	-0.0001	14:59:14	Yes
2	-0.071	-0.071	-0.0001	-0.0034	-0.0000	14:59:47	Yes
Mean:	-0.075	-0.075	-0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	6.067	6.067	17.33				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11691 (1)

Date Collected: 12/12/2011 2:59:49 PM

Analyst:

Data Type: Original



Replicate Data: MB 11691 (1)

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0002	-0.0039	-0.0001	15:00:37	Yes
2	-0.064	-0.064	-0.0001	-0.0007	-0.0000	15:01:10	Yes
Mean:	-0.071	-0.071	-0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	13.43	13.43	42.39				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 12

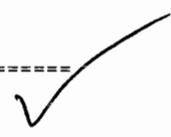
Autosampler Location: 12

Sample ID: LCSW 11691

Date Collected: 12/12/2011 3:01:12 PM

Analyst:

Data Type: Original



Replicate Data: LCSW 11691

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.10	10.10	0.0551	0.1868	0.0552	15:01:58	Yes
2	10.11	10.11	0.0552	0.1910	0.0553	15:02:31	Yes
Mean:	10.10	10.10	0.0551				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

SD: 0.006 0.006 0.0000  
 %RSD: 0.064 0.064 0.06

Sequence No.: 13

Autosampler Location: 13

Sample ID: LCSW MR 11691

Date Collected: 12/12/2011 3:02:33 PM

Analyst:

Data Type: Original

Replicate Data: LCSW MR 11691

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.06	10.06	0.0549	0.1985	0.0550	15:03:19	Yes
2	10.13	10.13	0.0553	0.1968	0.0554	15:03:53	Yes
Mean:	10.09	10.09	0.0551				
SD:	0.050	0.050	0.0003				
%RSD:	0.495	0.495	0.49				

Sequence No.: 14

Autosampler Location: 14

Sample ID: 63111-047

Date Collected: 12/12/2011 3:03:54 PM

Analyst:

Data Type: Original

Replicate Data: 63111-047

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	179.1	179.1	0.9730	4.1063	0.9731	15:04:41	Yes
Sample concentration is greater than that of the highest standard.							
2	178.6	178.6	0.9706	4.1329	0.9707	15:05:14	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	178.8	178.8	0.9718				
SD:	0.315	0.315	0.0017				
%RSD:	0.176	0.176	0.18				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 15

Autosampler Location: 15

Sample ID: 63111-048

Date Collected: 12/12/2011 3:05:15 PM

Analyst:

Data Type: Original

Replicate Data: 63111-048

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	33.86	33.86	0.1842	0.6511	0.1843	15:06:02	Yes
Sample concentration is greater than that of the highest standard.							
2	34.45	34.45	0.1874	0.6619	0.1875	15:06:35	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	34.16	34.16	0.1858				
SD:	0.417	0.417	0.0023				
%RSD:	1.221	1.221	1.22				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 16

Autosampler Location: 16

Sample ID: 63111-047 10D

Date Collected: 12/12/2011 3:06:37 PM

Analyst:

Data Type: Original

Replicate Data: 63111-047 10D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	35.59	35.59	0.1936	0.6703	0.1937	15:07:23	Yes
Sample concentration is greater than that of the highest standard.							
2	35.61	35.61	0.1937	0.6704	0.1938	15:07:56	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	35.60	35.60	0.1937				
SD:	0.015	0.015	0.0001				
%RSD:	0.041	0.041	0.04				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 17

Autosampler Location: 17

Sample ID: 63111-048 2D

Date Collected: 12/12/2011 3:07:58 PM

Analyst:

Data Type: Original

-----  
Replicate Data: 63111-048 2D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.01	19.01	0.1035	0.3564	0.1036	15:08:44	Yes
2	18.93	18.93	0.1031	0.3550	0.1032	15:09:18	Yes
Mean:	18.97	18.97	0.1033				
SD:	0.056	0.056	0.0003				
%RSD:	0.297	0.297	0.30				

=====

Sequence No.: 18  
Sample ID: 63111-047 20D  
Analyst:Autosampler Location: 18  
Date Collected: 12/12/2011 3:09:19 PM  
Data Type: Original-----  
Replicate Data: 63111-047 20D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	18.39	18.39	0.1001	0.3391	0.1002	15:10:06	Yes
2	18.25	18.25	0.0994	0.3366	0.0995	15:10:39	Yes
Mean:	18.32	18.32	0.0998				
SD:	0.095	0.095	0.0005				
%RSD:	0.517	0.517	0.52				

=====

Sequence No.: 19  
Sample ID: CCV  
Analyst:Autosampler Location: 9  
Date Collected: 12/12/2011 3:10:40 PM  
Data Type: Original-----  
Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.679	9.679	0.0528	0.1802	0.0529	15:11:30	Yes
2	9.749	9.749	0.0532	0.1840	0.0533	15:12:03	Yes
Mean:	9.714	9.714	0.0530				
SD:	0.050	0.050	0.0003				
%RSD:	0.510	0.510	0.51				

QC value within limits for Hg 253.7 Recovery = 97.14%  
All analyte(s) passed QC.

=====

Sequence No.: 20  
Sample ID: CCB  
Analyst:Autosampler Location: 1  
Date Collected: 12/12/2011 3:12:05 PM  
Data Type: Original-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	0.0001	0.0005	0.0002	15:12:51	Yes
2	-0.035	-0.035	0.0001	0.0000	0.0002	15:13:25	Yes
Mean:	-0.033	-0.033	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.658	5.658	12.35				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.



1	[1]	0.0050	0.0175	0.0053	19:26:11	Yes
2	[1]	0.0050	0.0175	0.0052	19:26:45	Yes
Mean:	[1]	0.0050				
SD:	0	0.0000				
%RSD:	0	0.51				

Standard number 3 applied. [1]  
Correlation Coef.: 0.999399 Slope: 0.00508 Intercept: -0.00008

Sequence No.: 5 Autosampler Location: 5  
Sample ID: 2 PPB Date Collected: 12/8/2011 7:26:46 PM  
Analyst: Data Type: Original

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0105	0.0355	0.0107	19:27:33	Yes
2		[2]	0.0103	0.0345	0.0105	19:28:06	Yes
Mean:		[2]	0.0104				
SD:		0	0.0001				
%RSD:		0	1.29				

Standard number 4 applied. [2]  
Correlation Coef.: 0.999753 Slope: 0.00523 Intercept: -0.00013

Sequence No.: 6 Autosampler Location: 6  
Sample ID: 5 PPB Date Collected: 12/8/2011 7:28:08 PM  
Analyst: Data Type: Original

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0261	0.0807	0.0264	19:28:54	Yes
2		[5]	0.0265	0.0851	0.0267	19:29:27	Yes
Mean:		[5]	0.0263				
SD:		0	0.0003				
%RSD:		0	0.96				

Standard number 5 applied. [5]  
Correlation Coef.: 0.999956 Slope: 0.00528 Intercept: -0.00016

Sequence No.: 7 Autosampler Location: 7  
Sample ID: 10 PPB Date Collected: 12/8/2011 7:29:29 PM  
Analyst: Data Type: Original

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0528	0.1737	0.0530	19:30:15	Yes
2		[10]	0.0519	0.1705	0.0522	19:30:49	Yes
Mean:		[10]	0.0524				
SD:		0	0.0006				
%RSD:		0	1.20				

Standard number 6 applied. [10]  
Correlation Coef.: 0.999986 Slope: 0.00525 Intercept: -0.00013

Sequence No.: 8 Autosampler Location: 8  
Sample ID: 25 PPB Date Collected: 12/8/2011 7:30:50 PM  
Analyst: Data Type: Original

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1271	0.4225	0.1274	19:31:37	Yes
2		[25]	0.1273	0.4232	0.1275	19:32:10	Yes
Mean:		[25]	0.1272				
SD:		0	0.0001				
%RSD:		0	0.06				

Standard number 7 applied. [25]  
Correlation Coef.: 0.999915 Slope: 0.00510 Intercept: 0.00020

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.039	0.00	29.5
.2 PPB	0.0008	0.2	0.124	0.00	3.1
.5 PPB	0.0025	0.5	0.446	0.00	1.8
1 PPB	0.0050	1.0	0.943	0.00	0.5
2 PPB	0.0104	2.0	1.997	0.00	1.3
5 PPB	0.0263	5.0	5.114	0.00	1.0
10 PPB	0.0524	10.0	10.222	0.00	1.2
25 PPB	0.1272	25.0	24.892	0.00	0.1

Correlation Coef.: 0.999915 Slope: 0.00510 Intercept: 0.00020

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/8/2011 7:32:12 PM

Analyst:

Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	21.10	21.10	0.1078	0.3649	0.1081	19:33:01	Yes
2	21.48	21.48	0.1098	0.3700	0.1100	19:33:35	Yes
Mean:	21.29	21.29	0.1088				
SD:	0.272	0.272	0.0014				
%RSD:	1.277	1.277	1.27				

QC value within limits for Hg 253.7 Recovery = 106.45%  
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/8/2011 7:33:36 PM

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0004	0.0062	0.0006	19:34:23	Yes
2	-0.016	-0.016	0.0001	0.0035	0.0004	19:34:57	Yes
Mean:	0.007	0.007	0.0002				
SD:	0.033	0.033	0.0002				
%RSD:	461.6	461.6	71.27				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11681 (1)

Date Collected: 12/8/2011 7:34:58 PM

Analyst:

Data Type: Original

## Replicate Data: MB 11681 (1)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	0.0000	0.0026	0.0003	19:35:46	Yes
2	-0.063	-0.063	-0.0001	0.0010	0.0001	19:36:19	Yes
Mean:	-0.049	-0.049	-0.0000				
SD:	0.019	0.019	0.0001				
%RSD:	39.31	39.31	201.70				

Sequence No.: 12

Autosampler Location: 12

Sample ID: LCSW 11681

Date Collected: 12/8/2011 7:36:20 PM

Analyst:

Data Type: Original

## Replicate Data: LCSW 11681

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.78	10.78	0.0552	0.1849	0.0555	19:37:07	Yes
2	10.81	10.81	0.0553	0.1841	0.0556	19:37:40	Yes
Mean:	10.80	10.80	0.0553				

SD: 0.019 0.019 0.0001  
 %RSD: 0.172 0.172 0.17

=====  
 Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCSW MR 11681 Date Collected: 12/8/2011 7:37:42 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: LCSW MR 11681

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.79	10.79	0.0553	0.1835	0.0555	19:38:28	Yes
2	10.83	10.83	0.0555	0.1840	0.0557	19:39:01	Yes
Mean:	10.81	10.81	0.0554				
SD:	0.031	0.031	0.0002				
%RSD:	0.284	0.284	0.28				

=====  
 Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63077-001 Date Collected: 12/8/2011 7:39:03 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63077-001

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.069	-0.069	-0.0002	0.0004	0.0001	19:39:49	Yes
2	-0.075	-0.075	-0.0002	0.0001	0.0001	19:40:23	Yes
Mean:	-0.072	-0.072	-0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	5.454	5.454	12.08				

=====  
 Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63077-001 MR Date Collected: 12/8/2011 7:40:24 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63077-001 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.080	-0.080	-0.0002	0.0000	0.0000	19:41:11	Yes
2	-0.084	-0.084	-0.0002	-0.0002	0.0000	19:41:44	Yes
Mean:	-0.082	-0.082	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	3.483	3.483	6.73				

=====  
 Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63077-001 MS1 Date Collected: 12/8/2011 7:41:46 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63077-001 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.53	10.53	0.0539	0.1739	0.0542	19:42:32	Yes
2	10.42	10.42	0.0534	0.1707	0.0536	19:43:06	Yes
Mean:	10.48	10.48	0.0536				
SD:	0.078	0.078	0.0004				
%RSD:	0.747	0.747	0.74				

=====  
 Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63077-001 MS2 Date Collected: 12/8/2011 7:43:07 PM  
 Analyst: Data Type: Original

-----  
 Replicate Data: 63077-001 MS2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.30	10.30	0.0528	0.1716	0.0530	19:43:54	Yes
2	10.23	10.23	0.0524	0.1743	0.0526	19:44:27	Yes
Mean:	10.27	10.27	0.0526				
SD:	0.052	0.052	0.0003				

%RSD: 0.502 0.502 0.50

=====  
 Sequence No.: 18 Autosampler Location: 18  
 Sample ID: 63081-011 Date Collected: 12/8/2011 7:44:29 PM  
 Analyst: Data Type: Original  
 =====

## Replicate Data: 63081-011

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	59.22	59.22	0.3023	1.0419	0.3026	19:45:16	Yes
Sample concentration is greater than that of the highest standard.							
2	59.93	59.93	0.3060	1.0426	0.3062	19:45:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	59.58	59.58	0.3042				
SD:	0.505	0.505	0.0026				
%RSD:	0.847	0.847	0.85				
Sample concentration is greater than that of the highest standard.							

=====  
 Sequence No.: 19 Autosampler Location: 19  
 Sample ID: 63081-012 Date Collected: 12/8/2011 7:45:51 PM  
 Analyst: Data Type: Original  
 =====

## Replicate Data: 63081-012

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	109.9	109.9	0.5607	1.9840	0.5610	19:46:41	Yes
Sample concentration is greater than that of the highest standard.							
2	110.9	110.9	0.5661	2.0112	0.5663	19:47:14	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	110.4	110.4	0.5634				
SD:	0.740	0.740	0.0038				
%RSD:	0.670	0.670	0.67				
Sample concentration is greater than that of the highest standard.							

=====  
 Sequence No.: 20 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 12/8/2011 7:47:15 PM  
 Analyst: Data Type: Original  
 =====

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.58	10.58	0.0542	0.1844	0.0544	19:48:02	Yes
2	10.78	10.78	0.0552	0.1868	0.0555	19:48:35	Yes
Mean:	10.68	10.68	0.0547				
SD:	0.142	0.142	0.0007				
%RSD:	1.332	1.332	1.33				
QC value within limits for Hg 253.7 Recovery = 106.82%							
All analyte(s) passed QC.							

=====  
 Sequence No.: 21 Autosampler Location: 1  
 Sample ID: CCB Date Collected: 12/8/2011 7:48:37 PM  
 Analyst: Data Type: Original  
 =====

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.028	-0.028	0.0001	0.0021	0.0003	19:49:24	Yes
2	-0.042	-0.042	-0.0000	0.0021	0.0002	19:49:57	Yes
Mean:	-0.035	-0.035	0.0000				
SD:	0.010	0.010	0.0001				
%RSD:	29.07	29.07	245.38				
QC value within limits for Hg 253.7 Recovery = Not calculated							
All analyte(s) passed QC.							

**Metal Data**  
**Digestion Logbook Data**

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13383 Analyst: SM  
 QC Number: 11689 Prep Date: 12/11/11  
 Matrix: soil Reviewed By: JK

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50uL	50uL				--	
LCS	0.5g					--	
LCS D						--	
1. AC63111-006							
MR 63111-006							
MS 63111-006							
MSD 63111-006							
2. 63111-001							
3. 63111-002							
4. 63111-003							
5. 63111-007							
6. 63111-009							
7. 63111-010							
8. 63111-011							
9. 63111-013							
10. 63111-014							
11. 63111-015							
12. 63111-017							
13. 63111-019							
14. 63111-020							
15. 63111-022							
16. 63111-023							
17. 63111-024							
18. 63111-026							
19. 63111-027							
20. 63111-005	✓	✓					

Hot Plate Temperature: 95 C (90-95° C)

	Volume mL	Lot #
LCS, LCS D	0.5g	V- 6387
LLCS, LLLCS D		V-
MS, MSD	0.5mL	V- 6495, 6496
LLMS, LLMS D		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	2.5	V- 6445
HCl	5	V- 6507
H <sub>2</sub> O <sub>2</sub>	1.5	V- 5798

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>	5	V- 120365
1:1 HCl		V-

Relinquished By: SM Date: 12/11  
 Received By: J. K. ... Date: 12/11/11

HG SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 245.1 7470A **7471A** OTHER \_\_\_\_\_

Batch No.:\* 13383

Analyst: JKY

QC Number: 11689

Prep Date: 12/11/11

Matrix: soil

Review By: JKY

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25 mL	25 mL	
LCS	0.15 g		
LCS D			
1 AC 63111 - 006			
MR 63111 - 006			
MS 63111 - 006			
MSD 63111 - 006			
2 63111 - 001			
3 63111 - 002			
4 63111 - 003			
5 63111 - 005			
6 63111 - 007			
7 63111 - 009			
8 63111 - 010			
9 63111 - 011			
10 63111 - 013			
11 63111 - 014			
12 63111 - 015			
13 63111 - 017			
14 63111 - 019			
15 63111 - 020			
16 63111 - 022			
17 63111 - 023			
18 63111 - 024			
19 63111 - 026			
20 63111 - 027	↓	↓	

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>		V-
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V-	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>		V-
	Aqua Regia	1.25 mL	V- 130524

**Block Temp.: 92° C
Time In Block: 17:50
Time Out of Block: 18:20
** Required range = 90-95°

Spike Volume & Lot #

LCS v. 6387 (0.15g / 0.25 ml)

MS v. 130523 0.250 ml

Standards/Control Batch B- 11574

Relinquished By: JKY

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A (7471A) OTHER \_\_\_\_\_

Batch No.:\* 13383 (Reset)

Analyst: OA

QC Number: 11706

Prep Date: 12/13/2011

Matrix: SOIL

Review By: SOB

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25ml	
LCS	0.15g		
LCS D			
1 Ac63111-006			
MR Ac63111-006			
MS Ac63111-006			
MSD Ac63111-006			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>		V-
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V-	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>		V-
	Aqua Regia	1.25 ml	V- 130676

\*\*Block Temp.: 92.7°C  
 Time In Block: 12:20  
 Time Out of Block: 12:55  
 \*\* Required range = 90-95°

Spike Volume & Lot #  
 LCS v- 6387 (0.15g) 0.25 ml  
 MS v- 130675 0.250 ml  
 Standards/Control Batch B- 11586

Relinquished By: OA

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriprogram using the standard batch number and the corresponding V #s.

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_

Batch No.: 13410 Analyst: JY

QC Number: 11720 Prep Date: 12/16/11

Matrix: soil Reviewed By: CSK

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50uL	50uL			--		
LCS	0.5g				--		
LCSD					--		
1. AC 63230-001							
MR 63230-001							
MS 63230-001							
MSD 63230-001							
2. 63111-004							
3. 63111-008							
4. 63111-012							
5. 63111-021							
6. 63111-037							
7. 63224-001							
8. 63230-002							
9. 63230-003							
10. 63230-004							
11. 63230-005							
12. 63230-006							
13. 63230-007							
14. 63230-008							
15. 63230-009							
16. 63230-010							
17. 63230-011							
18. 63230-012							
19. 63230-013							
20. 63230-014	↓	↓					

Hot Plate Temperature: 92° C (90-95° C)

	Volume mL	Lot #
LCS, LCSD	0.5g	V-6387
LLLCS, LLLCSD		V-
MS, MSD	0.5uL	V-6495, 6496
LLMS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	2.5	V-6445
HCl	5	V-6507
H <sub>2</sub> O <sub>2</sub>	1.5	V-5798

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>	5	V-130365
1:1 HCl		V-

Relinquished By: JY Date: 12/16/11  
 Received By: J. Galin Date: 12/19/11

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A (7471A) OTHER \_\_\_\_\_

Batch No.:\* 13410  
 QC Number: 11720  
 Matrix: SOIL

Analyst: JY  
 Prep Date: 12/16/11  
 Review By: JA

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25 mL	25 mL	
LCS	0.15g		
LCS D			
1 AC 65230-001			
MR 65230-001			
MS 65230-001			
MSD 65230-001			
2 63111-004			
3 63111-008			
4 63111-012			
5 63111-021			
6 63111-037			
7 63224-001			
8 63230-002			
9 63230-003			
10 63230-004			
11 63230-005			
12 63230-006			
13 63230-007			
14 63230-008			
15 63230-009			
16 63230-010			
17 63230-011			
18 63230-012			
19 63230-013			
20 63230-014			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>		V-
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V-	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>		V-
	Aqua Regia	1.25 mL	V- 131138

**Block Temp.:	92 °C
Time In Block:	23:30
Time Out of Block:	00:00 12/17/12
** Required range =	90-95 °

Spike Volume & Lot #  
 LCS v. 6387 (0.15g / 0.25 ml)  
 MS v. 131047 0.250 ml  
 Standards/Control Batch B- 11626

Relinquished By: JY

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13384 Analyst: PH  
 QC Number: 11690 Prep Date: 12/11/11  
 Matrix: Soil Reviewed By: [Signature]

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml.	50ml				--	
LCS	0.5g.					--	
LCSD						--	
1. 62091-001							
MR 62091-001							
MS 62091-001							
MSD 62091-001							
2. 63111-028							
3. 63111-030							
4. 63111-031							
5. 63111-032							
6. 63111-034							
7. 63111-035							
8. 63111-036							
9. 63111-038							
10. 63111-039							
11. 63111-040							
12. 63111-042							
13. 63111-044							
14. 63111-045							
15. 63118-004							
16. 63128-001							
17. <del>62992-003</del>	↓	↓					
18. 2							
19.							
20.							

PH  
12/11

Hot Plate Temperature: 92° C (90-95° C)

	Volume mL	Lot #
LCS, LCSD	0.5g.	V- 6387
LLCS, LLCSD		V-
MS, MSD	0.5ml.	V- 6047, 6048
LLMS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	2.5ml	V- 6445
HCl	5ml	V- 6501
H <sub>2</sub> O <sub>2</sub>	1.5ml	V- 5798

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>	5ml	V-130365
1:1 HCl		V-

Relinquished By: [Signature] Date: 12/11/11  
 Received By: [Signature] Date: 12/11/11

HG SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 245.1 7470A (7471A) OTHER \_\_\_\_\_

Batch No.:\* 13384

Analyst: P14

QC Number: 11690

Prep Date: 12/12/11

Matrix: soil

Review By: OA

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25 ml.	
LCS	0.15g.		
LCS D			
1 63091-001			
MR 62091-001			
MS 63091-001			
MSD 63091-001			
2 63111-028			
3 63111-030			
4 63111-031			
5 63111-032			
6 63111-034			
7 63111-035			
8 63111-036			
9 63111-038			
10 63111-039			
11 63111-040			
12 63111-042			
13 63111-044			
14 63111-045			
15 63118-004			
16 63128-001			
17 62992-003	↓	↓	
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>		V-
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V-	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>		V-
	Aqua Regia	1.25 ml.	V- 130573

**Block Temp.: 923° C
Time In Block: 2:30 pm
Time Out of Block: 3:00 pm
** Required range = 90-95°

Spike Volume & Lot #

LCS v- 6387 (0.15g, 0.25 ml)

MS v- 120564 0.250 ml

Standards/Control Batch B- 11578

Relinquished By: P.H. Fallet

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

Hampton-Clarke/Veritech

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13377 Analyst: SB  
 QC Number: 50 148 SW84 11681 Prep Date: 12/8/11  
 Matrix: SW846 Reviewed By: RS

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml				--	
LCS	↓	↓				--	
LCS D						--	
1. 63081 041							
MR 63081 011							
MS 63081 011							
MSD 63081 011							
2. 63081 012	↓	↓					
3. 63077 001	100ml	25ml					
4. 63077 002	↓	↓					
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 92.8 C (90-95° C)

	Volume mL	Lot #
LCS D	0.5, 0.5	V- 6047, 6048
LCS, LLLCS D		V-
MSD	0.5, 0.5	V- 6047, 6048
MS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3	V- 0457
HCl		V- 0813/12
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5	V- 129415

Relinquished By: [Signature] Date: 12/8/11  
 Received By: [Signature] Date: 12/8/11

Hampton-Clarke/Veritech

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13377 addition Analyst: JB  
 QC Number: 11691 Prep Date: 12/9/11  
 Matrix: SV846 Reviewed By: JB

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml				--	
LCS	↓	↓				--	
LCSD	↓	↓				--	
1.							
MR							
MS							
MSD							
2. 6311 047	50ml	50ml					
3. 6311 018	↓	↓					
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 90.7 C (90-95° C)

	Volume mL	Lot #
LCSD	0.5, 0.5	V- 6047, 6048
LCS, LLLCSD		V-
MSD	0.5, 0.5	V-
MS, LLMSD	50, 12/9	V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3	V- 6445
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5	V- 129415

Relinquished By: [Signature] Date: 12/9/11  
 Received By: [Signature] Date: 12/9/11

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A 7471A OTHER \_\_\_\_\_

Batch No.:\* 13377

Analyst: 12/08/2011 OA

QC Number: 11681

Prep Date: 12/08/2011

Matrix: SW846 H<sub>2</sub>O

Review By: JB

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	2.5ml	2.5ml	
LCS			
LCS D			
1 Ac63077-001			
MR Ac63077-001			
MS Ac63077-001			
MSD Ac63077-001			
2 Ac63081-011			
3 Ac63081-012			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
HNO <sub>3</sub> : V- 128167	HNO <sub>3</sub>	0.625ml	V- 6433
HCl: V- 126648	HCl		V-
H <sub>2</sub> SO <sub>4</sub> : V- 126650	H <sub>2</sub> SO <sub>4</sub>	1.25ml	V- 6386
	Aqua Regia		V-

**Block Temp: <u>92.2</u> °C
Time In Block: <u>13:50</u>
Time Out of Block: <u>15:50</u>
** Required range = 90-95°

Standard Volume & Lot #

LCS v- 130234 0.15g (0.25 ml)

LCS v- 130234 0.250 ml

Standards/Control Batch B- 11552

Relinquished By: OA

mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriprolog using the standard batch number and the corresponding V #s.

HG SAMPLE PREPARATION LOG

Hampton-Clarke/Veritech

ANALYTICAL METHOD: 245.1 7470A 7471A OTHER \_\_\_\_\_

Batch No.:\* 13377

Analyst: OA

QC Number: 11691

Prep Date: 12/10/2011

Matrix: 3W846H<sub>2</sub>O

Review By: SB

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25ml	
LCS			
LCSD			
1 AC63111-047			
MR			
MS			
MSD			
2 AC63111-048	25ml	25ml	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>	0.625ml	V- 6433
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V- 126648	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>	1.25ml	V- 6386
	Aqua Regia		V-

**Block Temp. 92.3°C
Time In Block: 18:10 HRS
Time Out of Block: 20:10 HRS
** Required range = 90-95°

- Spike Volume & Lot #
- LCS v- 130462 0.15g / 0.25 ml
  - MS v- 130462 0.250 ml
  - Standards/Control Batch B- 11566

Relinquished By: OA

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

**TCLP  
Metal Data**

**TCLP  
Metal Data  
Sample Data**

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63111-003  
 Client Id: B-15 10-12  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L  
 Date Rec: 12/9/2011

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr.
7440-38-2	Arsenic	0.20	ND	1	50	50	01/16/12	12491	T13480B2	22	P	PEICP2A
7439-92-1	Lead	0.15	3.9	1	50	50	01/17/12	12491	T13480C2	22	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-018  
Client Id: B-12 6-8'  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial WT/Vol	Final WT/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	ND	1	50	50	12/14/11	11688	T13382A3	22	P	PEICP3A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-019  
Client Id: B-12 8'-10'  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	0.19	1	50	50	12/14/11	11688	T13382A3	23	P	PEICP3A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-020  
Client Id: B-12 10'-12'  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	2.5	1	50	50	12/14/11	11688	T13382A3	24	P	PEICP3A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

### Form1 Inorganic Analysis Data Sheet

Sample ID: AC63111-034	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B-1 4-6	Units: MG/L	Lab Code:	Sdg No:
Matrix: TCLP	Date Rec: 12/9/2011	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	0.22	1	50	50	12/22/11	11724	T13414A	47	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV -ColdVapor
- MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-035  
Client Id: B-1 8-10  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	1.0	1	50	50	12/22/11	11724	T13414A	48	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-036  
Client Id: B-1 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	2.9	1	50	50	12/22/11	11724	T13414A	49	P	PEICP1A.

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit

P - ICP-AES

CV -ColdVapor

MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-037  
Client Id: B-1 12-14  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/14/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	0.47	1	50	50	12/19/11	11703	T13395A	21	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-039      % Solid: 0      Lab Name: Veritech      Nras No:  
Client Id: B-2 8-10      Units: MG/L      Lab Code:      Sdg No:  
Matrix: TCLP      Date Rec: 12/9/2011      Contract:      Case No:  
Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-92-1	Lead	0.15	24	1	50	50	01/17/12	12491	T13480C2	23	P	PEICP2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Flag Codes:**

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: AC63111-043      % Solid: 0      Lab Name: Veritech      Nras No:  
Client Id: B-8 6-8      Units: MG/L      Lab Code:      Sdg No:  
Matrix: TCLP      Date Rec: 12/9/2011      Contract:      Case No:  
Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.00070	ND	1	25	25	12/14/11	11716	H13407T	14	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-044  
Client Id: B-8 8-10  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.00070	ND	1	25	25	12/14/11	11716	H13407T	17	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63111-045  
Client Id: B-8 10-12  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L  
Date Rec: 12/9/2011

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.00070	ND	1	25	25	12/14/11	11716	H13407T	18	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**TCLP  
Metal Data  
QC Data**

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/14/11  
 Data File: T13382A3  
 Prep Batch: 11688  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CCV Amt	ICV (2)	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	CCV V-	
		V-129810-7	129808-18	129808-27	129808-34	129808-44	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec
Arsenic	1/5	1.01536	102	0.48074	96	0.47435	95	0.49075	98	0.48767	98						
Barium	1/5	1.01826	102	0.50807	102	0.49195	98	0.52389	105	0.50774	102						
Cadmium	1/5	1.01353	101	0.49192	98	0.48553	97	0.50329	101	0.48068	96						
Chromium	1/5	1.01207	101	0.49848	100	0.48787	98	0.51543	103	0.49894	100						
Lead	1/5	1.00869	101	0.48839	98	0.47413	95	0.51378	103	0.50057	100						
Nickel	1/5	1.01800	102	0.50272	101	0.48949	98	0.52220	104	0.50571	101						
Selenium	1/5	1.02560	103	0.48556	97	0.46915	94	0.49677	99	0.49775	100						
Silver	0.2/0.1	0.20387	102	0.10061	101	0.09906	99	0.10377	104	0.10062	101						

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/19/11  
 Data File: T13395A  
 Prep Batch: 11703  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V-	CCV V-	CCV V-	CCV V-	CCV V-											
		128235 (2)-7	128659- 19	128659- 26	128659- 33	128659- 41	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	
Arsenic	1/5	1.01070	101	0.47402	95	0.47256	95	0.46173	92	0.45767	92						
Barium	1/5	1.01614	102	0.50237	100	0.49346	99	0.48920	98	0.49106	98						
Cadmium	1/5	1.00311	100	0.48864	98	0.48319	97	0.47459	95	0.47419	95						
Chromium	1/5	1.02694	103	0.49762	100	0.48907	98	0.48241	96	0.47757	96						
Copper	1/5	1.00603	101	0.48554	97	0.47767	96	0.47238	94	0.47531	95						
Lead	1/5	1.00250	100	0.50202	100	0.49212	98	0.48628	97	0.48066	96						
Nickel	1/5	1.00683	101	0.49601	99	0.48933	98	0.48080	96	0.48110	96						
Selenium	1/5	1.01927	102	0.50827	102	0.48472	97	0.48268	97	0.47788	96						
Silver	0.2/0.1	0.19930	100	0.09672	97	0.09592	96	0.09443	94	0.09539	95						
Zinc	1/5	1.00295	100	0.48179	96	0.47443	95	0.46686	93	0.46021	92						

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV - 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/22/11  
 Data File: T13414A  
 Prep Batch: 11724  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 128235 (2)-7		CCV V- 128659- 19		CCV V- 128659- 29		CCV V- 128659- 35		CCV V- 128659- 43		CCV V- 128659- 51		CCV V- 128659- 57		Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Arsenic	1/5	0.96801	97	0.50593	101	0.46814	94	0.47743	95	0.47856	96	0.46193	92	0.46463	93	
Barium	1/5	1.00470	100	0.52616	105	0.51046	102	0.51727	103	0.50778	102	0.49135	98	0.49774	100	
Cadmium	1/5	0.99069	99	0.51607	103	0.50036	100	0.50644	101	0.50285	101	0.48199	96	0.49142	98	
Chromium	1/5	0.99300	99	0.51567	103	0.49739	99	0.49697	99	0.48993	98	0.47228	94	0.47325	95	
Copper	1/5	0.99502	100	0.51594	103	0.49986	100	0.51110	102	0.50080	100	0.48321	97	0.49052	98	
Lead	1/5	0.97238	97	0.51255	103	0.49347	99	0.49854	100	0.48675	97	0.47969	96	0.48454	97	
Nickel	1/5	0.99564	100	0.50767	102	0.50094	100	0.50223	100	0.50731	101	0.48116	96	0.48552	97	
Selenium	1/5	1.00040	100	0.53181	106	0.50654	101	0.50769	102	0.50050	100	0.47683	95	0.47860	96	
Silver	0.2/0.1	0.19849	99	0.10126	101	0.09820	98	0.10093	101	0.09876	99	0.09548	95	0.09522	95	
Zinc	1/5	0.96477	96	0.50656	101	0.48584	97	0.48982	98	0.48847	98	0.46791	94	0.47085	94	

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 01/16/12  
 Data File: T13480B2  
 Prep Batch: 12491  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 129811 (2)-7	Rec	CCV V- 130872- 18	Rec	CCV V- 130872- 27	Rec							
Arsenic	1/.5	1.01037	101	0.50522	101	0.49681	99							

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 01/17/12  
 Data File: T13480C2  
 Prep Batch: 12491  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 129811 (2)-7 Rec	CCV V- 130872- 18 Rec	CCV V- 130872- 27 Rec	Rec	Rec	Rec	Rec	Rec	Rec							
Lead	1/5	0.97135	97	0.51582	103	0.48772	98										

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 12/14/11  
 Data File: H13407T  
 Prep Batch: 11716  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-20		Rec											
	ICV/CC V Amt	Rec	Rec	Rec												
Mercury	20/10	20.10952	101	10.08966	101											

**Notes:**  
 a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/14/11  
 Data File: T13382A3  
 Prep Batch: 11688  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-129815-8	CCB V-129815-19	CCB V-129815-28	CCB V-129815-35	CCB V-129815-45	MB 11688 (1)-11	EF-1 V-130089-39	EF-2 V-129043-40
Arsenic	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Barium	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U	.25 U
Cadmium	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U
Chromium	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Lead	.15 U	.15 U	.15 U	.15 U	.15 U	.15 U	.15 U	.15 U
Nickel	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Selenium	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U	.2 U
Silver	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U	.05 U

Analyte	EF-2 V-130604-41							
Arsenic	.2 U							
Barium	.25 U							
Cadmium	.05 U							
Chromium	.2 U							
Lead	.15 U							
Nickel	.2 U							
Selenium	.2 U							
Silver	.05 U							

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/19/11

Data File: T13395A

Prep Batch: 11703

Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: PEICP1A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 1120830

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB V-129815- 8	CCB-20	CCB-27	CCB-34	CCB-42	MB 11703 (1)- 11	EF-V-130938- 23
Arsenic	.2 U	.2 U	.2 U	.2 U	.2 U	.2U	.2U
Barium	.25 U	.25 U	.25 U	.25 U	.25 U	.25U	.25U
Cadmium	.05 U	.05 U	.05 U	.05 U	.05 U	.05U	.05U
Chromium	.2 U	.2 U	.2 U	.2 U	.2 U	.2U	.2U
Copper	.2 U	.2 U	.2 U	.2 U	.2 U	.2U	.2U
Lead	.15 U	.15 U	.15 U	.15 U	.15 U	.15U	.15U
Nickel	.2 U	.2 U	.2 U	.2 U	.2 U	.2U	.2U
Selenium	.2 U	.2 U	.2 U	.2 U	.2 U	.2U	.2U
Silver	.05 U	.05 U	.05 U	.05 U	.05 U	.05U	.05U
Zinc	.2 U	.2 U	.2 U	.2 U	.2 U	.2U	.2U

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit



## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 01/16/12  
 Data File: T13480B2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-130860- 8	CCB-19	CCB-28	MB 12491 (1)- 11	EF-V-132485- 24			
<b>Arsenic</b>	.2 U	.2 U	.2 U	.2 U	.2 U			

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 01/17/12  
 Data File: T13480C2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-130860- 8	CCB-19	CCB-28	MB 12491 (1)- 11	EF-V-132485- 24		
<b>Lead</b>	.15 U	.15 U	.15 U	.15 U	.15 U		

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 12/14/11  
 Data File: H13407T  
 Prep Batch: 11716  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB-10	CCB-21	MB 11716 (1)- 11	EF-V-130089- 19				
Mercury	.7 U	.7 U	.7 U	.7 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/14/11  
 Data File: T13382A3  
 Prep Batch: 11688  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP3A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-129812-9		ICSAB V-129814-10		ICSA V-129812-25		ICSAB V-129814-26		ICSA V-129812-42		ICSAB V-129814-43		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	495.607	99	505.23000	101	494.702	99	497.14800	99	500.046	100	492.37300	98		
Arsenic	1	U		1.05897	106	U		0.99037	99	U		1.02607	103		
Barium	.5	U		0.52866	106	U		0.52338	105	U		0.53278	107		
Cadmium	1	U		1.04592	105	U		1.01137	101	U		1.02392	102		
Calcium	500	486.743	97	503.61200	101	497.5	100	481.10400	96	498.855	100	491.83000	98		
Chromium	.5	U		0.50287	101	U		0.48628	97	U		0.49150	98		
Iron	200	189.663	95	194.08800	97	185.958	93	186.94100	93	192.367	96	188.19000	94		
Lead	1	U		0.98156	98	U		0.91419	91	U		0.96753	97		
Magnesium	500	519.651	104	532.28300	106	499.451	100	501.81700	100	527.359	105	513.42800	103		
Nickel	1	U		0.96655	97	U		0.92446	92	U		0.94135	94		
Selenium	1	U		1.03312	103	U		0.96450	96	U		1.01149	101		
Silver	1	U		1.08180	108	U		1.07820	108	U		1.08336	108		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/19/11  
 Data File: T13395A  
 Prep Batch: 11703  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-128666-9		ICSAB V-128667-10		ICSA V-128666-24		ICSAB V-128667-25		ICSA V-128666-39		ICSAB V-128667-40		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec				
Aluminum	500	444.592	89	451.14200	90	430.803	86	429.54500	86	430.526	86	431.98400	86		
Arsenic	1	U		0.98750	99	U		0.88500	88	U		0.90961	91		
Barium	.5	U		0.47086	94	U		0.44432	89	U		0.45314	91		
Cadmium	1	U		0.90719	91	U		0.84146	84	U		0.84566	85		
Calcium	500	448.337	90	448.39900	90	428.984	86	435.91000	87	433.189	87	436.75600	87		
Chromium	.5	U		0.47192	94	U		0.44068	88	U		0.43796	88		
Copper	.5	U		0.49528	99	U		0.46181	92	U		0.46524	93		
Iron	200	169.924	85	172.58400	86	164.221	82	163.94800	82	164.326	82	164.47100	82		
Lead	1	U		0.92603	93	U		0.84850	85	U		0.85823	86		
Magnesium	500	472.79	95	473.22000	95	452.472	90	456.03500	91	454.642	91	456.28600	91		
Nickel	1	U		0.85974	86	U		0.80769	81	U		0.82141	82		
Selenium	1	U		0.90388	90	U		0.82537	83	U		0.84558	85		
Silver	1	U		1.02119	102	U		0.96490	96	U		0.96485	96		
Zinc	1	U		0.89655	90	U		0.82368	82	U		0.82655	83		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 12/22/11  
 Data File: T13414A  
 Prep Batch: 11724  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP1A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-128666-9		ICSAB V-128667-10		ICSA V-128666-41		ICSAB V-128667-42		ICSA V-128666-55		ICSAB V-128667-56		Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	453.274	91	455.88500	91	458.437	92	468.13100	94	456.593	91	453.90800	91		
Arsenic	1	U		0.96307	96	U		0.94969	95	U		0.92376	92		
Barium	.5	U		0.47865	96	U		0.48381	97	U		0.47635	95		
Cadmium	1	U		0.89867	90	U		0.90965	91	U		0.89076	89		
Calcium	500	444.197	89	452.97500	91	454.843	91	454.72300	91	443.632	89	446.84000	89		
Chromium	.5	U		0.47596	95	U		0.45709	91	U		0.44234	88		
Copper	.5	U		0.49416	99	U		0.50609	101	U		0.49531	99		
Iron	200	168.909	84	169.88100	85	171.26	86	174.29900	87	170.118	85	169.62200	85		
Lead	1	U		0.91193	91	U		0.89621	90	U		0.87230	87		
Magnesium	500	478.864	96	486.14000	97	490.279	98	490.05800	98	475.641	95	479.16900	96		
Nickel	1	U		0.88695	89	U		0.88819	89	U		0.87340	87		
Selenium	1	U		0.86757	87	U		0.85654	86	U		0.83363	83		
Silver	1	U		1.02764	103	U		1.02838	103	U		1.01854	102		
Zinc	1	U		0.89842	90	U		0.87010	87	U		0.84442	84		

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 01/16/12  
 Data File: T13480B2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-130873-9		ICSAB V-130874-10		ICSA V-130873-25		ICSAB V-130874-26		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	494.435	99	498.94600	100	495.024	99	508.37400	102				
Arsenic	1	U		0.98981	99	U		1.03770	104				
Calcium	500	477.255	95	483.05900	97	478.208	96	494.70100	99				
Iron	200	181.869	91	184.24500	92	184.764	92	187.89100	94				
Magnesium	500	492.315	98	498.68100	100	499.234	100	507.61000	102				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

Rec

Rec

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 01/17/12  
 Data File: T13480C2  
 Prep Batch: 12491  
 Reporting Limits Used: TCLP,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 1120830

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-130873-9		ICSAB V-130874-10		ICSA V-130873-25		ICSAB V-130874-26		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	504.672	101	503.78300	101	505.081	101	511.64800	102				
Calcium	500	481.174	96	472.97300	95	482.535	97	485.72000	97				
Iron	200	179.993	90	178.28700	89	175.09	88	175.26400	88				
Lead	1	U		0.91030	91	U		0.91923	92				
Magnesium	500	496.028	99	491.16800	98	505.663	101	507.16300	101				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11688

1120830 0655

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW 11688 MR							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Lead	11688	1	T13382A3	13	0.5044	.5	101	75	125		

TxtQcType: LCS		Matrix: TCLP		SampleID: LCSW 11688							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Lead	11688	1	T13382A3	12	0.5075	.5	102	75	125		

TxtQcType: MS		Matrix: TCLP		SampleID: AC63118-004									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	11688	1	T13382A3	16	T13382A3	14	5.0683	.15U	5	101	50		

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 11688

1120830 0656

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: TCLP		SampleID: AC63118-004								
Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	1	T13382A3	17	T13382A3	14	5.0996	.15U	5.0	102	75		125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11703

1120830 0657

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 11703	
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	11703	1	T13395A	13	0.5242	.5	105		75	125

TxtQcType: LCS		Matrix: TCLP		SampleID: LCSW 11703	
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	11703	1	T13395A	12	0.5226	.5	105		75	125

TxtQcType: MS		Matrix: TCLP		SampleID: AC63143-007	
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Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	11703	1	T13395A	16	T13395A	14	5.1520	0.4956	5.0	93		50	

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 11703

1120830 0658

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: TCLP		SampleID: AC63143-007								
Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	1	T13395A	17	T13395A	14	6.3240	0.4956	5.0	117	75	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 11724

1120830 0659

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR Matrix: TCLP SampleID: LCSW MR 11724											
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Lead	11724	1	T13414A	13	0.5130	.5	103	75	125		

TxtQcType: LCS Matrix: TCLP SampleID: LCSW 11724											
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Lead	11724	1	T13414A	12	0.5050	.5	101	75	125		

TxtQcType: MS Matrix: TCLP SampleID: AC63081-024													
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	11724	1	T13414A	16	T13414A	14	5.3780	0.6388	5.0	95	50		

TxtQcType: MS Matrix: TCLP SampleID: AC63290-001													
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	11724	4	T13414A	26	T13414A	25	1.1534	.15U	5.0	92	50		

N/A  
CS 1/10/12

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 11724

1120830 0660

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: TCLP		SampleID: AC63081-024								
Analyte	DF	Data Fil	Seq#	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Lead	1	T13414A	17	T13414A	14	6.3146	0.6388	5.0	114		75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 12491

1120830 0661

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 12491							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	12491	1	T13480B2	13	0.4868	0.500	97	75	125		
Lead	12491	1	T13480C2	13	0.4805	.5	96	75	125		

TxtQcType: LCS		Matrix: TCLP		SampleID: LCSW 12491							
Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim	
Arsenic	12491	1	T13480B2	12	0.4954	0.500	99	75	125		
Lead	12491	1	T13480C2	12	0.4985	.5	100	75	125		

TxtQcType: MS		Matrix: TCLP		SampleID: AC63081-028									
Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12491	1	T13480B2	16	T13480B2	14	0.5130	.2U	0.5	103	50		
Lead	12491	10	T13480C2	16	T13480C2	14	16.7443	16.0498	5	139	50		

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 12491

1120830 0662

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: TCLP		SampleID: AC63081-028								
Analyte	DF	Data Fil	Seq#	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	1	T13480B2	17	T13480B2	14	0.5316	.2U	0.5	106	75	125	
Lead	1	T13480C2	17	T13480C2	14	20.6737	16.0498	5.0	92	75	125	

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 11716

1120830 0663

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR	Matrix: TCLP	SampleID: LCSW MR 11716
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11716	1	H13407T	13	10.2484	10	102	75	125	

TxtQcType: LCS	Matrix: TCLP	SampleID: LCSW 11716
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Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11716	1	H13407T	12	10.0554	10	101	75	125	

TxtQcType: MS	Matrix: TCLP	SampleID: AC63111-043
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Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Mercury	11716	1	H13407T	16	H13407T	14	10.5317	.70U	10	105	50		

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11688

1120830 0664

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW 11688 MR					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Lead	11688	T13382A3	13	T13382A3	12	0.5044	0.5075	.61	20

TxtQcType: MR		Matrix: TCLP		SampleID: AC63118-004					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Lead	11688	T13382A3	15	T13382A3	14	.15U	.15U	---	20

TxtQcType: SD		Matrix: TCLP		SampleID: AC63118-004						
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Lead	11688	T13382A3	20	T13382A3	14	5	0.0089	0.0521	15 c	10

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11703

1120830 0665

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 11703					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Lead	11703	T13395A	13	T13395A	12	0.5242	0.5226	.31	20

TxtQcType: MR		Matrix: TCLP		SampleID: AC63143-007					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Lead	11703	T13395A	15	T13395A	14	0.4661	0.4956	6.1	20

TxtQcType: SD		Matrix: TCLP		SampleID: AC63143-007						
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Lead	11703	T13395A	18	T13395A	14	5	0.1040	0.4956	4.9	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11724

1120830 0666

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR      Matrix: TCLP      SampleID: LCSW MR 11724

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Lead	11724	T13414A	13	T13414A	12	0.5130	0.5050	1.6	20

TxtQcType: MR      Matrix: TCLP      SampleID: AC63081-024

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Lead	11724	T13414A	15	T13414A	14	0.6037	0.6388	5.6	20

TxtQcType: SD      Matrix: TCLP      SampleID: AC63081-024

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Lead	11724	T13414A	18	T13414A	14	5	0.1420	0.6388	11 a	10

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 12491

1120830 0667

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR      Matrix: TCLP      SampleID: LCSW MR 12491

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	12491	T13480B2	13	T13480B2	12	0.4868	0.4954	1.7	20
Lead	12491	T13480C2	13	T13480C2	12	0.4805	0.4985	3.7	20

TxtQcType: MR      Matrix: TCLP      SampleID: AC63081-028

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	12491	T13480B2	15	T13480B2	14	.2U	.2U	---	20
Lead	12491	T13480C2	15	T13480C2	14	17.1706	16.0498	6.7	20

TxtQcType: SD      Matrix: TCLP      SampleID: AC63081-047

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	12491	T13480B2	21	T13480B2	20	5	0.0410	0.2084	1.7	10
Lead	12491	T13480C2	21	T13480C2	20	5	3.1757	15.1054	5.1	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 11716

1120830 0668

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: TCLP		SampleID: LCSW MR 11716					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11716	H13407T	13	H13407T	12	10.2484	10.0554	1.9	20

TxtQcType: MR		Matrix: TCLP		SampleID: AC63111-043					
Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Mercury	11716	H13407T	15	H13407T	14	.70U	.70U	---	20

a-Indicates Rpd Failed the criteria  
 b-Method Rep Out but concentrations < 5\*RL  
 c-Serial dilution Out but conc < 10 \* IDL

**TCLP  
Metal Data  
Verification of Instrument Parameters**

**INTERELEMENT CORRECTION SUMMARY**  
**PEICP2**

**Interfering Elements**

	<b>Al</b>	<b>Ca</b>	<b>Fe</b>	<b>Mg</b>	<b>Mn</b>	<b>Mo</b>	<b>Ti</b>	<b>Zn</b>
<b>Interfered Elements</b>								
<b>Al</b>	N/A	0	0	0	0	22.7	-3.1	0
<b>Sb</b>	-0.171	0.00598	-0.16	0	0	-0.379	0.152	0.179
<b>As</b>	0	0.00919	-0.151	0	0	0.809	0	0
<b>Ba</b>	0	0	0	0	0	0	0	0
<b>Be</b>	0	0	0	0	0	0	0.715	0
<b>Cd</b>	0	0	0.0164	0	0	0	0	0
<b>Ca</b>	0	N/A	0	0	0	0	0	0
<b>Cr</b>	0	0	-0.0341	0	-0.624	-6.23	0	0
<b>Co</b>	-0.0142	0	0	0	0	-3.05	1.93	0
<b>Cu</b>	0.0128	0.0115	0	0.013	0	0	0.39	0
<b>Fe</b>	0	0	N/A	-0.4	0	0	0	0
<b>Pb</b>	-0.171	0.00105	0.0724	0.0138	0	-1.28	0	0
<b>Mg</b>	0	0	0	N/A	0	0	0	0
<b>Mn</b>	0	0	-0.0453	0	N/A	-0.256	0	0
<b>Mo</b>	-0.0122	0.0219	0	0	0	N/A	0	0
<b>Ni</b>	0	0	0	0	0	-0.89	0	0
<b>Se</b>	0.11	0.0279	-0.216	-0.00818	0.8	0	0.753	0
<b>Ag</b>	0	-0.00654	-0.0486	0	0.271	0.641	0	0
<b>Sr</b>	0	0.0108	0	0.00248	0	0	0	0
<b>Tl</b>	-0.024	-0.01	-0.0327	0	1.92	1.46	-7.68	0
<b>Sn</b>	0.0201	-0.00191	0.0326	-0.0161	0	0	0.753	0
<b>Ti</b>	0	0	0	0	0	0	N/A	0
<b>V</b>	0	0	0.0272	0.077	0	-1.46	-0.699	0
<b>Zn</b>	0	0	0	0.0313	0	0	0	N/A

**LINEAR RANGES**  
**PE ICP 2**  
**Axial**

<u>ELEMENT</u>	<u>LINEAR RANGE</u>
	(PPM)
Al	900
Sb	18
As	45
Ba	45
Be	4.5
Cd	45
Ca	810
Cr	45
Co	45
Cu	45
Fe	540
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	1.8
Tl	45
Sn	45
Ti	36
V	45
Zn	45

**INTERELEMENT CORRECTION SUMMARY**  
**PEICP1**

**Interfering Elements**

	Al	Ca	Fe	Mg	Mn	Zn	Ti	Mo
<b>Interfered Elements</b>								
Al	N/A	0	0	0	0	0	0	12.7
Sb	-0.0512	0	-0.0801	-0.0105	0	0	0	-11.8
As	-0.00832	-0.0426	-0.136	0.0104	0	-0.146	2.25	0
Ba	0	0	0.015	0	0	0	0	-0.788
Be	0	0	-1.25	0	0	0	0	0
Cd	0	0	-0.00682	0	0	0	0	0
Ca	0	N/A	0	0	0	0	0	0
Cr	0	0	0	0	0	-25.1	0	0
Co	0	0	0.0261	0	0	0	1.83	-0.34
Cu	0	0.0253	0	0	0	0	-0.416	0.476
Fe	0	0	N/A	0	0	0	0	0
Pb	-0.158	-0.0172	0.012	0	0	-0.203	-0.842	-1.09
Mg	0	0	0	N/A	0	0	0	0
Mn	0	0	-0.0508	0.0156	N/A	0	0	0
Mo	-0.0366	0	-0.0358	0	0	0	0	N/A
Ni	0	0	0.241	0	0	0	0	-0.431
Se	-0.0117	0.132	-3.13	0	0.395	-0.205	0.462	0
Ag	0	-0.0187	-0.102	0	0.275	0	0	0.162
Tl	-0.0268	0.00603	-0.0221	0	-0.315	0	-10	0
Sn	0	-0.0936	0	0	0	0	-0.525	0
Ti	0	0	0	0	0	0	N/A	0
V	0	0	0	0.379	0	0	0.458	-8.2
Zn	0	0	0	0.0259	0	NA	0	0

**LINEAR RANGES**  
**PE ICP 1**  
**AXIAL**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	450
Sb	45
As	45
Ba	27
Be	9
Cd	27
Ca	630
Cr	45
Co	45
Cu	45
Fe	270
Pb	45
Mg	900
Mn	18
Mo	45
Ni	45
Se	27
Ag	5.4
Tl	45
Sn	45
Ti	45
V	45
Zn	45

**INTERELEMENT CORRECTION SUMMARY  
PEICP3**

1120830 0674

**Interfering Elements**

	<b>Al</b>	<b>Ca</b>	<b>Fe</b>	<b>Mg</b>	<b>Mn</b>	<b>Mo</b>	<b>Ti</b>	<b>Zn</b>	<b>Ni</b>	<b>Cr</b>
<b>Interfered Elements</b>										
<b>Al</b>	N/A	0	0	0	0	25.72	0	0	0	0
<b>Sb</b>	0.0227	0.00574	-0.00979	0.00601	0	-15.53	-1.96	0	0	-3.39
<b>As</b>	0.0526	-0.00883	-0.102	-0.00873	0.0177	0	0.308	0.207	0	-3.55
<b>Ba</b>	0	0	0	0	0	0	0	0	0	0
<b>Be</b>	0	0	0	0	0	0	0	0	0	0
<b>Cd</b>	0	0	0	0	0	0	0	0	-1.49	0
<b>Ca</b>	0	N/A	0	0	0	0	0	0	0	0
<b>Cr</b>	0	0	0	0	0	-1.06	0	0	0	N/A
<b>Co</b>	0	0	0	0	0	-1.58	2.30	0	0	0.355
<b>Cu</b>	0	-0.0392	-0.0494	0	0	0	-2.35	0	0	0
<b>Fe</b>	0	0	N/A	0	0	0	0	0	0	0
<b>Pb</b>	0.651	0.0124	0.0341	0	0	-2.26	0.364	-0.557	0	-0.209
<b>Mg</b>	0	0	0	N/A	0	-20.86	0	0	0	0
<b>Mn</b>	0	0	0	0.0174	N/A	-0.381	0	0	0	0
<b>Mo</b>	0	0	0	0	0	N/A	0	-0.205	0	0
<b>Ni</b>	0	0	0	0	0	-2.78	0	0	N/A	0
<b>Se</b>	-0.0201	-0.0435	-0.235	0	1.43	0	0	0	0	0
<b>Ag</b>	0	-0.0231	-0.138	0	0	0	0	0	0	0
<b>Tl</b>	0.00646	0	0	0	0.391	0.458	-4.71	0	0	0.228
<b>Sn</b>	0	0	-0.101	0	0	0	-0.623	0	0	0
<b>Ti</b>	0	0	0	0	0	0	N/A	0	0	0.245
<b>V</b>	0	0	0.0525	0.167	0	-0.611	0	0	0	0
<b>Zn</b>	0	0	0	0.0331	0	0	0	N/A	0	-1.47

IEC'S ANALYZED ON 09/12/11.  
 MODIFIED Sb,Se,As,Zn,Cd,Co,Tl,Ti,Pb,V 09/13/11.  
 MODIFIED Sb,Se,Tl,Pb 09/19/11.  
 MODIFIED Se 09/21/11.  
 MODIFIED Tl 10/27/11.  
 MODIFIED Se 11/29/11.  
 MODIFIED Pb 12/05/2011.  
 MODIFIED Ag 12/13/2011.

**LINEAR RANGES**  
**PE ICP 3**  
**Axial**

<u>ELEMENT</u>	<u>LINEAR RANGE</u> (PPM)
Al	900
Sb	9
As	45
Ba	45
Be	9
Cd	45
Ca	630
Cr	45
Co	45
Cu	45
Fe	450
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	3.6
Tl	45
Sn	45
Ti	45
V	45
Zn	45

**TCLP  
Metal Data  
Raw Data**

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 12491 (1)  
 Client Id: MB 12491 (1)  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	1.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-36-0	Antimony	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-38-2	Arsenic	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-39-3	Barium	0.25	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-41-7	Beryllium	0.050	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-43-9	Cadmium	0.050	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-70-2	Calcium	5.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-47-3	Chromium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-48-4	Cobalt	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-50-8	Copper	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-89-6	Iron	1.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-92-1	Lead	0.15	ND	1	50	50	01/17/12	12491	T13480C2	11	P	PEICP2A
7439-95-4	Magnesium	5.0	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-96-5	Manganese	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7439-97-6	Mercury	0.00070	ND	1	25	25	01/13/12	12491	H13480T	11	CV	HGCV1A
7439-98-7	Molybdenum	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-02-0	Nickel	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7782-49-2	Selenium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-22-4	Silver	0.050	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-28-0	Thallium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-31-5	Tin	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-32-6	Titanium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-62-2	Vanadium	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A
7440-66-6	Zinc	0.20	ND	1	50	50	01/16/12	12491	T13480B2	11	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 11724 (1)  
 Client Id: MB 11724 (1)  
 Matrix: TCLP  
 Level: LOW

% Solid: 0  
 Units: MG/L

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	1.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-36-0	Antimony	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-38-2	Arsenic	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-39-3	Barium	0.25	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-41-7	Beryllium	0.050	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-43-9	Cadmium	0.050	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-70-2	Calcium	5.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-47-3	Chromium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-48-4	Cobalt	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-50-8	Copper	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-89-6	Iron	1.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-92-1	Lead	0.15	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-95-4	Magnesium	5.0	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-96-5	Manganese	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7439-97-6	Mercury	0.00070	ND	1	25	25	12/22/11	11724	H13414T	11	CV	HGCV2A
7439-98-7	Molybdenum	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-02-0	Nickel	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7782-49-2	Selenium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-22-4	Silver	0.050	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-28-0	Thallium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-31-5	Tin	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-32-6	Titanium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-62-2	Vanadium	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A
7440-66-6	Zinc	0.20	ND	1	50	50	12/22/11	11724	T13414A	11	P	PEICP1A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 11703 (1)  
Client Id: MB 11703 (1)  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L

Lab Name: Veritech  
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	1.0	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-36-0	Antimony	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-38-2	Arsenic	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-39-3	Barium	0.25	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-41-7	Beryllium	0.050	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-43-9	Cadmium	0.050	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-70-2	Calcium	5.0	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-47-3	Chromium	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-48-4	Cobalt	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-50-8	Copper	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7439-89-6	Iron	1.0	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7439-92-1	Lead	0.15	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7439-95-4	Magnesium	5.0	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7439-96-5	Manganese	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7439-97-6	Mercury	0.00070	ND	1	25	25	12/19/11	11703	H13395T	11	CV	HGCV2A
7439-98-7	Molybdenum	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-02-0	Nickel	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7782-49-2	Selenium	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-22-4	Silver	0.050	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-28-0	Thallium	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-31-5	Tin	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-32-6	Titanium	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-62-2	Vanadium	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A
7440-66-6	Zinc	0.20	ND	1	50	50	12/19/11	11703	T13395A	11	P	PEICP1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: MB 11688 (1)  
Client Id: MB 11688 (1)  
Matrix: TCLP  
Level: LOW

% Solid: 0  
Units: MG/L

Lab Name: Veritech  
Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	1.0	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-36-0	Antimony	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-38-2	Arsenic	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-39-3	Barium	0.25	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-41-7	Beryllium	0.050	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-43-9	Cadmium	0.050	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-70-2	Calcium	5.0	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-47-3	Chromium	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-48-4	Cobalt	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-50-8	Copper	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7439-89-6	Iron	1.0	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7439-92-1	Lead	0.15	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7439-95-4	Magnesium	5.0	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7439-96-5	Manganese	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7439-97-6	Mercury	0.00070	ND	1	25	25	12/13/11	11688	H13382T	11	CV	HGCV2A
7439-98-7	Molybdenum	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-02-0	Nickel	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7782-49-2	Selenium	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-22-4	Silver	0.050	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-28-0	Thallium	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-31-5	Tin	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-32-6	Titanium	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-62-2	Vanadium	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A
7440-66-6	Zinc	0.20	ND	1	50	50	12/14/11	11688	T13382A3	11	P	PEICP3A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

Form1  
Inorganic Analysis Data Sheet

Sample ID: MB 11716 (1)      % Solid: 0      Lab Name: Veritech  
Client Id: MB 11716 (1)      Units: MG/L      Lab Code:  
Matrix: TCLP  
Level: LOW

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7439-97-6	Mercury	0.00070	ND	1	25	25	12/14/11	11716	H13407T	11	CV	HGCV1A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - ColdVapor  
MS - ICP-MS

instr

1A

instr

1A

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
5700	Nitric Acid	5 ml	neat neat	
5703	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5704	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5716	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5728	Lead	.4 ml	1000 ug/ml	4 mg/l
	Thallium	.5 ml	1000 ug/ml	5 mg/l

Veritech Lot Number: V-128669



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6433	Hydrochloric Acid	50 ml	neat neat	
v-128657	Nitric Acid	50 ml	neat neat	
	ICS 1 INTERMEDIATE	1 ml	various mg/l	

Veritech Lot Number: V-129805



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-129811



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6507	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6454	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130673



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/13/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/12/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6507	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Lot Number: V-130860



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130865



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Lot Number: V-130869



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130872



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
6495	ICV 1	10 ml	NEAT neat	
6496	ICV 2	10 ml	50 ug/ml	

## Veritech Lot Number: V-130873



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6454	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130874



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
5821	ICSAB	10 ml	NEAT ug/ml	
6454	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-132485



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 01/12/12	
Prep Date: 1/11/2012		Concentration: Reagent	Checked: Yes	
Expiration Date: 6/10/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6362	Acetic Acid	627 ml	neat neat	
6191	Sodium Hydroxide	283 g	neat neat	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5403									
Description ICSA							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	NEAT	NEAT
Veritech Control/Receipt Number: 5404									
Description ICSB							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	10000	MG/L
Veritech Control/Receipt Number: 5405									
Description ICSC							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	100	MG/L
Veritech Control/Receipt Number: 5700									
Description Arsenic							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5703									
Description Beryllium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5704									
Description Cadmium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL
Veritech Control/Receipt Number: 5716									
Description Lead							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5728											
Description Thallium								ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL		

Veritech Control/Receipt Number: 5821											
Description ICSAB								ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL		

Veritech Control/Receipt Number: 6047											
Description ICV1								ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT		

Veritech Control/Receipt Number: 6048											
Description ICV2								ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT		

Veritech Control/Receipt Number: 6144											
Description ICSA								ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT		

Veritech Control/Receipt Number: 6191											
Description Sodium Hydroxide								ApprovedBy: richq ApproveDate: 07/26/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
Fisher	S318-10	111357	07/26/11	07/25/15	Quimby, Richard	2	10KG	neat	neat		

Veritech Control/Receipt Number: 6244											
Description Hydrochloric Acid								ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat		

Veritech Standard Receipt Log

**Veritech Control/Receipt Number: 6362**



Description  
Acetic Acid

ApprovedBy: shiamala  
ApproveDate: 10/25/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat

**Veritech Control/Receipt Number: 6373**



Description  
Di H2O

ApprovedBy: shiamala  
ApproveDate: 10/18/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		

**Veritech Control/Receipt Number: 6433**



Description  
Nitric Acid

ApprovedBy: shiamala  
ApproveDate: 11/15/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

**Veritech Control/Receipt Number: 6454**



Description  
Nitric Acid

ApprovedBy: shiamala  
ApproveDate: 12/05/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

**Veritech Control/Receipt Number: 6495**



Description  
ICV 1

ApprovedBy: shiamala  
ApproveDate: 12/15/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

**Veritech Control/Receipt Number: 6496**



Description  
ICV 2

ApprovedBy: shiamala  
ApproveDate: 12/15/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/MI

**Veritech Control/Receipt Number: 6507**



Description  
Hydrochloric Acid

ApprovedBy: shiamala  
ApproveDate: 12/05/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6334	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

Veritech Lot Number: V-128659



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

Veritech Lot Number: V-128664



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	25 ml	neat neat	
6433	Nitric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128666



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
6144	Nitric Acid	50 ml	neat neat	
6244	ICSA	50 ml	NEAT neat	
	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5821	DI Water			
6433	ICSAB	10 ml	NEAT ug/ml	
6144	Nitric Acid	50 ml	neat neat	
6244	ICSA	50 ml	NEAT neat	
	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128668



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
6244	Nitric Acid	50 ml	neat neat	
v-128657	Hydrochloric Acid	50 ml	neat neat	
	ICS 1 INTERMEDIATE	1 ml	various mg/l	

Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-130604



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-2		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/12/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/11/2012		Final Volume: 40 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	Di water			
5368	Acetic Acid Glacial	227 ml	neat neat	

Veritech Lot Number: V-130673



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/13/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/12/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6507	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5368									
Description Acetic Acid Glacial							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A38S-212	105020	10/21/10	09/21/15	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 5403									
Description ICSA							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT
Veritech Control/Receipt Number: 5404									
Description ICSB							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MG/L
Veritech Control/Receipt Number: 5405									
Description ICSC							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MG/L
Veritech Control/Receipt Number: 5700									
Description Arsenic							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5703									
Description Beryllium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5704									
Description Cadmium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5716									
Description Lead							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5728									
Description Thallium							 ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL
Veritech Control/Receipt Number: 5821									
Description ICSAB							 ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL
Veritech Control/Receipt Number: 6047									
Description ICV1							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6048									
Description ICV2							 ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6144									
Description ICSA							 ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT
Veritech Control/Receipt Number: 6244									
Description Hydrochloric Acid							 ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6334									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat

Veritech Control/Receipt Number: 6373									
Description Di H2O							 ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		

Veritech Control/Receipt Number: 6433									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

Veritech Control/Receipt Number: 6454									
Description Nitric Acid							 ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							 ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128660



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	50 ml	neat neat	
6244	Hydrochloric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-131199



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 12/19/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6362	Acetic Acid	627 ml	neat neat	
6191	Sodium Hydroxide	283 g	neat neat	

## Veritech Standard Receipt Log

<b>Veritech Control/Receipt Number: 5403</b>										
Description ICSA							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 5404</b>										
Description ICSB							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	10000	MG/L	
<b>Veritech Control/Receipt Number: 5405</b>										
Description ICSC							ApprovedBy: melissa ApproveDate: 01/06/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	100	MG/L	
<b>Veritech Control/Receipt Number: 6191</b>										
Description Sodium Hydroxide							ApprovedBy: richq ApproveDate: 07/26/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	S318-10	111357	07/26/11	07/25/15	Quimby, Richard	2	10KG	neat	neat	
<b>Veritech Control/Receipt Number: 6244</b>										
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat	
<b>Veritech Control/Receipt Number: 6362</b>										
Description Acetic Acid							ApprovedBy: shiamala ApproveDate: 10/25/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat	
<b>Veritech Control/Receipt Number: 6373</b>										
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml			

Veritech Standard Receipt Log

**Veritech Control/Receipt Number: 6433**



Description
Nitric Acid

ApprovedBy: shiamala  
 ApproveDate: 11/15/11  
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5702										
Description							ApprovedBy: shiamala			
Barium							ApproveDate: 05/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	BAP1-1-1	BAP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
Veritech Control/Receipt Number: 5716										
Description							ApprovedBy: shiamala			
Lead							ApproveDate: 03/24/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
Veritech Control/Receipt Number: 6454										
Description							ApprovedBy: shiamala			
Nitric Acid							ApproveDate: 12/05/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat	
Veritech Control/Receipt Number: 6495										
Description							ApprovedBy: shiamala			
ICV 1							ApproveDate: 12/15/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	
Veritech Control/Receipt Number: 6496										
Description							ApprovedBy: shiamala			
ICV 2							ApproveDate: 12/15/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/ML	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128235



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/7/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/6/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6244	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6334	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

Veritech Lot Number: V-128659



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/01/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

Veritech Lot Number: V-128660



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/22/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128664



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6433	Hydrochloric Acid	25 ml	neat neat	
5403	Nitric Acid	25 ml	neat neat	
5404	ICSA	.05 ml	NEAT neat	
5405	ICSB	.05 ml	10000 mg/l	
	ICSC	.05 ml	100 mg/l	

Veritech Lot Number: V-128666



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 11/18/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
6144	Nitric Acid	50 ml	neat neat	
6244	ICSA	50 ml	NEAT neat	
	Hydrochloric Acid	50 ml	neat neat	

Veritech Lot Number: V-128667



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5821	DI Water			
6433	ICSAB	10 ml	NEAT ug/ml	
6244	Nitric Acid	50 ml	neat neat	
6144	Hydrochloric Acid	50 ml	neat neat	
	ICSA	50 ml	NEAT neat	

Veritech Lot Number: V-128668



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
6244	Nitric Acid	50 ml	neat neat	
v-128657	Hydrochloric Acid	50 ml	neat neat	
	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129806



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130673



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/13/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/12/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6507	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Lot Number: V-130938



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 01/06/12	
Prep Date: 12/15/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6362	Acetic Acid	627 ml	neat neat	
6191	Sodium Hydroxide	283 g	neat neat	

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5403



Description
ICSA

ApprovedBy: melissa
ApproveDate: 01/06/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT

## Veritech Control/Receipt Number: 5404



Description
ICSB

ApprovedBy: melissa
ApproveDate: 01/06/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MG/L

## Veritech Control/Receipt Number: 5405



Description
ICSC

ApprovedBy: melissa
ApproveDate: 01/06/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MG/L

## Veritech Control/Receipt Number: 5700



Description
Arsenic

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5703



Description
Beryllium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5704



Description
Cadmium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL

## Veritech Control/Receipt Number: 5716



Description
Lead

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Standard Receipt Log

<b>Veritech Control/Receipt Number: 5728</b>										
Description Thallium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5821</b>										
Description ICSAB							ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL	
<b>Veritech Control/Receipt Number: 6047</b>										
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6048</b>										
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6144</b>										
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6191</b>										
Description Sodium Hydroxide							ApprovedBy: richq ApproveDate: 07/26/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	S318-10	111357	07/26/11	07/25/15	Quimby, Richard	2	10KG	neat	neat	
<b>Veritech Control/Receipt Number: 6244</b>										
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6334									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 10/12/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9598-34	K19023	09/27/11	09/26/12	Lopez, Jose	16	2.5L	neat	neat
Veritech Control/Receipt Number: 6362									
Description Acetic Acid							ApprovedBy: shiamala ApproveDate: 10/25/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6433									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat
Veritech Control/Receipt Number: 6454									
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6433	DI Water			
5700	Nitric Acid	5 ml	neat neat	
5703	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5704	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5716	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5728	Lead	.4 ml	1000 ug/ml	4 mg/l
	Thallium	.5 ml	1000 ug/ml	5 mg/l

Veritech Lot Number: V-128661



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 11/14/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6433	Hydrochloric Acid	50 ml	neat neat	
5403	Nitric Acid	50 ml	neat neat	
5404	ICSA	5 ml	NEAT neat	
5405	ICSB	5 ml	10000 mg/l	
	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-128669



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6244	DI Water			
6433	Hydrochloric Acid	50 ml	neat neat	
v-128657	Nitric Acid	50 ml	neat neat	
	ICS 1 INTERMEDIATE	1 ml	various mg/l	

Veritech Lot Number: V-129043



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-2		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 11/17/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 2/16/2012		Final Volume: 40 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
5368	Di water			
	Acetic Acid Glacial	227 ml	neat neat	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-129804



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

Veritech Lot Number: V-129807



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS4 - High std		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

Veritech Lot Number: V-129808



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: CCV		BatchNumber:	ApproveDate: 12/08/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	
6047	ICV1	10 ml	NEAT neat	

Veritech Lot Number: V-129810



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICV		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	25 ml	neat neat	
6047	ICV1	10 ml	NEAT neat	
6454	Nitric Acid	25 ml	neat neat	
6048	ICV2	10 ml	NEAT neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-129812



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSA		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-129814



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/1/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5821	ICSAB	10 ml	NEAT ug/ml	
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	

## Veritech Lot Number: V-129815



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 12/05/11	
Prep Date: 12/1/2011		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 2/29/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-130089



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 12/6/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/5/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6362	Acetic Acid	627 ml	neat neat	
6191	Sodium Hydroxide	283 g	neat neat	

## Veritech Lot Number: V-130604



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-2		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/12/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/11/2012		Final Volume: 40 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	Di water			
5368	Acetic Acid Glacial	227 ml	neat neat	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130673



Prepared By: Patel, Purva	Department: Metals	ApprovedBy: shiamala		
Description: 1:1 HCl	BatchNumber:	ApproveDate: 12/15/11		
Prep Date: 12/13/2011	Concentration: Reagent	Checked: Yes		
Expiration Date: 3/12/2012	Final Volume: 2000 ml			
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6507	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5368



Description
Acetic Acid Glacial

ApprovedBy: shiamala
ApproveDate: 11/15/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A38S-212	105020	10/21/10	09/21/15	Lopez, Jose	6	2.5L	neat	neat

## Veritech Control/Receipt Number: 5403



Description
ICSA

ApprovedBy: melissa
ApproveDate: 01/06/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	NEAT	NEAT

## Veritech Control/Receipt Number: 5404



Description
ICSB

ApprovedBy: melissa
ApproveDate: 01/06/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	10000	MG/L

## Veritech Control/Receipt Number: 5405



Description
ICSC

ApprovedBy: melissa
ApproveDate: 01/06/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller,Gael E.	2	500M	100	MG/L

## Veritech Control/Receipt Number: 5700



Description
Arsenic

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5703



Description
Beryllium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5704



Description
Cadmium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL

## Veritech Standard Receipt Log

<b>Veritech Control/Receipt Number: 5716</b>										
Description Lead							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5728</b>										
Description Thallium							ApprovedBy: shiamala ApproveDate: 03/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	
<b>Veritech Control/Receipt Number: 5821</b>										
Description ICSAB							ApprovedBy: SHIAMALA ApproveDate: 08/11/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL	
<b>Veritech Control/Receipt Number: 6047</b>										
Description ICV1							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-7	7-116CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6048</b>										
Description ICV2							ApprovedBy: shiamala ApproveDate: 06/24/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-8	7-117CR	06/10/11	06/09/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6144</b>										
Description ICSA							ApprovedBy: shiamala ApproveDate: 10/03/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT	
<b>Veritech Control/Receipt Number: 6191</b>										
Description Sodium Hydroxide							ApprovedBy: richq ApproveDate: 07/26/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	S318-10	111357	07/26/11	07/25/15	Quimby, Richard	2	10KG	neat	neat	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6244										
Description Hydrochloric Acid							ApprovedBy: jean ApproveDate: 08/16/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat	
Veritech Control/Receipt Number: 6362										
Description Acetic Acid							ApprovedBy: shiamala ApproveDate: 10/25/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat	
Veritech Control/Receipt Number: 6373										
Description Di H2O							ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml			
Veritech Control/Receipt Number: 6433										
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 11/15/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat	
Veritech Control/Receipt Number: 6454										
Description Nitric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat	
Veritech Control/Receipt Number: 6507										
Description Hydrochloric Acid							ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5702										
Description							ApprovedBy: shiamala			
Barium							ApproveDate: 05/06/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	BAP1-1-1	BAP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	

Veritech Control/Receipt Number: 5716										
Description							ApprovedBy: shiamala			
Lead							ApproveDate: 03/24/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL	

Veritech Control/Receipt Number: 6445										
Description							ApprovedBy: jean			
Nitric Acid							ApproveDate: 11/16/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat	

Veritech Control/Receipt Number: 6495										
Description							ApprovedBy: shiamala			
ICV 1							ApproveDate: 12/15/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT	

Veritech Control/Receipt Number: 6496										
Description							ApprovedBy: shiamala			
ICV 2							ApproveDate: 12/15/11			
							Checked: Yes			
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:	
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/ML	

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 6386



Description

Sulfuric Acid

 ApprovedBy: shiamala  
 ApproveDate: 10/24/11  
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A510SK-212	3110100	10/19/11	12/30/13	Lopez, Jose	12	2.5L	neat	neat

## Veritech Control/Receipt Number: 6433



Description

Nitric Acid

 ApprovedBy: shiamala  
 ApproveDate: 11/15/11  
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130778

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg Intermediate Standard		BatchNumber: B-11596	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: .25 ppm	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	12.5 ml	neat neat	
5675	Mercury	.125 ml	1000 mg/l	
6528	DI H2O			

## Veritech Lot Number: V-130779

Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11596	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-130810

Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ ICV 20 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 20 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130779	Hg intermediate Control	.5 ml	1.0 ppm	
6528	DI H2O			

## Veritech Lot Number: V-130811

Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ CCV 10 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130779	Hg intermediate Control	.25 ml	1.0 ppm	
6528	DI H2O			

## Veritech Lot Number: V-130812

Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard blk		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 0 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130813



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .2 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130778	Hg Intermediate Standard	.02 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-130814



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .5 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
V-130778	Hg Intermediate Standard	.05 ml	.25 ppm	

## Veritech Lot Number: V-130815



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 1 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130778	Hg Intermediate Standard	.1 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-130816



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 2 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130778	Hg Intermediate Standard	.2 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-130817



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 5 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130778	Hg Intermediate Standard	.5 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-130818



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 10 ppb		BatchNumber: B-11599	ApproveDate: 01/09/12	
Prep Date: 12/14/2011		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 12/14/2011		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130778	Hg Intermediate Standard	1 ml	.25 ppm	
6528	DI H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130819



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala
Description: Hg AQ standard 25 ppb	BatchNumber: B-11599	ApproveDate: 01/09/12
Prep Date: 12/14/2011	Concentration: 25 ppb	Checked: Yes
Expiration Date: 12/14/2011	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130778 6528	Hg Intermediate Standard DI H2O	2.5 ml	.25 ppm	

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5675



Description
Mercury

ApprovedBy: shiamala
ApproveDate: 11/10/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L

## Veritech Control/Receipt Number: 5715



Description
Mercury

ApprovedBy: shiamala
ApproveDate: 05/04/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 6445



Description
Nitric Acid

ApprovedBy: jean
ApproveDate: 11/16/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat

## Veritech Control/Receipt Number: 6528



Description
DI H2O

ApprovedBy: shiamala
ApproveDate: 01/06/12
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126648



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Persulfate		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5202	Potassium Persulfate	500 g	neat neat	

## Veritech Lot Number: V-126650



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: Hydroxylamine Hydrochloride		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 1/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6130	di H2O			
5586	Sodium Chloride	1200 g	neat neat	
5925	HYDROXYLAMINE HYDROCHLORIDE	1200 g	NEAT neat	

## Veritech Lot Number: V-128167



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Permanganate		BatchNumber:	ApproveDate: 11/22/11	
Prep Date: 11/4/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 2/3/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
4429	POTASSIUM PERMANGANATE	500 g	NEAT neat	

## Veritech Lot Number: V-130089



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: EF-1		BatchNumber:	ApproveDate: 12/12/11	
Prep Date: 12/6/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/5/2012		Final Volume: 110 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6362	Acetic Acid	627 ml	neat neat	
6191	Sodium Hydroxide	283 g	neat neat	

## Veritech Lot Number: V-130395



Prepared By: Adelarthey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/03/12	
Prep Date: 12/9/2011		Concentration: reagent l	Checked: Yes	
Expiration Date: 6/8/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6507	Hydrochloric Acid	900	neat neat	

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-130779



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala
Description: Hg intermediate Control	BatchNumber: B-11596	ApproveDate: 01/09/12
Prep Date: 12/14/2011	Concentration: 1.0 ppm	Checked: Yes
Expiration Date: 12/14/2011	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6445	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

Veritech Lot Number: V-130827



Prepared By: Adelartey, Olufemi	Department: Metals	ApprovedBy: shiamala
Description: SnCl2	BatchNumber:	ApproveDate: 01/09/12
Prep Date: 12/14/2011	Concentration: reagent I	Checked: Yes
Expiration Date: 12/14/2011	Final Volume: 1 l	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-130395	3% HCL		reagent I	1000 ml
6140	Stannous Chloride		NEAT neat	13.2 g

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 4429									
Description POTASSIUM PERMANGANATE							ApprovedBy: gael ApproveDate: 09/13/10 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
FISHER	P279-212	091544	09/29/09	09/30/12	Miller,Gael E.	1	2.5K	NEAT	NEAT

Veritech Control/Receipt Number: 5202									
Description Potassium Persulfate							ApprovedBy: gael ApproveDate: 12/01/10 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	P282-500	092677	08/27/10	08/26/13	Miller,Gael E.	2	500g	neat	neat

Veritech Control/Receipt Number: 5586									
Description Sodium Chloride							ApprovedBy: richq ApproveDate: 02/01/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	S271-10	103356	01/31/11	01/30/15	Quimby, Richard	3	10Kg	neat	neat

Veritech Control/Receipt Number: 5715									
Description Mercury							ApprovedBy: shiamala ApproveDate: 05/04/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

Veritech Control/Receipt Number: 5925									
Description HYDROXYLAMINE HYDROCHLORIDE							ApprovedBy: shiamala ApproveDate: 08/25/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
LabChem Inc	LC15515-1	A124-12	05/11/11	05/10/12	Kalin, Gabrielle	1	500g	NEAT	NEAT

Veritech Control/Receipt Number: 6130									
Description di H2O							ApprovedBy: shiamala ApproveDate: 07/15/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SIEMENS	1	1	07/05/11	04/10/12	Adelartey, Olufemi	1			

Veritech Control/Receipt Number: 6140									
Description Stannous Chloride							ApprovedBy: shiamala ApproveDate: 07/13/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6191									
Description Sodium Hydroxide							 ApprovedBy: richq ApproveDate: 07/26/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	S318-10	111357	07/26/11	07/25/15	Quimby, Richard	2	10KG	neat	neat
Veritech Control/Receipt Number: 6362									
Description Acetic Acid							 ApprovedBy: shiamala ApproveDate: 10/25/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A38S-212	114062	10/07/11	08/31/16	Lopez, Jose	6	2.5	neat	neat
Veritech Control/Receipt Number: 6373									
Description Di H2O							 ApprovedBy: shiamala ApproveDate: 10/18/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		
Veritech Control/Receipt Number: 6445									
Description Nitric Acid							 ApprovedBy: jean ApproveDate: 11/16/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J T Baker	9598-34	K23022	11/16/11	11/16/12	Okomeng, Maxwel	4	2.5LT	neat	neat
Veritech Control/Receipt Number: 6507									
Description Hydrochloric Acid							 ApprovedBy: shiamala ApproveDate: 12/05/11 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat
Veritech Control/Receipt Number: 6528									
Description DI H2O							 ApprovedBy: shiamala ApproveDate: 01/06/12 Checked: Yes		
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\T13480B2.txt

Analysis Date: 01/16/12

Instrument: PEICP2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-130860	1	CAL	18:49	1							V-130860(ICB/CCB)
Calib 1 V-128669	1	CAL	18:53	2							V-128669(ICS1 - Lowest std)
Calib 2 V-130865	1	CAL	18:57	3							V-130865(ICS2- Low Std)
Calib 3 V-129805	1	CAL	19:01	4							V-129805(ICS3 - Middle Std)
Calib 4 V-130869	1	CAL	19:05	5							V-130869(ICS4 - High std)
ICS3 V-129805	1	ICS	19:09	6							V-129805(ICS3 - Middle Std)
ICV V-129811 (2)	1	ICV	19:13	7							V-129811(ICV)
ICB V-130860	1	ICB	19:18	8							V-130860(ICB/CCB)
ICSA V-130873	1	ICSA	19:22	9							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	19:27	10							V-130874(ICSAB)
MB 12491 (1)	1	MB	19:33	11		TCLP	TCLP	SW846	12491		0
LCSW 12491	1	LCS	19:36	12		TCLP	TCLP	SW846	12491		0
LCSW MR 12491	1	LCS	19:40	13		TCLP	TCLP	SW846	12491		0
AC63081-028	1	SMP	19:44	14	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
AC63081-028	1	MR	19:48	15	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
AC63081-028	1	MS	19:52	16	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
AC63081-028	1	PS	19:56	17	PB-TCLP	TCLP	TCLP	SW846	12491	Pb over LR	0
CCV V-130872	1	CCV	20:00	18						Pb failed (carryover)	V-130872(CCV)
CCB	1	CCB	20:04	19							0
AC63081-047	1	SMP	20:07	20	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-047	5	SD	20:11	21	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-003	1	SMP	20:15	22	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-039	1	SMP	20:19	23	PB-TCLP	TCLP	TCLP	SW846	12491		0
EF-V-132485	1	EF	20:23	24		TCLP	TCLP	SW846	12491		V-132485(EF-1)
ICSA V-130873	1	ICSA	20:27	25							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	20:32	26							V-130874(ICSAB)
CCV V-130872	1	CCV	20:37	27							V-130872(CCV)
CCB	1	CCB	20:41	28							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 1/17/2012 10:57:43 AM

OK except Pb

*sh* 1/17/12

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\T13480C2.txt

Analysis Date: 01/17/12

Instrument: PEICP2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-130860	1	CAL	11:08	1							V-130860(ICB/CCB)
Calib 1 V-128669	1	CAL	11:12	2							V-128669(ICS1 - Lowest std)
Calib 2 V-130865	1	CAL	11:16	3							V-130865(ICS2- Low Std)
Calib 3 V-129805	1	CAL	11:20	4							V-129805(ICS3 - Middle Std)
Calib 4 V-130869	1	CAL	11:23	5							V-130869(ICS4 - High std)
ICS3 V-129805	1	ICS	11:28	6							V-129805(ICS3 - Middle Std)
ICV V-129811 (2)	1	ICV	11:32	7							V-129811(ICV)
ICB V-130860	1	ICB	11:37	8							V-130860(ICB/CCB)
ICSA V-130873	1	ICSA	11:41	9							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	11:46	10							V-130874(ICSAB)
MB 12491 (1)	1	MB	11:51	11		TCLP	TCLP	SW846	12491		0
LCSW 12491	1	LCS	11:54	12		TCLP	TCLP	SW846	12491		0
LCSW MR 12491	1	LCS	11:58	13		TCLP	TCLP	SW846	12491		0
AC63081-028	10	SMP	12:02	14	PB-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-028	10	MR	12:06	15	PB-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-028	10	MS	12:09	16	PB-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-028	1	PS	12:13	17	PB-TCLP	TCLP	TCLP	SW846	12491		0
CCV V-130872	1	CCV	12:17	18							V-130872(CCV)
CCB	1	CCB	12:21	19							0
AC63081-047	1	SMP	12:24	20	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63081-047	5	SD	12:28	21	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-003	1	SMP	12:32	22	METALS-TCLP	TCLP	TCLP	SW846	12491		0
AC63111-039	1	SMP	12:36	23	PB-TCLP	TCLP	TCLP	SW846	12491		0
EF-V-132485	1	EF	12:40	24		TCLP	TCLP	SW846	12491		V-132485(EF-1)
ICSA V-130873	1	ICSA	12:43	25							V-130873(ICSA)
ICSAB V-130874	1	ICSAB	12:49	26							V-130874(ICSAB)
CCV V-130872	1	CCV	12:54	27							V-130872(CCV)
CCB	1	CCB	12:57	28							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

scan  
192.168.1.78 1/17/2012 2:24:47 PM

Pb OK

*gh* 1/17/12

Analyst *LBH* 1/17/12

Method Loaded

Method Name: PE2 4300DV AXIAL  
IEC File: IEC092611B2.iec  
Method Description: 200.716010B

Method Last Saved: 1/16/2012 10:36:38 AM  
MSF File:

*sh* 1/17/12

Sequence No.: 1

Sample ID: Calib Blk 1 V-130860  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 1  
Date Collected: 1/16/2012 6:49:09 PM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Mean Data: Calib Blk 1 V-130860

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1107643.5	708.00	0.06%	100.0	%
Y 371.029	442483.5	520.13	0.12%	100	%
Ag 328.068†	-87.7	18.97	21.64%	[0.00]	mg/L
Al 308.215†	5321.8	41.79	0.79%	[0.00]	mg/L
As 188.979†	-11.0	3.38	30.81%	[0.00]	mg/L
Ba 233.527†	-706.5	15.74	2.23%	[0.00]	mg/L
Be 313.107†	-1481.6	27.31	1.84%	[0.00]	mg/L
Ca 315.887†	-35848.9	231.44	0.65%	[0.00]	mg/L
Cd 228.802†	324.4	5.42	1.67%	[0.00]	mg/L
Co 228.616†	30.6	9.12	29.76%	[0.00]	mg/L
Cr 267.716†	256.4	1.82	0.71%	[0.00]	mg/L
Cu 327.393†	-2188.9	38.07	1.74%	[0.00]	mg/L
Fe 273.955†	-3211.4	0.32	0.01%	[0.00]	mg/L
K 404.721†	-388.9	48.19	12.39%	[0.00]	mg/L
Mg 279.077†	-6493.5	116.21	1.79%	[0.00]	mg/L
Mn 257.610†	-1730.2	4.42	0.26%	[0.00]	mg/L
Mo 202.031†	1.3	4.90	367.32%	[0.00]	mg/L
Na 330.237†	-485.3	18.97	3.91%	[0.00]	mg/L
Ni 231.604†	112.8	2.99	2.65%	[0.00]	mg/L
Pb 220.353†	-6.3	7.78	122.74%	[0.00]	mg/L
Sb 206.836†	-43.5	0.23	0.52%	[0.00]	mg/L
Se 196.026†	29.0	5.02	17.29%	[0.00]	mg/L
Sn 189.927†	7.9	0.64	8.07%	[0.00]	mg/L
Ti 334.940†	1865.3	4.02	0.22%	[0.00]	mg/L
Tl 190.801†	-13.4	0.22	1.67%	[0.00]	mg/L
V 290.880†	2697.0	19.25	0.71%	[0.00]	mg/L
Zn 206.200†	21.3	4.28	20.04%	[0.00]	mg/L

13480  
12491

As reported

Sequence No.: 2

Sample ID: Calib 1 V-128669

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 1/16/2012 6:53:55 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1132788.0	11087.26	0.98%	102 %
Y 371.029	450797.5	3928.79	0.87%	102 %
As 188.979†	6.2	0.21	3.34%	[0.005] mg/L
Be 313.107†	7367.0	141.74	1.92%	[0.003] mg/L
Cd 228.802†	102.7	4.31	4.20%	[0.003] mg/L
Pb 220.353†	19.5	8.19	41.89%	[0.004] mg/L
Tl 190.801†	3.1	0.29	9.44%	[0.005] mg/L

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-130865

Date Collected: 1/16/2012 6:57:34 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 2 V-130865

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1116170.1	8074.48	0.72%	101 %
Y 371.029	444133.7	2937.67	0.66%	100 %
Ag 328.068†	269.4	13.76	5.11%	[0.002] mg/L
Al 308.215†	2935.3	59.30	2.02%	[0.10] mg/L
As 188.979†	12.4	1.36	11.01%	[0.010] mg/L
Ba 233.527†	1224.8	0.45	0.04%	[0.010] mg/L
Be 313.107†	24709.6	315.62	1.28%	[0.010] mg/L
Ca 315.887†	98969.7	689.76	0.70%	[1.0] mg/L
Cd 228.802†	352.4	11.06	3.14%	[0.010] mg/L
Co 228.616†	293.5	1.85	0.63%	[0.010] mg/L
Cr 267.716†	656.1	1.74	0.26%	[0.010] mg/L
Cu 327.393†	1250.4	3.35	0.27%	[0.010] mg/L
Fe 273.955†	891.3	26.14	2.93%	[0.10] mg/L
K 404.721†	128.2	26.37	20.56%	[1.0] mg/L
Mg 279.077†	12061.1	92.50	0.77%	[1.0] mg/L
Mn 257.610†	3921.4	15.25	0.39%	[0.010] mg/L
Mo 202.031†	126.4	6.06	4.80%	[0.010] mg/L
Na 330.237†	782.7	0.52	0.07%	[1.0] mg/L
Ni 231.604†	383.6	4.06	1.06%	[0.010] mg/L
Pb 220.353†	81.8	5.08	6.22%	[0.010] mg/L
Sb 206.836†	5.3	0.61	11.62%	[0.010] mg/L
Se 196.026†	9.4	3.18	33.82%	[0.010] mg/L
Sn 189.927†	11.8	0.36	3.07%	[0.010] mg/L
Ti 334.940†	6416.0	114.87	1.79%	[0.010] mg/L
Tl 190.801†	7.8	2.89	37.21%	[0.010] mg/L
V 290.880†	1350.8	15.43	1.14%	[0.010] mg/L
Zn 206.200†	228.8	0.17	0.07%	[0.010] mg/L

Sequence No.: 4

Sample ID: Calib 3 V-129805

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/16/2012 7:01:15 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 3 V-129805

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1073058.1	8536.88	0.80%	96.9 %
Y 371.029	420902.0	3070.37	0.73%	95.1 %
Ag 328.068†	13067.5	292.93	2.24%	[0.10] mg/L
Al 308.215†	135248.8	3352.66	2.48%	[5.0] mg/L
As 188.979†	442.8	10.65	2.40%	[0.50] mg/L
Ba 233.527†	58886.9	1416.22	2.40%	[0.50] mg/L
Be 313.107†	1286110.1	14917.17	1.16%	[0.50] mg/L
Ca 315.887†	4816685.4	51096.96	1.06%	[50] mg/L
Cd 228.802†	17320.4	431.01	2.49%	[0.50] mg/L
Co 228.616†	14486.1	323.22	2.23%	[0.50] mg/L
Cr 267.716†	32303.5	812.33	2.51%	[0.50] mg/L
Cu 327.393†	59058.5	1383.93	2.34%	[0.50] mg/L
Fe 273.955†	43822.4	1108.13	2.53%	[5.0] mg/L
K 404.721†	4590.4	122.76	2.67%	[50] mg/L
Mg 279.077†	571168.7	5971.66	1.05%	[50] mg/L
Mn 257.610†	188371.0	4517.92	2.40%	[0.50] mg/L
Mo 202.031†	5985.0	47.18	0.79%	[0.50] mg/L
Na 330.237†	44478.3	978.19	2.20%	[50] mg/L
Ni 231.604†	18719.9	458.02	2.45%	[0.50] mg/L
Pb 220.353†	4440.0	13.39	0.30%	[0.50] mg/L
Sb 206.836†	460.2	5.83	1.27%	[0.50] mg/L
Se 196.026†	421.2	8.31	1.97%	[0.50] mg/L
Sn 189.927†	639.8	2.35	0.37%	[0.50] mg/L
Ti 334.940†	324408.8	4063.25	1.25%	[0.50] mg/L
Tl 190.801†	397.5	4.39	1.10%	[0.50] mg/L
V 290.880†	69359.9	1650.41	2.38%	[0.50] mg/L
Zn 206.200†	13273.3	368.74	2.78%	[0.50] mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-130869

Date Collected: 1/16/2012 7:05:01 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 4 V-130869

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1030719.6	14690.01	1.43%	93.1	%
Y 371.029	405669.0	5353.56	1.32%	91.7	%
Ag 328.068†	26242.9	64.07	0.24%	[0.20]	mg/L
Al 308.215†	270128.2	2013.96	0.75%	[10]	mg/L
As 188.979†	877.8	6.72	0.77%	[1.0]	mg/L
Ba 233.527†	116096.7	681.83	0.59%	[1.0]	mg/L
Be 313.107†	2541482.7	33172.38	1.31%	[1.0]	mg/L
Ca 315.887†	9457560.8	107744.16	1.14%	[100]	mg/L
Cd 228.802†	34556.6	187.69	0.54%	[1.0]	mg/L
Co 228.616†	28389.4	129.59	0.46%	[1.0]	mg/L
Cr 267.716†	63980.6	481.16	0.75%	[1.0]	mg/L
Cu 327.393†	117826.6	751.38	0.64%	[1.0]	mg/L
Fe 273.955†	86442.3	463.77	0.54%	[10]	mg/L
K 404.721†	10053.0	21.31	0.21%	[100]	mg/L
Mg 279.077†	1123338.2	4184.40	0.37%	[100]	mg/L
Mn 257.610†	371450.0	2100.64	0.57%	[1.0]	mg/L
Mo 202.031†	11916.4	134.45	1.13%	[1.0]	mg/L
Na 330.237†	95483.2	588.54	0.62%	[100]	mg/L
Ni 231.604†	36594.0	162.52	0.44%	[1.0]	mg/L
Pb 220.353†	8677.6	93.52	1.08%	[1.0]	mg/L
Sb 206.836†	919.6	12.05	1.31%	[1.0]	mg/L
Se 196.026†	838.4	4.23	0.50%	[1.0]	mg/L
Sn 189.927†	1271.0	19.70	1.55%	[1.0]	mg/L
Ti 334.940†	644775.7	5385.91	0.84%	[1.0]	mg/L
Tl 190.801†	776.4	15.72	2.02%	[1.0]	mg/L
V 290.880†	136713.1	823.35	0.60%	[1.0]	mg/L
Zn 206.200†	26190.9	25.12	0.10%	[1.0]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-6.7	131100	0.00000	0.999998	
Al 308.215	3	Lin, Calc Int	139.9	27000	0.00000	1.000000	
As 188.979	4	Lin, Calc Int	2.2	876.8	0.00000	0.999989	
Ba 233.527	3	Lin, Calc Int	181.6	116200	0.00000	0.999973	
Be 313.107	4	Lin, Calc Int	1614.2	2546000	0.00000	0.999982	
Ca 315.887	3	Lin, Calc Int	17993.8	94710	0.00000	0.999955	
Cd 228.802	4	Lin, Calc Int	7.1	34560	0.00000	0.999999	
Co 228.616	3	Lin, Calc Int	57.4	28440	0.00000	0.999945	
Cr 267.716	3	Lin, Calc Int	64.4	64030	0.00000	0.999988	
Cu 327.393	3	Lin, Calc Int	59.2	117800	0.00000	0.999999	
Fe 273.955	3	Lin, Calc Int	121.6	8654	0.00000	0.999975	
K 404.721	3	Lin, Calc Int	-66.8	99.60	0.00000	0.998939	
Mg 279.077	3	Lin, Calc Int	2104.7	11250	0.00000	0.999963	
Mn 257.610	3	Lin, Calc Int	575.5	371800	0.00000	0.999974	
Mo 202.031	3	Lin, Calc Int	8.2	11920	0.00000	0.999998	
Na 330.237	3	Lin, Calc Int	-672.1	949.9	0.00000	0.999384	
Ni 231.604	3	Lin, Calc Int	85.0	36660	0.00000	0.999930	
Pb 220.353	4	Lin, Calc Int	6.3	8710	0.00000	0.999931	
Sb 206.836	3	Lin, Calc Int	-1.7	921.8	0.00000	0.999992	
Se 196.026	3	Lin, Calc Int	0.8	838.3	0.00000	0.999997	
Sn 189.927	3	Lin, Calc Int	0.3	1272	0.00000	0.999993	
Ti 334.940	3	Lin, Calc Int	353.4	645200	0.00000	0.999995	
Tl 190.801	4	Lin, Calc Int	0.9	779.0	0.00000	0.999929	
V 290.880	3	Lin, Calc Int	175.2	136900	0.00000	0.999971	
Zn 206.200	3	Lin, Calc Int	17.3	26240	0.00000	0.999972	

Sequence No.: 6

Sample ID: ICS3 V-129805

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/16/2012 7:09:57 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICS3 V-129805

Analyte	Mean Corrected		Calib		Sample		RSD	
	Intensity	Conc.	Units	Std.Dev.	Conc.	Std.Dev.		
Sc 361.383	1081020.3	97.6	%	0.85			0.87%	
Y 371.029	423753.4	95.8	%	0.77			0.81%	
Ag 328.068†	13141.2	0.100372	mg/L	0.0008763	0.100372	mg/L	0.0008763	0.87%
QC value within limits for Ag		328.068	Recovery =	100.37%				
Al 308.215†	135504.2	5.00296	mg/L	0.062736	5.00296	mg/L	0.062736	1.25%
QC value within limits for Al		308.215	Recovery =	100.06%				
As 188.979†	440.2	0.499499	mg/L	0.0030828	0.499499	mg/L	0.0030828	0.62%
QC value within limits for As		188.979	Recovery =	99.90%				
Ba 233.527†	59184.0	0.507709	mg/L	0.0061218	0.507709	mg/L	0.0061218	1.21%
QC value within limits for Ba		233.527	Recovery =	101.54%				
Be 313.107†	1290351.7	0.505888	mg/L	0.0059836	0.505888	mg/L	0.0059836	1.18%
QC value within limits for Be		313.107	Recovery =	101.18%				
Ca 315.887†	4843069.7	50.9457	mg/L	0.59462	50.9457	mg/L	0.59462	1.17%
QC value within limits for Ca		315.887	Recovery =	101.89%				
Cd 228.802†	17383.4	0.502633	mg/L	0.0039153	0.502633	mg/L	0.0039153	0.78%
QC value within limits for Cd		228.802	Recovery =	100.53%				
Co 228.616†	14548.6	0.510232	mg/L	0.0061991	0.510232	mg/L	0.0061991	1.21%
QC value within limits for Co		228.616	Recovery =	102.05%				
Cr 267.716†	32458.0	0.509572	mg/L	0.0061656	0.509572	mg/L	0.0061656	1.21%
QC value within limits for Cr		267.716	Recovery =	101.91%				
Cu 327.393†	59087.5	0.499523	mg/L	0.0047646	0.499523	mg/L	0.0047646	0.95%
QC value within limits for Cu		327.393	Recovery =	99.90%				
Fe 273.955†	44068.2	5.09881	mg/L	0.057708	5.09881	mg/L	0.057708	1.13%
QC value within limits for Fe		273.955	Recovery =	101.98%				
K 404.721†	4664.2	47.5023	mg/L	0.33087	47.5023	mg/L	0.33087	0.70%
QC value within limits for K		404.721	Recovery =	95.00%				
Mg 279.077†	575222.7	50.9618	mg/L	0.58911	50.9618	mg/L	0.58911	1.16%
QC value within limits for Mg		279.077	Recovery =	101.92%				
Mn 257.610†	189365.2	0.508111	mg/L	0.0059484	0.508111	mg/L	0.0059484	1.17%
QC value within limits for Mn		257.610	Recovery =	101.62%				
Mo 202.031†	6010.9	0.502647	mg/L	0.0082488	0.502647	mg/L	0.0082488	1.64%
QC value within limits for Mo		202.031	Recovery =	100.53%				
Na 330.237†	44473.0	47.5270	mg/L	0.42069	47.5270	mg/L	0.42069	0.89%
QC value within limits for Na		330.237	Recovery =	95.05%				
Ni 231.604†	18812.8	0.511290	mg/L	0.0069246	0.511290	mg/L	0.0069246	1.35%
QC value within limits for Ni		231.604	Recovery =	102.26%				
Pb 220.353†	4471.3	0.512981	mg/L	0.0059211	0.512981	mg/L	0.0059211	1.15%
QC value within limits for Pb		220.353	Recovery =	102.60%				
Sb 206.836†	461.1	0.503457	mg/L	0.0053824	0.503457	mg/L	0.0053824	1.07%
QC value within limits for Sb		206.836	Recovery =	100.69%				
Se 196.026†	420.6	0.499963	mg/L	0.0146787	0.499963	mg/L	0.0146787	2.94%
QC value within limits for Se		196.026	Recovery =	99.99%				
Sn 189.927†	657.9	0.517099	mg/L	0.0115886	0.517099	mg/L	0.0115886	2.24%
QC value within limits for Sn		189.927	Recovery =	103.42%				
Ti 334.940†	324660.4	0.502679	mg/L	0.0061833	0.502679	mg/L	0.0061833	1.23%
QC value within limits for Ti		334.940	Recovery =	100.54%				
Tl 190.801†	398.3	0.513095	mg/L	0.0055948	0.513095	mg/L	0.0055948	1.09%
QC value within limits for Tl		190.801	Recovery =	102.62%				
V 290.880†	69689.7	0.504789	mg/L	0.0063650	0.504789	mg/L	0.0063650	1.26%
QC value within limits for V		290.880	Recovery =	100.96%				
Zn 206.200†	13417.4	0.509061	mg/L	0.0052827	0.509061	mg/L	0.0052827	1.04%
QC value within limits for Zn		206.200	Recovery =	101.81%				

All analyte(s) passed QC.

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Sequence No.: 7                               Autosampler Location: 11
Sample ID: ICV V-129811 (2)                   Date Collected: 1/16/2012 7:13:44 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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**Mean Data: ICV V-129811 (2)**

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	1046255.1	94.5 %	0.25			0.26%	
Y 371.029	411112.2	92.9 %	0.28			0.30%	
Ag 328.068†	25980.6	0.198376 mg/L	0.0014921	0.198376 mg/L	0.0014921	0.75%	
QC value within limits for Ag	328.068	Recovery = 99.19%					
Al 308.215†	274582.5	10.1431 mg/L	0.07757	10.1431 mg/L	0.07757	0.76%	
QC value within limits for Al	308.215	Recovery = 101.43%					
As 188.979†	888.3	1.01037 mg/L	0.004326	1.01037 mg/L	0.004326	0.43%	
QC value within limits for As	188.979	Recovery = 101.04%					
Ba 233.527†	118963.6	1.02210 mg/L	0.005415	1.02210 mg/L	0.005415	0.53%	
QC value within limits for Ba	233.527	Recovery = 102.21%					
Be 313.107†	2562720.3	1.00534 mg/L	0.011787	1.00534 mg/L	0.011787	1.17%	
QC value within limits for Be	313.107	Recovery = 100.53%					
Ca 315.887†	9624314.6	101.429 mg/L	1.1115	101.429 mg/L	1.1115	1.10%	
QC value within limits for Ca	315.887	Recovery = 101.43%					
Cd 228.802†	35150.4	1.01657 mg/L	0.007176	1.01657 mg/L	0.007176	0.71%	
QC value within limits for Cd	228.802	Recovery = 101.66%					
Co 228.616†	29220.4	1.02686 mg/L	0.005321	1.02686 mg/L	0.005321	0.52%	
QC value within limits for Co	228.616	Recovery = 102.69%					
Cr 267.716†	64655.2	1.01618 mg/L	0.006020	1.01618 mg/L	0.006020	0.59%	
QC value within limits for Cr	267.716	Recovery = 101.62%					
Cu 327.393†	118859.9	1.00537 mg/L	0.006026	1.00537 mg/L	0.006026	0.60%	
QC value within limits for Cu	327.393	Recovery = 100.54%					
Fe 273.955†	87341.1	10.1197 mg/L	0.06197	10.1197 mg/L	0.06197	0.61%	
QC value within limits for Fe	273.955	Recovery = 101.20%					
K 404.721†	10097.5	102.056 mg/L	1.9208	102.056 mg/L	1.9208	1.88%	
QC value within limits for K	404.721	Recovery = 102.06%					
Mg 279.077†	1145476.9	101.669 mg/L	0.6747	101.669 mg/L	0.6747	0.66%	
QC value within limits for Mg	279.077	Recovery = 101.67%					
Mn 257.610†	375759.2	1.00978 mg/L	0.006516	1.00978 mg/L	0.006516	0.65%	
QC value within limits for Mn	257.610	Recovery = 100.98%					
Mo 202.031†	12216.0	1.02228 mg/L	0.010837	1.02228 mg/L	0.010837	1.06%	
QC value within limits for Mo	202.031	Recovery = 102.23%					
Na 330.237†	95929.2	101.698 mg/L	0.6696	101.698 mg/L	0.6696	0.66%	
QC value within limits for Na	330.237	Recovery = 101.70%					
Ni 231.604†	37443.9	1.01996 mg/L	0.006722	1.01996 mg/L	0.006722	0.66%	
QC value within limits for Ni	231.604	Recovery = 102.00%					
Pb 220.353†	8856.9	1.01690 mg/L	0.005179	1.01690 mg/L	0.005179	0.51%	
QC value within limits for Pb	220.353	Recovery = 101.69%					
Sb 206.836†	929.9	1.01342 mg/L	0.004480	1.01342 mg/L	0.004480	0.44%	
QC value within limits for Sb	206.836	Recovery = 101.34%					
Se 196.026†	852.7	1.01450 mg/L	0.003558	1.01450 mg/L	0.003558	0.35%	
QC value within limits for Se	196.026	Recovery = 101.45%					
Sn 189.927†	1320.6	1.03820 mg/L	0.001453	1.03820 mg/L	0.001453	0.14%	
QC value within limits for Sn	189.927	Recovery = 103.82%					
Ti 334.940†	653412.0	1.01225 mg/L	0.006645	1.01225 mg/L	0.006645	0.66%	
QC value within limits for Ti	334.940	Recovery = 101.22%					
Tl 190.801†	818.8	1.05582 mg/L	0.009078	1.05582 mg/L	0.009078	0.86%	
QC value within limits for Tl	190.801	Recovery = 105.58%					
V 290.880†	138455.9	1.00416 mg/L	0.005311	1.00416 mg/L	0.005311	0.53%	
QC value within limits for V	290.880	Recovery = 100.42%					
Zn 206.200†	26941.2	1.02284 mg/L	0.007769	1.02284 mg/L	0.007769	0.76%	
QC value within limits for Zn	206.200	Recovery = 102.28%					

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-130860

Date Collected: 1/16/2012 7:18:40 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICB V-130860

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1126101.1	102 %	0.4			0.40%
Y 371.029	449046.1	101 %	0.3			0.29%
Ag 328.068†	42.7	0.0003755 mg/L	0.00033086	0.0003755 mg/L	0.00033086	88.10%
QC value within limits for Ag		328.068	Recovery = Not calculated			
Al 308.215†	-42.6	-0.0067520 mg/L	0.00018007	-0.0067520 mg/L	0.00018007	2.67%
QC value within limits for Al		308.215	Recovery = Not calculated			
As 188.979†	0.7	-0.0017140 mg/L	0.00548659	-0.0017140 mg/L	0.00548659	320.11%
QC value within limits for As		188.979	Recovery = Not calculated			
Ba 233.527†	11.4	-0.0014647 mg/L	0.00006395	-0.0014647 mg/L	0.00006395	4.37%
QC value within limits for Ba		233.527	Recovery = Not calculated			
Be 313.107†	6.8	-0.0006310 mg/L	0.00000881	-0.0006310 mg/L	0.00000881	1.40%
QC value within limits for Be		313.107	Recovery = Not calculated			
Ca 315.887†	516.8	-0.184531 mg/L	0.0005733	-0.184531 mg/L	0.0005733	0.31%
QC value within limits for Ca		315.887	Recovery = Not calculated			
Cd 228.802†	7.7	0.0000180 mg/L	0.00012397	0.0000180 mg/L	0.00012397	689.58%
QC value within limits for Cd		228.802	Recovery = Not calculated			
Co 228.616†	-7.4	-0.0022793 mg/L	0.00005387	-0.0022793 mg/L	0.00005387	2.36%
QC value within limits for Co		228.616	Recovery = Not calculated			
Cr 267.716†	-8.3	-0.0011378 mg/L	0.00013355	-0.0011378 mg/L	0.00013355	11.74%
QC value within limits for Cr		267.716	Recovery = Not calculated			
Cu 327.393†	-10.6	-0.0005875 mg/L	0.00024429	-0.0005875 mg/L	0.00024429	41.58%
QC value within limits for Cu		327.393	Recovery = Not calculated			
Fe 273.955†	20.1	-0.0118071 mg/L	0.00008670	-0.0118071 mg/L	0.00008670	0.73%
QC value within limits for Fe		273.955	Recovery = Not calculated			
K 404.721†	-50.0	0.168371 mg/L	0.8261510	0.168371 mg/L	0.8261510	490.67%
QC value within limits for K		404.721	Recovery = Not calculated			
Mg 279.077†	23.3	-0.185084 mg/L	0.0049423	-0.185084 mg/L	0.0049423	2.67%
QC value within limits for Mg		279.077	Recovery = Not calculated			
Mn 257.610†	0.4	-0.0015473 mg/L	0.00000959	-0.0015473 mg/L	0.00000959	0.62%
QC value within limits for Mn		257.610	Recovery = Not calculated			
Mo 202.031†	4.9	-0.0002733 mg/L	0.00031794	-0.0002733 mg/L	0.00031794	116.33%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Na 330.237†	35.6	0.745013 mg/L	0.0521985	0.745013 mg/L	0.0521985	7.01%
QC value within limits for Na		330.237	Recovery = Not calculated			
Ni 231.604†	0.4	-0.0023067 mg/L	0.00002464	-0.0023067 mg/L	0.00002464	1.07%
QC value within limits for Ni		231.604	Recovery = Not calculated			
Pb 220.353†	-8.0	-0.0016363 mg/L	0.00089323	-0.0016363 mg/L	0.00089323	54.59%
QC value within limits for Pb		220.353	Recovery = Not calculated			
Sb 206.836†	-2.3	-0.0006618 mg/L	0.00039049	-0.0006618 mg/L	0.00039049	59.00%
QC value within limits for Sb		206.836	Recovery = Not calculated			
Se 196.026†	10.5	0.0115989 mg/L	0.00155523	0.0115989 mg/L	0.00155523	13.41%
QC value within limits for Se		196.026	Recovery = Not calculated			
Sn 189.927†	6.1	0.0045019 mg/L	0.00089751	0.0045019 mg/L	0.00089751	19.94%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940†	-48.9	-0.0006236 mg/L	0.00007658	-0.0006236 mg/L	0.00007658	12.28%
QC value within limits for Ti		334.940	Recovery = Not calculated			
Tl 190.801†	3.6	0.0035065 mg/L	0.00310390	0.0035065 mg/L	0.00310390	88.52%
QC value within limits for Tl		190.801	Recovery = Not calculated			
V 290.880†	-67.1	-0.0017560 mg/L	0.00020968	-0.0017560 mg/L	0.00020968	11.94%
QC value within limits for V		290.880	Recovery = Not calculated			
Zn 206.200†	-2.5	-0.0007518 mg/L	0.00011822	-0.0007518 mg/L	0.00011822	15.73%
QC value within limits for Zn		206.200	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-130873

Date Collected: 1/16/2012 7:22:19 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-130873

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	977135.1	88.2 %	%	0.25			0.28%
Y 371.029	381715.6	86.3 %	%	0.21			0.24%
Ag 328.068†	-1200.2	0.0028409 mg/L	mg/L	0.00000016	0.0028409 mg/L	0.00000016	0.01%
Al 308.215†	13351627.2	494.435 mg/L	mg/L	0.3586	494.435 mg/L	0.3586	0.07%
QC value within limits for Al 308.215 Recovery = 98.89%							
As 188.979†	-21.9	-0.0045292 mg/L	mg/L	0.01148419	-0.0045292 mg/L	0.01148419	253.56%
Ba 233.527†	386.6	0.0017641 mg/L	mg/L	0.00008864	0.0017641 mg/L	0.00008864	5.02%
Be 313.107†	-1843.1	-0.0013582 mg/L	mg/L	0.00000874	-0.0013582 mg/L	0.00000874	0.64%
Ca 315.887†	45218886.3	477.255 mg/L	mg/L	2.1010	477.255 mg/L	2.1010	0.44%
QC value within limits for Ca 315.887 Recovery = 95.45%							
Cd 228.802†	146.0	0.0010407 mg/L	mg/L	0.00020363	0.0010407 mg/L	0.00020363	19.57%
Co 228.616†	-122.9	0.0007289 mg/L	mg/L	0.00021141	0.0007289 mg/L	0.00021141	29.01%
Cr 267.716†	58.9	0.0061646 mg/L	mg/L	0.00002049	0.0061646 mg/L	0.00002049	0.33%
Cu 327.393†	543.0	-0.0141158 mg/L	mg/L	0.00036988	-0.0141158 mg/L	0.00036988	2.62%
Fe 273.955†	1572239.1	181.869 mg/L	mg/L	0.1507	181.869 mg/L	0.1507	0.08%
QC value within limits for Fe 273.955 Recovery = 90.93%							
K 404.721†	-1075.6	-10.1286 mg/L	mg/L	0.22359	-10.1286 mg/L	0.22359	2.21%
Mg 279.077†	5538684.6	492.315 mg/L	mg/L	0.5919	492.315 mg/L	0.5919	0.12%
QC value within limits for Mg 279.077 Recovery = 98.46%							
Mn 257.610†	-3723.5	-0.0033347 mg/L	mg/L	0.00010760	-0.0033347 mg/L	0.00010760	3.23%
Mo 202.031†	128.6	0.0056976 mg/L	mg/L	0.00039395	0.0056976 mg/L	0.00039395	6.91%
Na 330.237†	-42.6	0.662645 mg/L	mg/L	0.0889246	0.662645 mg/L	0.0889246	13.42%
Ni 231.604†	34.3	-0.0013737 mg/L	mg/L	0.00010132	-0.0013737 mg/L	0.00010132	7.38%
Pb 220.353†	-543.8	0.0008230 mg/L	mg/L	0.00076181	0.0008230 mg/L	0.00076181	92.56%
Sb 206.836†	-109.2	-0.0060929 mg/L	mg/L	0.00026466	-0.0060929 mg/L	0.00026466	4.34%
Se 196.026†	21.6	0.0005046 mg/L	mg/L	0.00456560	0.0005046 mg/L	0.00456560	904.72%
Sn 189.927†	13.6	0.0033067 mg/L	mg/L	0.00400734	0.0033067 mg/L	0.00400734	121.19%
Ti 334.940†	459.7	0.0001648 mg/L	mg/L	0.00008801	0.0001648 mg/L	0.00008801	53.41%
Tl 190.801†	-14.6	0.0026983 mg/L	mg/L	0.00208914	0.0026983 mg/L	0.00208914	77.42%
V 290.880†	6659.5	0.0045205 mg/L	mg/L	0.00058732	0.0045205 mg/L	0.00058732	12.99%
Zn 206.200†	154.5	-0.0101909 mg/L	mg/L	0.00067978	-0.0101909 mg/L	0.00067978	6.67%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-130874

Date Collected: 1/16/2012 7:27:45 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-130874

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	981583.8	88.6 %	0.52			0.58%	
Y 371.029	381770.3	86.3 %	0.53			0.62%	
Ag 328.068†	134445.6	1.03717 mg/L	0.000456	1.03717 mg/L	0.000456	0.04%	
QC value within limits for Ag	328.068	Recovery = 103.72%					
Al 308.215†	13473445.6	498.946 mg/L	4.4622	498.946 mg/L	4.4622	0.89%	
QC value within limits for Al	308.215	Recovery = 99.79%					
As 188.979†	849.6	0.989811 mg/L	0.0132586	0.989811 mg/L	0.0132586	1.34%	
QC value within limits for As	188.979	Recovery = 98.98%					
Ba 233.527†	57892.4	0.496594 mg/L	0.0002206	0.496594 mg/L	0.0002206	0.04%	
QC value within limits for Ba	233.527	Recovery = 99.32%					
Be 313.107†	1244878.2	0.488384 mg/L	0.0061120	0.488384 mg/L	0.0061120	1.25%	
QC value within limits for Be	313.107	Recovery = 97.68%					
Ca 315.887†	45768566.3	483.059 mg/L	5.0307	483.059 mg/L	5.0307	1.04%	
QC value within limits for Ca	315.887	Recovery = 96.61%					
Cd 228.802†	34541.2	0.996091 mg/L	0.0112018	0.996091 mg/L	0.0112018	1.12%	
QC value within limits for Cd	228.802	Recovery = 99.61%					
Co 228.616†	12883.3	0.458171 mg/L	0.0055576	0.458171 mg/L	0.0055576	1.21%	
QC value within limits for Co	228.616	Recovery = 91.63%					
Cr 267.716†	30368.7	0.479931 mg/L	0.0057566	0.479931 mg/L	0.0057566	1.20%	
QC value within limits for Cr	267.716	Recovery = 95.99%					
Cu 327.393†	60751.8	0.496727 mg/L	0.0016635	0.496727 mg/L	0.0016635	0.33%	
QC value within limits for Cu	327.393	Recovery = 99.35%					
Fe 273.955†	1592777.2	184.245 mg/L	2.3307	184.245 mg/L	2.3307	1.26%	
QC value within limits for Fe	273.955	Recovery = 92.12%					
K 404.721†	-1091.6	-10.2896 mg/L	1.59963	-10.2896 mg/L	1.59963	15.55%	
Mg 279.077†	5610284.5	498.681 mg/L	6.8117	498.681 mg/L	6.8117	1.37%	
QC value within limits for Mg	279.077	Recovery = 99.74%					
Mn 257.610†	174773.9	0.476844 mg/L	0.0001386	0.476844 mg/L	0.0001386	0.03%	
QC value within limits for Mn	257.610	Recovery = 95.37%					
Mo 202.031†	137.0	0.0063354 mg/L	0.00019559	0.0063354 mg/L	0.00019559	3.09%	
Na 330.237†	184.4	0.901602 mg/L	0.0620178	0.901602 mg/L	0.0620178	6.88%	
Ni 231.604†	32919.5	0.895643 mg/L	0.0103225	0.895643 mg/L	0.0103225	1.15%	
QC value within limits for Ni	231.604	Recovery = 89.56%					
Pb 220.353†	7506.4	0.925528 mg/L	0.0102858	0.925528 mg/L	0.0102858	1.11%	
QC value within limits for Pb	220.353	Recovery = 92.55%					
Sb 206.836†	790.0	0.970376 mg/L	0.0208476	0.970376 mg/L	0.0208476	2.15%	
QC value within limits for Sb	206.836	Recovery = 97.04%					
Se 196.026†	821.6	0.954422 mg/L	0.0100571	0.954422 mg/L	0.0100571	1.05%	
QC value within limits for Se	196.026	Recovery = 95.44%					
Sn 189.927†	12.0	0.0020408 mg/L	0.00325257	0.0020408 mg/L	0.00325257	159.38%	
Ti 334.940†	649.6	0.0004591 mg/L	0.00003942	0.0004591 mg/L	0.00003942	8.59%	
Tl 190.801†	705.5	0.926412 mg/L	0.0141573	0.926412 mg/L	0.0141573	1.53%	
QC value within limits for Tl	190.801	Recovery = 92.64%					
V 290.880†	69740.7	0.464740 mg/L	0.0013515	0.464740 mg/L	0.0013515	0.29%	
QC value within limits for V	290.880	Recovery = 92.95%					
Zn 206.200†	24493.9	0.917148 mg/L	0.0124495	0.917148 mg/L	0.0124495	1.36%	
QC value within limits for Zn	206.200	Recovery = 91.71%					

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 12491 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 1/16/2012 7:33:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 12491 (1)

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1120730.7	101 %		1.7			1.65%
Y 371.029	445909.9	101 %		1.6			1.54%
Ag 328.068†	5.0	0.0000888 mg/L		0.00012327	0.0000888 mg/L	0.00012327	138.80%
Al 308.215†	322.3	0.0067532 mg/L		0.00126974	0.0067532 mg/L	0.00126974	18.80%
As 188.979†	2.9	0.0008050 mg/L		0.00280909	0.0008050 mg/L	0.00280909	348.96%
Ba 233.527†	32.7	-0.0012812 mg/L		0.00019154	-0.0012812 mg/L	0.00019154	14.95%
Be 313.107†	59.3	-0.0006104 mg/L		0.00002431	-0.0006104 mg/L	0.00002431	3.98%
Ca 315.887†	7797.0	-0.107663 mg/L		0.0081089	-0.107663 mg/L	0.0081089	7.53%
Cd 228.802†	1.9	-0.0001490 mg/L		0.00018449	-0.0001490 mg/L	0.00018449	123.84%
Co 228.616†	-6.6	-0.0022487 mg/L		0.00016220	-0.0022487 mg/L	0.00016220	7.21%
Cr 267.716†	2.8	-0.0009622 mg/L		0.00000119	-0.0009622 mg/L	0.00000119	0.12%
Cu 327.393†	59.9	0.0000093 mg/L		0.00010665	0.0000093 mg/L	0.00010665	>999.9%
Fe 273.955†	211.7	0.0103473 mg/L		0.00676881	0.0103473 mg/L	0.00676881	65.42%
K 404.721†	-9.0	0.580550 mg/L		1.4368727	0.580550 mg/L	1.4368727	247.50%
Mg 279.077†	312.8	-0.159339 mg/L		0.0179032	-0.159339 mg/L	0.0179032	11.24%
Mn 257.610†	133.2	-0.0011892 mg/L		0.00007409	-0.0011892 mg/L	0.00007409	6.23%
Mo 202.031†	8.0	-0.0000124 mg/L		0.00026261	-0.0000124 mg/L	0.00026261	>999.9%
Na 330.237†	116.8	0.830458 mg/L		0.0411300	0.830458 mg/L	0.0411300	4.95%
Ni 231.604†	2.1	-0.0022619 mg/L		0.00006971	-0.0022619 mg/L	0.00006971	3.08%
Pb 220.353†	-5.6	-0.0013637 mg/L		0.00109943	-0.0013637 mg/L	0.00109943	80.62%
Sb 206.836†	-2.1	-0.0004594 mg/L		0.00246760	-0.0004594 mg/L	0.00246760	537.13%
Se 196.026†	7.9	0.0084153 mg/L		0.00706507	0.0084153 mg/L	0.00706507	83.95%
Sn 189.927†	33.0	0.0256252 mg/L		0.00328678	0.0256252 mg/L	0.00328678	12.83%
Ti 334.940†	-34.9	-0.0006019 mg/L		0.00010063	-0.0006019 mg/L	0.00010063	16.72%
Tl 190.801†	1.6	0.0008828 mg/L		0.00060695	0.0008828 mg/L	0.00060695	68.76%
V 290.880†	-36.1	-0.0015321 mg/L		0.00007307	-0.0015321 mg/L	0.00007307	4.77%
Zn 206.200†	309.8	0.0111480 mg/L		0.00030278	0.0111480 mg/L	0.00030278	2.72%

Sequence No.: 12  
 Sample ID: LCSW 12491  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 39  
 Date Collected: 1/16/2012 7:36:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSW 12491

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD	
	Intensity	Conc.	Units		Conc.	Units		
Sc 361.383	1088003.9	98.2	%	0.33			0.34%	
Y 371.029	426035.4	96.3	%	0.33			0.35%	
Ag 328.068†	12549.6	0.0958500	mg/L	0.00179824	0.0958500	mg/L	0.00179824	1.88%
Al 308.215†	131278.1	4.84631	mg/L	0.084422	4.84631	mg/L	0.084422	1.74%
As 188.979†	436.7	0.495412	mg/L	0.0014924	0.495412	mg/L	0.0014924	0.30%
Ba 233.527†	57892.4	0.496594	mg/L	0.0073181	0.496594	mg/L	0.0073181	1.47%
Be 313.107†	1271546.9	0.498505	mg/L	0.0031901	0.498505	mg/L	0.0031901	0.64%
Ca 315.887†	4789802.7	50.3833	mg/L	0.27269	50.3833	mg/L	0.27269	0.54%
Cd 228.802†	16883.8	0.488181	mg/L	0.0082959	0.488181	mg/L	0.0082959	1.70%
Co 228.616†	14301.3	0.501566	mg/L	0.0068322	0.501566	mg/L	0.0068322	1.36%
Cr 267.716†	31472.2	0.494198	mg/L	0.0072959	0.494198	mg/L	0.0072959	1.48%
Cu 327.393†	58265.1	0.492567	mg/L	0.0083071	0.492567	mg/L	0.0083071	1.69%
Fe 273.955†	42672.4	4.93710	mg/L	0.072497	4.93710	mg/L	0.072497	1.47%
K 404.721†	4512.9	45.9831	mg/L	1.50615	45.9831	mg/L	1.50615	3.28%
Mg 279.077†	563795.7	49.9458	mg/L	0.27024	49.9458	mg/L	0.27024	0.54%
Mn 257.610†	183556.2	0.492482	mg/L	0.0072592	0.492482	mg/L	0.0072592	1.47%
Mo 202.031†	6080.5	0.508495	mg/L	0.0038635	0.508495	mg/L	0.0038635	0.76%
Na 330.237†	43217.9	46.2056	mg/L	0.77602	46.2056	mg/L	0.77602	1.68%
Ni 231.604†	18258.3	0.496172	mg/L	0.0066039	0.496172	mg/L	0.0066039	1.33%
Pb 220.353†	4436.9	0.509040	mg/L	0.0028467	0.509040	mg/L	0.0028467	0.56%
Sb 206.836†	462.2	0.504636	mg/L	0.0055717	0.504636	mg/L	0.0055717	1.10%
Se 196.026†	421.4	0.500867	mg/L	0.0072738	0.500867	mg/L	0.0072738	1.45%
Sn 189.927†	666.4	0.523762	mg/L	0.0027561	0.523762	mg/L	0.0027561	0.53%
Ti 334.940†	320605.9	0.496395	mg/L	0.0038198	0.496395	mg/L	0.0038198	0.77%
Tl 190.801†	410.6	0.528815	mg/L	0.0035193	0.528815	mg/L	0.0035193	0.67%
V 290.880†	68055.6	0.492940	mg/L	0.0071627	0.492940	mg/L	0.0071627	1.45%
Zn 206.200†	13122.1	0.497839	mg/L	0.0077888	0.497839	mg/L	0.0077888	1.56%

Sequence No.: 13

Sample ID: LCSW MR 12491

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 1/16/2012 7:40:38 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW MR 12491

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1114029.5	101 %		2.8			2.75%	
Y 371.029	436354.6	98.6 %		2.80			2.84%	
Ag 328.068†	12490.0	0.0953969	mg/L	0.00237449	0.0953969	mg/L	0.00237449	2.49%
Al 308.215†	130395.5	4.81393	mg/L	0.149917	4.81393	mg/L	0.149917	3.11%
As 188.979†	429.1	0.486836	mg/L	0.0165703	0.486836	mg/L	0.0165703	3.40%
Ba 233.527†	57784.1	0.495662	mg/L	0.0147201	0.495662	mg/L	0.0147201	2.97%
Be 313.107†	1234905.0	0.484122	mg/L	0.0144338	0.484122	mg/L	0.0144338	2.98%
Ca 315.887†	4670147.2	49.1199	mg/L	1.45666	49.1199	mg/L	1.45666	2.97%
Cd 228.802†	16836.9	0.486824	mg/L	0.0157071	0.486824	mg/L	0.0157071	3.23%
Co 228.616†	14261.4	0.500144	mg/L	0.0157567	0.500144	mg/L	0.0157567	3.15%
Cr 267.716†	31353.8	0.492251	mg/L	0.0153464	0.492251	mg/L	0.0153464	3.12%
Cu 327.393†	57710.2	0.487895	mg/L	0.0138223	0.487895	mg/L	0.0138223	2.83%
Fe 273.955†	42620.6	4.93059	mg/L	0.140704	4.93059	mg/L	0.140704	2.85%
K 404.721†	4472.6	45.5788	mg/L	1.16314	45.5788	mg/L	1.16314	2.55%
Mg 279.077†	548914.7	48.6225	mg/L	1.44177	48.6225	mg/L	1.44177	2.97%
Mn 257.610†	182850.1	0.490579	mg/L	0.0149569	0.490579	mg/L	0.0149569	3.05%
Mo 202.031†	5895.9	0.493034	mg/L	0.0130873	0.493034	mg/L	0.0130873	2.65%
Na 330.237†	43012.4	45.9893	mg/L	1.28573	45.9893	mg/L	1.28573	2.80%
Ni 231.604†	18227.0	0.495303	mg/L	0.0169757	0.495303	mg/L	0.0169757	3.43%
Pb 220.353†	4320.3	0.495643	mg/L	0.0118426	0.495643	mg/L	0.0118426	2.39%
Sb 206.836†	443.3	0.484127	mg/L	0.0141310	0.484127	mg/L	0.0141310	2.92%
Se 196.026†	408.3	0.485243	mg/L	0.0158644	0.485243	mg/L	0.0158644	3.27%
Sn 189.927†	642.1	0.504684	mg/L	0.0164693	0.504684	mg/L	0.0164693	3.26%
Ti 334.940†	310917.7	0.481378	mg/L	0.0142186	0.481378	mg/L	0.0142186	2.95%
Tl 190.801†	400.4	0.515680	mg/L	0.0114464	0.515680	mg/L	0.0114464	2.22%
V 290.880†	67729.8	0.490629	mg/L	0.0149829	0.490629	mg/L	0.0149829	3.05%
Zn 206.200†	13309.6	0.505024	mg/L	0.0151813	0.505024	mg/L	0.0151813	3.01%

Sequence No.: 14  
 Sample ID: 63081-028  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 1/16/2012 7:44:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-028

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sc 361.383	995129.5	89.8	%	0.12				0.13%
Y 371.029	395254.3	89.3	%	0.14				0.16%
Ag 328.068†	46.8	0.0013305	mg/L	0.00048354	0.0013305	mg/L	0.00048354	36.34%
Al 308.215†	9843.7	0.359073	mg/L	0.0008800	0.359073	mg/L	0.0008800	0.25%
As 188.979†	2.9	-0.0011740	mg/L	0.00160715	-0.0011740	mg/L	0.00160715	136.90%
Ba 233.527†	163749.5	1.40748	mg/L	0.001669	1.40748	mg/L	0.001669	0.12%
Be 313.107†	37.1	-0.0006189	mg/L	0.00000596	-0.0006189	mg/L	0.00000596	0.96%
Ca 315.887†	24019093.0	253.416	mg/L	4.0138	253.416	mg/L	4.0138	1.58%
Cd 228.802†	266.7	0.0074724	mg/L	0.00016207	0.0074724	mg/L	0.00016207	2.17%
Co 228.616†	2254.5	0.0773077	mg/L	0.00085445	0.0773077	mg/L	0.00085445	1.11%
Cr 267.716†	28.8	0.0015493	mg/L	0.00004915	0.0015493	mg/L	0.00004915	3.17%
Cu 327.393†	143304.1	1.21283	mg/L	0.001506	1.21283	mg/L	0.001506	0.12%
Fe 273.955†	21192.6	2.43833	mg/L	0.003727	2.43833	mg/L	0.003727	0.15%
K 404.721†	615.4	6.84926	mg/L	0.511559	6.84926	mg/L	0.511559	7.47%
Mg 279.077†	97562.6	8.48814	mg/L	0.006187	8.48814	mg/L	0.006187	0.07%
Mn 257.610†	1159473.1	3.11698	mg/L	0.004156	3.11698	mg/L	0.004156	0.13%
Mo 202.031†	155.3	0.0068131	mg/L	0.00062967	0.0068131	mg/L	0.00062967	9.24%
Na 330.237†	1647308.3	1734.93	mg/L	0.363	1734.93	mg/L	0.363	0.02%
Ni 231.604†	4087.5	0.109188	mg/L	0.0009514	0.109188	mg/L	0.0009514	0.87%
Pb 220.353†	1395271.8	160.183	mg/L	0.1363	160.183	mg/L	0.1363	0.09%
Sb 206.836†	-7.0	-0.0076975	mg/L	0.00387175	-0.0076975	mg/L	0.00387175	50.30%
Se 196.026†	23.2	0.0176954	mg/L	0.00435142	0.0176954	mg/L	0.00435142	24.59%
Sn 189.927†	-1.9	-0.0012672	mg/L	0.00216163	-0.0012672	mg/L	0.00216163	170.59%
Ti 334.940†	-175.1	-0.0008192	mg/L	0.00012905	-0.0008192	mg/L	0.00012905	15.75%
Tl 190.801†	-5.7	-0.0118468	mg/L	0.00590635	-0.0118468	mg/L	0.00590635	49.86%
V 290.880†	1182.6	0.0066559	mg/L	0.00026796	0.0066559	mg/L	0.00026796	4.03%
Zn 206.200†	124788.5	4.75458	mg/L	0.006330	4.75458	mg/L	0.006330	0.13%

Sequence No.: 15

Sample ID: 63081-028 MR

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 42

Date Collected: 1/16/2012 7:48:15 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-028 MR

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	994655.9	89.8 %		1.79			1.99%
Y 371.029	393919.9	89.0 %		1.72			1.93%
Ag 328.068†	24.7	0.0011981 mg/L		0.00051415	0.0011981 mg/L	0.00051415	42.92%
Al 308.215†	9762.0	0.356062 mg/L		0.0045250	0.356062 mg/L	0.0045250	1.27%
As 188.979†	5.2	0.0014231 mg/L		0.00084837	0.0014231 mg/L	0.00084837	59.62%
Ba 233.527†	167017.0	1.43560 mg/L		0.006956	1.43560 mg/L	0.006956	0.48%
Be 313.107†	25.3	-0.0006235 mg/L		0.00000618	-0.0006235 mg/L	0.00000618	0.99%
Ca 315.887†	24874024.8	262.443 mg/L		2.7187	262.443 mg/L	2.7187	1.04%
Cd 228.802†	264.6	0.0074116 mg/L		0.00045526	0.0074116 mg/L	0.00045526	6.14%
Co 228.616†	2328.7	0.0799141 mg/L		0.00101939	0.0799141 mg/L	0.00101939	1.28%
Cr 267.716†	43.7	0.0018275 mg/L		0.00018214	0.0018275 mg/L	0.00018214	9.97%
Cu 327.393†	146288.4	1.23806 mg/L		0.007564	1.23806 mg/L	0.007564	0.61%
Fe 273.955†	21008.3	2.41710 mg/L		0.008579	2.41710 mg/L	0.008579	0.35%
K 404.721†	576.2	6.45593 mg/L		0.407427	6.45593 mg/L	0.407427	6.31%
Mg 279.077†	99268.7	8.63985 mg/L		0.029589	8.63985 mg/L	0.029589	0.34%
Mn 257.610†	1189685.3	3.19824 mg/L		0.008476	3.19824 mg/L	0.008476	0.27%
Mo 202.031†	146.8	0.0059033 mg/L		0.00069196	0.0059033 mg/L	0.00069196	11.72%
Na 330.237†	1696082.6	1786.28 mg/L		0.678	1786.28 mg/L	0.678	0.04%
Ni 231.604†	4222.2	0.112863 mg/L		0.0013353	0.112863 mg/L	0.0013353	1.18%
Pb 220.353†	1429846.4	164.153 mg/L		0.6799	164.153 mg/L	0.6799	0.41%
Sb 206.836†	-2.8	-0.0031622 mg/L		0.00352663	-0.0031622 mg/L	0.00352663	111.52%
Se 196.026†	26.0	0.0206734 mg/L		0.00711453	0.0206734 mg/L	0.00711453	34.41%
Sn 189.927†	0.7	0.0008637 mg/L		0.00033424	0.0008637 mg/L	0.00033424	38.70%
Ti 334.940†	-287.2	-0.0009929 mg/L		0.00005387	-0.0009929 mg/L	0.00005387	5.43%
Tl 190.801†	-2.5	-0.0078778 mg/L		0.00019091	-0.0078778 mg/L	0.00019091	2.42%
V 290.880†	1257.4	0.0071900 mg/L		0.00022935	0.0071900 mg/L	0.00022935	3.19%
Zn 206.200†	126743.1	4.82906 mg/L		0.010622	4.82906 mg/L	0.010622	0.22%

Sequence No.: 16

Sample ID: 63081-028 TCLP SPK

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 43

Date Collected: 1/16/2012 7:52:18 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-028 TCLP SPK

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sc 361.383	1020304.6	92.1 %	%	1.92				2.08%
Y 371.029	404060.2	91.3 %	%	1.86				2.03%
Ag 328.068†	13051.4	0.100586	mg/L	0.0004280	0.100586	mg/L	0.0004280	0.43%
Al 308.215†	141807.9	5.23677	mg/L	0.035559	5.23677	mg/L	0.035559	0.68%
As 188.979†	453.7	0.512964	mg/L	0.0200887	0.512964	mg/L	0.0200887	3.92%
Ba 233.527†	720193.8	6.19561	mg/L	0.022433	6.19561	mg/L	0.022433	0.36%
Be 313.107†	1235982.5	0.484545	mg/L	0.0023990	0.484545	mg/L	0.0023990	0.50%
Ca 315.887†	28211425.1	297.681	mg/L	3.2729	297.681	mg/L	3.2729	1.10%
Cd 228.802†	17843.4	0.515908	mg/L	0.0025005	0.515908	mg/L	0.0025005	0.48%
Co 228.616†	16116.1	0.565341	mg/L	0.0065939	0.565341	mg/L	0.0065939	1.17%
Cr 267.716†	30627.7	0.482835	mg/L	0.0058146	0.482835	mg/L	0.0058146	1.20%
Cu 327.393†	200612.5	1.69789	mg/L	0.011231	1.69789	mg/L	0.011231	0.66%
Fe 273.955†	61524.1	7.11777	mg/L	0.058743	7.11777	mg/L	0.058743	0.83%
K 404.721†	7280.5	73.7719	mg/L	0.40423	73.7719	mg/L	0.40423	0.55%
Mg 279.077†	625437.5	55.4270	mg/L	0.06131	55.4270	mg/L	0.06131	0.11%
Mn 257.610†	1321169.9	3.55220	mg/L	0.014284	3.55220	mg/L	0.014284	0.40%
Mo 202.031†	5781.5	0.478003	mg/L	0.0178192	0.478003	mg/L	0.0178192	3.73%
Na 330.237†	1680082.0	1769.43	mg/L	12.818	1769.43	mg/L	12.818	0.72%
Ni 231.604†	21836.6	0.593755	mg/L	0.0050573	0.593755	mg/L	0.0050573	0.85%
Pb 220.353†	1400675.2	160.804	mg/L	0.3252	160.804	mg/L	0.3252	0.20%
Sb 206.836†	444.0	0.482991	mg/L	0.0130297	0.482991	mg/L	0.0130297	2.70%
Se 196.026†	453.0	0.529711	mg/L	0.0206752	0.529711	mg/L	0.0206752	3.90%
Sn 189.927†	615.5	0.484292	mg/L	0.0298825	0.484292	mg/L	0.0298825	6.17%
Ti 334.940†	310956.8	0.481439	mg/L	0.0033490	0.481439	mg/L	0.0033490	0.70%
Tl 190.801†	362.3	0.463428	mg/L	0.0244515	0.463428	mg/L	0.0244515	5.28%
V 290.880†	68268.0	0.493963	mg/L	0.0047230	0.493963	mg/L	0.0047230	0.96%
Zn 206.200†	133746.9	5.09450	mg/L	0.054740	5.09450	mg/L	0.054740	1.07%

Sequence No.: 17

Sample ID: 63081-028 PS

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 44

Date Collected: 1/16/2012 7:56:23 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-028 PS

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	994718.5	89.8 %	%	1.06			1.18%
Y 371.029	393427.2	88.9 %	%	1.06			1.20%
Ag 328.068†	8806.9	0.0681491 mg/L	mg/L	0.00091127	0.0681491 mg/L	0.00091127	1.34%
Al 308.215†	139676.1	5.15650 mg/L	mg/L	0.040075	5.15650 mg/L	0.040075	0.78%
As 188.979†	470.1	0.531618 mg/L	mg/L	0.0126662	0.531618 mg/L	0.0126662	2.38%
Ba 233.527†	706372.5	6.07668 mg/L	mg/L	0.034785	6.07668 mg/L	0.034785	0.57%
Be 313.107†	1227400.6	0.481142 mg/L	mg/L	0.0027726	0.481142 mg/L	0.0027726	0.58%
Ca 315.887†	27635033.6	291.595 mg/L	mg/L	2.9441	291.595 mg/L	2.9441	1.01%
Cd 228.802†	17593.6	0.508682 mg/L	mg/L	0.0076386	0.508682 mg/L	0.0076386	1.50%
Co 228.616†	15919.7	0.558546 mg/L	mg/L	0.0075431	0.558546 mg/L	0.0075431	1.35%
Cr 267.716†	30233.2	0.477044 mg/L	mg/L	0.0056663	0.477044 mg/L	0.0056663	1.19%
Cu 327.393†	196008.6	1.65887 mg/L	mg/L	0.015422	1.65887 mg/L	0.015422	0.93%
Fe 273.955†	60754.0	7.02869 mg/L	mg/L	0.083561	7.02869 mg/L	0.083561	1.19%
K 404.721†	7064.2	71.6001 mg/L	mg/L	0.59037	71.6001 mg/L	0.59037	0.82%
Mg 279.077†	622850.6	55.1969 mg/L	mg/L	0.40019	55.1969 mg/L	0.40019	0.73%
Mn 257.610†	1302345.4	3.50158 mg/L	mg/L	0.019400	3.50158 mg/L	0.019400	0.55%
Mo 202.031†	6552.7	0.542847 mg/L	mg/L	0.0071169	0.542847 mg/L	0.0071169	1.31%
Na 330.237†	1653721.2	1741.68 mg/L	mg/L	1.681	1741.68 mg/L	1.681	0.10%
Ni 231.604†	21467.3	0.583738 mg/L	mg/L	0.0069809	0.583738 mg/L	0.0069809	1.20%
Pb 220.353†	1381833.0	158.641 mg/L	mg/L	1.0512	158.641 mg/L	1.0512	0.66%
Sb 206.836†	506.1	0.550390 mg/L	mg/L	0.0024152	0.550390 mg/L	0.0024152	0.44%
Se 196.026†	466.8	0.546304 mg/L	mg/L	0.0087238	0.546304 mg/L	0.0087238	1.60%
Sn 189.927†	723.3	0.568951 mg/L	mg/L	0.0158235	0.568951 mg/L	0.0158235	2.78%
Ti 334.940†	340198.3	0.526763 mg/L	mg/L	0.0024828	0.526763 mg/L	0.0024828	0.47%
Tl 190.801†	364.9	0.467084 mg/L	mg/L	0.0035563	0.467084 mg/L	0.0035563	0.76%
V 290.880†	67385.3	0.487661 mg/L	mg/L	0.0050498	0.487661 mg/L	0.0050498	1.04%
Zn 206.200†	131055.0	4.99193 mg/L	mg/L	0.080385	4.99193 mg/L	0.080385	1.61%

Sequence No.: 18

Sample ID: CCV V-130872

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/16/2012 8:00:26 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCV V-130872

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1131371.6	102 %		1.6			1.61%
Y 371.029	442059.6	99.9 %		1.58			1.58%
Ag 328.068†	12932.7	0.0987774 mg/L		0.00142487	0.0987774 mg/L	0.00142487	1.44%
QC value within limits for Ag 328.068 Recovery = 98.78%							
Al 308.215†	134145.5	4.95250 mg/L		0.076338	4.95250 mg/L	0.076338	1.54%
QC value within limits for Al 308.215 Recovery = 99.05%							
As 188.979†	445.2	0.505215 mg/L		0.0007993	0.505215 mg/L	0.0007993	0.16%
QC value within limits for As 188.979 Recovery = 101.04%							
Ba 233.527†	59166.6	0.507559 mg/L		0.0074358	0.507559 mg/L	0.0074358	1.47%
QC value within limits for Ba 233.527 Recovery = 101.51%							
Be 313.107†	1270150.1	0.497962 mg/L		0.0054678	0.497962 mg/L	0.0054678	1.10%
QC value within limits for Be 313.107 Recovery = 99.59%							
Ca 315.887†	4824018.9	50.7445 mg/L		0.44420	50.7445 mg/L	0.44420	0.88%
QC value within limits for Ca 315.887 Recovery = 101.49%							
Cd 228.802†	17268.5	0.499309 mg/L		0.0074491	0.499309 mg/L	0.0074491	1.49%
QC value within limits for Cd 228.802 Recovery = 99.86%							
Co 228.616†	14605.1	0.512261 mg/L		0.0078159	0.512261 mg/L	0.0078159	1.53%
QC value within limits for Co 228.616 Recovery = 102.45%							
Cr 267.716†	32049.9	0.503222 mg/L		0.0080450	0.503222 mg/L	0.0080450	1.60%
QC value within limits for Cr 267.716 Recovery = 100.64%							
Cu 327.393†	58610.6	0.495488 mg/L		0.0077929	0.495488 mg/L	0.0077929	1.57%
QC value within limits for Cu 327.393 Recovery = 99.10%							
Fe 273.955†	43775.7	5.06488 mg/L		0.070813	5.06488 mg/L	0.070813	1.40%
QC value within limits for Fe 273.955 Recovery = 101.30%							
K 404.721†	4619.5	47.0536 mg/L		0.85814	47.0536 mg/L	0.85814	1.82%
QC value within limits for K 404.721 Recovery = 94.11%							
Mg 279.077†	571864.0	50.6632 mg/L		0.44171	50.6632 mg/L	0.44171	0.87%
QC value within limits for Mg 279.077 Recovery = 101.33%							
Mn 257.610†	187583.8	0.503319 mg/L		0.0070884	0.503319 mg/L	0.0070884	1.41%
QC value within limits for Mn 257.610 Recovery = 100.66%							
Mo 202.031†	6063.8	0.507086 mg/L		0.0037918	0.507086 mg/L	0.0037918	0.75%
QC value within limits for Mo 202.031 Recovery = 101.42%							
Na 330.237†	44624.6	47.6865 mg/L		0.53282	47.6865 mg/L	0.53282	1.12%
QC value within limits for Na 330.237 Recovery = 95.37%							
Ni 231.604†	18812.9	0.511298 mg/L		0.0069467	0.511298 mg/L	0.0069467	1.36%
QC value within limits for Ni 231.604 Recovery = 102.26%							
Pb 220.353†	5330.9	0.611672 mg/L		0.0073407	0.611672 mg/L	0.0073407	1.20%
QC value greater than the upper limit for Pb 220.353 Recovery = 122.33%							
Sb 206.836†	463.6	0.506124 mg/L		0.0042001	0.506124 mg/L	0.0042001	0.83%
QC value within limits for Sb 206.836 Recovery = 101.22%							
Se 196.026†	429.1	0.510054 mg/L		0.0076577	0.510054 mg/L	0.0076577	1.50%
QC value within limits for Se 196.026 Recovery = 102.01%							
Sn 189.927†	691.2	0.543307 mg/L		0.0039528	0.543307 mg/L	0.0039528	0.73%
QC value within limits for Sn 189.927 Recovery = 108.66%							
Ti 334.940†	315657.9	0.488725 mg/L		0.0062557	0.488725 mg/L	0.0062557	1.28%
QC value within limits for Ti 334.940 Recovery = 97.75%							
Tl 190.801†	417.8	0.538022 mg/L		0.0071926	0.538022 mg/L	0.0071926	1.34%
QC value within limits for Tl 190.801 Recovery = 107.60%							
V 290.880†	69110.8	0.500581 mg/L		0.0072256	0.500581 mg/L	0.0072256	1.44%
QC value within limits for V 290.880 Recovery = 100.12%							
Zn 206.200†	13449.0	0.510273 mg/L		0.0062807	0.510273 mg/L	0.0062807	1.23%
QC value within limits for Zn 206.200 Recovery = 102.05%							

QC Failed. Continue with analysis.

Sequence No.: 19

Autosampler Location: 2

Sample ID: CCB

Date Collected: 1/16/2012 8:04:12 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1161862.9	105 %		2.2			2.07%
Y 371.029	462145.8	104 %		2.1			2.02%
Ag 328.068†	4.0	0.0000803 mg/L		0.00023055	0.0000803 mg/L	0.00023055	287.02%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 308.215†	-119.2	-0.0096013 mg/L		0.00147975	-0.0096013 mg/L	0.00147975	15.41%
QC value within limits for Al 308.215 Recovery = Not calculated							
As 188.979†	1.8	-0.0004813 mg/L		0.00374663	-0.0004813 mg/L	0.00374663	778.41%
QC value within limits for As 188.979 Recovery = Not calculated							
Ba 233.527†	35.6	-0.0012564 mg/L		0.00007767	-0.0012564 mg/L	0.00007767	6.18%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	102.4	-0.0005934 mg/L		0.00002790	-0.0005934 mg/L	0.00002790	4.70%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 315.887†	1242.4	-0.176870 mg/L		0.0049333	-0.176870 mg/L	0.0049333	2.79%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Cd 228.802†	-8.7	-0.0004567 mg/L		0.00016831	-0.0004567 mg/L	0.00016831	36.85%
QC value within limits for Cd 228.802 Recovery = Not calculated							
Co 228.616†	-9.1	-0.0023347 mg/L		0.00019029	-0.0023347 mg/L	0.00019029	8.15%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-13.8	-0.0012202 mg/L		0.00008467	-0.0012202 mg/L	0.00008467	6.94%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 327.393†	-120.3	-0.0015185 mg/L		0.00008095	-0.0015185 mg/L	0.00008095	5.33%
QC value within limits for Cu 327.393 Recovery = Not calculated							
Fe 273.955†	128.7	0.0007583 mg/L		0.00343944	0.0007583 mg/L	0.00343944	453.60%
QC value within limits for Fe 273.955 Recovery = Not calculated							
K 404.721†	-15.5	0.514560 mg/L		0.8544467	0.514560 mg/L	0.8544467	166.05%
QC value within limits for K 404.721 Recovery = Not calculated							
Mg 279.077†	291.0	-0.161279 mg/L		0.0103714	-0.161279 mg/L	0.0103714	6.43%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mn 257.610†	58.7	-0.0013898 mg/L		0.00003028	-0.0013898 mg/L	0.00003028	2.18%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	11.8	0.0003069 mg/L		0.00008403	0.0003069 mg/L	0.00008403	27.38%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 330.237†	248.8	0.969493 mg/L		0.0163844	0.969493 mg/L	0.0163844	1.69%
QC value within limits for Na 330.237 Recovery = Not calculated							
Ni 231.604†	-22.5	-0.0029311 mg/L		0.00036735	-0.0029311 mg/L	0.00036735	12.53%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb 220.353†	639.4	0.0726849 mg/L		0.00018454	0.0726849 mg/L	0.00018454	0.25%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb 206.836†	-5.2	-0.0037532 mg/L		0.00074795	-0.0037532 mg/L	0.00074795	19.93%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	2.4	0.0019276 mg/L		0.00686793	0.0019276 mg/L	0.00686793	356.30%
QC value within limits for Se 196.026 Recovery = Not calculated							
Sn 189.927†	4.9	0.0035842 mg/L		0.00474759	0.0035842 mg/L	0.00474759	132.46%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti 334.940†	-119.4	-0.0007329 mg/L		0.00002060	-0.0007329 mg/L	0.00002060	2.81%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.6	0.0022172 mg/L		0.00010204	0.0022172 mg/L	0.00010204	4.60%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 290.880†	-14.5	-0.0013734 mg/L		0.00000684	-0.0013734 mg/L	0.00000684	0.50%
QC value within limits for V 290.880 Recovery = Not calculated							
Zn 206.200†	-4.7	-0.0008362 mg/L		0.00008274	-0.0008362 mg/L	0.00008274	9.89%
QC value within limits for Zn 206.200 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: 63081-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 1/16/2012 8:07:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-047

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1030435.1	93.0	%	2.01				2.16%
Y 371.029	409561.9	92.6	%	2.02				2.18%
Ag 328.068†	-313.4	0.0012459	mg/L	0.00057864	0.0012459	mg/L	0.00057864	46.44%
Al 308.215†	8225.3	0.299161	mg/L	0.0006676	0.299161	mg/L	0.0006676	0.22%
As 188.979†	179.7	0.208408	mg/L	0.0069828	0.208408	mg/L	0.0069828	3.35%
Ba 233.527†	88028.3	0.755910	mg/L	0.0042238	0.755910	mg/L	0.0042238	0.56%
Be 313.107†	82.9	-0.0006008	mg/L	0.00001810	-0.0006008	mg/L	0.00001810	3.01%
Ca 315.887†	21868390.0	230.708	mg/L	0.1533	230.708	mg/L	0.1533	0.07%
Cd 228.802†	567.1	0.0153232	mg/L	0.00033566	0.0153232	mg/L	0.00033566	2.19%
Co 228.616†	1585.3	0.0537720	mg/L	0.00059031	0.0537720	mg/L	0.00059031	1.10%
Cr 267.716†	327.8	0.0072070	mg/L	0.00022242	0.0072070	mg/L	0.00022242	3.09%
Cu 327.393†	436.4	0.0004731	mg/L	0.00035449	0.0004731	mg/L	0.00035449	74.93%
Fe 273.955†	463750.3	53.5786	mg/L	0.33493	53.5786	mg/L	0.33493	0.63%
K 404.721†	356.4	4.24883	mg/L	0.242357	4.24883	mg/L	0.242357	5.70%
Mg 279.077†	64817.0	5.57640	mg/L	0.050163	5.57640	mg/L	0.050163	0.90%
Mn 257.610†	712662.2	1.91759	mg/L	0.010391	1.91759	mg/L	0.010391	0.54%
Mo 202.031†	143.4	0.0063081	mg/L	0.00029821	0.0063081	mg/L	0.00029821	4.73%
Na 330.237†	1489476.0	1568.77	mg/L	0.469	1568.77	mg/L	0.469	0.03%
Ni 231.604†	4200.5	0.112271	mg/L	0.0020878	0.112271	mg/L	0.0020878	1.86%
Pb 220.353†	133840.4	15.3607	mg/L	0.12826	15.3607	mg/L	0.12826	0.84%
Sb 206.836†	-11.3	-0.0047730	mg/L	0.00233520	-0.0047730	mg/L	0.00233520	48.93%
Se 196.026†	10.5	0.0152037	mg/L	0.00869128	0.0152037	mg/L	0.00869128	57.17%
Sn 189.927†	13.6	0.0092035	mg/L	0.00046794	0.0092035	mg/L	0.00046794	5.08%
Ti 334.940†	-288.8	-0.0009954	mg/L	0.00002109	-0.0009954	mg/L	0.00002109	2.12%
Tl 190.801†	-4.0	-0.0058843	mg/L	0.00177918	-0.0058843	mg/L	0.00177918	30.24%
V 290.880†	1250.0	0.0059821	mg/L	0.00020841	0.0059821	mg/L	0.00020841	3.48%
Zn 206.200†	243786.8	9.28953	mg/L	0.094802	9.28953	mg/L	0.094802	1.02%

Sequence No.: 21

Sample ID: 63081-047 SD

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 46

Date Collected: 1/16/2012 8:11:42 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-047 SD

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1105519.9	99.8 %		2.79				2.80%
Y 371.029	432627.4	97.8 %		2.77				2.83%
Ag 328.068†	-35.3	0.0005379 mg/L		0.00047471	0.0005379 mg/L	0.00047471		88.26%
Al 308.215†	2002.3	0.0688317 mg/L		0.00746509	0.0688317 mg/L	0.00746509		10.85%
As 188.979†	37.0	0.0409811 mg/L		0.00148448	0.0409811 mg/L	0.00148448		3.62%
Ba 233.527†	18317.1	0.156054 mg/L		0.0033053	0.156054 mg/L	0.0033053		2.12%
Be 313.107†	-199.7	-0.0007120 mg/L		0.00003771	-0.0007120 mg/L	0.00003771		5.30%
Ca 315.887†	4644741.0	48.8516 mg/L		0.94908	48.8516 mg/L	0.94908		1.94%
Cd 228.802†	123.5	0.0031838 mg/L		0.00065601	0.0031838 mg/L	0.00065601		20.60%
Co 228.616†	319.7	0.0092447 mg/L		0.00002788	0.0092447 mg/L	0.00002788		0.30%
Cr 267.716†	53.8	0.0005044 mg/L		0.00039626	0.0005044 mg/L	0.00039626		78.56%
Cu 327.393†	-183.9	-0.0026389 mg/L		0.00134405	-0.0026389 mg/L	0.00134405		50.93%
Fe 273.955†	97836.5	11.2922 mg/L		0.22424	11.2922 mg/L	0.22424		1.99%
K 404.721†	-4.0	0.630706 mg/L		0.5320317	0.630706 mg/L	0.5320317		84.35%
Mg 279.077†	13729.3	1.03366 mg/L		0.011852	1.03366 mg/L	0.011852		1.15%
Mn 257.610†	148364.6	0.397993 mg/L		0.0087087	0.397993 mg/L	0.0087087		2.19%
Mo 202.031†	79.2	0.0048913 mg/L		0.00018918	0.0048913 mg/L	0.00018918		3.87%
Na 330.237†	261422.9	275.923 mg/L		5.6059	275.923 mg/L	5.6059		2.03%
Ni 231.604†	893.4	0.0220569 mg/L		0.00089200	0.0220569 mg/L	0.00089200		4.04%
Pb 220.353†	28717.7	3.29535 mg/L		0.073404	3.29535 mg/L	0.073404		2.23%
Sb 206.836†	-5.2	-0.0026181 mg/L		0.00106228	-0.0026181 mg/L	0.00106228		40.57%
Se 196.026†	14.0	0.0165363 mg/L		0.00505233	0.0165363 mg/L	0.00505233		30.55%
Sn 189.927†	5.9	0.0041213 mg/L		0.00228503	0.0041213 mg/L	0.00228503		55.44%
Ti 334.940†	-122.7	-0.0007380 mg/L		0.00012099	-0.0007380 mg/L	0.00012099		16.39%
Tl 190.801†	0.1	-0.0009649 mg/L		0.00204031	-0.0009649 mg/L	0.00204031		211.46%
V 290.880†	411.7	0.0013493 mg/L		0.00050604	0.0013493 mg/L	0.00050604		37.51%
Zn 206.200†	51287.1	1.95378 mg/L		0.042701	1.95378 mg/L	0.042701		2.19%

Sequence No.: 22  
 Sample ID: 63111-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 1/16/2012 8:15:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63111-003

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	1053962.6		95.2 %	2.10				2.21%
Y 371.029	415533.0		93.9 %	1.99				2.12%
Ag 328.068†	-53.7	0.0011079	mg/L	0.00030265	0.0011079	mg/L	0.00030265	27.32%
Al 308.215†	9136.8	0.332917	mg/L	0.0139223	0.332917	mg/L	0.0139223	4.18%
As 188.979†	14.6	0.0133302	mg/L	0.00621067	0.0133302	mg/L	0.00621067	46.59%
Ba 233.527†	80049.6	0.687254	mg/L	0.0187780	0.687254	mg/L	0.0187780	2.73%
Be 313.107†	-135.4	-0.0006869	mg/L	0.00002050	-0.0006869	mg/L	0.00002050	2.98%
Ca 315.887†	21390406.9	225.661	mg/L	8.5643	225.661	mg/L	8.5643	3.80%
Cd 228.802†	624.2	0.0177229	mg/L	0.00038384	0.0177229	mg/L	0.00038384	2.17%
Co 228.616†	1246.3	0.0418508	mg/L	0.00112615	0.0418508	mg/L	0.00112615	2.69%
Cr 267.716†	396.6	0.0064204	mg/L	0.00017643	0.0064204	mg/L	0.00017643	2.75%
Cu 327.393†	61195.9	0.516275	mg/L	0.0141150	0.516275	mg/L	0.0141150	2.73%
Fe 273.955†	68812.6	7.93948	mg/L	0.192394	7.93948	mg/L	0.192394	2.42%
K 404.721†	421.4	4.90142	mg/L	0.825866	4.90142	mg/L	0.825866	16.85%
Mg 279.077†	48294.4	4.10720	mg/L	0.099142	4.10720	mg/L	0.099142	2.41%
Mn 257.610†	531335.0	1.42785	mg/L	0.037130	1.42785	mg/L	0.037130	2.60%
Mo 202.031†	144.1	0.0064793	mg/L	0.00030559	0.0064793	mg/L	0.00030559	4.72%
Na 330.237†	1537858.6	1619.70	mg/L	42.784	1619.70	mg/L	42.784	2.64%
Ni 231.604†	2520.2	0.0664353	mg/L	0.00163578	0.0664353	mg/L	0.00163578	2.46%
Pb 220.353†	35616.1	4.08739	mg/L	0.097988	4.08739	mg/L	0.097988	2.40%
Sb 206.836†	-0.9	-0.0019983	mg/L	0.00324348	-0.0019983	mg/L	0.00324348	162.31%
Se 196.026†	13.4	0.0092515	mg/L	0.00450581	0.0092515	mg/L	0.00450581	48.70%
Sn 189.927†	14.2	0.0111386	mg/L	0.00136182	0.0111386	mg/L	0.00136182	12.23%
Ti 334.940†	-51.5	-0.0006277	mg/L	0.00009454	-0.0006277	mg/L	0.00009454	15.06%
Tl 190.801†	-2.4	-0.0044491	mg/L	0.00063037	-0.0044491	mg/L	0.00063037	14.17%
V 290.880†	755.9	0.0037257	mg/L	0.00042127	0.0037257	mg/L	0.00042127	11.31%
Zn 206.200†	426075.7	16.2363	mg/L	0.40292	16.2363	mg/L	0.40292	2.48%

Sequence No.: 23  
 Sample ID: 63111-039  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 1/16/2012 8:19:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-039

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	980246.4	88.5 %		0.32				0.36%
Y 371.029	409986.2	92.7 %		0.26				0.29%
Ag 328.068†	-107.1	0.0003575 mg/L		0.00005558	0.0003575 mg/L		0.00005558	15.55%
Al 308.215†	8688.3	0.316263 mg/L		0.0051977	0.316263 mg/L		0.0051977	1.64%
As 188.979†	13.8	0.0104812 mg/L		0.00447139	0.0104812 mg/L		0.00447139	42.66%
Ba 233.527†	109751.2	0.942832 mg/L		0.0099466	0.942832 mg/L		0.0099466	1.05%
Be 313.107†	1105.9	-0.0001991 mg/L		0.00004064	-0.0001991 mg/L		0.00004064	20.41%
Ca 315.887†	31518733.0	332.601 mg/L		5.7033	332.601 mg/L		5.7033	1.71%
Cd 228.802†	209.5	0.0058281 mg/L		0.00062784	0.0058281 mg/L		0.00062784	10.77%
Co 228.616†	1374.4	0.0463611 mg/L		0.00052860	0.0463611 mg/L		0.00052860	1.14%
Cr 267.716†	-77.6	0.0005303 mg/L		0.00028757	0.0005303 mg/L		0.00028757	54.23%
Cu 327.393†	11746.5	0.0953145 mg/L		0.00016216	0.0953145 mg/L		0.00016216	0.17%
Fe 273.955†	15813.2	1.81513 mg/L		0.015636	1.81513 mg/L		0.015636	0.86%
K 404.721†	857.3	9.27885 mg/L		0.358111	9.27885 mg/L		0.358111	3.86%
Mg 279.077†	53472.9	4.56768 mg/L		0.053120	4.56768 mg/L		0.053120	1.16%
Mn 257.610†	1551726.9	4.17192 mg/L		0.036300	4.17192 mg/L		0.036300	0.87%
Mo 202.031†	166.6	0.0060255 mg/L		0.00001429	0.0060255 mg/L		0.00001429	0.24%
Na 330.237†	1660420.1	1748.73 mg/L		9.678	1748.73 mg/L		9.678	0.55%
Ni 231.604†	2016.9	0.0527085 mg/L		0.00101456	0.0527085 mg/L		0.00101456	1.92%
Pb 220.353†	213362.6	24.4939 mg/L		0.27485	24.4939 mg/L		0.27485	1.12%
Sb 206.836†	44.6	0.0480174 mg/L		0.00327400	0.0480174 mg/L		0.00327400	6.82%
Se 196.026†	21.5	0.0124998 mg/L		0.00678841	0.0124998 mg/L		0.00678841	54.31%
Sn 189.927†	12.5	0.0102255 mg/L		0.00332756	0.0102255 mg/L		0.00332756	32.54%
Ti 334.940†	-144.8	-0.0007723 mg/L		0.00001353	-0.0007723 mg/L		0.00001353	1.75%
Tl 190.801†	-1.9	-0.0082485 mg/L		0.00267436	-0.0082485 mg/L		0.00267436	32.42%
V 290.880†	980.6	0.0055006 mg/L		0.00056322	0.0055006 mg/L		0.00056322	10.24%
Zn 206.200†	88553.3	3.37383 mg/L		0.041982	3.37383 mg/L		0.041982	1.24%

Sequence No.: 24  
 Sample ID: EF-V-132485  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 49  
 Date Collected: 1/16/2012 8:23:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: EF-V-132485

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1012777.6	91.4 %		0.63			0.69%
Y 371.029	393967.0	89.0 %		0.56			0.62%
Ag 328.068†	-59.8	-0.0004059 mg/L		0.00013430	-0.0004059 mg/L	0.00013430	33.09%
Al 308.215†	1924.4	0.0660806 mg/L		0.00252892	0.0660806 mg/L	0.00252892	3.83%
As 188.979†	-2.9	-0.0058326 mg/L		0.00029819	-0.0058326 mg/L	0.00029819	5.11%
Ba 233.527†	117.7	-0.0005503 mg/L		0.00013326	-0.0005503 mg/L	0.00013326	24.21%
Be 313.107†	-351.9	-0.0007719 mg/L		0.00000875	-0.0007719 mg/L	0.00000875	1.13%
Ca 315.887†	21638.0	0.0384779 mg/L		0.00914166	0.0384779 mg/L	0.00914166	23.76%
Cd 228.802†	51.0	0.0012721 mg/L		0.00057792	0.0012721 mg/L	0.00057792	45.43%
Co 228.616†	2.5	-0.0019281 mg/L		0.00011312	-0.0019281 mg/L	0.00011312	5.87%
Cr 267.716†	104.9	0.0006318 mg/L		0.00020258	0.0006318 mg/L	0.00020258	32.06%
Cu 327.393†	-30.5	-0.0007596 mg/L		0.00019864	-0.0007596 mg/L	0.00019864	26.15%
Fe 273.955†	-130.4	-0.0291916 mg/L		0.01312709	-0.0291916 mg/L	0.01312709	44.97%
K 404.721†	-96.8	-0.301652 mg/L		1.0459330	-0.301652 mg/L	1.0459330	346.74%
Mg 279.077†	15.3	-0.185792 mg/L		0.0012599	-0.185792 mg/L	0.0012599	0.68%
Mn 257.610†	67.6	-0.0013673 mg/L		0.00026567	-0.0013673 mg/L	0.00026567	19.43%
Mo 202.031†	9.7	0.0001323 mg/L		0.00016812	0.0001323 mg/L	0.00016812	127.05%
Na 330.237†	1640206.1	1727.45 mg/L		8.250	1727.45 mg/L	8.250	0.48%
Ni 231.604†	119.7	0.0009462 mg/L		0.00043173	0.0009462 mg/L	0.00043173	45.63%
Pb 220.353†	216.7	0.0241711 mg/L		0.00088807	0.0241711 mg/L	0.00088807	3.67%
Sb 206.836†	-10.1	-0.0091142 mg/L		0.00518411	-0.0091142 mg/L	0.00518411	56.88%
Se 196.026†	16.1	0.0181748 mg/L		0.00421170	0.0181748 mg/L	0.00421170	23.17%
Sn 189.927†	3.1	0.0021833 mg/L		0.00300516	0.0021833 mg/L	0.00300516	137.65%
Ti 334.940†	-40.8	-0.0006110 mg/L		0.00004472	-0.0006110 mg/L	0.00004472	7.32%
Tl 190.801†	-3.6	-0.0058067 mg/L		0.00028895	-0.0058067 mg/L	0.00028895	4.98%
V 290.880†	551.8	0.0027656 mg/L		0.00081867	0.0027656 mg/L	0.00081867	29.60%
Zn 206.200†	326.7	0.0117934 mg/L		0.00122857	0.0117934 mg/L	0.00122857	10.42%

Sequence No.: 25

Sample ID: ICSA V-130873

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/16/2012 8:27:04 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-130873

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1017063.3	91.8 %		0.93			1.01%
Y 371.029	394145.6	89.1 %		0.11			0.12%
Ag 328.068†	-1260.5	0.0025280 mg/L		0.00018149	0.0025280 mg/L	0.00018149	7.18%
Al 308.215†	13367520.7	495.024 mg/L		0.4783	495.024 mg/L	0.4783	0.10%
QC value within limits for Al 308.215 Recovery = 99.00%							
As 188.979†	-20.9	-0.0029311 mg/L		0.00013381	-0.0029311 mg/L	0.00013381	4.57%
Ba 233.527†	403.8	0.0019120 mg/L		0.00007797	0.0019120 mg/L	0.00007797	4.08%
Be 313.107†	-1839.2	-0.0013566 mg/L		0.00000908	-0.0013566 mg/L	0.00000908	0.67%
Ca 315.887†	45309178.6	478.208 mg/L		1.5945	478.208 mg/L	1.5945	0.33%
QC value within limits for Ca 315.887 Recovery = 95.64%							
Cd 228.802†	135.5	0.0006901 mg/L		0.00026140	0.0006901 mg/L	0.00026140	37.88%
Co 228.616†	-134.5	0.0003285 mg/L		0.00013313	0.0003285 mg/L	0.00013313	40.52%
Cr 267.716†	34.6	0.0058815 mg/L		0.00020815	0.0058815 mg/L	0.00020815	3.54%
Cu 327.393†	367.3	-0.0157155 mg/L		0.00041857	-0.0157155 mg/L	0.00041857	2.66%
Fe 273.955†	1597265.3	184.764 mg/L		0.2981	184.764 mg/L	0.2981	0.16%
QC value within limits for Fe 273.955 Recovery = 92.38%							
K 404.721†	-1137.7	-10.7530 mg/L		1.11802	-10.7530 mg/L	1.11802	10.40%
Mg 279.077†	5616500.4	499.234 mg/L		0.9634	499.234 mg/L	0.9634	0.19%
QC value within limits for Mg 279.077 Recovery = 99.85%							
Mn 257.610†	-3812.6	-0.0034434 mg/L		0.00017804	-0.0034434 mg/L	0.00017804	5.17%
Mo 202.031†	123.8	0.0052837 mg/L		0.00032283	0.0052837 mg/L	0.00032283	6.11%
Na 330.237†	296.6	1.01980 mg/L		0.022756	1.01980 mg/L	0.022756	2.23%
Ni 231.604†	24.5	-0.0016415 mg/L		0.00041464	-0.0016415 mg/L	0.00041464	25.26%
Pb 220.353†	-205.6	0.0394400 mg/L		0.00378718	0.0394400 mg/L	0.00378718	9.60%
Sb 206.836†	-115.3	-0.0120848 mg/L		0.00174825	-0.0120848 mg/L	0.00174825	14.47%
Se 196.026†	12.8	-0.0093626 mg/L		0.00880516	-0.0093626 mg/L	0.00880516	94.05%
Sn 189.927†	26.4	0.0134310 mg/L		0.00839458	0.0134310 mg/L	0.00839458	62.50%
Ti 334.940†	348.9	-0.0000070 mg/L		0.00005744	-0.0000070 mg/L	0.00005744	819.35%
Tl 190.801†	-13.6	0.0040457 mg/L		0.00122330	0.0040457 mg/L	0.00122330	30.24%
V 290.880†	6568.8	0.0032451 mg/L		0.00091487	0.0032451 mg/L	0.00091487	28.19%
Zn 206.200†	204.0	-0.0085214 mg/L		0.00006741	-0.0085214 mg/L	0.00006741	0.79%

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: ICSAB V-130874  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 1/16/2012 8:32:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
 Mean Data: ICSAB V-130874

Analyte	Mean Corrected Intensity	Conc. Units	Calib Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	983084.1	88.8 %	0.17			0.19%
Y 371.029	383647.5	86.7 %	0.35			0.40%
Ag 328.068†	137967.2	1.06427 mg/L	0.010443	1.06427 mg/L	0.010443	0.98%
QC value within limits for Ag	328.068	Recovery = 106.43%				
Al 308.215†	13728024.2	508.374 mg/L	0.2145	508.374 mg/L	0.2145	0.04%
QC value within limits for Al	308.215	Recovery = 101.67%				
As 188.979†	891.2	1.03770 mg/L	0.002999	1.03770 mg/L	0.002999	0.29%
QC value within limits for As	188.979	Recovery = 103.77%				
Ba 233.527†	59427.0	0.509799 mg/L	0.0056799	0.509799 mg/L	0.0056799	1.11%
QC value within limits for Ba	233.527	Recovery = 101.96%				
Be 313.107†	1260276.9	0.494432 mg/L	0.0020522	0.494432 mg/L	0.0020522	0.42%
QC value within limits for Be	313.107	Recovery = 98.89%				
Ca 315.887†	46871185.0	494.701 mg/L	0.3158	494.701 mg/L	0.3158	0.06%
QC value within limits for Ca	315.887	Recovery = 98.94%				
Cd 228.802†	35605.9	1.02683 mg/L	0.003290	1.02683 mg/L	0.003290	0.32%
QC value within limits for Cd	228.802	Recovery = 102.68%				
Co 228.616†	13308.5	0.473252 mg/L	0.0012495	0.473252 mg/L	0.0012495	0.26%
QC value within limits for Co	228.616	Recovery = 94.65%				
Cr 267.716†	31097.9	0.491448 mg/L	0.0056446	0.491448 mg/L	0.0056446	1.15%
QC value within limits for Cr	267.716	Recovery = 98.29%				
Cu 327.393†	61758.5	0.504901 mg/L	0.0049547	0.504901 mg/L	0.0049547	0.98%
QC value within limits for Cu	327.393	Recovery = 100.98%				
Fe 273.955†	1624303.0	187.891 mg/L	0.6337	187.891 mg/L	0.6337	0.34%
QC value within limits for Fe	273.955	Recovery = 93.95%				
K 404.721†	-1269.8	-12.0785 mg/L	0.70354	-12.0785 mg/L	0.70354	5.82%
Mg 279.077†	5710701.4	507.610 mg/L	1.6891	507.610 mg/L	1.6891	0.33%
QC value within limits for Mg	279.077	Recovery = 101.52%				
Mn 257.610†	179769.8	0.490445 mg/L	0.0054918	0.490445 mg/L	0.0054918	1.12%
QC value within limits for Mn	257.610	Recovery = 98.09%				
Mo 202.031†	128.3	0.0054677 mg/L	0.00049069	0.0054677 mg/L	0.00049069	8.97%
Na 330.237†	405.0	1.13387 mg/L	0.049073	1.13387 mg/L	0.049073	4.33%
Ni 231.604†	34053.4	0.926571 mg/L	0.0032979	0.926571 mg/L	0.0032979	0.36%
QC value within limits for Ni	231.604	Recovery = 92.66%				
Pb 220.353†	8108.4	0.995856 mg/L	0.0049959	0.995856 mg/L	0.0049959	0.50%
QC value within limits for Pb	220.353	Recovery = 99.59%				
Sb 206.836†	827.9	1.01365 mg/L	0.006711	1.01365 mg/L	0.006711	0.66%
QC value within limits for Sb	206.836	Recovery = 101.37%				
Se 196.026†	857.4	0.996583 mg/L	0.0054305	0.996583 mg/L	0.0054305	0.54%
QC value within limits for Se	196.026	Recovery = 99.66%				
Sn 189.927†	18.8	0.0072569 mg/L	0.00241605	0.0072569 mg/L	0.00241605	33.29%
Ti 334.940†	667.5	0.0004869 mg/L	0.00004292	0.0004869 mg/L	0.00004292	8.81%
Tl 190.801†	723.2	0.949558 mg/L	0.0043098	0.949558 mg/L	0.0043098	0.45%
QC value within limits for Tl	190.801	Recovery = 94.96%				
V 290.880†	71573.8	0.477342 mg/L	0.0056337	0.477342 mg/L	0.0056337	1.18%
QC value within limits for V	290.880	Recovery = 95.47%				
Zn 206.200†	25489.0	0.954791 mg/L	0.0042602	0.954791 mg/L	0.0042602	0.45%
QC value within limits for Zn	206.200	Recovery = 95.48%				

All analyte(s) passed QC.

Sequence No.: 27  
 Sample ID: CCV V-130872  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 1/16/2012 8:37:55 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCV V-130872

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1082364.5	97.7 %		1.00			1.02%
Y 371.029	422902.2	95.6 %		0.91			0.96%
Ag 328.068†	12857.5	0.0982052 mg/L		0.00115769	0.0982052 mg/L	0.00115769	1.18%
QC value within limits for Ag 328.068 Recovery = 98.21%							
Al 308.215†	133300.4	4.92134 mg/L		0.050768	4.92134 mg/L	0.050768	1.03%
QC value within limits for Al 308.215 Recovery = 98.43%							
As 188.979†	437.9	0.496811 mg/L		0.0033328	0.496811 mg/L	0.0033328	0.67%
QC value within limits for As 188.979 Recovery = 99.36%							
Ba 233.527†	58493.9	0.501770 mg/L		0.0053702	0.501770 mg/L	0.0053702	1.07%
QC value within limits for Ba 233.527 Recovery = 100.35%							
Be 313.107†	1265012.0	0.495944 mg/L		0.0047005	0.495944 mg/L	0.0047005	0.95%
QC value within limits for Be 313.107 Recovery = 99.19%							
Ca 315.887†	4796080.2	50.4495 mg/L		0.38246	50.4495 mg/L	0.38246	0.76%
QC value within limits for Ca 315.887 Recovery = 100.90%							
Cd 228.802†	17116.8	0.494921 mg/L		0.0064372	0.494921 mg/L	0.0064372	1.30%
QC value within limits for Cd 228.802 Recovery = 98.98%							
Co 228.616†	14438.0	0.506367 mg/L		0.0052660	0.506367 mg/L	0.0052660	1.04%
QC value within limits for Co 228.616 Recovery = 101.27%							
Cr 267.716†	31785.1	0.499046 mg/L		0.0069337	0.499046 mg/L	0.0069337	1.39%
QC value within limits for Cr 267.716 Recovery = 99.81%							
Cu 327.393†	58213.7	0.492129 mg/L		0.0058140	0.492129 mg/L	0.0058140	1.18%
QC value within limits for Cu 327.393 Recovery = 98.43%							
Fe 273.955†	43371.5	5.01799 mg/L		0.055982	5.01799 mg/L	0.055982	1.12%
QC value within limits for Fe 273.955 Recovery = 100.36%							
K 404.721†	4498.7	45.8410 mg/L		0.73623	45.8410 mg/L	0.73623	1.61%
QC value within limits for K 404.721 Recovery = 91.68%							
Mg 279.077†	566895.2	50.2214 mg/L		0.37744	50.2214 mg/L	0.37744	0.75%
QC value within limits for Mg 279.077 Recovery = 100.44%							
Mn 257.610†	185896.3	0.498777 mg/L		0.0056232	0.498777 mg/L	0.0056232	1.13%
QC value within limits for Mn 257.610 Recovery = 99.76%							
Mo 202.031†	5991.7	0.501045 mg/L		0.0076477	0.501045 mg/L	0.0076477	1.53%
QC value within limits for Mo 202.031 Recovery = 100.21%							
Na 330.237†	43902.8	46.9267 mg/L		0.34817	46.9267 mg/L	0.34817	0.74%
QC value within limits for Na 330.237 Recovery = 93.85%							
Ni 231.604†	18576.0	0.504829 mg/L		0.0041305	0.504829 mg/L	0.0041305	0.82%
QC value within limits for Ni 231.604 Recovery = 100.97%							
Pb 220.353†	4693.4	0.538485 mg/L		0.0062722	0.538485 mg/L	0.0062722	1.16%
QC value within limits for Pb 220.353 Recovery = 107.70%							
Sb 206.836†	455.7	0.497579 mg/L		0.0103676	0.497579 mg/L	0.0103676	2.08%
QC value within limits for Sb 206.836 Recovery = 99.52%							
Se 196.026†	427.0	0.507534 mg/L		0.0010554	0.507534 mg/L	0.0010554	0.21%
QC value within limits for Se 196.026 Recovery = 101.51%							
Sn 189.927†	666.8	0.524087 mg/L		0.0114247	0.524087 mg/L	0.0114247	2.18%
QC value within limits for Sn 189.927 Recovery = 104.82%							
Ti 334.940†	314805.8	0.487404 mg/L		0.0052041	0.487404 mg/L	0.0052041	1.07%
QC value within limits for Ti 334.940 Recovery = 97.48%							
Tl 190.801†	409.4	0.527228 mg/L		0.0040295	0.527228 mg/L	0.0040295	0.76%
QC value within limits for Tl 190.801 Recovery = 105.45%							
V 290.880†	68703.7	0.497633 mg/L		0.0059376	0.497633 mg/L	0.0059376	1.19%
QC value within limits for V 290.880 Recovery = 99.53%							
Zn 206.200†	13252.7	0.502806 mg/L		0.0064651	0.502806 mg/L	0.0064651	1.29%
QC value within limits for Zn 206.200 Recovery = 100.56%							

All analyte(s) passed QC.

Sequence No.: 28

Autosampler Location: 1

Sample ID: CCB

Date Collected: 1/16/2012 8:41:41 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1122096.5	101 %	0.9			0.91%
Y 371.029	446011.1	101 %	0.9			0.91%
Ag 328.068†	7.6	0.0001072 mg/L	0.00015777	0.0001072 mg/L	0.00015777	147.19%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Al 308.215†	17.8	-0.0045238 mg/L	0.00047748	-0.0045238 mg/L	0.00047748	10.55%
QC value within limits for Al 308.215		Recovery = Not calculated				
As 188.979†	3.6	0.0016467 mg/L	0.00117062	0.0016467 mg/L	0.00117062	71.09%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527†	11.5	-0.0014635 mg/L	0.00004766	-0.0014635 mg/L	0.00004766	3.26%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 313.107†	34.7	-0.0006201 mg/L	0.00005135	-0.0006201 mg/L	0.00005135	8.28%
QC value within limits for Be 313.107		Recovery = Not calculated				
Ca 315.887†	71.1	-0.189237 mg/L	0.0043459	-0.189237 mg/L	0.0043459	2.30%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cd 228.802†	2.6	-0.0001298 mg/L	0.00034391	-0.0001298 mg/L	0.00034391	264.97%
QC value within limits for Cd 228.802		Recovery = Not calculated				
Co 228.616†	-2.2	-0.0020955 mg/L	0.00038555	-0.0020955 mg/L	0.00038555	18.40%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cr 267.716†	-5.1	-0.0010863 mg/L	0.00003450	-0.0010863 mg/L	0.00003450	3.18%
QC value within limits for Cr 267.716		Recovery = Not calculated				
Cu 327.393†	-222.5	-0.0023861 mg/L	0.00033014	-0.0023861 mg/L	0.00033014	13.84%
QC value within limits for Cu 327.393		Recovery = Not calculated				
Fe 273.955†	40.9	-0.0093943 mg/L	0.00354827	-0.0093943 mg/L	0.00354827	37.77%
QC value within limits for Fe 273.955		Recovery = Not calculated				
K 404.721†	-121.4	-0.547893 mg/L	0.1639118	-0.547893 mg/L	0.1639118	29.92%
QC value within limits for K 404.721		Recovery = Not calculated				
Mg 279.077†	118.4	-0.176628 mg/L	0.0108976	-0.176628 mg/L	0.0108976	6.17%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610†	-30.7	-0.0016308 mg/L	0.00001247	-0.0016308 mg/L	0.00001247	0.76%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031†	8.5	0.0000291 mg/L	0.00026848	0.0000291 mg/L	0.00026848	921.61%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Na 330.237†	160.5	0.876508 mg/L	0.0052592	0.876508 mg/L	0.0052592	0.60%
QC value within limits for Na 330.237		Recovery = Not calculated				
Ni 231.604†	-12.2	-0.0026501 mg/L	0.00009476	-0.0026501 mg/L	0.00009476	3.58%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Pb 220.353†	225.1	0.0251299 mg/L	0.00064321	0.0251299 mg/L	0.00064321	2.56%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Sb 206.836†	-3.3	-0.0017553 mg/L	0.00209735	-0.0017553 mg/L	0.00209735	119.49%
QC value within limits for Sb 206.836		Recovery = Not calculated				
Se 196.026†	3.6	0.0033597 mg/L	0.00064893	0.0033597 mg/L	0.00064893	19.31%
QC value within limits for Se 196.026		Recovery = Not calculated				
Sn 189.927†	1.4	0.0008570 mg/L	0.00209856	0.0008570 mg/L	0.00209856	244.88%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940†	-26.6	-0.0005890 mg/L	0.00002367	-0.0005890 mg/L	0.00002367	4.02%
QC value within limits for Ti 334.940		Recovery = Not calculated				
Tl 190.801†	2.3	0.0018415 mg/L	0.00081629	0.0018415 mg/L	0.00081629	44.33%
QC value within limits for Tl 190.801		Recovery = Not calculated				
V 290.880†	-14.4	-0.0013717 mg/L	0.00011391	-0.0013717 mg/L	0.00011391	8.30%
QC value within limits for V 290.880		Recovery = Not calculated				
Zn 206.200†	11.3	-0.0002268 mg/L	0.00005170	-0.0002268 mg/L	0.00005170	22.80%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

Analyst S. Bel 1/17/12

Analysis Begun

Start Time: 1/17/2012 11:08:02 AM Plasma On Time: 12:00:00 AM
Logged In Analyst: shiamala Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030901 Autosampler Model: AS-93plus

Sample Information File: C:\pe\administrator\Sample Information\01.17.12.sif
Batch ID: 11227
Results Data Set: T13480C2
Results Library: C:\pe\administrator\Results\Results.mdb

sh 1/17/12

Method Loaded

Method Name: PE2 4300DV AXIAL
IEC File: IEC092611B2.iec
Method Description: 200.7/6010B

Method Last Saved: 1/16/2012 10:36:38 AM
MSF File:

Sequence No.: 1
Sample ID: Calib Blk 1 V-130860
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/17/2012 11:08:03 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Blk 1 V-130860

Table with 6 columns: Analyte, Mean Corrected Intensity, Std.Dev., RSD, Conc., Calib Units. Lists various elements like Sc, Y, Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Ti, Tl, V, Zn with their respective values.

13480
12491

Pb reported

63081.028 100 Pb reported
50 1/17

Sequence No.: 2

Sample ID: Calib 1 V-128669

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 1/17/2012 11:12:42 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 1 V-128669

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1051151.2	11886.10	1.13%	102	%
Y 371.029	402307.5	4281.10	1.06%	101	%
As 188.979†	4.3	3.42	79.30%	[0.005]	mg/L
Be 313.107†	7000.4	107.39	1.53%	[0.003]	mg/L
Cd 228.802†	98.0	11.03	11.26%	[0.003]	mg/L
Pb 220.353†	10.9	3.93	35.87%	[0.004]	mg/L
Tl 190.801†	3.9	0.15	3.88%	[0.005]	mg/L

Sequence No.: 3

Sample ID: Calib 2 V-130865

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 1/17/2012 11:16:21 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 2 V-130865

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1048304.4	8515.90	0.81%	101	%
Y 371.029	401426.2	3077.85	0.77%	101	%
Ag 328.068†	313.0	23.17	7.40%	[0.002]	mg/L
Al 308.215†	2706.3	113.59	4.20%	[0.10]	mg/L
As 188.979†	9.3	3.40	36.55%	[0.010]	mg/L
Ba 233.527†	1071.4	7.30	0.68%	[0.010]	mg/L
Be 313.107†	23159.0	427.17	1.84%	[0.010]	mg/L
Ca 315.887†	91834.2	1272.71	1.39%	[1.0]	mg/L
Cd 228.802†	323.1	6.81	2.11%	[0.010]	mg/L
Co 228.616†	266.2	4.89	1.84%	[0.010]	mg/L
Cr 267.716†	586.8	3.35	0.57%	[0.010]	mg/L
Cu 327.393†	1290.6	59.78	4.63%	[0.010]	mg/L
Fe 273.955†	962.4	21.86	2.27%	[0.10]	mg/L
K 404.721†	48.3	5.01	10.37%	[1.0]	mg/L
Mg 279.077†	11103.3	141.12	1.27%	[1.0]	mg/L
Mn 257.610†	3838.4	39.52	1.03%	[0.010]	mg/L
Mo 202.031†	120.9	2.47	2.04%	[0.010]	mg/L
Na 330.237†	812.2	21.55	2.65%	[1.0]	mg/L
Ni 231.604†	345.2	0.04	0.01%	[0.010]	mg/L
Pb 220.353†	63.8	2.21	3.47%	[0.010]	mg/L
Sb 206.836†	8.9	4.61	51.50%	[0.010]	mg/L
Se 196.026†	4.8	7.21	151.06%	[0.010]	mg/L
Sn 189.927†	17.4	0.97	5.58%	[0.010]	mg/L
Ti 334.940†	5356.7	57.45	1.07%	[0.010]	mg/L
Tl 190.801†	8.6	2.05	23.93%	[0.010]	mg/L
V 290.880†	1191.3	30.75	2.58%	[0.010]	mg/L
Zn 206.200†	214.9	4.96	2.31%	[0.010]	mg/L

Sequence No.: 4

Sample ID: Calib 3 V-129805

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/17/2012 11:20:02 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: Calib 3 V-129805

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	991151.9	6010.29	0.61%	95.8	%
Y 371.029	375516.8	2200.31	0.59%	94.7	%
Ag 328.068†	14470.0	19.04	0.13%	[0.10]	mg/L
Al 308.215†	131075.1	457.51	0.35%	[5.0]	mg/L
As 188.979†	422.6	1.03	0.24%	[0.50]	mg/L
Ba 233.527†	51862.3	71.62	0.14%	[0.50]	mg/L
Be 313.107†	1196987.6	9538.96	0.80%	[0.50]	mg/L
Ca 315.887†	4468584.7	31642.44	0.71%	[50]	mg/L
Cd 228.802†	16318.0	59.72	0.37%	[0.50]	mg/L
Co 228.616†	12799.6	21.26	0.17%	[0.50]	mg/L
Cr 267.716†	29380.8	57.68	0.20%	[0.50]	mg/L
Cu 327.393†	56992.2	122.86	0.22%	[0.50]	mg/L
Fe 273.955†	44050.0	26.72	0.06%	[5.0]	mg/L
K 404.721†	4479.5	42.00	0.94%	[50]	mg/L
Mg 279.077†	520316.3	3338.30	0.64%	[50]	mg/L
Mn 257.610†	181464.7	273.77	0.15%	[0.50]	mg/L
Mo 202.031†	6135.6	52.12	0.85%	[0.50]	mg/L
Na 330.237†	43361.7	90.90	0.21%	[50]	mg/L
Ni 231.604†	16972.7	13.20	0.08%	[0.50]	mg/L
Pb 220.353†	4124.6	25.33	0.61%	[0.50]	mg/L
Sb 206.836†	505.7	3.56	0.70%	[0.50]	mg/L
Se 196.026†	377.1	6.84	1.81%	[0.50]	mg/L
Sn 189.927†	726.7	3.66	0.50%	[0.50]	mg/L
Ti 334.940†	270787.0	2418.19	0.89%	[0.50]	mg/L
Tl 190.801†	349.5	2.11	0.61%	[0.50]	mg/L
V 290.880†	65489.0	73.99	0.11%	[0.50]	mg/L
Zn 206.200†	11764.0	95.05	0.81%	[0.50]	mg/L

Sequence No.: 5

Autosampler Location: 4

Sample ID: Calib 4 V-130869

Date Collected: 1/17/2012 11:23:49 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib 4 V-130869

Analyte	Mean Corrected			RSD	Conc. Units
	Intensity	Std.Dev.	Calib		
Sc 361.383	983143.0	4210.27	0.43%	95.0	%
Y 371.029	372100.0	1307.88	0.35%	93.8	%
Ag 328.068†	28512.1	367.23	1.29%	[0.20]	mg/L
Al 308.215†	260012.0	3506.84	1.35%	[10]	mg/L
As 188.979†	860.1	2.52	0.29%	[1.0]	mg/L
Ba 233.527†	101411.1	1399.93	1.38%	[1.0]	mg/L
Be 313.107†	2379490.0	26155.22	1.10%	[1.0]	mg/L
Ca 315.887†	8915790.6	91211.20	1.02%	[100]	mg/L
Cd 228.802†	32329.1	452.01	1.40%	[1.0]	mg/L
Co 228.616†	24988.9	378.18	1.51%	[1.0]	mg/L
Cr 267.716†	57844.9	841.61	1.45%	[1.0]	mg/L
Cu 327.393†	111694.5	1212.94	1.09%	[1.0]	mg/L
Fe 273.955†	86328.3	1225.90	1.42%	[10]	mg/L
K 404.721†	9746.3	71.46	0.73%	[100]	mg/L
Mg 279.077†	1033381.2	11233.35	1.09%	[100]	mg/L
Mn 257.610†	356204.9	4889.06	1.37%	[1.0]	mg/L
Mo 202.031†	12239.8	40.21	0.33%	[1.0]	mg/L
Na 330.237†	91333.6	987.20	1.08%	[100]	mg/L
Ni 231.604†	33075.6	446.20	1.35%	[1.0]	mg/L
Pb 220.353†	8162.1	29.24	0.36%	[1.0]	mg/L
Sb 206.836†	1002.1	0.96	0.10%	[1.0]	mg/L
Se 196.026†	771.7	1.51	0.20%	[1.0]	mg/L
Sn 189.927†	1454.7	9.07	0.62%	[1.0]	mg/L
Ti 334.940†	537764.4	5647.59	1.05%	[1.0]	mg/L
Tl 190.801†	675.0	0.82	0.12%	[1.0]	mg/L
V 290.880†	127521.7	1699.05	1.33%	[1.0]	mg/L
Zn 206.200†	23252.7	362.86	1.56%	[1.0]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	51.6	142700	0.00000	0.999971	
Al 308.215	3	Lin, Calc Int	242.8	26010	0.00000	0.999991	
As 188.979	4	Lin, Calc Int	-0.7	858.0	0.00000	0.999963	
Ba 233.527	3	Lin, Calc Int	236.5	101600	0.00000	0.999932	
Be 313.107	4	Lin, Calc Int	660.8	2382000	0.00000	0.999995	
Ca 315.887	3	Lin, Calc Int	3160.5	89160	0.00000	0.999999	
Cd 228.802	4	Lin, Calc Int	19.4	32370	0.00000	0.999989	
Co 228.616	3	Lin, Calc Int	62.9	25040	0.00000	0.999922	
Cr 267.716	3	Lin, Calc Int	87.2	57920	0.00000	0.999967	
Cu 327.393	3	Lin, Calc Int	287.2	111800	0.00000	0.999947	
Fe 273.955	3	Lin, Calc Int	206.2	8643	0.00000	0.999946	
K 404.721	3	Lin, Calc Int	-94.0	97.02	0.00000	0.999165	
Mg 279.077	3	Lin, Calc Int	1009.2	10340	0.00000	0.999994	
Mn 257.610	3	Lin, Calc Int	737.4	356700	0.00000	0.999954	
Mo 202.031	3	Lin, Calc Int	2.2	12240	0.00000	0.999999	
Na 330.237	3	Lin, Calc Int	-465.5	909.7	0.00000	0.999664	
Ni 231.604	3	Lin, Calc Int	85.7	33150	0.00000	0.999909	
Pb 220.353	4	Lin, Calc Int	-6.9	8188	0.00000	0.999980	
Sb 206.836	3	Lin, Calc Int	0.4	1004	0.00000	0.999987	
Se 196.026	3	Lin, Calc Int	-2.9	771.7	0.00000	0.999937	
Sn 189.927	3	Lin, Calc Int	1.2	1453	0.00000	0.999998	
Ti 334.940	3	Lin, Calc Int	337.2	538100	0.00000	0.999993	
Tl 190.801	4	Lin, Calc Int	2.2	677.1	0.00000	0.999859	
V 290.880	3	Lin, Calc Int	276.4	127900	0.00000	0.999900	
Zn 206.200	3	Lin, Calc Int	17.1	23290	0.00000	0.999980	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-129805

Date Collected: 1/17/2012 11:28:43 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICS3 V-129805

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units	Conc. Units		Std.Dev.	Conc. Units	
Sc 361.383	1015086.7	98.1 %		0.35			0.35%
Y 371.029	384528.4	97.0 %		0.41			0.42%
Ag 328.068†	14376.2	0.100518 mg/L		0.0009731	0.100518 mg/L	0.0009731	0.97%
QC value within limits for Ag			328.068	Recovery = 100.52%			
Al 308.215†	131175.0	5.02315 mg/L		0.040894	5.02315 mg/L	0.040894	0.81%
QC value within limits for Al			308.215	Recovery = 100.46%			
As 188.979†	432.7	0.505055 mg/L		0.0011485	0.505055 mg/L	0.0011485	0.23%
QC value within limits for As			188.979	Recovery = 101.01%			
Ba 233.527†	52069.8	0.510228 mg/L		0.0036538	0.510228 mg/L	0.0036538	0.72%
QC value within limits for Ba			233.527	Recovery = 102.05%			
Be 313.107†	1211723.5	0.508151 mg/L		0.0046445	0.508151 mg/L	0.0046445	0.91%
QC value within limits for Be			313.107	Recovery = 101.63%			
Ca 315.887†	4541573.9	50.9004 mg/L		0.42740	50.9004 mg/L	0.42740	0.84%
QC value within limits for Ca			315.887	Recovery = 101.80%			
Cd 228.802†	16388.8	0.505661 mg/L		0.0043070	0.505661 mg/L	0.0043070	0.85%
QC value within limits for Cd			228.802	Recovery = 101.13%			
Co 228.616†	12915.4	0.514010 mg/L		0.0033117	0.514010 mg/L	0.0033117	0.64%
QC value within limits for Co			228.616	Recovery = 102.80%			
Cr 267.716†	29565.9	0.512571 mg/L		0.0031430	0.512571 mg/L	0.0031430	0.61%
QC value within limits for Cr			267.716	Recovery = 102.51%			
Cu 327.393†	56794.4	0.503887 mg/L		0.0041082	0.503887 mg/L	0.0041082	0.82%
QC value within limits for Cu			327.393	Recovery = 100.78%			
Fe 273.955†	44298.7	5.12178 mg/L		0.032662	5.12178 mg/L	0.032662	0.64%
QC value within limits for Fe			273.955	Recovery = 102.44%			
K 404.721†	4563.6	48.0068 mg/L		0.77143	48.0068 mg/L	0.77143	1.61%
QC value within limits for K			404.721	Recovery = 96.01%			
Mg 279.077†	530855.2	51.2613 mg/L		0.45568	51.2613 mg/L	0.45568	0.89%
QC value within limits for Mg			279.077	Recovery = 102.52%			
Mn 257.610†	182132.7	0.508953 mg/L		0.0034824	0.508953 mg/L	0.0034824	0.68%
QC value within limits for Mn			257.610	Recovery = 101.79%			
Mo 202.031†	6158.7	0.501789 mg/L		0.0020765	0.501789 mg/L	0.0020765	0.41%
QC value within limits for Mo			202.031	Recovery = 100.36%			
Na 330.237†	43164.3	47.9590 mg/L		0.41815	47.9590 mg/L	0.41815	0.87%
QC value within limits for Na			330.237	Recovery = 95.92%			
Ni 231.604†	17154.9	0.515416 mg/L		0.0027623	0.515416 mg/L	0.0027623	0.54%
QC value within limits for Ni			231.604	Recovery = 103.08%			
Pb 220.353†	4156.8	0.508910 mg/L		0.0013807	0.508910 mg/L	0.0013807	0.27%
QC value within limits for Pb			220.353	Recovery = 101.78%			
Sb 206.836†	507.6	0.506805 mg/L		0.0000520	0.506805 mg/L	0.0000520	0.01%
QC value within limits for Sb			206.836	Recovery = 101.36%			
Se 196.026†	388.8	0.506795 mg/L		0.0058020	0.506795 mg/L	0.0058020	1.14%
QC value within limits for Se			196.026	Recovery = 101.36%			
Sn 189.927†	743.4	0.511091 mg/L		0.0043324	0.511091 mg/L	0.0043324	0.85%
QC value within limits for Sn			189.927	Recovery = 102.22%			
Ti 334.940†	272300.8	0.505397 mg/L		0.0048819	0.505397 mg/L	0.0048819	0.97%
QC value within limits for Ti			334.940	Recovery = 101.08%			
Tl 190.801†	350.6	0.517472 mg/L		0.0032431	0.517472 mg/L	0.0032431	0.63%
QC value within limits for Tl			190.801	Recovery = 103.49%			
V 290.880†	65591.5	0.507760 mg/L		0.0036144	0.507760 mg/L	0.0036144	0.71%
QC value within limits for V			290.880	Recovery = 101.55%			
Zn 206.200†	12012.4	0.513502 mg/L		0.0038456	0.513502 mg/L	0.0038456	0.75%
QC value within limits for Zn			206.200	Recovery = 102.70%			

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV V-129811 (2)

Date Collected: 1/17/2012 11:32:30 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICV V-129811 (2)

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	977114.2	94.5 %	0.87			0.92%	
Y 371.029	370514.5	93.4 %	0.76			0.81%	
Ag 328.068†	27692.9	0.193956 mg/L	0.0050886	0.193956 mg/L	0.0050886	2.62%	
QC value within limits for Ag		328.068	Recovery = 96.98%				
Al 308.215†	259347.1	9.94060 mg/L	0.260737	9.94060 mg/L	0.260737	2.62%	
QC value within limits for Al		308.215	Recovery = 99.41%				
As 188.979†	838.0	0.977234 mg/L	0.0070006	0.977234 mg/L	0.0070006	0.72%	
QC value within limits for As		188.979	Recovery = 97.72%				
Ba 233.527†	101288.3	0.994716 mg/L	0.0260082	0.994716 mg/L	0.0260082	2.61%	
QC value within limits for Ba		233.527	Recovery = 99.47%				
Be 313.107†	2357253.9	0.988791 mg/L	0.0068566	0.988791 mg/L	0.0068566	0.69%	
QC value within limits for Be		313.107	Recovery = 98.88%				
Ca 315.887†	8840769.5	99.1178 mg/L	0.53647	99.1178 mg/L	0.53647	0.54%	
QC value within limits for Ca		315.887	Recovery = 99.12%				
Cd 228.802†	32091.1	0.990717 mg/L	0.0271540	0.990717 mg/L	0.0271540	2.74%	
QC value within limits for Cd		228.802	Recovery = 99.07%				
Co 228.616†	24974.2	0.996274 mg/L	0.0266577	0.996274 mg/L	0.0266577	2.68%	
QC value within limits for Co		228.616	Recovery = 99.63%				
Cr 267.716†	57092.1	0.991280 mg/L	0.0272085	0.991280 mg/L	0.0272085	2.74%	
QC value within limits for Cr		267.716	Recovery = 99.13%				
Cu 327.393†	111485.4	0.991620 mg/L	0.0252333	0.991620 mg/L	0.0252333	2.54%	
QC value within limits for Cu		327.393	Recovery = 99.16%				
Fe 273.955†	84472.9	9.78863 mg/L	0.274553	9.78863 mg/L	0.274553	2.80%	
QC value within limits for Fe		273.955	Recovery = 97.89%				
K 404.721†	9761.6	101.583 mg/L	2.3797	101.583 mg/L	2.3797	2.34%	
QC value within limits for K		404.721	Recovery = 101.58%				
Mg 279.077†	1018898.2	98.4782 mg/L	0.52538	98.4782 mg/L	0.52538	0.53%	
QC value within limits for Mg		279.077	Recovery = 98.48%				
Mn 257.610†	350588.3	0.981600 mg/L	0.0265763	0.981600 mg/L	0.0265763	2.71%	
QC value within limits for Mn		257.610	Recovery = 98.16%				
Mo 202.031†	12085.2	0.984848 mg/L	0.0289319	0.984848 mg/L	0.0289319	2.94%	
QC value within limits for Mo		202.031	Recovery = 98.48%				
Na 330.237†	90435.5	99.9207 mg/L	2.31386	99.9207 mg/L	2.31386	2.32%	
QC value within limits for Na		330.237	Recovery = 99.92%				
Ni 231.604†	32809.4	0.988134 mg/L	0.0271625	0.988134 mg/L	0.0271625	2.75%	
QC value within limits for Ni		231.604	Recovery = 98.81%				
Pb 220.353†	7939.7	0.971347 mg/L	0.0055588	0.971347 mg/L	0.0055588	0.57%	
QC value within limits for Pb		220.353	Recovery = 97.13%				
Sb 206.836†	988.1	0.986937 mg/L	0.0092257	0.986937 mg/L	0.0092257	0.93%	
QC value within limits for Sb		206.836	Recovery = 98.69%				
Se 196.026†	752.8	0.977550 mg/L	0.0144017	0.977550 mg/L	0.0144017	1.47%	
QC value within limits for Se		196.026	Recovery = 97.75%				
Sn 189.927†	1448.3	0.996418 mg/L	0.0035265	0.996418 mg/L	0.0035265	0.35%	
QC value within limits for Sn		189.927	Recovery = 99.64%				
Ti 334.940†	539567.9	1.00207 mg/L	0.008930	1.00207 mg/L	0.008930	0.89%	
QC value within limits for Ti		334.940	Recovery = 100.21%				
Tl 190.801†	691.4	1.02367 mg/L	0.008198	1.02367 mg/L	0.008198	0.80%	
QC value within limits for Tl		190.801	Recovery = 102.37%				
V 290.880†	126277.7	0.979613 mg/L	0.0256606	0.979613 mg/L	0.0256606	2.62%	
QC value within limits for V		290.880	Recovery = 97.96%				
Zn 206.200†	22900.4	0.979585 mg/L	0.0277134	0.979585 mg/L	0.0277134	2.83%	
QC value within limits for Zn		206.200	Recovery = 97.96%				

All analyte(s) passed QC.

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Sequence No.: 8                               Autosampler Location: 1
Sample ID: ICB V-130860                       Date Collected: 1/17/2012 11:37:24 AM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: ICB V-130860

Analyte	Mean Corrected		Calib	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units					
Sc 361.383	1039055.5	100 %		0.0			0.01%
Y 371.029	400342.8	101 %		0.1			0.06%
Ag 328.068†	64.3	0.0000885 mg/L		0.00049042	0.0000885 mg/L	0.00049042	554.21%
QC value within limits for Ag 328.068	Recovery = Not calculated						
Al 308.215†	-73.0	-0.0121442 mg/L		0.00037292	-0.0121442 mg/L	0.00037292	3.07%
QC value within limits for Al 308.215	Recovery = Not calculated						
As 188.979†	-0.4	0.0003231 mg/L		0.00142270	0.0003231 mg/L	0.00142270	440.40%
QC value within limits for As 188.979	Recovery = Not calculated						
Ba 233.527†	38.5	-0.0019489 mg/L		0.00015372	-0.0019489 mg/L	0.00015372	7.89%
QC value within limits for Ba 233.527	Recovery = Not calculated						
Be 313.107†	234.5	-0.0001786 mg/L		0.00001392	-0.0001786 mg/L	0.00001392	7.80%
QC value within limits for Be 313.107	Recovery = Not calculated						
Ca 315.887†	1157.5	-0.0224651 mg/L		0.00085162	-0.0224651 mg/L	0.00085162	3.79%
QC value within limits for Ca 315.887	Recovery = Not calculated						
Cd 228.802†	1.1	-0.0005662 mg/L		0.00054464	-0.0005662 mg/L	0.00054464	96.19%
QC value within limits for Cd 228.802	Recovery = Not calculated						
Co 228.616†	9.6	-0.0021303 mg/L		0.00014720	-0.0021303 mg/L	0.00014720	6.91%
QC value within limits for Co 228.616	Recovery = Not calculated						
Cr 267.716†	-6.1	-0.0016113 mg/L		0.00028869	-0.0016113 mg/L	0.00028869	17.92%
QC value within limits for Cr 267.716	Recovery = Not calculated						
Cu 327.393†	198.7	-0.0007907 mg/L		0.00025041	-0.0007907 mg/L	0.00025041	31.67%
QC value within limits for Cu 327.393	Recovery = Not calculated						
Fe 273.955†	94.4	-0.0129636 mg/L		0.00077553	-0.0129636 mg/L	0.00077553	5.98%
QC value within limits for Fe 273.955	Recovery = Not calculated						
K 404.721†	-29.4	0.665624 mg/L		0.0664704	0.665624 mg/L	0.0664704	9.99%
QC value within limits for K 404.721	Recovery = Not calculated						
Mg 279.077†	298.0	-0.0688061 mg/L		0.00264477	-0.0688061 mg/L	0.00264477	3.84%
QC value within limits for Mg 279.077	Recovery = Not calculated						
Mn 257.610†	66.8	-0.0018807 mg/L		0.00004897	-0.0018807 mg/L	0.00004897	2.60%
QC value within limits for Mn 257.610	Recovery = Not calculated						
Mo 202.031†	5.1	0.0002412 mg/L		0.00002830	0.0002412 mg/L	0.00002830	11.73%
QC value within limits for Mo 202.031	Recovery = Not calculated						
Na 330.237†	15.9	0.529164 mg/L		0.0295709	0.529164 mg/L	0.0295709	5.59%
QC value within limits for Na 330.237	Recovery = Not calculated						
Ni 231.604†	0.4	-0.0025727 mg/L		0.00016988	-0.0025727 mg/L	0.00016988	6.60%
QC value within limits for Ni 231.604	Recovery = Not calculated						
Pb 220.353†	-29.5	-0.0027571 mg/L		0.00004551	-0.0027571 mg/L	0.00004551	1.65%
QC value within limits for Pb 220.353	Recovery = Not calculated						
Sb 206.836†	-0.7	-0.0010200 mg/L		0.00234940	-0.0010200 mg/L	0.00234940	230.33%
QC value within limits for Sb 206.836	Recovery = Not calculated						
Se 196.026†	-5.3	-0.0030319 mg/L		0.00801121	-0.0030319 mg/L	0.00801121	264.23%
QC value within limits for Se 196.026	Recovery = Not calculated						
Sn 189.927†	6.0	0.0033392 mg/L		0.00258035	0.0033392 mg/L	0.00258035	77.28%
QC value within limits for Sn 189.927	Recovery = Not calculated						
Ti 334.940†	11.0	-0.0006061 mg/L		0.00007878	-0.0006061 mg/L	0.00007878	13.00%
QC value within limits for Ti 334.940	Recovery = Not calculated						
Tl 190.801†	2.5	0.0004667 mg/L		0.00216842	0.0004667 mg/L	0.00216842	464.62%
QC value within limits for Tl 190.801	Recovery = Not calculated						
V 290.880†	-122.0	-0.0031103 mg/L		0.00033167	-0.0031103 mg/L	0.00033167	10.66%
QC value within limits for V 290.880	Recovery = Not calculated						
Zn 206.200†	1.2	-0.0006807 mg/L		0.00005469	-0.0006807 mg/L	0.00005469	8.03%
QC value within limits for Zn 206.200	Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA V-130873

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/17/2012 11:41:03 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-130873

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	911511.9	88.1 %	0.05				0.06%
Y 371.029	346148.0	87.3 %	0.04				0.04%
Ag 328.068†	-1291.0	0.0024656 mg/L	0.00034564	0.0024656 mg/L	0.00034564	14.02%	
Al 308.215†	13129142.2	504.672 mg/L	1.4697	504.672 mg/L	1.4697	0.29%	
QC value within limits for Al 308.215 Recovery = 100.93%							
As 188.979†	-24.9	-0.0055187 mg/L	0.00986912	-0.0055187 mg/L	0.00986912	178.83%	
Ba 233.527†	397.0	0.0015795 mg/L	0.00014521	0.0015795 mg/L	0.00014521	9.19%	
Be 313.107†	-1585.6	-0.0009430 mg/L	0.00004661	-0.0009430 mg/L	0.00004661	4.94%	
Ca 315.887†	42905936.1	481.174 mg/L	2.9547	481.174 mg/L	2.9547	0.61%	
QC value within limits for Ca 315.887 Recovery = 96.23%							
Cd 228.802†	146.1	0.0009679 mg/L	0.00005398	0.0009679 mg/L	0.00005398	5.58%	
Co 228.616†	-129.1	-0.0004495 mg/L	0.00006805	-0.0004495 mg/L	0.00006805	15.14%	
Cr 267.716†	10.1	0.0048631 mg/L	0.00045725	0.0048631 mg/L	0.00045725	9.40%	
Cu 327.393†	607.0	-0.0155870 mg/L	0.00034006	-0.0155870 mg/L	0.00034006	2.18%	
Fe 273.955†	1554251.0	179.993 mg/L	0.1116	179.993 mg/L	0.1116	0.06%	
QC value within limits for Fe 273.955 Recovery = 90.00%							
K 404.721†	-1096.1	-10.3295 mg/L	0.40547	-10.3295 mg/L	0.40547	3.93%	
Mg 279.077†	5128049.9	496.028 mg/L	0.1051	496.028 mg/L	0.1051	0.02%	
QC value within limits for Mg 279.077 Recovery = 99.21%							
Mn 257.610†	-3611.6	-0.0040507 mg/L	0.00013454	-0.0040507 mg/L	0.00013454	3.32%	
Mo 202.031†	140.9	0.0069624 mg/L	0.00006701	0.0069624 mg/L	0.00006701	0.96%	
Na 330.237†	-162.2	0.333351 mg/L	0.0121945	0.333351 mg/L	0.0121945	3.66%	
Ni 231.604†	21.8	-0.0019190 mg/L	0.00014382	-0.0019190 mg/L	0.00014382	7.49%	
Pb 220.353†	-467.3	0.0095791 mg/L	0.00002342	0.0095791 mg/L	0.00002342	0.24%	
Sb 206.836†	-104.6	0.0073816 mg/L	0.00348712	0.0073816 mg/L	0.00348712	47.24%	
Se 196.026†	13.8	-0.0042191 mg/L	0.00560889	-0.0042191 mg/L	0.00560889	132.94%	
Sn 189.927†	2.9	-0.0059432 mg/L	0.00256496	-0.0059432 mg/L	0.00256496	43.16%	
Ti 334.940†	168.6	-0.0003132 mg/L	0.00004724	-0.0003132 mg/L	0.00004724	15.08%	
Tl 190.801†	-12.2	0.0015270 mg/L	0.00050006	0.0015270 mg/L	0.00050006	32.75%	
V 290.880†	6197.9	0.0032278 mg/L	0.00057365	0.0032278 mg/L	0.00057365	17.77%	
Zn 206.200†	124.0	-0.0109414 mg/L	0.00011967	-0.0109414 mg/L	0.00011967	1.09%	

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-130874

Date Collected: 1/17/2012 11:46:12 AM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-130874

Analyte	Mean Corrected		Calib		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	912943.1	88.3 %	0.34			0.39%	
Y 371.029	347868.1	87.7 %	0.33			0.37%	
Ag 328.068†	142985.1	1.01340 mg/L	0.000002	1.01340 mg/L	0.000002	0.00%	
QC value within limits for Ag		328.068	Recovery = 101.34%				
Al 308.215†	13106014.1	503.783 mg/L	7.8729	503.783 mg/L	7.8729	1.56%	
QC value within limits for Al		308.215	Recovery = 100.76%				
As 188.979†	805.6	0.962243 mg/L	0.0231680	0.962243 mg/L	0.0231680	2.41%	
QC value within limits for As		188.979	Recovery = 96.22%				
Ba 233.527†	50389.5	0.493688 mg/L	0.0021376	0.493688 mg/L	0.0021376	0.43%	
QC value within limits for Ba		233.527	Recovery = 98.74%				
Be 313.107†	1154174.6	0.484348 mg/L	0.0017070	0.484348 mg/L	0.0017070	0.35%	
QC value within limits for Be		313.107	Recovery = 96.87%				
Ca 315.887†	42174726.8	472.973 mg/L	10.4186	472.973 mg/L	10.4186	2.20%	
QC value within limits for Ca		315.887	Recovery = 94.59%				
Cd 228.802†	32471.5	0.999711 mg/L	0.0124425	0.999711 mg/L	0.0124425	1.24%	
QC value within limits for Cd		228.802	Recovery = 99.97%				
Co 228.616†	11412.4	0.460550 mg/L	0.0062128	0.460550 mg/L	0.0062128	1.35%	
QC value within limits for Co		228.616	Recovery = 92.11%				
Cr 267.716†	27697.0	0.483094 mg/L	0.0063499	0.483094 mg/L	0.0063499	1.31%	
QC value within limits for Cr		267.716	Recovery = 96.62%				
Cu 327.393†	58890.3	0.505866 mg/L	0.0009446	0.505866 mg/L	0.0009446	0.19%	
QC value within limits for Cu		327.393	Recovery = 101.17%				
Fe 273.955†	1539521.1	178.287 mg/L	0.7726	178.287 mg/L	0.7726	0.43%	
QC value within limits for Fe		273.955	Recovery = 89.14%				
K 404.721†	-1041.6	-9.76752 mg/L	0.794189	-9.76752 mg/L	0.794189	8.13%	
Mg 279.077†	5077809.2	491.168 mg/L	2.9354	491.168 mg/L	2.9354	0.60%	
QC value within limits for Mg		279.077	Recovery = 98.23%				
Mn 257.610†	164196.2	0.466369 mg/L	0.0014900	0.466369 mg/L	0.0014900	0.32%	
QC value within limits for Mn		257.610	Recovery = 93.27%				
Mo 202.031†	142.4	0.0072532 mg/L	0.00161106	0.0072532 mg/L	0.00161106	22.21%	
Na 330.237†	45.0	0.561089 mg/L	0.0400868	0.561089 mg/L	0.0400868	7.14%	
Ni 231.604†	29831.9	0.897437 mg/L	0.0126186	0.897437 mg/L	0.0126186	1.41%	
QC value within limits for Ni		231.604	Recovery = 89.74%				
Pb 220.353†	6907.2	0.910297 mg/L	0.0129149	0.910297 mg/L	0.0129149	1.42%	
QC value within limits for Pb		220.353	Recovery = 91.03%				
Sb 206.836†	867.4	0.975405 mg/L	0.0031848	0.975405 mg/L	0.0031848	0.33%	
QC value within limits for Sb		206.836	Recovery = 97.54%				
Se 196.026†	746.9	0.945344 mg/L	0.0121250	0.945344 mg/L	0.0121250	1.28%	
QC value within limits for Se		196.026	Recovery = 94.53%				
Sn 189.927†	-4.5	-0.0111110 mg/L	0.00010041	-0.0111110 mg/L	0.00010041	0.90%	
Ti 334.940†	205.2	-0.0002453 mg/L	0.00000640	-0.0002453 mg/L	0.00000640	2.61%	
Tl 190.801†	609.6	0.918717 mg/L	0.0193875	0.918717 mg/L	0.0193875	2.11%	
QC value within limits for Tl		190.801	Recovery = 91.87%				
V 290.880†	64636.2	0.460632 mg/L	0.0016835	0.460632 mg/L	0.0016835	0.37%	
QC value within limits for V		290.880	Recovery = 92.13%				
Zn 206.200†	21339.4	0.900252 mg/L	0.0134871	0.900252 mg/L	0.0134871	1.50%	
QC value within limits for Zn		206.200	Recovery = 90.03%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 12491 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 1/17/2012 11:51:15 AM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MB 12491 (1)

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1056991.5		102 %	0.2				0.15%
Y 371.029	408403.3		103 %	0.2				0.21%
Ag 328.068†	114.0	0.0004395	mg/L	0.00016671	0.0004395	mg/L	0.00016671	37.93%
Al 308.215†	220.3	-0.0008613	mg/L	0.00251523	-0.0008613	mg/L	0.00251523	292.02%
As 188.979†	0.6	0.0015537	mg/L	0.00107364	0.0015537	mg/L	0.00107364	69.10%
Ba 233.527†	66.4	-0.0016746	mg/L	0.00006644	-0.0016746	mg/L	0.00006644	3.97%
Be 313.107†	265.1	-0.0001656	mg/L	0.00000283	-0.0001656	mg/L	0.00000283	1.71%
Ca 315.887†	8828.0	0.0635637	mg/L	0.00283721	0.0635637	mg/L	0.00283721	4.46%
Cd 228.802†	-4.9	-0.0007507	mg/L	0.00022397	-0.0007507	mg/L	0.00022397	29.83%
Co 228.616†	2.2	-0.0024242	mg/L	0.00016616	-0.0024242	mg/L	0.00016616	6.85%
Cr 267.716†	-1.9	-0.0015396	mg/L	0.00006200	-0.0015396	mg/L	0.00006200	4.03%
Cu 327.393†	487.1	0.0017874	mg/L	0.00074213	0.0017874	mg/L	0.00074213	41.52%
Fe 273.955†	387.6	0.0209642	mg/L	0.00006026	0.0209642	mg/L	0.00006026	0.29%
K 404.721†	4.9	1.01841	mg/L	0.099078	1.01841	mg/L	0.099078	9.73%
Mg 279.077†	620.2	-0.0376432	mg/L	0.00121607	-0.0376432	mg/L	0.00121607	3.23%
Mn 257.610†	201.2	-0.0015025	mg/L	0.00004017	-0.0015025	mg/L	0.00004017	2.67%
Mo 202.031†	-0.2	-0.0001984	mg/L	0.00047858	-0.0001984	mg/L	0.00047858	241.22%
Na 330.237†	3.8	0.515848	mg/L	0.0342076	0.515848	mg/L	0.0342076	6.63%
Ni 231.604†	1.5	-0.0025421	mg/L	0.00026494	-0.0025421	mg/L	0.00026494	10.42%
Pb 220.353†	-48.8	-0.0051165	mg/L	0.00047867	-0.0051165	mg/L	0.00047867	9.36%
Sb 206.836†	-4.5	-0.0048723	mg/L	0.00107232	-0.0048723	mg/L	0.00107232	22.01%
Se 196.026†	-2.5	0.0005361	mg/L	0.00340387	0.0005361	mg/L	0.00340387	634.97%
Sn 189.927†	38.9	0.0259833	mg/L	0.00411893	0.0259833	mg/L	0.00411893	15.85%
Ti 334.940†	-85.4	-0.0007853	mg/L	0.00013638	-0.0007853	mg/L	0.00013638	17.37%
Tl 190.801†	1.2	-0.0014534	mg/L	0.00191494	-0.0014534	mg/L	0.00191494	131.75%
V 290.880†	-18.9	-0.0023079	mg/L	0.00052665	-0.0023079	mg/L	0.00052665	22.82%
Zn 206.200†	293.2	0.0118600	mg/L	0.00004534	0.0118600	mg/L	0.00004534	0.38%

Sequence No.: 12

Sample ID: LCSW 12491

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 1/17/2012 11:54:55 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW 12491

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	1023860.0	99.0	%	1.29			1.30%	
Y 371.029	392054.8	98.9	%	1.24			1.26%	
Ag 328.068†	13679.5	0.0956386	mg/L	0.00019813	0.0956386	mg/L	0.00019813	0.21%
Al 308.215†	130410.8	4.99395	mg/L	0.031261	4.99395	mg/L	0.031261	0.63%
As 188.979†	420.5	0.490748	mg/L	0.0063592	0.490748	mg/L	0.0063592	1.30%
Ba 233.527†	53025.8	0.519638	mg/L	0.0029025	0.519638	mg/L	0.0029025	0.56%
Be 313.107†	1230549.4	0.516033	mg/L	0.0022991	0.516033	mg/L	0.0022991	0.45%
Ca 315.887†	4619437.3	51.7736	mg/L	0.14925	51.7736	mg/L	0.14925	0.29%
Cd 228.802†	16275.6	0.502166	mg/L	0.0013133	0.502166	mg/L	0.0013133	0.26%
Co 228.616†	13174.4	0.524282	mg/L	0.0035125	0.524282	mg/L	0.0035125	0.67%
Cr 267.716†	29800.3	0.516587	mg/L	0.0032442	0.516587	mg/L	0.0032442	0.63%
Cu 327.393†	58421.1	0.518412	mg/L	0.0021516	0.518412	mg/L	0.0021516	0.42%
Fe 273.955†	43036.4	4.97584	mg/L	0.023783	4.97584	mg/L	0.023783	0.48%
K 404.721†	4548.7	47.8529	mg/L	0.22489	47.8529	mg/L	0.22489	0.47%
Mg 279.077†	533357.8	51.5034	mg/L	0.11261	51.5034	mg/L	0.11261	0.22%
Mn 257.610†	178882.9	0.499833	mg/L	0.0030156	0.499833	mg/L	0.0030156	0.60%
Mo 202.031†	6116.8	0.498352	mg/L	0.0062033	0.498352	mg/L	0.0062033	1.24%
Na 330.237†	43093.6	47.8813	mg/L	0.27750	47.8813	mg/L	0.27750	0.58%
Ni 231.604†	17163.5	0.515670	mg/L	0.0028862	0.515670	mg/L	0.0028862	0.56%
Pb 220.353†	4071.7	0.498510	mg/L	0.0038934	0.498510	mg/L	0.0038934	0.78%
Sb 206.836†	489.2	0.488469	mg/L	0.0083759	0.488469	mg/L	0.0083759	1.71%
Se 196.026†	386.6	0.503903	mg/L	0.0089151	0.503903	mg/L	0.0089151	1.77%
Sn 189.927†	705.9	0.485276	mg/L	0.0005615	0.485276	mg/L	0.0005615	0.12%
Ti 334.940†	289287.9	0.536965	mg/L	0.0034807	0.536965	mg/L	0.0034807	0.65%
Tl 190.801†	369.0	0.544899	mg/L	0.0094956	0.544899	mg/L	0.0094956	1.74%
V 290.880†	65829.8	0.509626	mg/L	0.0035501	0.509626	mg/L	0.0035501	0.70%
Zn 206.200†	12033.7	0.514412	mg/L	0.0018668	0.514412	mg/L	0.0018668	0.36%

Sequence No.: 13

Sample ID: LCSW MR 12491

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 1/17/2012 11:58:39 AM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: LCSW MR 12491

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1012837.3	97.9	%	0.37				0.37%
Y 371.029	387799.8	97.8	%	0.25				0.26%
Ag 328.068†	13332.4	0.0931968	mg/L	0.00183355	0.0931968	mg/L	0.00183355	1.97%
Al 308.215†	127240.4	4.87241	mg/L	0.107137	4.87241	mg/L	0.107137	2.20%
As 188.979†	406.8	0.474845	mg/L	0.0004379	0.474845	mg/L	0.0004379	0.09%
Ba 233.527†	51744.8	0.507028	mg/L	0.0099131	0.507028	mg/L	0.0099131	1.96%
Be 313.107†	1181854.0	0.495598	mg/L	0.0065923	0.495598	mg/L	0.0065923	1.33%
Ca 315.887†	4393427.2	49.2388	mg/L	0.69768	49.2388	mg/L	0.69768	1.42%
Cd 228.802†	15823.9	0.488212	mg/L	0.0105022	0.488212	mg/L	0.0105022	2.15%
Co 228.616†	12787.5	0.508810	mg/L	0.0117891	0.508810	mg/L	0.0117891	2.32%
Cr 267.716†	29001.0	0.502667	mg/L	0.0098752	0.502667	mg/L	0.0098752	1.96%
Cu 327.393†	57198.6	0.507547	mg/L	0.0096568	0.507547	mg/L	0.0096568	1.90%
Fe 273.955†	41764.3	4.82767	mg/L	0.102599	4.82767	mg/L	0.102599	2.13%
K 404.721†	4410.9	46.4331	mg/L	0.51823	46.4331	mg/L	0.51823	1.12%
Mg 279.077†	507654.5	49.0167	mg/L	0.74088	49.0167	mg/L	0.74088	1.51%
Mn 257.610†	174103.5	0.486422	mg/L	0.0098297	0.486422	mg/L	0.0098297	2.02%
Mo 202.031†	5908.5	0.481390	mg/L	0.0019476	0.481390	mg/L	0.0019476	0.40%
Na 330.237†	42143.1	46.8365	mg/L	1.15092	46.8365	mg/L	1.15092	2.46%
Ni 231.604†	16623.8	0.499375	mg/L	0.0123946	0.499375	mg/L	0.0123946	2.48%
Pb 220.353†	3923.9	0.480455	mg/L	0.0029861	0.480455	mg/L	0.0029861	0.62%
Sb 206.836†	472.1	0.471364	mg/L	0.0057194	0.471364	mg/L	0.0057194	1.21%
Se 196.026†	367.6	0.479287	mg/L	0.0130087	0.479287	mg/L	0.0130087	2.71%
Sn 189.927†	672.7	0.462380	mg/L	0.0026228	0.462380	mg/L	0.0026228	0.57%
Ti 334.940†	280089.0	0.519870	mg/L	0.0050769	0.519870	mg/L	0.0050769	0.98%
Tl 190.801†	361.0	0.533001	mg/L	0.0048448	0.533001	mg/L	0.0048448	0.91%
V 290.880†	64257.0	0.497486	mg/L	0.0100754	0.497486	mg/L	0.0100754	2.03%
Zn 206.200†	11613.3	0.496434	mg/L	0.0019361	0.496434	mg/L	0.0019361	0.39%

Sequence No.: 14  
 Sample ID: 63081-028 10D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 26  
 Date Collected: 1/17/2012 12:02:27 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-028 10D

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1022724.8	98.9	%	2.74				2.77%
Y 371.029	393044.5	99.1	%	2.73				2.76%
Ag 328.068†	145.9	0.0007539	mg/L	0.00023145	0.0007539	mg/L	0.00023145	30.70%
Al 308.215†	762.4	0.0198667	mg/L	0.00355006	0.0198667	mg/L	0.00355006	17.87%
As 188.979†	0.5	0.0011757	mg/L	0.00127910	0.0011757	mg/L	0.00127910	108.79%
Ba 233.527†	14862.8	0.143975	mg/L	0.0033178	0.143975	mg/L	0.0033178	2.30%
Be 313.107†	370.5	-0.0001212	mg/L	0.00003280	-0.0001212	mg/L	0.00003280	27.07%
Ca 315.887†	2292845.2	25.6799	mg/L	0.76430	25.6799	mg/L	0.76430	2.98%
Cd 228.802†	15.9	-0.0001118	mg/L	0.00009092	-0.0001118	mg/L	0.00009092	81.36%
Co 228.616†	195.8	0.0053248	mg/L	0.00066130	0.0053248	mg/L	0.00066130	12.42%
Cr 267.716†	-3.6	-0.0013379	mg/L	0.00013902	-0.0013379	mg/L	0.00013902	10.39%
Cu 327.393†	14168.3	0.123846	mg/L	0.0029685	0.123846	mg/L	0.0029685	2.40%
Fe 273.955†	2346.3	0.247934	mg/L	0.0028470	0.247934	mg/L	0.0028470	1.15%
K 404.721†	-31.5	0.643575	mg/L	0.5842909	0.643575	mg/L	0.5842909	90.79%
Mg 279.077†	9780.2	0.848564	mg/L	0.0059982	0.848564	mg/L	0.0059982	0.71%
Mn 257.610†	110936.5	0.308987	mg/L	0.0077730	0.308987	mg/L	0.0077730	2.52%
Mo 202.031†	59.0	0.0040802	mg/L	0.00050002	0.0040802	mg/L	0.00050002	12.26%
Na 330.237†	126475.8	139.537	mg/L	3.3816	139.537	mg/L	3.3816	2.42%
Ni 231.604†	405.2	0.0096428	mg/L	0.00019950	0.0096428	mg/L	0.00019950	2.07%
Pb 220.353†	131405.1	16.0498	mg/L	0.40334	16.0498	mg/L	0.40334	2.51%
Sb 206.836†	3.0	0.0024648	mg/L	0.00142187	0.0024648	mg/L	0.00142187	57.69%
Se 196.026†	2.4	0.0059677	mg/L	0.00917005	0.0059677	mg/L	0.00917005	153.66%
Sn 189.927†	-4.4	-0.0037657	mg/L	0.00179556	-0.0037657	mg/L	0.00179556	47.68%
Ti 334.940†	-216.3	-0.0010285	mg/L	0.00004970	-0.0010285	mg/L	0.00004970	4.83%
Tl 190.801†	1.9	-0.0007796	mg/L	0.00314237	-0.0007796	mg/L	0.00314237	403.05%
V 290.880†	67.5	-0.0017001	mg/L	0.00012099	-0.0017001	mg/L	0.00012099	7.12%
Zn 206.200†	10978.4	0.470680	mg/L	0.0131370	0.470680	mg/L	0.0131370	2.79%

Sequence No.: 15

Sample ID: 63081-028 MR 10D

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 27

Date Collected: 1/17/2012 12:06:09 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-028 MR 10D

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	996774.7		96.4 %	1.18			1.23%
Y 371.029	383614.4		96.8 %	1.20			1.24%
Ag 328.068†	103.2	0.0004579	mg/L	0.00003558	0.0004579	mg/L	0.00003558 7.77%
Al 308.215†	952.6	0.0271860	mg/L	0.00045918	0.0271860	mg/L	0.00045918 1.69%
As 188.979†	2.7	0.0037260	mg/L	0.00015926	0.0037260	mg/L	0.00015926 4.27%
Ba 233.527†	15821.4	0.153412	mg/L	0.0023626	0.153412	mg/L	0.0023626 1.54%
Be 313.107†	230.9	-0.0001798	mg/L	0.00000688	-0.0001798	mg/L	0.00000688 3.82%
Ca 315.887†	2414097.1	27.0397	mg/L	0.28234	27.0397	mg/L	0.28234 1.04%
Cd 228.802†	17.1	-0.0000757	mg/L	0.00031391	-0.0000757	mg/L	0.00031391 414.45%
Co 228.616†	217.9	0.0062060	mg/L	0.00005075	0.0062060	mg/L	0.00005075 0.82%
Cr 267.716†	-4.8	-0.0013500	mg/L	0.00000585	-0.0013500	mg/L	0.00000585 0.43%
Cu 327.393†	14848.5	0.129914	mg/L	0.0019115	0.129914	mg/L	0.0019115 1.47%
Fe 273.955†	2219.9	0.233325	mg/L	0.0104832	0.233325	mg/L	0.0104832 4.49%
K 404.721†	-8.4	0.881477	mg/L	0.3347447	0.881477	mg/L	0.3347447 37.98%
Mg 279.077†	10152.9	0.884621	mg/L	0.0007704	0.884621	mg/L	0.0007704 0.09%
Mn 257.610†	118086.1	0.329032	mg/L	0.0049635	0.329032	mg/L	0.0049635 1.51%
Mo 202.031†	53.9	0.0036321	mg/L	0.00009829	0.0036321	mg/L	0.00009829 2.71%
Na 330.237†	135390.7	149.337	mg/L	1.8539	149.337	mg/L	1.8539 1.24%
Ni 231.604†	428.6	0.0103479	mg/L	0.00001027	0.0103479	mg/L	0.00001027 0.10%
Pb 220.353†	140581.7	17.1706	mg/L	0.22646	17.1706	mg/L	0.22646 1.32%
Sb 206.836†	-1.1	-0.0016631	mg/L	0.00031321	-0.0016631	mg/L	0.00031321 18.83%
Se 196.026†	-1.4	0.0010065	mg/L	0.00405245	0.0010065	mg/L	0.00405245 402.64%
Sn 189.927†	-5.4	-0.0045027	mg/L	0.00044437	-0.0045027	mg/L	0.00044437 9.87%
Ti 334.940†	-168.0	-0.0009388	mg/L	0.00003473	-0.0009388	mg/L	0.00003473 3.70%
Tl 190.801†	0.5	-0.0029891	mg/L	0.00123741	-0.0029891	mg/L	0.00123741 41.40%
V 290.880†	130.9	-0.0012074	mg/L	0.00035666	-0.0012074	mg/L	0.00035666 29.54%
Zn 206.200†	11732.7	0.503072	mg/L	0.0058668	0.503072	mg/L	0.0058668 1.17%

Sequence No.: 16

Sample ID: 63081-028 TCLP SPK 10D

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 28

Date Collected: 1/17/2012 12:09:51 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63081-028 TCLP SPK 10D

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1002148.6	96.9	%	0.40				0.41%
Y 371.029	385368.0	97.2	%	0.30				0.31%
Ag 328.068†	1407.3	0.0096074	mg/L	0.00041936	0.0096074	mg/L	0.00041936	4.36%
Al 308.215†	13627.6	0.513474	mg/L	0.0110325	0.513474	mg/L	0.0110325	2.15%
As 188.979†	42.1	0.0496095	mg/L	0.00207518	0.0496095	mg/L	0.00207518	4.18%
Ba 233.527†	67496.1	0.662078	mg/L	0.0109952	0.662078	mg/L	0.0109952	1.66%
Be 313.107†	118816.0	0.0495749	mg/L	0.00086816	0.0495749	mg/L	0.00086816	1.75%
Ca 315.887†	2789487.1	31.2499	mg/L	0.55430	31.2499	mg/L	0.55430	1.77%
Cd 228.802†	1643.4	0.0501629	mg/L	0.00039628	0.0501629	mg/L	0.00039628	0.79%
Co 228.616†	1527.9	0.0585847	mg/L	0.00041911	0.0585847	mg/L	0.00041911	0.72%
Cr 267.716†	2912.3	0.0493541	mg/L	0.00054131	0.0493541	mg/L	0.00054131	1.10%
Cu 327.393†	20023.6	0.176060	mg/L	0.0030014	0.176060	mg/L	0.0030014	1.70%
Fe 273.955†	6277.4	0.704749	mg/L	0.0080214	0.704749	mg/L	0.0080214	1.14%
K 404.721†	436.1	5.46299	mg/L	1.118550	5.46299	mg/L	1.118550	20.48%
Mg 279.077†	61720.0	5.87362	mg/L	0.115449	5.87362	mg/L	0.115449	1.97%
Mn 257.610†	130820.1	0.364769	mg/L	0.0059180	0.364769	mg/L	0.0059180	1.62%
Mo 202.031†	647.2	0.0520069	mg/L	0.00031199	0.0520069	mg/L	0.00031199	0.60%
Na 330.237†	135466.3	149.420	mg/L	2.8581	149.420	mg/L	2.8581	1.91%
Ni 231.604†	2148.7	0.0622864	mg/L	0.00016872	0.0622864	mg/L	0.00016872	0.27%
Pb 220.353†	137091.1	16.7443	mg/L	0.30465	16.7443	mg/L	0.30465	1.82%
Sb 206.836†	47.3	0.0466931	mg/L	0.00576938	0.0466931	mg/L	0.00576938	12.36%
Se 196.026†	42.6	0.0579592	mg/L	0.00439653	0.0579592	mg/L	0.00439653	7.59%
Sn 189.927†	66.3	0.0448771	mg/L	0.00100330	0.0448771	mg/L	0.00100330	2.24%
Ti 334.940†	28305.6	0.0519744	mg/L	0.00084442	0.0519744	mg/L	0.00084442	1.62%
Tl 190.801†	34.3	0.0473408	mg/L	0.00078355	0.0473408	mg/L	0.00078355	1.66%
V 290.880†	6764.5	0.0503781	mg/L	0.00138478	0.0503781	mg/L	0.00138478	2.75%
Zn 206.200†	12348.1	0.529341	mg/L	0.0105875	0.529341	mg/L	0.0105875	2.00%

Sequence No.: 17  
 Sample ID: 63081-028 PS 10D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 29  
 Date Collected: 1/17/2012 12:13:33 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-028 PS 10D

Analyte	Mean Corrected		Calib	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	1004999.9	97.2 %		0.15			0.15%
Y 371.029	385690.4	97.3 %		0.24			0.25%
Ag 328.068†	9626.7	0.0673076 mg/L		0.00082925	0.0673076 mg/L	0.00082925	1.23%
Al 308.215†	133873.9	5.12640 mg/L		0.041635	5.12640 mg/L	0.041635	0.81%
As 188.979†	436.0	0.508584 mg/L		0.0001754	0.508584 mg/L	0.0001754	0.03%
Ba 233.527†	530198.6	5.21675 mg/L		0.043806	5.21675 mg/L	0.043806	0.84%
Be 313.107†	1246963.8	0.522888 mg/L		0.0044346	0.522888 mg/L	0.0044346	0.85%
Ca 315.887†	6969904.8	78.1352 mg/L		0.68410	78.1352 mg/L	0.68410	0.88%
Cd 228.802†	16741.8	0.516565 mg/L		0.0050113	0.516565 mg/L	0.0050113	0.97%
Co 228.616†	13754.6	0.547470 mg/L		0.0058158	0.547470 mg/L	0.0058158	1.06%
Cr 267.716†	30628.2	0.531314 mg/L		0.0061258	0.531314 mg/L	0.0061258	1.15%
Cu 327.393†	72924.7	0.647785 mg/L		0.0035224	0.647785 mg/L	0.0035224	0.54%
Fe 273.955†	45079.3	5.21286 mg/L		0.058829	5.21286 mg/L	0.058829	1.13%
K 404.721†	5047.5	52.9938 mg/L		0.05698	52.9938 mg/L	0.05698	0.11%
Mg 279.077†	550542.3	53.1659 mg/L		0.47410	53.1659 mg/L	0.47410	0.89%
Mn 257.610†	292086.4	0.817252 mg/L		0.0088279	0.817252 mg/L	0.0088279	1.08%
Mo 202.031†	6565.2	0.534396 mg/L		0.0006891	0.534396 mg/L	0.0006891	0.13%
Na 330.237†	184076.5	202.853 mg/L		1.4422	202.853 mg/L	1.4422	0.71%
Ni 231.604†	18022.5	0.541620 mg/L		0.0063520	0.541620 mg/L	0.0063520	1.17%
Pb 220.353†	169260.8	20.6737 mg/L		0.23604	20.6737 mg/L	0.23604	1.14%
Sb 206.836†	522.5	0.521469 mg/L		0.0001905	0.521469 mg/L	0.0001905	0.04%
Se 196.026†	403.1	0.524244 mg/L		0.0104249	0.524244 mg/L	0.0104249	1.99%
Sn 189.927†	737.8	0.507270 mg/L		0.0035681	0.507270 mg/L	0.0035681	0.70%
Ti 334.940†	317441.4	0.589283 mg/L		0.0048350	0.589283 mg/L	0.0048350	0.82%
Tl 190.801†	375.0	0.553805 mg/L		0.0016661	0.553805 mg/L	0.0016661	0.30%
V 290.880†	67295.9	0.521046 mg/L		0.0061807	0.521046 mg/L	0.0061807	1.19%
Zn 206.200†	23339.3	0.999851 mg/L		0.0144087	0.999851 mg/L	0.0144087	1.44%

Sequence No.: 18

Autosampler Location: 6

Sample ID: CCV V-130872

Date Collected: 1/17/2012 12:17:21 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-130872

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	1004487.1		97.1 %	0.53			0.55%
Y 371.029	385638.8		97.3 %	0.50			0.51%
Ag 328.068†	13246.3	0.0926035 mg/L		0.00080827	0.0926035 mg/L	0.00080827	0.87%
QC value within limits for Ag			Recovery = 92.60%				
Al 308.215†	128345.8	4.91500 mg/L		0.044620	4.91500 mg/L	0.044620	0.91%
QC value within limits for Al			Recovery = 98.30%				
As 188.979†	412.7	0.481707 mg/L		0.0020417	0.481707 mg/L	0.0020417	0.42%
QC value within limits for As			Recovery = 96.34%				
Ba 233.527†	52867.5	0.518079 mg/L		0.0041947	0.518079 mg/L	0.0041947	0.81%
QC value within limits for Ba			Recovery = 103.62%				
Be 313.107†	1206491.8	0.505933 mg/L		0.0027315	0.505933 mg/L	0.0027315	0.54%
QC value within limits for Be			Recovery = 101.19%				
Ca 315.887†	4518072.0	50.6368 mg/L		0.23359	50.6368 mg/L	0.23359	0.46%
QC value within limits for Ca			Recovery = 101.27%				
Cd 228.802†	16031.3	0.494619 mg/L		0.0038516	0.494619 mg/L	0.0038516	0.78%
QC value within limits for Cd			Recovery = 98.92%				
Co 228.616†	13101.1	0.521300 mg/L		0.0047935	0.521300 mg/L	0.0047935	0.92%
QC value within limits for Co			Recovery = 104.26%				
Cr 267.716†	29548.3	0.512104 mg/L		0.0047770	0.512104 mg/L	0.0047770	0.93%
QC value within limits for Cr			Recovery = 102.42%				
Cu 327.393†	56856.0	0.504434 mg/L		0.0044866	0.504434 mg/L	0.0044866	0.89%
QC value within limits for Cu			Recovery = 100.89%				
Fe 273.955†	41832.9	4.83642 mg/L		0.043781	4.83642 mg/L	0.043781	0.91%
QC value within limits for Fe			Recovery = 96.73%				
K 404.721†	4484.6	47.1927 mg/L		0.64913	47.1927 mg/L	0.64913	1.38%
QC value within limits for K			Recovery = 94.39%				
Mg 279.077†	528739.4	51.0566 mg/L		0.23130	51.0566 mg/L	0.23130	0.45%
QC value within limits for Mg			Recovery = 102.11%				
Mn 257.610†	175527.2	0.490414 mg/L		0.0045590	0.490414 mg/L	0.0045590	0.93%
QC value within limits for Mn			Recovery = 98.08%				
Mo 202.031†	5879.8	0.479015 mg/L		0.0033738	0.479015 mg/L	0.0033738	0.70%
QC value within limits for Mo			Recovery = 95.80%				
Na 330.237†	42569.1	47.3047 mg/L		0.38989	47.3047 mg/L	0.38989	0.82%
QC value within limits for Na			Recovery = 94.61%				
Ni 231.604†	17077.1	0.513047 mg/L		0.0042782	0.513047 mg/L	0.0042782	0.83%
QC value within limits for Ni			Recovery = 102.61%				
Pb 220.353†	4213.6	0.515819 mg/L		0.0010606	0.515819 mg/L	0.0010606	0.21%
QC value within limits for Pb			Recovery = 103.16%				
Sb 206.836†	461.9	0.461256 mg/L		0.0021703	0.461256 mg/L	0.0021703	0.47%
QC value within limits for Sb			Recovery = 92.25%				
Se 196.026†	383.8	0.500229 mg/L		0.0011506	0.500229 mg/L	0.0011506	0.23%
QC value within limits for Se			Recovery = 100.05%				
Sn 189.927†	666.8	0.458330 mg/L		0.0032698	0.458330 mg/L	0.0032698	0.71%
QC value within limits for Sn			Recovery = 91.67%				
Ti 334.940†	288015.2	0.534600 mg/L		0.0034482	0.534600 mg/L	0.0034482	0.65%
QC value within limits for Ti			Recovery = 106.92%				
Tl 190.801†	365.1	0.539160 mg/L		0.0036644	0.539160 mg/L	0.0036644	0.68%
QC value within limits for Tl			Recovery = 107.83%				
V 290.880†	64913.2	0.502467 mg/L		0.0036836	0.502467 mg/L	0.0036836	0.73%
QC value within limits for V			Recovery = 100.49%				
Zn 206.200†	11878.9	0.507778 mg/L		0.0035549	0.507778 mg/L	0.0035549	0.70%
QC value within limits for Zn			Recovery = 101.56%				

All analyte(s) passed QC.

Sequence No.: 19

Autosampler Location: 2

Sample ID: CCB

Date Collected: 1/17/2012 12:21:07 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1034529.8	100	%	1.1				1.06%
Y 371.029	402796.4	102	%	1.0				1.03%
Ag 328.068†	45.4	-0.0000439	mg/L	0.00019933	-0.0000439	mg/L	0.00019933	454.40%
QC value within limits for Ag 328.068			Recovery =	Not calculated				
Al 308.215†	-293.6	-0.0206244	mg/L	0.00045635	-0.0206244	mg/L	0.00045635	2.21%
QC value within limits for Al 308.215			Recovery =	Not calculated				
As 188.979†	-5.0	-0.0049673	mg/L	0.00452007	-0.0049673	mg/L	0.00452007	91.00%
QC value within limits for As 188.979			Recovery =	Not calculated				
Ba 233.527†	42.6	-0.0019090	mg/L	0.00002100	-0.0019090	mg/L	0.00002100	1.10%
QC value within limits for Ba 233.527			Recovery =	Not calculated				
Be 313.107†	322.1	-0.0001419	mg/L	0.00001932	-0.0001419	mg/L	0.00001932	13.61%
QC value within limits for Be 313.107			Recovery =	Not calculated				
Ca 315.887†	3853.1	0.0077672	mg/L	0.00299985	0.0077672	mg/L	0.00299985	38.62%
QC value within limits for Ca 315.887			Recovery =	Not calculated				
Cd 228.802†	10.2	-0.0002848	mg/L	0.00037907	-0.0002848	mg/L	0.00037907	133.10%
QC value within limits for Cd 228.802			Recovery =	Not calculated				
Co 228.616†	6.2	-0.0022647	mg/L	0.00048499	-0.0022647	mg/L	0.00048499	21.42%
QC value within limits for Co 228.616			Recovery =	Not calculated				
Cr 267.716†	-13.9	-0.0017458	mg/L	0.00015142	-0.0017458	mg/L	0.00015142	8.67%
QC value within limits for Cr 267.716			Recovery =	Not calculated				
Cu 327.393†	591.1	0.0027190	mg/L	0.00030147	0.0027190	mg/L	0.00030147	11.09%
QC value within limits for Cu 327.393			Recovery =	Not calculated				
Fe 273.955†	79.7	-0.0146644	mg/L	0.00319615	-0.0146644	mg/L	0.00319615	21.80%
QC value within limits for Fe 273.955			Recovery =	Not calculated				
K 404.721†	15.5	1.12778	mg/L	0.063337	1.12778	mg/L	0.063337	5.62%
QC value within limits for K 404.721			Recovery =	Not calculated				
Mg 279.077†	221.3	-0.0762324	mg/L	0.00429581	-0.0762324	mg/L	0.00429581	5.64%
QC value within limits for Mg 279.077			Recovery =	Not calculated				
Mn 257.610†	34.9	-0.0019702	mg/L	0.00001063	-0.0019702	mg/L	0.00001063	0.54%
QC value within limits for Mn 257.610			Recovery =	Not calculated				
Mo 202.031†	6.0	0.0003129	mg/L	0.00008736	0.0003129	mg/L	0.00008736	27.92%
QC value within limits for Mo 202.031			Recovery =	Not calculated				
Na 330.237†	37.0	0.552282	mg/L	0.0768481	0.552282	mg/L	0.0768481	13.91%
QC value within limits for Na 330.237			Recovery =	Not calculated				
Ni 231.604†	20.0	-0.0019834	mg/L	0.00009441	-0.0019834	mg/L	0.00009441	4.76%
QC value within limits for Ni 231.604			Recovery =	Not calculated				
Pb 220.353†	54.4	0.0074919	mg/L	0.00016968	0.0074919	mg/L	0.00016968	2.26%
QC value within limits for Pb 220.353			Recovery =	Not calculated				
Sb 206.836†	0.1	-0.0002975	mg/L	0.00060446	-0.0002975	mg/L	0.00060446	203.20%
QC value within limits for Sb 206.836			Recovery =	Not calculated				
Se 196.026†	-1.9	0.0013527	mg/L	0.00540878	0.0013527	mg/L	0.00540878	399.84%
QC value within limits for Se 196.026			Recovery =	Not calculated				
Sn 189.927†	7.8	0.0045437	mg/L	0.00196609	0.0045437	mg/L	0.00196609	43.27%
QC value within limits for Sn 189.927			Recovery =	Not calculated				
Ti 334.940†	95.5	-0.0004491	mg/L	0.00004685	-0.0004491	mg/L	0.00004685	10.43%
QC value within limits for Ti 334.940			Recovery =	Not calculated				
Tl 190.801†	2.5	0.0003920	mg/L	0.00053946	0.0003920	mg/L	0.00053946	137.60%
QC value within limits for Tl 190.801			Recovery =	Not calculated				
V 290.880†	-115.0	-0.0030544	mg/L	0.00009505	-0.0030544	mg/L	0.00009505	3.11%
QC value within limits for V 290.880			Recovery =	Not calculated				
Zn 206.200†	-0.9	-0.0007676	mg/L	0.00007661	-0.0007676	mg/L	0.00007661	9.98%
QC value within limits for Zn 206.200			Recovery =	Not calculated				

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: 63081-047  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 1/17/2012 12:24:46 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-047

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	908162.9	87.8 %	%	0.57			0.65%
Y 371.029	356741.9	90.0 %	%	0.50			0.55%
Ag 328.068†	-247.8	0.0014301 mg/L	mg/L	0.00027811	0.0014301 mg/L	0.00027811	19.45%
Al 308.215†	7820.5	0.290996 mg/L	mg/L	0.0045644	0.290996 mg/L	0.0045644	1.57%
As 188.979†	163.4	0.196968 mg/L	mg/L	0.0101946	0.196968 mg/L	0.0101946	5.18%
Ba 233.527†	80669.8	0.791756 mg/L	mg/L	0.0032658	0.791756 mg/L	0.0032658	0.41%
Be 313.107†	401.4	-0.0001080 mg/L	mg/L	0.00000752	-0.0001080 mg/L	0.00000752	6.96%
Ca 315.887†	20761525.3	232.814 mg/L	mg/L	0.1839	232.814 mg/L	0.1839	0.08%
Cd 228.802†	510.8	0.0143284 mg/L	mg/L	0.00084824	0.0143284 mg/L	0.00084824	5.92%
Co 228.616†	1434.6	0.0548327 mg/L	mg/L	0.00084136	0.0548327 mg/L	0.00084136	1.53%
Cr 267.716†	328.8	0.0072151 mg/L	mg/L	0.00023284	0.0072151 mg/L	0.00023284	3.23%
Cu 327.393†	962.4	0.0032837 mg/L	mg/L	0.00007949	0.0032837 mg/L	0.00007949	2.42%
Fe 273.955†	450596.8	52.1102 mg/L	mg/L	0.17839	52.1102 mg/L	0.17839	0.34%
K 404.721†	326.6	4.33494 mg/L	mg/L	0.421022	4.33494 mg/L	0.421022	9.71%
Mg 279.077†	60807.2	5.78531 mg/L	mg/L	0.013649	5.78531 mg/L	0.013649	0.24%
Mn 257.610†	680720.3	1.90889 mg/L	mg/L	0.007324	1.90889 mg/L	0.007324	0.38%
Mo 202.031†	156.1	0.0074878 mg/L	mg/L	0.00011669	0.0074878 mg/L	0.00011669	1.56%
Na 330.237†	1468274.9	1614.48 mg/L	mg/L	10.510	1614.48 mg/L	10.510	0.65%
Ni 231.604†	3856.3	0.113768 mg/L	mg/L	0.0021120	0.113768 mg/L	0.0021120	1.86%
Pb 220.353†	123705.3	15.1054 mg/L	mg/L	0.04802	15.1054 mg/L	0.04802	0.32%
Sb 206.836†	-13.7	-0.0087217 mg/L	mg/L	0.00245231	-0.0087217 mg/L	0.00245231	28.12%
Se 196.026†	3.8	0.0119291 mg/L	mg/L	0.00042047	0.0119291 mg/L	0.00042047	3.52%
Sn 189.927†	-0.4	-0.0022377 mg/L	mg/L	0.00687322	-0.0022377 mg/L	0.00687322	307.16%
Ti 334.940†	-359.4	-0.0012944 mg/L	mg/L	0.00000742	-0.0012944 mg/L	0.00000742	0.57%
Tl 190.801†	-5.7	-0.0113079 mg/L	mg/L	0.00161311	-0.0113079 mg/L	0.00161311	14.27%
V 290.880†	1146.0	0.0049567 mg/L	mg/L	0.00028565	0.0049567 mg/L	0.00028565	5.76%
Zn 206.200†	219355.1	9.41874 mg/L	mg/L	0.025556	9.41874 mg/L	0.025556	0.27%

Sequence No.: 21

Sample ID: 63081-047 SD

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 46

Date Collected: 1/17/2012 12:28:37 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: 63081-047 SD

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	976640.0	94.4	%	2.15			2.28%
Y 371.029	377635.1	95.2	%	2.01			2.12%
Ag 328.068†	-17.6	0.0002528	mg/L	0.00005063	0.0002528	mg/L	0.00005063 20.02%
Al 308.215†	1791.5	0.0593927	mg/L	0.01002637	0.0593927	mg/L	0.01002637 16.88%
As 188.979†	29.9	0.0369039	mg/L	0.00125276	0.0369039	mg/L	0.00125276 3.39%
Ba 233.527†	16727.4	0.162330	mg/L	0.0047598	0.162330	mg/L	0.0047598 2.93%
Be 313.107†	247.6	-0.0001730	mg/L	0.00000665	-0.0001730	mg/L	0.00000665 3.84%
Ca 315.887†	4364972.0	48.9197	mg/L	1.53073	48.9197	mg/L	1.53073 3.13%
Cd 228.802†	115.2	0.0027828	mg/L	0.00078072	0.0027828	mg/L	0.00078072 28.06%
Co 228.616†	290.4	0.0091087	mg/L	0.00027187	0.0091087	mg/L	0.00027187 2.98%
Cr 267.716†	59.4	0.0001750	mg/L	0.00002814	0.0001750	mg/L	0.00002814 16.08%
Cu 327.393†	347.6	-0.0000382	mg/L	0.00078089	-0.0000382	mg/L	0.00078089 >999.9%
Fe 273.955†	94375.0	10.8953	mg/L	0.31578	10.8953	mg/L	0.31578 2.90%
K 404.721†	-73.6	0.209971	mg/L	0.1507558	0.209971	mg/L	0.1507558 71.80%
Mg 279.077†	12923.0	1.15262	mg/L	0.020645	1.15262	mg/L	0.020645 1.79%
Mn 257.610†	141534.4	0.395259	mg/L	0.0115416	0.395259	mg/L	0.0115416 2.92%
Mo 202.031†	77.4	0.0050791	mg/L	0.00010503	0.0050791	mg/L	0.00010503 2.07%
Na 330.237†	260943.1	287.347	mg/L	8.9181	287.347	mg/L	8.9181 3.10%
Ni 231.604†	842.3	0.0228302	mg/L	0.00056518	0.0228302	mg/L	0.00056518 2.48%
Pb 220.353†	26001.5	3.17566	mg/L	0.091951	3.17566	mg/L	0.091951 2.90%
Sb 206.836†	-3.0	-0.0022856	mg/L	0.00680760	-0.0022856	mg/L	0.00680760 297.85%
Se 196.026†	3.0	0.0083665	mg/L	0.00634712	0.0083665	mg/L	0.00634712 75.86%
Sn 189.927†	-0.4	-0.0013318	mg/L	0.00258701	-0.0013318	mg/L	0.00258701 194.25%
Ti 334.940†	-88.5	-0.0007911	mg/L	0.00004245	-0.0007911	mg/L	0.00004245 5.37%
Tl 190.801†	-1.5	-0.0053867	mg/L	0.00513307	-0.0053867	mg/L	0.00513307 95.29%
V 290.880†	364.0	0.0003084	mg/L	0.00106419	0.0003084	mg/L	0.00106419 345.11%
Zn 206.200†	45482.4	1.95236	mg/L	0.061724	1.95236	mg/L	0.061724 3.16%

Sequence No.: 22  
 Sample ID: 63111-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 1/17/2012 12:32:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-003

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	891576.9		86.2 %	1.18			1.37%
Y 371.029	348595.6		87.9 %	1.15			1.30%
Ag 328.068†	17.5	0.0012444	mg/L	0.00034314	0.0012444	mg/L	0.00034314 27.58%
Al 308.215†	9083.8	0.339544	mg/L	0.0016023	0.339544	mg/L	0.0016023 0.47%
As 188.979†	12.2	0.0141008	mg/L	0.00482866	0.0141008	mg/L	0.00482866 34.24%
Ba 233.527†	73505.2	0.721230	mg/L	0.0012792	0.721230	mg/L	0.0012792 0.18%
Be 313.107†	319.1	-0.0001429	mg/L	0.00001941	-0.0001429	mg/L	0.00001941 13.59%
Ca 315.887†	20493164.2	229.805	mg/L	0.1203	229.805	mg/L	0.1203 0.05%
Cd 228.802†	596.5	0.0177040	mg/L	0.00033693	0.0177040	mg/L	0.00033693 1.90%
Co 228.616†	1153.3	0.0435997	mg/L	0.00011356	0.0435997	mg/L	0.00011356 0.26%
Cr 267.716†	399.1	0.0066093	mg/L	0.00011883	0.0066093	mg/L	0.00011883 1.80%
Cu 327.393†	61574.2	0.545449	mg/L	0.0002959	0.545449	mg/L	0.0002959 0.05%
Fe 273.955†	66367.3	7.65618	mg/L	0.002145	7.65618	mg/L	0.002145 0.03%
K 404.721†	373.9	4.82188	mg/L	2.260021	4.82188	mg/L	2.260021 46.87%
Mg 279.077†	44678.1	4.22486	mg/L	0.008693	4.22486	mg/L	0.008693 0.21%
Mn 257.610†	504100.5	1.41167	mg/L	0.009982	1.41167	mg/L	0.009982 0.71%
Mo 202.031†	164.3	0.0082203	mg/L	0.00125451	0.0082203	mg/L	0.00125451 15.26%
Na 330.237†	1543110.6	1696.74	mg/L	12.780	1696.74	mg/L	12.780 0.75%
Ni 231.604†	2372.5	0.0690013	mg/L	0.00047493	0.0690013	mg/L	0.00047493 0.69%
Pb 220.353†	32261.9	3.94033	mg/L	0.010923	3.94033	mg/L	0.010923 0.28%
Sb 206.836†	0.8	-0.0025031	mg/L	0.00055329	-0.0025031	mg/L	0.00055329 22.10%
Se 196.026†	14.3	0.0164901	mg/L	0.00601538	0.0164901	mg/L	0.00601538 36.48%
Sn 189.927†	-5.5	-0.0043654	mg/L	0.00327210	-0.0043654	mg/L	0.00327210 74.96%
Ti 334.940†	-112.8	-0.0008363	mg/L	0.00012211	-0.0008363	mg/L	0.00012211 14.60%
Tl 190.801†	-0.7	-0.0044832	mg/L	0.00226357	-0.0044832	mg/L	0.00226357 50.49%
V 290.880†	800.3	0.0035822	mg/L	0.00028157	0.0035822	mg/L	0.00028157 7.86%
Zn 206.200†	375717.1	16.1334	mg/L	0.18414	16.1334	mg/L	0.18414 1.14%

Sequence No.: 23  
 Sample ID: 63111-039  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 1/17/2012 12:36:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-039

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	907908.2	87.8	%	1.21				1.38%
Y 371.029	378136.0	95.4	%	1.35				1.42%
Ag 328.068†	1.9	0.0007331	mg/L	0.00011144	0.0007331	mg/L	0.00011144	15.20%
Al 308.215†	8187.9	0.305066	mg/L	0.0004304	0.305066	mg/L	0.0004304	0.14%
As 188.979†	10.7	0.0105992	mg/L	0.00015054	0.0105992	mg/L	0.00015054	1.42%
Ba 233.527†	100324.6	0.985230	mg/L	0.0019511	0.985230	mg/L	0.0019511	0.20%
Be 313.107†	1371.2	0.0002989	mg/L	0.00001534	0.0002989	mg/L	0.00001534	5.13%
Ca 315.887†	29020647.1	325.444	mg/L	7.1916	325.444	mg/L	7.1916	2.21%
Cd 228.802†	194.0	0.0053657	mg/L	0.00010354	0.0053657	mg/L	0.00010354	1.93%
Co 228.616†	1269.1	0.0482292	mg/L	0.00001034	0.0482292	mg/L	0.00001034	0.02%
Cr 267.716†	-63.2	0.0001375	mg/L	0.00011737	0.0001375	mg/L	0.00011737	85.34%
Cu 327.393†	12021.9	0.101147	mg/L	0.0000059	0.101147	mg/L	0.0000059	0.01%
Fe 273.955†	15211.4	1.73794	mg/L	0.013091	1.73794	mg/L	0.013091	0.75%
K 404.721†	789.0	9.10074	mg/L	0.685288	9.10074	mg/L	0.685288	7.53%
Mg 279.077†	50370.2	4.77555	mg/L	0.022504	4.77555	mg/L	0.022504	0.47%
Mn 257.610†	1476232.2	4.13705	mg/L	0.008329	4.13705	mg/L	0.008329	0.20%
Mo 202.031†	186.0	0.0079061	mg/L	0.00027391	0.0079061	mg/L	0.00027391	3.46%
Na 330.237†	1616592.8	1777.51	mg/L	5.633	1777.51	mg/L	5.633	0.32%
Ni 231.604†	1902.0	0.0548100	mg/L	0.00080767	0.0548100	mg/L	0.00080767	1.47%
Pb 220.353†	196821.7	24.0389	mg/L	0.09769	24.0389	mg/L	0.09769	0.41%
Sb 206.836†	52.3	0.0495608	mg/L	0.00084068	0.0495608	mg/L	0.00084068	1.70%
Se 196.026†	9.3	0.0038435	mg/L	0.00698213	0.0038435	mg/L	0.00698213	181.66%
Sn 189.927†	-3.6	-0.0026690	mg/L	0.00117422	-0.0026690	mg/L	0.00117422	43.99%
Ti 334.940†	-133.5	-0.0008747	mg/L	0.00008419	-0.0008747	mg/L	0.00008419	9.62%
Tl 190.801†	-1.9	-0.0106759	mg/L	0.00382058	-0.0106759	mg/L	0.00382058	35.79%
V 290.880†	904.6	0.0045182	mg/L	0.00034510	0.0045182	mg/L	0.00034510	7.64%
Zn 206.200†	79510.9	3.41351	mg/L	0.019822	3.41351	mg/L	0.019822	0.58%

Sequence No.: 24

Autosampler Location: 49

Sample ID: EF-V-132485

Date Collected: 1/17/2012 12:40:14 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: EF-V-132485

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	927060.0		89.6 %	0.34				0.38%
Y 371.029	357827.2		90.2 %	0.27				0.30%
Ag 328.068†	22.4	-0.0002036	mg/L	0.00008617	-0.0002036	mg/L	0.00008617	42.32%
Al 308.215†	1657.8	0.0543894	mg/L	0.00115477	0.0543894	mg/L	0.00115477	2.12%
As 188.979†	-6.8	-0.0071019	mg/L	0.00139101	-0.0071019	mg/L	0.00139101	19.59%
Ba 233.527†	152.1	-0.0008313	mg/L	0.00005707	-0.0008313	mg/L	0.00005707	6.87%
Be 313.107†	21.2	-0.0002684	mg/L	0.00001008	-0.0002684	mg/L	0.00001008	3.76%
Ca 315.887†	24876.7	0.243556	mg/L	0.0125751	0.243556	mg/L	0.0125751	5.16%
Cd 228.802†	26.3	0.0002130	mg/L	0.00043404	0.0002130	mg/L	0.00043404	203.76%
Co 228.616†	7.6	-0.0022066	mg/L	0.00003445	-0.0022066	mg/L	0.00003445	1.56%
Cr 267.716†	78.8	-0.0001463	mg/L	0.00005933	-0.0001463	mg/L	0.00005933	40.55%
Cu 327.393†	470.5	0.0016363	mg/L	0.00024595	0.0016363	mg/L	0.00024595	15.03%
Fe 273.955†	11.2	-0.0225955	mg/L	0.00234144	-0.0225955	mg/L	0.00234144	10.36%
K 404.721†	31.5	1.29341	mg/L	0.157282	1.29341	mg/L	0.157282	12.16%
Mg 279.077†	123.5	-0.0856898	mg/L	0.00007539	-0.0856898	mg/L	0.00007539	0.09%
Mn 257.610†	86.2	-0.0018269	mg/L	0.00018595	-0.0018269	mg/L	0.00018595	10.18%
Mo 202.031†	4.5	0.0001832	mg/L	0.00093988	0.0001832	mg/L	0.00093988	512.93%
Na 330.237†	1608451.6	1768.56	mg/L	9.676	1768.56	mg/L	9.676	0.55%
Ni 231.604†	117.8	0.0009675	mg/L	0.00042855	0.0009675	mg/L	0.00042855	44.30%
Pb 220.353†	61.3	0.0083499	mg/L	0.00201640	0.0083499	mg/L	0.00201640	24.15%
Sb 206.836†	-4.9	-0.0052593	mg/L	0.00458365	-0.0052593	mg/L	0.00458365	87.15%
Se 196.026†	4.4	0.0094803	mg/L	0.00105112	0.0094803	mg/L	0.00105112	11.09%
Sn 189.927†	7.5	0.0043422	mg/L	0.00004782	0.0043422	mg/L	0.00004782	1.10%
Ti 334.940†	173.8	-0.0003035	mg/L	0.00002146	-0.0003035	mg/L	0.00002146	7.07%
Tl 190.801†	-0.6	-0.0041052	mg/L	0.00028354	-0.0041052	mg/L	0.00028354	6.91%
V 290.880†	490.5	0.0016812	mg/L	0.00061315	0.0016812	mg/L	0.00061315	36.47%
Zn 206.200†	292.0	0.0118098	mg/L	0.00031316	0.0118098	mg/L	0.00031316	2.65%

Sequence No.: 25

Sample ID: ICSA V-130873

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 1/17/2012 12:43:56 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSA V-130873

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	880479.8	85.1 %		0.22			0.26%
Y 371.029	338782.9	85.4 %		0.26			0.31%
Ag 328.068†	-1210.2	0.0028028 mg/L		0.00056686	0.0028028 mg/L	0.00056686	20.22%
Al 308.215†	13139786.7	505.081 mg/L		3.5366	505.081 mg/L	3.5366	0.70%
QC value within limits for Al 308.215 Recovery = 101.02%							
As 188.979†	-24.2	-0.0054953 mg/L		0.00246884	-0.0054953 mg/L	0.00246884	44.93%
Ba 233.527†	428.3	0.0018878 mg/L		0.00006257	0.0018878 mg/L	0.00006257	3.31%
Be 313.107†	-1432.7	-0.0008790 mg/L		0.00003007	-0.0008790 mg/L	0.00003007	3.42%
Ca 315.887†	43027301.3	482.535 mg/L		1.9699	482.535 mg/L	1.9699	0.41%
QC value within limits for Ca 315.887 Recovery = 96.51%							
Cd 228.802†	135.2	0.0007120 mg/L		0.00016272	0.0007120 mg/L	0.00016272	22.85%
Co 228.616†	-110.4	0.0003004 mg/L		0.00032190	0.0003004 mg/L	0.00032190	107.17%
Cr 267.716†	65.8	0.0056556 mg/L		0.00005574	0.0056556 mg/L	0.00005574	0.99%
Cu 327.393†	962.4	-0.0125543 mg/L		0.00061367	-0.0125543 mg/L	0.00061367	4.89%
Fe 273.955†	1511830.9	175.090 mg/L		0.0332	175.090 mg/L	0.0332	0.02%
QC value within limits for Fe 273.955 Recovery = 87.54%							
K 404.721†	-1011.9	-9.46191 mg/L		0.406818	-9.46191 mg/L	0.406818	4.30%
Mg 279.077†	5227631.4	505.663 mg/L		0.4223	505.663 mg/L	0.4223	0.08%
QC value within limits for Mg 279.077 Recovery = 101.13%							
Mn 257.610†	-3728.7	-0.0046012 mg/L		0.00010764	-0.0046012 mg/L	0.00010764	2.34%
Mo 202.031†	138.2	0.0067188 mg/L		0.00118385	0.0067188 mg/L	0.00118385	17.62%
Na 330.237†	78.2	0.597630 mg/L		0.1182548	0.597630 mg/L	0.1182548	19.79%
Ni 231.604†	40.5	-0.0013541 mg/L		0.00043979	-0.0013541 mg/L	0.00043979	32.48%
Pb 220.353†	-402.0	0.0178449 mg/L		0.00050381	0.0178449 mg/L	0.00050381	2.82%
Sb 206.836†	-104.1	0.0071548 mg/L		0.00282426	0.0071548 mg/L	0.00282426	39.47%
Se 196.026†	10.2	-0.0099763 mg/L		0.00638332	-0.0099763 mg/L	0.00638332	63.98%
Sn 189.927†	-6.3	-0.0119946 mg/L		0.00157187	-0.0119946 mg/L	0.00157187	13.10%
Ti 334.940†	322.0	-0.0000282 mg/L		0.00016769	-0.0000282 mg/L	0.00016769	594.42%
Tl 190.801†	-16.3	-0.0046772 mg/L		0.00393290	-0.0046772 mg/L	0.00393290	84.09%
V 290.880†	6166.6	0.0023739 mg/L		0.00016125	0.0023739 mg/L	0.00016125	6.79%
Zn 206.200†	152.7	-0.0100118 mg/L		0.00016742	-0.0100118 mg/L	0.00016742	1.67%

All analyte(s) passed QC.

Sequence No.: 26

Autosampler Location: 8

Sample ID: ICSAB V-130874

Date Collected: 1/17/2012 12:49:06 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSAB V-130874

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	875675.7	84.7 %		0.42			0.50%
Y 371.029	337138.7	85.0 %		0.41			0.48%
Ag 328.068†	135831.7	0.963204 mg/L		0.0006863	0.963204 mg/L	0.0006863	0.07%
QC value within limits for Ag		328.068	Recovery = 96.32%				
Al 308.215†	13310621.6	511.648 mg/L		0.2355	511.648 mg/L	0.2355	0.05%
QC value within limits for Al		308.215	Recovery = 102.33%				
As 188.979†	802.0	0.957433 mg/L		0.0068269	0.957433 mg/L	0.0068269	0.71%
QC value within limits for As		188.979	Recovery = 95.74%				
Ba 233.527†	52446.2	0.513932 mg/L		0.0004467	0.513932 mg/L	0.0004467	0.09%
QC value within limits for Ba		233.527	Recovery = 102.79%				
Be 313.107†	1182970.5	0.496439 mg/L		0.0004702	0.496439 mg/L	0.0004702	0.09%
QC value within limits for Be		313.107	Recovery = 99.29%				
Ca 315.887†	43311284.2	485.720 mg/L		0.5892	485.720 mg/L	0.5892	0.12%
QC value within limits for Ca		315.887	Recovery = 97.14%				
Cd 228.802†	32529.1	1.00154 mg/L		0.005160	1.00154 mg/L	0.005160	0.52%
QC value within limits for Cd		228.802	Recovery = 100.15%				
Co 228.616†	11795.6	0.475968 mg/L		0.0028083	0.475968 mg/L	0.0028083	0.59%
QC value within limits for Co		228.616	Recovery = 95.19%				
Cr 267.716†	28552.4	0.497757 mg/L		0.0022080	0.497757 mg/L	0.0022080	0.44%
QC value within limits for Cr		267.716	Recovery = 99.55%				
Cu 327.393†	59695.5	0.512614 mg/L		0.0020926	0.512614 mg/L	0.0020926	0.41%
QC value within limits for Cu		327.393	Recovery = 102.52%				
Fe 273.955†	1513332.1	175.264 mg/L		0.1575	175.264 mg/L	0.1575	0.09%
QC value within limits for Fe		273.955	Recovery = 87.63%				
K 404.721†	-1127.5	-10.6526 mg/L		0.09736	-10.6526 mg/L	0.09736	0.91%
Mg 279.077†	5243135.7	507.163 mg/L		0.5881	507.163 mg/L	0.5881	0.12%
QC value within limits for Mg		279.077	Recovery = 101.43%				
Mn 257.610†	164097.5	0.465955 mg/L		0.0003710	0.465955 mg/L	0.0003710	0.08%
QC value within limits for Mn		257.610	Recovery = 93.19%				
Mo 202.031†	140.6	0.0069285 mg/L		0.00053628	0.0069285 mg/L	0.00053628	7.74%
Na 330.237†	239.7	0.775149 mg/L		0.0154868	0.775149 mg/L	0.0154868	2.00%
Ni 231.604†	30347.6	0.912995 mg/L		0.0037640	0.912995 mg/L	0.0037640	0.41%
QC value within limits for Ni		231.604	Recovery = 91.30%				
Pb 220.353†	6969.4	0.919230 mg/L		0.0046264	0.919230 mg/L	0.0046264	0.50%
QC value within limits for Pb		220.353	Recovery = 91.92%				
Sb 206.836†	806.9	0.915928 mg/L		0.0030087	0.915928 mg/L	0.0030087	0.33%
QC value within limits for Sb		206.836	Recovery = 91.59%				
Se 196.026†	764.2	0.966013 mg/L		0.0058483	0.966013 mg/L	0.0058483	0.61%
QC value within limits for Se		196.026	Recovery = 96.60%				
Sn 189.927†	-8.6	-0.0137123 mg/L		0.00394893	-0.0137123 mg/L	0.00394893	28.80%
Ti 334.940†	390.7	0.0000996 mg/L		0.00007724	0.0000996 mg/L	0.00007724	77.57%
Tl 190.801†	639.4	0.962936 mg/L		0.0092281	0.962936 mg/L	0.0092281	0.96%
QC value within limits for Tl		190.801	Recovery = 96.29%				
V 290.880†	65884.7	0.469246 mg/L		0.0005010	0.469246 mg/L	0.0005010	0.11%
QC value within limits for V		290.880	Recovery = 93.85%				
Zn 206.200†	21848.5	0.921612 mg/L		0.0043365	0.921612 mg/L	0.0043365	0.47%
QC value within limits for Zn		206.200	Recovery = 92.16%				

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: CCV V-130872

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 1/17/2012 12:54:09 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCV V-130872

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	969104.4	93.7 %	0.03			0.04%
Y 371.029	374065.6	94.3 %	0.05			0.05%
Ag 328.068†	12838.7	0.0897473 mg/L	0.00105840	0.0897473 mg/L	0.00105840	1.18%
QC value less than the lower limit for Ag 328.068 Recovery = 89.75%						
Al 308.215†	128313.4	4.91406 mg/L	0.039210	4.91406 mg/L	0.039210	0.80%
QC value within limits for Al 308.215 Recovery = 98.28%						
As 188.979†	404.5	0.472116 mg/L	0.0077329	0.472116 mg/L	0.0077329	1.64%
QC value within limits for As 188.979 Recovery = 94.42%						
Ba 233.527†	52875.9	0.518162 mg/L	0.0050471	0.518162 mg/L	0.0050471	0.97%
QC value within limits for Ba 233.527 Recovery = 103.63%						
Be 313.107†	1202347.0	0.504184 mg/L	0.0051991	0.504184 mg/L	0.0051991	1.03%
QC value within limits for Be 313.107 Recovery = 100.84%						
Ca 315.887†	4479422.5	50.2033 mg/L	0.46991	50.2033 mg/L	0.46991	0.94%
QC value within limits for Ca 315.887 Recovery = 100.41%						
Cd 228.802†	15819.7	0.488085 mg/L	0.0057812	0.488085 mg/L	0.0057812	1.18%
QC value within limits for Cd 228.802 Recovery = 97.62%						
Co 228.616†	13060.0	0.519597 mg/L	0.0053277	0.519597 mg/L	0.0053277	1.03%
QC value within limits for Co 228.616 Recovery = 103.92%						
Cr 267.716†	29505.3	0.511281 mg/L	0.0052569	0.511281 mg/L	0.0052569	1.03%
QC value within limits for Cr 267.716 Recovery = 102.26%						
Cu 327.393†	57013.6	0.505850 mg/L	0.0036831	0.505850 mg/L	0.0036831	0.73%
QC value within limits for Cu 327.393 Recovery = 101.17%						
Fe 273.955†	40793.6	4.71602 mg/L	0.047350	4.71602 mg/L	0.047350	1.00%
QC value within limits for Fe 273.955 Recovery = 94.32%						
K 404.721†	4547.4	47.8397 mg/L	0.82217	47.8397 mg/L	0.82217	1.72%
QC value within limits for K 404.721 Recovery = 95.68%						
Mg 279.077†	524458.3	50.6424 mg/L	0.51755	50.6424 mg/L	0.51755	1.02%
QC value within limits for Mg 279.077 Recovery = 101.28%						
Mn 257.610†	173180.9	0.483827 mg/L	0.0043225	0.483827 mg/L	0.0043225	0.89%
QC value within limits for Mn 257.610 Recovery = 96.77%						
Mo 202.031†	5738.1	0.467453 mg/L	0.0039062	0.467453 mg/L	0.0039062	0.84%
QC value within limits for Mo 202.031 Recovery = 93.49%						
Na 330.237†	42809.2	47.5687 mg/L	0.25062	47.5687 mg/L	0.25062	0.53%
QC value within limits for Na 330.237 Recovery = 95.14%						
Ni 231.604†	16895.5	0.507559 mg/L	0.0055913	0.507559 mg/L	0.0055913	1.10%
QC value within limits for Ni 231.604 Recovery = 101.51%						
Pb 220.353†	3983.5	0.487715 mg/L	0.0066477	0.487715 mg/L	0.0066477	1.36%
QC value within limits for Pb 220.353 Recovery = 97.54%						
Sb 206.836†	447.9	0.447294 mg/L	0.0028917	0.447294 mg/L	0.0028917	0.65%
QC value less than the lower limit for Sb 206.836 Recovery = 89.46%						
Se 196.026†	375.6	0.489587 mg/L	0.0071717	0.489587 mg/L	0.0071717	1.46%
QC value within limits for Se 196.026 Recovery = 97.92%						
Sn 189.927†	626.8	0.430837 mg/L	0.0019122	0.430837 mg/L	0.0019122	0.44%
QC value less than the lower limit for Sn 189.927 Recovery = 86.17%						
Ti 334.940†	294792.4	0.547194 mg/L	0.0059605	0.547194 mg/L	0.0059605	1.09%
QC value within limits for Ti 334.940 Recovery = 109.44%						
Tl 190.801†	367.7	0.543120 mg/L	0.0021406	0.543120 mg/L	0.0021406	0.39%
QC value within limits for Tl 190.801 Recovery = 108.62%						
V 290.880†	64498.6	0.499251 mg/L	0.0045798	0.499251 mg/L	0.0045798	0.92%
QC value within limits for V 290.880 Recovery = 99.85%						
Zn 206.200†	11693.9	0.499847 mg/L	0.0057890	0.499847 mg/L	0.0057890	1.16%
QC value within limits for Zn 206.200 Recovery = 99.97%						

QC Failed. Continue with analysis.

# Run Log

Data File: W:\METALS.FRM\ICPDATA\NewPEICPIA\13414A.txt

Analysis Date: 12/22/11

Instrument: PEICPIA

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	12:13	1							V-129815(ICB/CCB)
Calib Std 1 V-128668	1	CAL	12:17	2							V-128668(ICS1 - Lowest std)
Calib Std 2 V-128664	1	CAL	12:20	3							V-128664(ICS2- Low Std)
Calib Std 3 V-128660	1	CAL	12:23	4							V-128660(ICS3 - Middle Std)
Calib Std 4 V-129806	1	CAL	12:26	5							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	12:29	6							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	12:33	7							V-128235(ICV)
ICB V-129815	1	ICB	12:36	8							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	12:39	9							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	12:43	10							V-128667(ICSAB)
MB 11724 (1)	1	MB	12:48	11		TCLP	TCLP	SW846	11724		0
LCSW 11724	1	LCS	12:51	12		TCLP	TCLP	SW846	11724		0
LCSW MR 11724	1	LCS	12:54	13		TCLP	TCLP	SW846	11724		0
AC63081-024	1	SMP	12:58	14	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	1	MR	13:01	15	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	1	MS	13:04	16	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	1	PS	13:08	17	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-024	5	SD	13:11	18	METALS-TCLP	TCLP	TCLP	SW846	11724		0
CCV V-128659	1	CCV	13:14	19							V-128659(CCV)
CCB	1	CCB	13:17	20							0
AC63269-001	1	SMP	13:21	21	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63290-001	1	SMP	13:25	22	METALS-TCLP	TCLP	TCLP	SW846	11724	Ca sat'n (Ag, As, Pb, Se)	0
AC63290-001	1	MS	13:29	23	METALS-TCLP	TCLP	TCLP	SW846	11724	Ca sat'n (Ag, As, Pb, Se)	0
AC63290-001	2	NA	13:33	24	METALS-TCLP	TCLP	TCLP	SW846	11724	not used (Ca sat'n)	0
AC63290-001	4	SMP	13:37	25	METALS-TCLP	TCLP	TCLP	SW846	11724	Ag, As, Pb, Se	0
AC63290-001	4	MS	13:41	26	METALS-TCLP	TCLP	TCLP	SW846	11724	Ag, As, Pb, Se	0
AC63290-002	1	SMP	13:46	27	METALS-TCLP	TCLP	TCLP	SW846	11724	Ca sat'n (Ag, As, Pb, Se)	0
AC63290-002	2	NA	13:50	28	METALS-TCLP	TCLP	TCLP	SW846	11724	wrong location (really 63290-001 TCLP SPK 4D)	0
CCV V-128659	1	CCV	13:54	29							V-128659(CCV)
CCB	1	CCB	13:57	30							0
AC63334-001	1	SMP	14:00	31	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63290-002	2	NA	14:05	32	METALS-TCLP	TCLP	TCLP	SW846	11724	not used (Ca sat'n)	0
AC63334-002	1	SMP	14:09	33	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63290-002	4	SMP	14:13	34	METALS-TCLP	TCLP	TCLP	SW846	11724	Ag, As, Pb, Se	0
CCV V-128659	1	CCV	14:17	35							V-128659(CCV)
CCB	1	CCB	14:21	36							0
AC63334-003	1	SMP	14:24	37	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63334-004	1	SMP	14:28	38	PB-TCLP	TCLP	TCLP	SW846	11724		0
EF-V-131199	1	EF	14:33	39		TCLP	TCLP	SW846	11724		V-131199(EF-1)
EF-V-130604	1	EF	14:36	40		TCLP	TCLP	SW846	11724		V-130604(EF-2)
ICSA V-128666	1	ICSA	14:39	41							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	14:43	42							V-128667(ICSAB)
CCV V-128659	1	CCV	14:48	43							V-128659(CCV)
CCB	1	CCB	14:51	44							0
AC63081-025	1	SMP	14:54	45	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63081-026	1	SMP	14:58	46	METALS-TCLP	TCLP	TCLP	SW846	11724		0
AC63111-034	1	SMP	15:01	47	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63111-035	1	SMP	15:04	48	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63111-036	1	SMP	15:09	49	PB-TCLP	TCLP	TCLP	SW846	11724		0
AC63250-001	1	SMP	15:12	50	METALS-TCLP	TCLP	TCLP	SW846	11724		0
CCV V-128659	1	CCV	15:15	51							V-128659(CCV)
CCB	1	CCB	15:18	52							0
AC63279-001	1	SMP	15:22	53	MET-TCLP-XL	TCLP	TCLP	SW846	11724		0
AC63298-001	1	SMP	15:25	54	METALS-TCLP	TCLP	TCLP	SW846	11724		0
ICSA V-128666	1	ICSA	15:29	55							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	15:34	56							V-128667(ICSAB)
CCV V-128659	1	CCV	15:38	57							V-128659(CCV)
CCB	1	CCB	15:41	58							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/22/2011 3:48:58 PM

OK

*sh* 12/22/11

Analyst S B 12/22/11

=====  
Analysis Begun

Start Time: 12/22/2011 12:12:54 PM Plasma On Time: 12/22/2011 9:48:19 AM  
Logged In Analyst: shiamala Technique: ICP Continuous  
Spectrometer Model: Optima 3300 DV, S/N 069N5072002 Autosampler Model: AS-91

Sample Information File: C:\pe\Administrator\Sample Information\12.22.11.sif  
Batch ID: 8336  
Results Data Set: T13414A  
Results Library: C:\pe\Administrator\Results\Results.mdb

sh 12/22/11

=====  
Method Loaded

Method Name: PE1 3000DV AXIAL Method Last Saved: 12/19/2011 3:31:41 PM  
IEC File: IEC092311.iec MSF File:  
Method Description: 200.7 (6010B)

=====  
Sequence No.: 1

Sample ID: Calib Blk 1 V-129815 Autosampler Location: 1  
Analyst: Date Collected: 12/22/2011 12:13:54 PM  
Initial Sample Wt: Data Type: Original  
Dilution: Initial Sample Vol:  
Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	1698.3	27.17	1.60%	[0.00]	mg/L
Sb 206.836	4.3	0.49	11.39%	[0.00]	mg/L
As 188.979	-5.0	1.73	34.88%	[0.00]	mg/L
Ba 233.527	-66.5	8.11	12.20%	[0.00]	mg/L
Be 234.861	-189.1	6.68	3.53%	[0.00]	mg/L
Cd 226.502	-101.5	0.42	0.42%	[0.00]	mg/L
Ca 315.887	2154.6	134.02	6.22%	[0.00]	mg/L
Cr 206.158	17.0	6.76	39.73%	[0.00]	mg/L
Co 228.616	-146.0	0.41	0.28%	[0.00]	mg/L
Cu 324.752	790.8	11.51	1.46%	[0.00]	mg/L
Fe 273.955	411.9	16.05	3.90%	[0.00]	mg/L
Pb 220.353	71.0	1.57	2.20%	[0.00]	mg/L
Mg 279.077	57.6	64.60	112.21%	[0.00]	mg/L
Mn 257.610	516.1	3.55	0.69%	[0.00]	mg/L
Mo 202.031	-100.0	0.39	0.39%	[0.00]	mg/L
Ni 231.604	-84.4	7.87	9.33%	[0.00]	mg/L
Se 196.026	15.0	1.79	11.91%	[0.00]	mg/L
Ag 328.068	95.2	13.58	14.27%	[0.00]	mg/L
Na 330.237	440.4	37.20	8.45%	[0.00]	mg/L
Tl 190.801	-22.3	0.12	0.56%	[0.00]	mg/L
Sn 189.927	2.9	1.20	40.79%	[0.00]	mg/L
Ti 334.940	112.1	59.62	53.20%	[0.00]	mg/L
V 292.402	-17.6	13.26	75.27%	[0.00]	mg/L
Zn 206.200	81.1	0.31	0.38%	[0.00]	mg/L

13414  
11724

all elements reported

63290: 00140 } Ag, As, Pb, Se  
00240 } reported

Sequence No.: 2

Sample ID: Calib Std 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 158

Date Collected: 12/22/2011 12:17:02 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
As 188.979	0.1	0.73	889.18%	[0.005]	mg/L
Be 234.861	1276.8	22.63	1.77%	[0.003]	mg/L
Cd 226.502	174.9	2.62	1.50%	[0.003]	mg/L
Pb 220.353	26.6	4.58	17.25%	[0.004]	mg/L
Tl 190.801	8.3	3.47	41.68%	[0.005]	mg/L

Sequence No.: 3

Autosampler Location: 160

Sample ID: Calib Std 2 V-128664

Date Collected: 12/22/2011 12:20:07 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib Std 2 V-128664

Analyte	Mean Corrected		Std.Dev.	RSD	Calib	
	Intensity				Conc.	Units
Al 308.215	829.4		20.04	2.42%	[0.1]	mg/L
Sb 206.836	10.9		6.56	60.31%	[0.01]	mg/L
As 188.979	3.4		3.50	101.45%	[0.01]	mg/L
Ba 233.527	590.7		4.98	0.84%	[0.01]	mg/L
Be 234.861	4051.8		0.72	0.02%	[0.01]	mg/L
Cd 226.502	541.7		8.43	1.56%	[0.01]	mg/L
Ca 315.887	59243.7		46.64	0.08%	[1]	mg/L
Cr 206.158	95.7		2.32	2.42%	[0.01]	mg/L
Co 228.616	197.8		0.29	0.14%	[0.01]	mg/L
Cu 324.752	1128.3		59.28	5.25%	[0.01]	mg/L
Fe 273.955	1561.6		3.40	0.22%	[0.1]	mg/L
Pb 220.353	64.2		2.68	4.17%	[0.01]	mg/L
Mg 279.077	14182.3		92.94	0.66%	[1]	mg/L
Mn 257.610	5853.7		2.28	0.04%	[0.01]	mg/L
Mo 202.031	78.6		5.21	6.63%	[0.01]	mg/L
Ni 231.604	356.3		4.65	1.30%	[0.01]	mg/L
Se 196.026	15.6		15.50	99.61%	[0.01]	mg/L
Ag 328.068	256.8		55.25	21.51%	[0.002]	mg/L
Na 330.237	237.6		66.06	27.80%	[1]	mg/L
Tl 190.801	16.1		3.08	19.10%	[0.01]	mg/L
Sn 189.927	32.6		1.94	5.94%	[0.01]	mg/L
Ti 334.940	3267.1		50.46	1.54%	[0.01]	mg/L
V 292.402	967.0		37.97	3.93%	[0.01]	mg/L
Zn 206.200	129.4		3.22	2.49%	[0.01]	mg/L

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib Std 3 V-128660

Date Collected: 12/22/2011 12:23:17 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib Std 3 V-128660

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	43972.1	253.79	0.58%	[5]	mg/L
Sb 206.836	385.2	6.47	1.68%	[0.5]	mg/L
As 188.979	329.3	2.57	0.78%	[0.5]	mg/L
Ba 233.527	27905.4	335.10	1.20%	[0.5]	mg/L
Be 234.861	211582.5	1599.28	0.76%	[0.5]	mg/L
Cd 226.502	26493.7	43.34	0.16%	[0.5]	mg/L
Ca 315.887	2944433.2	15687.38	0.53%	[50]	mg/L
Cr 206.158	4813.5	11.03	0.23%	[0.5]	mg/L
Co 228.616	9280.0	43.42	0.47%	[0.5]	mg/L
Cu 324.752	54306.1	586.72	1.08%	[0.5]	mg/L
Fe 273.955	81594.5	563.59	0.69%	[5]	mg/L
Pb 220.353	2815.4	1.54	0.05%	[0.5]	mg/L
Mg 279.077	677755.6	808.66	0.12%	[50]	mg/L
Mn 257.610	237419.1	1857.60	0.78%	[0.5]	mg/L
Mo 202.031	3958.6	0.32	0.01%	[0.5]	mg/L
Ni 231.604	17509.5	51.55	0.29%	[0.5]	mg/L
Se 196.026	549.3	5.63	1.02%	[0.5]	mg/L
Ag 328.068	11811.1	217.55	1.84%	[0.1]	mg/L
Na 330.237	23949.7	275.97	1.15%	[50]	mg/L
Tl 190.801	576.0	2.38	0.41%	[0.5]	mg/L
Sn 189.927	1660.0	0.08	0.00%	[0.5]	mg/L
Ti 334.940	164816.3	1461.05	0.89%	[0.5]	mg/L
V 292.402	49254.5	493.09	1.00%	[0.5]	mg/L
Zn 206.200	9339.0	17.84	0.19%	[0.5]	mg/L

Sequence No.: 5

Autosampler Location: 2

Sample ID: Calib Std 4 V-129806

Date Collected: 12/22/2011 12:26:33 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib Std 4 V-129806

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	87694.0	1307.14	1.49%	[10]	mg/L
Sb 206.836	764.6	3.40	0.45%	[1.0]	mg/L
As 188.979	657.0	12.87	1.96%	[1.0]	mg/L
Ba 233.527	53988.3	712.68	1.32%	[1.0]	mg/L
Be 234.861	425278.9	4450.77	1.05%	[1.0]	mg/L
Cd 226.502	51572.5	275.40	0.53%	[1.0]	mg/L
Ca 315.887	5737828.2	89604.27	1.56%	[100]	mg/L
Cr 206.158	9348.5	5.23	0.06%	[1.0]	mg/L
Co 228.616	17817.6	4.17	0.02%	[1.0]	mg/L
Cu 324.752	108502.1	1464.24	1.35%	[1.0]	mg/L
Fe 273.955	159285.5	1714.83	1.08%	[10]	mg/L
Pb 220.353	5424.4	0.97	0.02%	[1.0]	mg/L
Mg 279.077	1308203.1	10164.06	0.78%	[100]	mg/L
Mn 257.610	465187.5	5684.76	1.22%	[1.0]	mg/L
Mo 202.031	7723.9	14.92	0.19%	[1.0]	mg/L
Ni 231.604	34487.9	391.38	1.13%	[1.0]	mg/L
Se 196.026	1061.2	6.16	0.58%	[1.0]	mg/L
Ag 328.068	23573.5	348.89	1.48%	[0.2]	mg/L
Na 330.237	50984.5	838.62	1.64%	[100]	mg/L
Tl 190.801	1120.0	0.30	0.03%	[1.0]	mg/L
Sn 189.927	3239.7	24.51	0.76%	[1.0]	mg/L
Ti 334.940	328211.1	3849.96	1.17%	[1.0]	mg/L
V 292.402	97248.8	1321.37	1.36%	[1.0]	mg/L
Zn 206.200	18038.5	0.40	0.00%	[1.0]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	1.2	8774	0.00000	0.999999	
Sb 206.836	3	Lin, Calc Int	2.0	763.4	0.00000	0.999989	
As 188.979	4	Lin, Calc Int	-1.9	659.5	0.00000	0.999986	
Ba 233.527	3	Lin, Calc Int	188.9	54120	0.00000	0.999852	
Be 234.861	4	Lin, Calc Int	-194.1	425100	0.00000	0.999997	
Cd 226.502	4	Lin, Calc Int	102.6	51730	0.00000	0.999913	
Ca 315.887	3	Lin, Calc Int	14591.5	57500	0.00000	0.999909	
Cr 206.158	3	Lin, Calc Int	26.4	9372	0.00000	0.999883	
Co 228.616	3	Lin, Calc Int	76.5	17870	0.00000	0.999775	
Cu 324.752	3	Lin, Calc Int	29.7	108500	0.00000	1.000000	
Fe 273.955	3	Lin, Calc Int	341.0	15970	0.00000	0.999919	
Pb 220.353	4	Lin, Calc Int	17.5	5445	0.00000	0.999837	
Mg 279.077	3	Lin, Calc Int	4804.6	13120	0.00000	0.999830	
Mn 257.610	3	Lin, Calc Int	1423.9	465400	0.00000	0.999947	
Mo 202.031	3	Lin, Calc Int	18.2	7741	0.00000	0.999917	
Ni 231.604	3	Lin, Calc Int	53.5	34530	0.00000	0.999969	
Se 196.026	3	Lin, Calc Int	5.7	1062	0.00000	0.999848	
Ag 328.068	3	Lin, Calc Int	14.0	117800	0.00000	0.999999	
Na 330.237	3	Lin, Calc Int	-404.3	508.5	0.00000	0.999540	
Tl 190.801	4	Lin, Calc Int	4.4	1121	0.00000	0.999912	
Sn 189.927	3	Lin, Calc Int	7.4	3247	0.00000	0.999918	
Ti 334.940	3	Lin, Calc Int	122.5	328300	0.00000	0.999997	
V 292.402	3	Lin, Calc Int	112.2	97370	0.00000	0.999977	
Zn 206.200	3	Lin, Calc Int	35.0	18120	0.00000	0.999817	

Sequence No.: 6  
 Sample ID: ICS3 V-128660  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/22/2011 12:29:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICS3 V-128660

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Al 308.215	44419.6	5.05597	mg/L	0.075439	5.05597	mg/L	0.075439	1.49%
QC value within limits for Al		308.215	Recovery =	101.12%				
Sb 206.836	382.8	0.506055	mg/L	0.0023954	0.506055	mg/L	0.0023954	0.47%
QC value within limits for Sb		206.836	Recovery =	101.21%				
As 188.979	326.5	0.499041	mg/L	0.0043935	0.499041	mg/L	0.0043935	0.88%
QC value within limits for As		188.979	Recovery =	99.81%				
Ba 233.527	28064.0	0.515335	mg/L	0.0060221	0.515335	mg/L	0.0060221	1.17%
QC value within limits for Ba		233.527	Recovery =	103.07%				
Be 234.861	213965.7	0.510217	mg/L	0.0072445	0.510217	mg/L	0.0072445	1.42%
QC value within limits for Be		234.861	Recovery =	102.04%				
Cd 226.502	26738.2	0.514915	mg/L	0.0069190	0.514915	mg/L	0.0069190	1.34%
QC value within limits for Cd		226.502	Recovery =	102.98%				
Ca 315.887	2925470.3	50.6203	mg/L	0.53247	50.6203	mg/L	0.53247	1.05%
QC value within limits for Ca		315.887	Recovery =	101.24%				
Cr 206.158	4803.6	0.522519	mg/L	0.0016435	0.522519	mg/L	0.0016435	0.31%
QC value within limits for Cr		206.158	Recovery =	104.50%				
Co 228.616	9228.2	0.511123	mg/L	0.0004766	0.511123	mg/L	0.0004766	0.09%
QC value within limits for Co		228.616	Recovery =	102.22%				
Cu 324.752	55155.6	0.506817	mg/L	0.0091080	0.506817	mg/L	0.0091080	1.80%
QC value within limits for Cu		324.752	Recovery =	101.36%				
Fe 273.955	82025.9	5.11637	mg/L	0.076803	5.11637	mg/L	0.076803	1.50%
QC value within limits for Fe		273.955	Recovery =	102.33%				
Pb 220.353	2798.6	0.513504	mg/L	0.0000069	0.513504	mg/L	0.0000069	0.00%
QC value within limits for Pb		220.353	Recovery =	102.70%				
Mg 279.077	673169.3	50.9475	mg/L	0.54077	50.9475	mg/L	0.54077	1.06%
QC value within limits for Mg		279.077	Recovery =	101.90%				
Mn 257.610	239741.2	0.511528	mg/L	0.0071208	0.511528	mg/L	0.0071208	1.39%
QC value within limits for Mn		257.610	Recovery =	102.31%				
Mo 202.031	3925.7	0.505179	mg/L	0.0021411	0.505179	mg/L	0.0021411	0.42%
QC value within limits for Mo		202.031	Recovery =	101.04%				
Ni 231.604	17459.0	0.504168	mg/L	0.0010106	0.504168	mg/L	0.0010106	0.20%
QC value within limits for Ni		231.604	Recovery =	100.83%				
Se 196.026	556.1	0.527372	mg/L	0.0093704	0.527372	mg/L	0.0093704	1.78%
QC value within limits for Se		196.026	Recovery =	105.47%				
Ag 328.068	11930.8	0.101909	mg/L	0.0014354	0.101909	mg/L	0.0014354	1.41%
QC value within limits for Ag		328.068	Recovery =	101.91%				
Na 330.237	24136.7	48.2580	mg/L	0.60030	48.2580	mg/L	0.60030	1.24%
QC value within limits for Na		330.237	Recovery =	96.52%				
Tl 190.801	573.3	0.512558	mg/L	0.0058743	0.512558	mg/L	0.0058743	1.15%
QC value within limits for Tl		190.801	Recovery =	102.51%				
Sn 189.927	1667.6	0.516349	mg/L	0.0011344	0.516349	mg/L	0.0011344	0.22%
QC value within limits for Sn		189.927	Recovery =	103.27%				
Ti 334.940	166896.1	0.507918	mg/L	0.0073389	0.507918	mg/L	0.0073389	1.44%
QC value within limits for Ti		334.940	Recovery =	101.58%				
V 292.402	49695.2	0.493872	mg/L	0.0081045	0.493872	mg/L	0.0081045	1.64%
QC value within limits for V		292.402	Recovery =	98.77%				
Zn 206.200	9288.2	0.509234	mg/L	0.0016354	0.509234	mg/L	0.0016354	0.32%
QC value within limits for Zn		206.200	Recovery =	101.85%				

All analyte(s) passed QC.

Sequence No.: 7  
 Sample ID: ICV V-128235 (2)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 159  
 Date Collected: 12/22/2011 12:33:08 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Al 308.215	88933.2	10.1232 mg/L	0.08318	10.1232 mg/L	0.08318	0.82%	
QC value within limits for Al	308.215	Recovery = 101.23%					
Sb 206.836	739.8	0.980334 mg/L	0.0044619	0.980334 mg/L	0.0044619	0.46%	
QC value within limits for Sb	206.836	Recovery = 98.03%					
As 188.979	635.1	0.968005 mg/L	0.0046702	0.968005 mg/L	0.0046702	0.48%	
QC value within limits for As	188.979	Recovery = 96.80%					
Ba 233.527	54535.0	1.00470 mg/L	0.006224	1.00470 mg/L	0.006224	0.62%	
QC value within limits for Ba	233.527	Recovery = 100.47%					
Be 234.861	422485.3	1.00665 mg/L	0.007829	1.00665 mg/L	0.007829	0.78%	
QC value within limits for Be	234.861	Recovery = 100.66%					
Cd 226.502	51349.2	0.990692 mg/L	0.0051279	0.990692 mg/L	0.0051279	0.52%	
QC value within limits for Cd	226.502	Recovery = 99.07%					
Ca 315.887	5573208.3	96.6645 mg/L	1.31212	96.6645 mg/L	1.31212	1.36%	
QC value within limits for Ca	315.887	Recovery = 96.66%					
Cr 206.158	9105.7	0.992995 mg/L	0.0007052	0.992995 mg/L	0.0007052	0.07%	
QC value within limits for Cr	206.158	Recovery = 99.30%					
Co 228.616	17603.3	0.978838 mg/L	0.0007410	0.978838 mg/L	0.0007410	0.08%	
QC value within limits for Co	228.616	Recovery = 97.88%					
Cu 324.752	108248.7	0.995021 mg/L	0.0071007	0.995021 mg/L	0.0071007	0.71%	
QC value within limits for Cu	324.752	Recovery = 99.50%					
Fe 273.955	157121.2	9.82000 mg/L	0.084789	9.82000 mg/L	0.084789	0.86%	
QC value within limits for Fe	273.955	Recovery = 98.20%					
Pb 220.353	5283.1	0.972380 mg/L	0.0008381	0.972380 mg/L	0.0008381	0.09%	
QC value within limits for Pb	220.353	Recovery = 97.24%					
Mg 279.077	1291844.1	98.1073 mg/L	0.58073	98.1073 mg/L	0.58073	0.59%	
QC value within limits for Mg	279.077	Recovery = 98.11%					
Mn 257.610	461723.5	0.987995 mg/L	0.0058606	0.987995 mg/L	0.0058606	0.59%	
QC value within limits for Mn	257.610	Recovery = 98.80%					
Mo 202.031	7560.9	0.975160 mg/L	0.0002436	0.975160 mg/L	0.0002436	0.02%	
QC value within limits for Mo	202.031	Recovery = 97.52%					
Ni 231.604	34426.2	0.995640 mg/L	0.0072894	0.995640 mg/L	0.0072894	0.73%	
QC value within limits for Ni	231.604	Recovery = 99.56%					
Se 196.026	1049.5	1.00040 mg/L	0.010569	1.00040 mg/L	0.010569	1.06%	
QC value within limits for Se	196.026	Recovery = 100.04%					
Ag 328.068	23228.5	0.198489 mg/L	0.0008547	0.198489 mg/L	0.0008547	0.43%	
QC value within limits for Ag	328.068	Recovery = 99.24%					
Na 330.237	50652.2	100.399 mg/L	0.6729	100.399 mg/L	0.6729	0.67%	
QC value within limits for Na	330.237	Recovery = 100.40%					
Tl 190.801	1137.1	1.02046 mg/L	0.003866	1.02046 mg/L	0.003866	0.38%	
QC value within limits for Tl	190.801	Recovery = 102.05%					
Sn 189.927	3223.2	1.00003 mg/L	0.005374	1.00003 mg/L	0.005374	0.54%	
QC value within limits for Sn	189.927	Recovery = 100.00%					
Ti 334.940	326724.6	0.994685 mg/L	0.0038218	0.994685 mg/L	0.0038218	0.38%	
QC value within limits for Ti	334.940	Recovery = 99.47%					
V 292.402	96661.6	0.962023 mg/L	0.0049327	0.962023 mg/L	0.0049327	0.51%	
QC value within limits for V	292.402	Recovery = 96.20%					
Zn 206.200	17566.4	0.964773 mg/L	0.0009207	0.964773 mg/L	0.0009207	0.10%	
QC value within limits for Zn	206.200	Recovery = 96.48%					

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-129815

Date Collected: 12/22/2011 12:36:28 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	-116.4	-0.0133762 mg/L		0.00735676	-0.0133762 mg/L		0.00735676	55.00%
QC value within limits for Al 308.215 Recovery = Not calculated								
Sb 206.836	1.6	-0.0005980 mg/L		0.00317769	-0.0005980 mg/L		0.00317769	531.35%
QC value within limits for Sb 206.836 Recovery = Not calculated								
As 188.979	-2.6	-0.0010768 mg/L		0.00716922	-0.0010768 mg/L		0.00716922	665.78%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	29.3	-0.0029497 mg/L		0.00017862	-0.0029497 mg/L		0.00017862	6.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 234.861	160.1	0.0008040 mg/L		0.00004237	0.0008040 mg/L		0.00004237	5.27%
QC value within limits for Be 234.861 Recovery = Not calculated								
Cd 226.502	25.0	-0.0015005 mg/L		0.00015370	-0.0015005 mg/L		0.00015370	10.24%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ca 315.887	1204.8	-0.232796 mg/L		0.0005843	-0.232796 mg/L		0.0005843	0.25%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cr 206.158	3.3	-0.0025028 mg/L		0.00012981	-0.0025028 mg/L		0.00012981	5.19%
QC value within limits for Cr 206.158 Recovery = Not calculated								
Co 228.616	9.7	-0.0037345 mg/L		0.00015245	-0.0037345 mg/L		0.00015245	4.08%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cu 324.752	207.4	0.0016447 mg/L		0.00033854	0.0016447 mg/L		0.00033854	20.58%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	-29.6	-0.0232180 mg/L		0.00034626	-0.0232180 mg/L		0.00034626	1.49%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Pb 220.353	5.5	-0.0022071 mg/L		0.00075404	-0.0022071 mg/L		0.00075404	34.16%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Mg 279.077	324.6	-0.341493 mg/L		0.0032626	-0.341493 mg/L		0.0032626	0.96%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	216.0	-0.0025911 mg/L		0.00002520	-0.0025911 mg/L		0.00002520	0.97%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031	6.6	-0.0014962 mg/L		0.00022647	-0.0014962 mg/L		0.00022647	15.14%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604	11.1	-0.0012290 mg/L		0.00018657	-0.0012290 mg/L		0.00018657	15.18%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Se 196.026	3.6	-0.0020140 mg/L		0.00145053	-0.0020140 mg/L		0.00145053	72.02%
QC value within limits for Se 196.026 Recovery = Not calculated								
Ag 328.068	36.0	0.0001835 mg/L		0.00018591	0.0001835 mg/L		0.00018591	101.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Na 330.237	-80.5	0.636775 mg/L		0.0001513	0.636775 mg/L		0.0001513	0.02%
QC value within limits for Na 330.237 Recovery = Not calculated								
Tl 190.801	7.5	0.0027803 mg/L		0.00318620	0.0027803 mg/L		0.00318620	114.60%
QC value within limits for Tl 190.801 Recovery = Not calculated								
Sn 189.927	16.0	0.0026103 mg/L		0.00025971	0.0026103 mg/L		0.00025971	9.95%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 334.940	145.4	0.0000696 mg/L		0.00024889	0.0000696 mg/L		0.00024889	357.78%
QC value within limits for Ti 334.940 Recovery = Not calculated								
V 292.402	13.7	-0.0008945 mg/L		0.00003967	-0.0008945 mg/L		0.00003967	4.43%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	4.4	-0.0016815 mg/L		0.00001131	-0.0016815 mg/L		0.00001131	0.67%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 5

Sample ID: ICSA V-128666

Date Collected: 12/22/2011 12:39:36 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3977130.2	453.274	mg/L	9.9184	453.274	mg/L	9.9184	2.19%
QC value within limits for Al 308.215 Recovery = 90.65%								
Sb 206.836	-24.3	0.0070372	mg/L	0.00927403	0.0070372	mg/L	0.00927403	131.78%
As 188.979	-38.8	-0.0228541	mg/L	0.00812650	-0.0228541	mg/L	0.00812650	35.56%
Ba 233.527	148.0	-0.0033081	mg/L	0.00003135	-0.0033081	mg/L	0.00003135	0.95%
Be 234.861	-80697.3	0.0224866	mg/L	0.00375246	0.0224866	mg/L	0.00375246	16.69%
Cd 226.502	149.6	0.0020610	mg/L	0.00018171	0.0020610	mg/L	0.00018171	8.82%
Ca 315.887	25557802.8	444.197	mg/L	0.9709	444.197	mg/L	0.9709	0.22%
QC value within limits for Ca 315.887 Recovery = 88.84%								
Cr 206.158	18.2	-0.0009626	mg/L	0.00019177	-0.0009626	mg/L	0.00019177	19.92%
Co 228.616	58.3	-0.0054288	mg/L	0.00019917	-0.0054288	mg/L	0.00019917	3.67%
Cu 324.752	1841.4	0.0054785	mg/L	0.00004266	0.0054785	mg/L	0.00004266	0.78%
Fe 273.955	2697039.6	168.909	mg/L	3.4891	168.909	mg/L	3.4891	2.07%
QC value within limits for Fe 273.955 Recovery = 84.45%								
Pb 220.353	-364.8	0.0070295	mg/L	0.00098831	0.0070295	mg/L	0.00098831	14.06%
Mg 279.077	6286879.0	478.864	mg/L	2.3836	478.864	mg/L	2.3836	0.50%
QC value within limits for Mg 279.077 Recovery = 95.77%								
Mn 257.610	-2976.7	-0.0083382	mg/L	0.00018864	-0.0083382	mg/L	0.00018864	2.26%
Mo 202.031	-124.3	0.0042354	mg/L	0.00037039	0.0042354	mg/L	0.00037039	8.75%
Ni 231.604	286.4	0.0026652	mg/L	0.00009118	0.0026652	mg/L	0.00009118	3.42%
Se 196.026	-556.4	-0.0541428	mg/L	0.00660393	-0.0541428	mg/L	0.00660393	12.20%
Ag 328.068	-1115.2	0.0004463	mg/L	0.00047871	0.0004463	mg/L	0.00047871	107.25%
Na 330.237	-415.7	-0.0223011	mg/L	0.06828069	-0.0223011	mg/L	0.06828069	306.18%
Tl 190.801	-12.8	-0.0020967	mg/L	0.00128785	-0.0020967	mg/L	0.00128785	61.42%
Sn 189.927	-139.6	-0.0036846	mg/L	0.00146959	-0.0036846	mg/L	0.00146959	39.88%
Ti 334.940	-300.9	-0.0012896	mg/L	0.00017125	-0.0012896	mg/L	0.00017125	13.28%
V 292.402	16906.6	-0.0089176	mg/L	0.00095585	-0.0089176	mg/L	0.00095585	10.72%
Zn 206.200	-29.5	-0.0159746	mg/L	0.00000267	-0.0159746	mg/L	0.00000267	0.02%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/22/2011 12:43:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	4000036.1	455.885 mg/L	1.8391	455.885 mg/L	1.8391	0.40%
QC value within limits for Al		308.215	Recovery = 91.18%			
Sb 206.836	696.1	0.951073 mg/L	0.0004766	0.951073 mg/L	0.0004766	0.05%
QC value within limits for Sb		206.836	Recovery = 95.11%			
As 188.979	611.1	0.963073 mg/L	0.0055857	0.963073 mg/L	0.0055857	0.58%
QC value within limits for As		188.979	Recovery = 96.31%			
Ba 233.527	26234.7	0.478649 mg/L	0.0074273	0.478649 mg/L	0.0074273	1.55%
QC value within limits for Ba		233.527	Recovery = 95.73%			
Be 234.861	130149.4	0.519712 mg/L	0.0023215	0.519712 mg/L	0.0023215	0.45%
QC value within limits for Be		234.861	Recovery = 103.94%			
Cd 226.502	46532.0	0.898665 mg/L	0.0135697	0.898665 mg/L	0.0135697	1.51%
QC value within limits for Cd		226.502	Recovery = 89.87%			
Ca 315.887	26062599.5	452.975 mg/L	1.3459	452.975 mg/L	1.3459	0.30%
QC value within limits for Ca		315.887	Recovery = 90.60%			
Cr 206.158	4273.0	0.475959 mg/L	0.0002057	0.475959 mg/L	0.0002057	0.04%
QC value within limits for Cr		206.158	Recovery = 95.19%			
Co 228.616	8091.0	0.443955 mg/L	0.0012424	0.443955 mg/L	0.0012424	0.28%
QC value within limits for Co		228.616	Recovery = 88.79%			
Cu 324.752	54881.5	0.494156 mg/L	0.0119275	0.494156 mg/L	0.0119275	2.41%
QC value within limits for Cu		324.752	Recovery = 98.83%			
Fe 273.955	2712562.6	169.881 mg/L	0.2933	169.881 mg/L	0.2933	0.17%
QC value within limits for Fe		273.955	Recovery = 84.94%			
Pb 220.353	4557.9	0.911933 mg/L	0.0028583	0.911933 mg/L	0.0028583	0.31%
QC value within limits for Pb		220.353	Recovery = 91.19%			
Mg 279.077	6382322.7	486.140 mg/L	2.2863	486.140 mg/L	2.2863	0.47%
QC value within limits for Mg		279.077	Recovery = 97.23%			
Mn 257.610	212981.8	0.455618 mg/L	0.0073361	0.455618 mg/L	0.0073361	1.61%
QC value within limits for Mn		257.610	Recovery = 91.12%			
Mo 202.031	-124.8	0.0042926 mg/L	0.00088400	0.0042926 mg/L	0.00088400	20.59%
QC value within limits for Mo		202.031	Recovery = Not calculated			
Ni 231.604	30821.2	0.886952 mg/L	0.0127984	0.886952 mg/L	0.0127984	1.44%
QC value within limits for Ni		231.604	Recovery = 88.70%			
Se 196.026	420.3	0.867573 mg/L	0.0054438	0.867573 mg/L	0.0054438	0.63%
QC value within limits for Se		196.026	Recovery = 86.76%			
Ag 328.068	119916.9	1.02764 mg/L	0.019106	1.02764 mg/L	0.019106	1.86%
QC value within limits for Ag		328.068	Recovery = 102.76%			
Na 330.237	-667.4	-0.517368 mg/L	0.0595318	-0.517368 mg/L	0.0595318	11.51%
QC value less than the lower limit for Na		330.237	Recovery = Not calculated			
Tl 190.801	1020.2	0.919371 mg/L	0.0050280	0.919371 mg/L	0.0050280	0.55%
QC value within limits for Tl		190.801	Recovery = 91.94%			
Sn 189.927	-156.8	-0.0081470 mg/L	0.00098245	-0.0081470 mg/L	0.00098245	12.06%
QC value within limits for Sn		189.927	Recovery = Not calculated			
Ti 334.940	-353.4	-0.0014494 mg/L	0.00002674	-0.0014494 mg/L	0.00002674	1.84%
QC value within limits for Ti		334.940	Recovery = Not calculated			
V 292.402	59221.2	0.422925 mg/L	0.0076049	0.422925 mg/L	0.0076049	1.80%
QC value within limits for V		292.402	Recovery = 84.58%			
Zn 206.200	16546.1	0.898419 mg/L	0.0017820	0.898419 mg/L	0.0017820	0.20%
QC value within limits for Zn		206.200	Recovery = 89.84%			

QC Failed. Continue with analysis.

Sequence No.: 11  
 Sample ID: MB 11724 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 64  
 Date Collected: 12/22/2011 12:48:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11724 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1356.1	0.154456	mg/L	0.0152276	0.154456	mg/L	0.0152276	9.86%
Sb 206.836	0.2	-0.0023687	mg/L	0.00733719	-0.0023687	mg/L	0.00733719	309.76%
As 188.979	-1.1	0.0011185	mg/L	0.00526216	0.0011185	mg/L	0.00526216	470.49%
Ba 233.527	2.2	-0.0034524	mg/L	0.00003922	-0.0034524	mg/L	0.00003922	1.14%
Be 234.861	36.4	0.0005990	mg/L	0.00001592	0.0005990	mg/L	0.00001592	2.66%
Cd 226.502	21.4	-0.0015692	mg/L	0.00016177	-0.0015692	mg/L	0.00016177	10.31%
Ca 315.887	9367.1	-0.0908534	mg/L	0.01295096	-0.0908534	mg/L	0.01295096	14.25%
Cr 206.158	2.7	-0.0025904	mg/L	0.00007171	-0.0025904	mg/L	0.00007171	2.77%
Co 228.616	3.1	-0.0041058	mg/L	0.00014307	-0.0041058	mg/L	0.00014307	3.48%
Cu 324.752	198.9	0.0015626	mg/L	0.00000661	0.0015626	mg/L	0.00000661	0.42%
Fe 273.955	1065.4	0.0453722	mg/L	0.00255168	0.0453722	mg/L	0.00255168	5.62%
Pb 220.353	-2.5	-0.0036559	mg/L	0.00066704	-0.0036559	mg/L	0.00066704	18.25%
Mg 279.077	2430.4	-0.180977	mg/L	0.0136810	-0.180977	mg/L	0.0136810	7.56%
Mn 257.610	-35.6	-0.0031308	mg/L	0.00000223	-0.0031308	mg/L	0.00000223	0.07%
Mo 202.031	-0.2	-0.0023692	mg/L	0.00029726	-0.0023692	mg/L	0.00029726	12.55%
Ni 231.604	10.4	-0.0012507	mg/L	0.00002424	-0.0012507	mg/L	0.00002424	1.94%
Se 196.026	9.3	0.0035813	mg/L	0.00525107	0.0035813	mg/L	0.00525107	146.63%
Ag 328.068	5.5	-0.0000719	mg/L	0.00088985	-0.0000719	mg/L	0.00088985	>999.9%
Na 330.237	-174.2	0.452579	mg/L	0.1501120	0.452579	mg/L	0.1501120	33.17%
Tl 190.801	4.4	0.0000169	mg/L	0.00152443	0.0000169	mg/L	0.00152443	>999.9%
Sn 189.927	2.9	-0.0014065	mg/L	0.00022567	-0.0014065	mg/L	0.00022567	16.05%
Ti 334.940	-36.4	-0.0004840	mg/L	0.00000782	-0.0004840	mg/L	0.00000782	1.62%
V 292.402	12.6	-0.0009735	mg/L	0.00030795	-0.0009735	mg/L	0.00030795	31.63%
Zn 206.200	-9.5	-0.0024530	mg/L	0.00016077	-0.0024530	mg/L	0.00016077	6.55%

Sequence No.: 12  
 Sample ID: LCSW 11724  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 65  
 Date Collected: 12/22/2011 12:51:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSW 11724

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	45108.5	5.13454	mg/L	0.006739	5.13454	mg/L	0.006739	0.13%
Sb 206.836	367.4	0.485732	mg/L	0.0018047	0.485732	mg/L	0.0018047	0.37%
As 188.979	319.1	0.487950	mg/L	0.0036357	0.487950	mg/L	0.0036357	0.75%
Ba 233.527	28378.0	0.521133	mg/L	0.0009105	0.521133	mg/L	0.0009105	0.17%
Be 234.861	212484.8	0.506714	mg/L	0.0001545	0.506714	mg/L	0.0001545	0.03%
Cd 226.502	26774.9	0.515625	mg/L	0.0023641	0.515625	mg/L	0.0023641	0.46%
Ca 315.887	2943642.8	50.9363	mg/L	0.34205	50.9363	mg/L	0.34205	0.67%
Cr 206.158	4697.2	0.510976	mg/L	0.0034100	0.510976	mg/L	0.0034100	0.67%
Co 228.616	9241.7	0.511885	mg/L	0.0017264	0.511885	mg/L	0.0017264	0.34%
Cu 324.752	55405.7	0.509115	mg/L	0.0020541	0.509115	mg/L	0.0020541	0.40%
Fe 273.955	81784.9	5.10127	mg/L	0.002195	5.10127	mg/L	0.002195	0.04%
Pb 220.353	2752.1	0.504963	mg/L	0.0009987	0.504963	mg/L	0.0009987	0.20%
Mg 279.077	674135.5	51.0212	mg/L	0.36280	51.0212	mg/L	0.36280	0.71%
Mn 257.610	237260.8	0.506196	mg/L	0.0005222	0.506196	mg/L	0.0005222	0.10%
Mo 202.031	3901.1	0.501998	mg/L	0.0032291	0.501998	mg/L	0.0032291	0.64%
Ni 231.604	17233.5	0.497638	mg/L	0.0036099	0.497638	mg/L	0.0036099	0.73%
Se 196.026	546.9	0.518684	mg/L	0.0063792	0.518684	mg/L	0.0063792	1.23%
Ag 328.068	11325.6	0.0967802	mg/L	0.00042759	0.0967802	mg/L	0.00042759	0.44%
Na 330.237	24010.0	48.0090	mg/L	0.25208	48.0090	mg/L	0.25208	0.53%
Tl 190.801	594.2	0.531169	mg/L	0.0052251	0.531169	mg/L	0.0052251	0.98%
Sn 189.927	1625.1	0.503269	mg/L	0.0028083	0.503269	mg/L	0.0028083	0.56%
Ti 334.940	165774.4	0.504502	mg/L	0.0032434	0.504502	mg/L	0.0032434	0.64%
V 292.402	49451.4	0.491315	mg/L	0.0009322	0.491315	mg/L	0.0009322	0.19%
Zn 206.200	9144.9	0.501326	mg/L	0.0011525	0.501326	mg/L	0.0011525	0.23%

Sequence No.: 13  
 Sample ID: LCSW MR 11724  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 66  
 Date Collected: 12/22/2011 12:54:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSW MR 11724

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	44738.8	5.09227	mg/L	0.151908	5.09227	mg/L	0.151908	2.98%
Sb 206.836	380.9	0.503654	mg/L	0.0089286	0.503654	mg/L	0.0089286	1.77%
As 188.979	321.7	0.491882	mg/L	0.0010853	0.491882	mg/L	0.0010853	0.22%
Ba 233.527	28263.6	0.519027	mg/L	0.0138694	0.519027	mg/L	0.0138694	2.67%
Be 234.861	211653.5	0.504752	mg/L	0.0155672	0.504752	mg/L	0.0155672	3.08%
Cd 226.502	26695.7	0.514094	mg/L	0.0170711	0.514094	mg/L	0.0170711	3.32%
Ca 315.887	2968867.2	51.3749	mg/L	0.51624	51.3749	mg/L	0.51624	1.00%
Cr 206.158	4766.9	0.518621	mg/L	0.0020659	0.518621	mg/L	0.0020659	0.40%
Co 228.616	9409.5	0.521278	mg/L	0.0008688	0.521278	mg/L	0.0008688	0.17%
Cu 324.752	55027.0	0.505608	mg/L	0.0170918	0.505608	mg/L	0.0170918	3.38%
Fe 273.955	81704.5	5.09624	mg/L	0.151928	5.09624	mg/L	0.151928	2.98%
Pb 220.353	2796.0	0.513048	mg/L	0.0000815	0.513048	mg/L	0.0000815	0.02%
Mg 279.077	679764.3	51.4502	mg/L	0.49676	51.4502	mg/L	0.49676	0.97%
Mn 257.610	236489.3	0.504531	mg/L	0.0139577	0.504531	mg/L	0.0139577	2.77%
Mo 202.031	3978.4	0.511983	mg/L	0.0006118	0.511983	mg/L	0.0006118	0.12%
Ni 231.604	17486.3	0.504962	mg/L	0.0024605	0.504962	mg/L	0.0024605	0.49%
Se 196.026	551.5	0.522933	mg/L	0.0061271	0.522933	mg/L	0.0061271	1.17%
Ag 328.068	11125.4	0.0950883	mg/L	0.00180547	0.0950883	mg/L	0.00180547	1.90%
Na 330.237	23869.5	47.7327	mg/L	1.59087	47.7327	mg/L	1.59087	3.33%
Tl 190.801	603.1	0.539146	mg/L	0.0008374	0.539146	mg/L	0.0008374	0.16%
Sn 189.927	1665.5	0.515762	mg/L	0.0007890	0.515762	mg/L	0.0007890	0.15%
Ti 334.940	165510.7	0.503699	mg/L	0.0128649	0.503699	mg/L	0.0128649	2.55%
V 292.402	49192.0	0.488571	mg/L	0.0136112	0.488571	mg/L	0.0136112	2.79%
Zn 206.200	9301.6	0.509963	mg/L	0.0003281	0.509963	mg/L	0.0003281	0.06%

Sequence No.: 14  
 Sample ID: 63081-024  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 67  
 Date Collected: 12/22/2011 12:58:15 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-024

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	5190.7	0.591500	mg/L	0.0109086	0.591500	mg/L	0.0109086	1.84%
Sb 206.836	2.9	0.0018448	mg/L	0.00046120	0.0018448	mg/L	0.00046120	25.00%
As 188.979	-6.2	-0.0040384	mg/L	0.00436991	-0.0040384	mg/L	0.00436991	108.21%
Ba 233.527	31385.6	0.576260	mg/L	0.0008859	0.576260	mg/L	0.0008859	0.15%
Be 234.861	-3272.1	0.0027317	mg/L	0.00022729	0.0027317	mg/L	0.00022729	8.32%
Cd 226.502	72.6	-0.0005246	mg/L	0.00010005	-0.0005246	mg/L	0.00010005	19.07%
Ca 315.887	1931812.0	33.3405	mg/L	0.41927	33.3405	mg/L	0.41927	1.26%
Cr 206.158	16.2	0.0086285	mg/L	0.00009222	0.0086285	mg/L	0.00009222	1.07%
Co 228.616	449.5	0.0206549	mg/L	0.00018446	0.0206549	mg/L	0.00018446	0.89%
Cu 324.752	2716.2	0.0239232	mg/L	0.00077345	0.0239232	mg/L	0.00077345	3.23%
Fe 273.955	127275.5	7.95060	mg/L	0.020853	7.95060	mg/L	0.020853	0.26%
Pb 220.353	3492.0	0.638817	mg/L	0.0057368	0.638817	mg/L	0.0057368	0.90%
Mg 279.077	39468.2	2.64231	mg/L	0.021133	2.64231	mg/L	0.021133	0.80%
Mn 257.610	475296.9	1.01855	mg/L	0.012127	1.01855	mg/L	0.012127	1.19%
Mo 202.031	-7.9	-0.0030684	mg/L	0.00008310	-0.0030684	mg/L	0.00008310	2.71%
Ni 231.604	696.0	0.0184148	mg/L	0.00015833	0.0184148	mg/L	0.00015833	0.86%
Se 196.026	15.5	0.0294404	mg/L	0.00057959	0.0294404	mg/L	0.00057959	1.97%
Ag 328.068	-64.5	-0.0002422	mg/L	0.00006271	-0.0002422	mg/L	0.00006271	25.89%
Na 330.237	804444.3	1582.67	mg/L	14.378	1582.67	mg/L	14.378	0.91%
Tl 190.801	-1.0	-0.0044409	mg/L	0.00009936	-0.0044409	mg/L	0.00009936	2.24%
Sn 189.927	-11.5	-0.0027032	mg/L	0.00156016	-0.0027032	mg/L	0.00156016	57.72%
Ti 334.940	746.4	0.0018999	mg/L	0.00020059	0.0018999	mg/L	0.00020059	10.56%
V 292.402	422.3	0.0021568	mg/L	0.00024221	0.0021568	mg/L	0.00024221	11.23%
Zn 206.200	7053.8	0.387204	mg/L	0.0014133	0.387204	mg/L	0.0014133	0.36%

Sequence No.: 15  
 Sample ID: 63081-024 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 68  
 Date Collected: 12/22/2011 1:01:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63081-024 MR

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	4654.8	0.530430	mg/L	0.0129059	0.530430	mg/L	0.0129059	2.43%
Sb 206.836	3.7	0.0028863	mg/L	0.00237602	0.0028863	mg/L	0.00237602	82.32%
As 188.979	-6.2	-0.0041896	mg/L	0.00821532	-0.0041896	mg/L	0.00821532	196.09%
Ba 233.527	29629.8	0.543828	mg/L	0.0063553	0.543828	mg/L	0.0063553	1.17%
Be 234.861	-3258.6	0.0020791	mg/L	0.00016304	0.0020791	mg/L	0.00016304	7.84%
Cd 226.502	61.1	-0.0007522	mg/L	0.00006527	-0.0007522	mg/L	0.00006527	8.68%
Ca 315.887	1800444.6	31.0560	mg/L	0.07725	31.0560	mg/L	0.07725	0.25%
Cr 206.158	11.1	0.0075277	mg/L	0.00028651	0.0075277	mg/L	0.00028651	3.81%
Co 228.616	414.1	0.0186893	mg/L	0.00052476	0.0186893	mg/L	0.00052476	2.81%
Cu 324.752	2344.8	0.0205571	mg/L	0.00036666	0.0205571	mg/L	0.00036666	1.78%
Fe 273.955	118564.9	7.40501	mg/L	0.074945	7.40501	mg/L	0.074945	1.01%
Pb 220.353	3301.3	0.603741	mg/L	0.0008028	0.603741	mg/L	0.0008028	0.13%
Mg 279.077	36707.5	2.43187	mg/L	0.028763	2.43187	mg/L	0.028763	1.18%
Mn 257.610	444033.5	0.951354	mg/L	0.0042313	0.951354	mg/L	0.0042313	0.44%
Mo 202.031	-13.9	-0.0038597	mg/L	0.00000177	-0.0038597	mg/L	0.00000177	0.05%
Ni 231.604	646.9	0.0170063	mg/L	0.00008581	0.0170063	mg/L	0.00008581	0.50%
Se 196.026	11.9	0.0246611	mg/L	0.00978481	0.0246611	mg/L	0.00978481	39.68%
Ag 328.068	-93.6	-0.0005186	mg/L	0.00005949	-0.0005186	mg/L	0.00005949	11.47%
Na 330.237	752577.5	1480.68	mg/L	5.827	1480.68	mg/L	5.827	0.39%
Tl 190.801	-1.1	-0.0045566	mg/L	0.00610225	-0.0045566	mg/L	0.00610225	133.92%
Sn 189.927	-13.4	-0.0035015	mg/L	0.00087646	-0.0035015	mg/L	0.00087646	25.03%
Ti 334.940	662.2	0.0016434	mg/L	0.00005369	0.0016434	mg/L	0.00005369	3.27%
V 292.402	379.5	0.0017900	mg/L	0.00018738	0.0017900	mg/L	0.00018738	10.47%
Zn 206.200	6652.5	0.365065	mg/L	0.0003063	0.365065	mg/L	0.0003063	0.08%

Sequence No.: 16

Autosampler Location: 69

Sample ID: 63081-024 TCLP SPK

Date Collected: 12/22/2011 1:04:49 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63081-024 TCLP SPK

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	46220.8	5.26162	mg/L	0.134795	5.26162	mg/L	0.134795	2.56%
Sb 206.836	367.1	0.485702	mg/L	0.0017328	0.485702	mg/L	0.0017328	0.36%
As 188.979	331.3	0.508651	mg/L	0.0008404	0.508651	mg/L	0.0008404	0.17%
Ba 233.527	291851.3	5.38888	mg/L	0.125059	5.38888	mg/L	0.125059	2.32%
Be 234.861	201827.2	0.490466	mg/L	0.0117961	0.490466	mg/L	0.0117961	2.41%
Cd 226.502	25032.2	0.481986	mg/L	0.0094037	0.481986	mg/L	0.0094037	1.95%
Ca 315.887	4616663.7	80.0301	mg/L	0.38827	80.0301	mg/L	0.38827	0.49%
Cr 206.158	4444.8	0.492740	mg/L	0.0030328	0.492740	mg/L	0.0030328	0.62%
Co 228.616	9031.8	0.500003	mg/L	0.0004385	0.500003	mg/L	0.0004385	0.09%
Cu 324.752	57332.5	0.526140	mg/L	0.0131006	0.526140	mg/L	0.0131006	2.49%
Fe 273.955	194092.8	12.1357	mg/L	0.23963	12.1357	mg/L	0.23963	1.97%
Pb 220.353	29281.2	5.37801	mg/L	0.088700	5.37801	mg/L	0.088700	1.65%
Mg 279.077	643893.0	48.7159	mg/L	0.83772	48.7159	mg/L	0.83772	1.72%
Mn 257.610	660354.4	1.41567	mg/L	0.036709	1.41567	mg/L	0.036709	2.59%
Mo 202.031	3703.2	0.476697	mg/L	0.0004356	0.476697	mg/L	0.0004356	0.09%
Ni 231.604	16804.7	0.485038	mg/L	0.0018311	0.485038	mg/L	0.0018311	0.38%
Se 196.026	556.9	0.545941	mg/L	0.0031589	0.545941	mg/L	0.0031589	0.58%
Ag 328.068	11162.0	0.0957616	mg/L	0.00312178	0.0957616	mg/L	0.00312178	3.26%
Na 330.237	802377.1	1578.61	mg/L	37.041	1578.61	mg/L	37.041	2.35%
Tl 190.801	526.9	0.471134	mg/L	0.0032767	0.471134	mg/L	0.0032767	0.70%
Sn 189.927	1548.9	0.482516	mg/L	0.0045833	0.482516	mg/L	0.0045833	0.95%
Ti 334.940	156279.4	0.475585	mg/L	0.0114882	0.475585	mg/L	0.0114882	2.42%
V 292.402	48296.3	0.480128	mg/L	0.0100993	0.480128	mg/L	0.0100993	2.10%
Zn 206.200	15428.2	0.848075	mg/L	0.0023530	0.848075	mg/L	0.0023530	0.28%

Sequence No.: 17

Autosampler Location: 70

Sample ID: 63081-024 PS

Date Collected: 12/22/2011 1:08:09 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63081-024 PS

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	45655.1	5.19717	mg/L	0.033079	5.19717	mg/L	0.033079	0.64%
Sb 206.836	367.0	0.485526	mg/L	0.0006272	0.485526	mg/L	0.0006272	0.13%
As 188.979	322.9	0.495965	mg/L	0.0142033	0.495965	mg/L	0.0142033	2.86%
Ba 233.527	358273.4	6.61608	mg/L	0.011098	6.61608	mg/L	0.011098	0.17%
Be 234.861	199156.1	0.484210	mg/L	0.0000059	0.484210	mg/L	0.0000059	0.00%
Cd 226.502	24509.0	0.471873	mg/L	0.0022133	0.471873	mg/L	0.0022133	0.47%
Ca 315.887	4550125.7	78.8730	mg/L	0.49118	78.8730	mg/L	0.49118	0.62%
Cr 206.158	4384.3	0.486170	mg/L	0.0026319	0.486170	mg/L	0.0026319	0.54%
Co 228.616	8938.6	0.494784	mg/L	0.0004497	0.494784	mg/L	0.0004497	0.09%
Cu 324.752	56746.6	0.520770	mg/L	0.0011664	0.520770	mg/L	0.0011664	0.22%
Fe 273.955	194438.8	12.1574	mg/L	0.05797	12.1574	mg/L	0.05797	0.48%
Pb 220.353	34380.6	6.31459	mg/L	0.030982	6.31459	mg/L	0.030982	0.49%
Mg 279.077	634318.1	47.9860	mg/L	0.18858	47.9860	mg/L	0.18858	0.39%
Mn 257.610	659633.2	1.41413	mg/L	0.000869	1.41413	mg/L	0.000869	0.06%
Mo 202.031	3693.2	0.475398	mg/L	0.0018456	0.475398	mg/L	0.0018456	0.39%
Ni 231.604	16617.5	0.479616	mg/L	0.0010327	0.479616	mg/L	0.0010327	0.22%
Se 196.026	560.5	0.549521	mg/L	0.0065849	0.549521	mg/L	0.0065849	1.20%
Ag 328.068	10558.3	0.0906175	mg/L	0.00049834	0.0906175	mg/L	0.00049834	0.55%
Na 330.237	804919.6	1583.61	mg/L	5.596	1583.61	mg/L	5.596	0.35%
Tl 190.801	524.3	0.468881	mg/L	0.0053552	0.468881	mg/L	0.0053552	1.14%
Sn 189.927	1547.7	0.482034	mg/L	0.0004963	0.482034	mg/L	0.0004963	0.10%
Ti 334.940	157074.2	0.478005	mg/L	0.0014915	0.478005	mg/L	0.0014915	0.31%
V 292.402	47645.1	0.473704	mg/L	0.0017327	0.473704	mg/L	0.0017327	0.37%
Zn 206.200	15346.2	0.843571	mg/L	0.0001175	0.843571	mg/L	0.0001175	0.01%

Sequence No.: 18  
 Sample ID: 63081-024 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 71  
 Date Collected: 12/22/2011 1:11:30 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-024 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	965.8	0.109966	mg/L	0.0035427	0.109966	mg/L	0.0035427	3.22%
Sb 206.836	0.1	-0.0023350	mg/L	0.00014595	-0.0023350	mg/L	0.00014595	6.25%
As 188.979	-2.1	0.0001762	mg/L	0.00550134	0.0001762	mg/L	0.00550134	>999.9%
Ba 233.527	6821.5	0.122513	mg/L	0.0003198	0.122513	mg/L	0.0003198	0.26%
Be 234.861	-681.8	0.0010448	mg/L	0.00001856	0.0010448	mg/L	0.00001856	1.78%
Cd 226.502	31.2	-0.0013676	mg/L	0.00006508	-0.0013676	mg/L	0.00006508	4.76%
Ca 315.887	419652.3	7.04402	mg/L	0.118215	7.04402	mg/L	0.118215	1.68%
Cr 206.158	9.4	0.0004838	mg/L	0.00010432	0.0004838	mg/L	0.00010432	21.56%
Co 228.616	110.7	0.0018685	mg/L	0.00014651	0.0018685	mg/L	0.00014651	7.84%
Cu 324.752	593.4	0.0050197	mg/L	0.00025907	0.0050197	mg/L	0.00025907	5.16%
Fe 273.955	28243.3	1.74767	mg/L	0.032960	1.74767	mg/L	0.032960	1.89%
Pb 220.353	789.8	0.141992	mg/L	0.0016677	0.141992	mg/L	0.0016677	1.17%
Mg 279.077	8606.8	0.289835	mg/L	0.0134283	0.289835	mg/L	0.0134283	4.63%
Mn 257.610	104628.2	0.221835	mg/L	0.0040273	0.221835	mg/L	0.0040273	1.82%
Mo 202.031	0.8	-0.0021781	mg/L	0.00057895	-0.0021781	mg/L	0.00057895	26.58%
Ni 231.604	154.4	0.0028788	mg/L	0.00015389	0.0028788	mg/L	0.00015389	5.35%
Se 196.026	12.6	0.0109861	mg/L	0.00036952	0.0109861	mg/L	0.00036952	3.36%
Ag 328.068	-40.0	-0.0003692	mg/L	0.00008169	-0.0003692	mg/L	0.00008169	22.13%
Na 330.237	154336.8	304.286	mg/L	4.9589	304.286	mg/L	4.9589	1.63%
Tl 190.801	-0.1	-0.0039512	mg/L	0.00068884	-0.0039512	mg/L	0.00068884	17.43%
Sn 189.927	4.4	-0.0002538	mg/L	0.00006280	-0.0002538	mg/L	0.00006280	24.75%
Ti 334.940	201.2	0.0002394	mg/L	0.00004487	0.0002394	mg/L	0.00004487	18.74%
V 292.402	98.0	-0.0002736	mg/L	0.00038205	-0.0002736	mg/L	0.00038205	139.65%
Zn 206.200	1694.4	0.0915499	mg/L	0.00035362	0.0915499	mg/L	0.00035362	0.39%

Sequence No.: 19

Autosampler Location: 4

Sample ID: CCV V-128659

Date Collected: 12/22/2011 1:14:36 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Std.Dev.	
Al 308.215	45057.4	5.12861	mg/L	0.056888	5.12861	0.056888	1.11%
QC value within limits for Al		308.215		Recovery = 102.57%			
Sb 206.836	384.0	0.507594	mg/L	0.0033922	0.507594	0.0033922	0.67%
QC value within limits for Sb		206.836		Recovery = 101.52%			
As 188.979	331.0	0.505929	mg/L	0.0089684	0.505929	0.0089684	1.77%
QC value within limits for As		188.979		Recovery = 101.19%			
Ba 233.527	28649.5	0.526155	mg/L	0.0066951	0.526155	0.0066951	1.27%
QC value within limits for Ba		233.527		Recovery = 105.23%			
Be 234.861	214543.4	0.511601	mg/L	0.0067945	0.511601	0.0067945	1.33%
QC value within limits for Be		234.861		Recovery = 102.32%			
Cd 226.502	26797.8	0.516068	mg/L	0.0052180	0.516068	0.0052180	1.01%
QC value within limits for Cd		226.502		Recovery = 103.21%			
Ca 315.887	2996522.2	51.8558	mg/L	0.84121	51.8558	0.84121	1.62%
QC value within limits for Ca		315.887		Recovery = 103.71%			
Cr 206.158	4740.0	0.515672	mg/L	0.0006223	0.515672	0.0006223	0.12%
QC value within limits for Cr		206.158		Recovery = 103.13%			
Co 228.616	9403.0	0.520897	mg/L	0.0007863	0.520897	0.0007863	0.15%
QC value within limits for Co		228.616		Recovery = 104.18%			
Cu 324.752	56148.9	0.515942	mg/L	0.0068369	0.515942	0.0068369	1.33%
QC value within limits for Cu		324.752		Recovery = 103.19%			
Fe 273.955	82348.4	5.13657	mg/L	0.057364	5.13657	0.057364	1.12%
QC value within limits for Fe		273.955		Recovery = 102.73%			
Pb 220.353	2793.2	0.512551	mg/L	0.0002777	0.512551	0.0002777	0.05%
QC value within limits for Pb		220.353		Recovery = 102.51%			
Mg 279.077	685122.4	51.8587	mg/L	0.80765	51.8587	0.80765	1.56%
QC value within limits for Mg		279.077		Recovery = 103.72%			
Mn 257.610	240171.3	0.512439	mg/L	0.0059076	0.512439	0.0059076	1.15%
QC value within limits for Mn		257.610		Recovery = 102.49%			
Mo 202.031	3961.4	0.509796	mg/L	0.0001599	0.509796	0.0001599	0.03%
QC value within limits for Mo		202.031		Recovery = 101.96%			
Ni 231.604	17579.8	0.507668	mg/L	0.0007778	0.507668	0.0007778	0.15%
QC value within limits for Ni		231.604		Recovery = 101.53%			
Se 196.026	560.9	0.531806	mg/L	0.0038212	0.531806	0.0038212	0.72%
QC value within limits for Se		196.026		Recovery = 106.36%			
Ag 328.068	11851.4	0.101257	mg/L	0.0006518	0.101257	0.0006518	0.64%
QC value within limits for Ag		328.068		Recovery = 101.26%			
Na 330.237	24692.1	49.3502	mg/L	0.35447	49.3502	0.35447	0.72%
QC value within limits for Na		330.237		Recovery = 98.70%			
Tl 190.801	597.5	0.534233	mg/L	0.0009456	0.534233	0.0009456	0.18%
QC value within limits for Tl		190.801		Recovery = 106.85%			
Sn 189.927	1656.1	0.512912	mg/L	0.0034261	0.512912	0.0034261	0.67%
QC value within limits for Sn		189.927		Recovery = 102.58%			
Ti 334.940	168572.8	0.513025	mg/L	0.0040793	0.513025	0.0040793	0.80%
QC value within limits for Ti		334.940		Recovery = 102.60%			
V 292.402	50204.2	0.498789	mg/L	0.0045743	0.498789	0.0045743	0.92%
QC value within limits for V		292.402		Recovery = 99.76%			
Zn 206.200	9240.1	0.506559	mg/L	0.0000577	0.506559	0.0000577	0.01%
QC value within limits for Zn		206.200		Recovery = 101.31%			

All analyte(s) passed QC.

Sequence No.: 20

Autosampler Location: 8

Sample ID: CCB

Date Collected: 12/22/2011 1:17:53 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-148.6	-0.0170377 mg/L	0.00611983	-0.0170377 mg/L	0.00611983	35.92%
QC value within limits for Al 308.215 Recovery = Not calculated						
Sb 206.836	2.8	0.0010327 mg/L	0.00507175	0.0010327 mg/L	0.00507175	491.12%
QC value within limits for Sb 206.836 Recovery = Not calculated						
As 188.979	-0.3	0.0023388 mg/L	0.00420544	0.0023388 mg/L	0.00420544	179.81%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527	102.8	-0.0015923 mg/L	0.00008116	-0.0015923 mg/L	0.00008116	5.10%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 234.861	67.2	0.0005879 mg/L	0.00002103	0.0005879 mg/L	0.00002103	3.58%
QC value within limits for Be 234.861 Recovery = Not calculated						
Cd 226.502	12.9	-0.0017332 mg/L	0.00013969	-0.0017332 mg/L	0.00013969	8.06%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Ca 315.887	299.7	-0.248535 mg/L	0.0014827	-0.248535 mg/L	0.0014827	0.60%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Cr 206.158	5.4	-0.0020401 mg/L	0.00012358	-0.0020401 mg/L	0.00012358	6.06%
QC value within limits for Cr 206.158 Recovery = Not calculated						
Co 228.616	2.7	-0.0041299 mg/L	0.00041196	-0.0041299 mg/L	0.00041196	9.98%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cu 324.752	129.8	0.0009299 mg/L	0.00042326	0.0009299 mg/L	0.00042326	45.52%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 273.955	1.7	-0.0212519 mg/L	0.00005816	-0.0212519 mg/L	0.00005816	0.27%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Pb 220.353	7.1	-0.0019210 mg/L	0.00040995	-0.0019210 mg/L	0.00040995	21.34%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Mg 279.077	58.2	-0.361806 mg/L	0.0007068	-0.361806 mg/L	0.0007068	0.20%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610	188.2	-0.0026504 mg/L	0.00001588	-0.0026504 mg/L	0.00001588	0.60%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031	1.8	-0.0021205 mg/L	0.00080064	-0.0021205 mg/L	0.00080064	37.76%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604	4.3	-0.0014258 mg/L	0.00024095	-0.0014258 mg/L	0.00024095	16.90%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Se 196.026	6.2	0.0005249 mg/L	0.00445802	0.0005249 mg/L	0.00445802	849.30%
QC value within limits for Se 196.026 Recovery = Not calculated						
Ag 328.068	3.1	-0.0000967 mg/L	0.00024408	-0.0000967 mg/L	0.00024408	252.42%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Na 330.237	-10.9	0.773698 mg/L	0.0684713	0.773698 mg/L	0.0684713	8.85%
QC value within limits for Na 330.237 Recovery = Not calculated						
Tl 190.801	3.0	-0.0012687 mg/L	0.00033124	-0.0012687 mg/L	0.00033124	26.11%
QC value within limits for Tl 190.801 Recovery = Not calculated						
Sn 189.927	6.9	-0.0001758 mg/L	0.00179612	-0.0001758 mg/L	0.00179612	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940	74.1	-0.0001474 mg/L	0.00018059	-0.0001474 mg/L	0.00018059	122.48%
QC value within limits for Ti 334.940 Recovery = Not calculated						
V 292.402	-15.6	-0.0011920 mg/L	0.00009304	-0.0011920 mg/L	0.00009304	7.80%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200	175.7	0.0077725 mg/L	0.00033098	0.0077725 mg/L	0.00033098	4.26%
QC value within limits for Zn 206.200 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63269-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 72  
 Date Collected: 12/22/2011 1:21:07 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63269-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3512.9	0.400134	mg/L	0.0005172	0.400134	mg/L	0.0005172	0.13%
Sb 206.836	-1.1	-0.0013889	mg/L	0.00507782	-0.0013889	mg/L	0.00507782	365.61%
As 188.979	8.1	0.0277891	mg/L	0.00626852	0.0277891	mg/L	0.00626852	22.56%
Ba 233.527	42552.8	0.782301	mg/L	0.0001802	0.782301	mg/L	0.0001802	0.02%
Be 234.861	-12550.3	0.0051051	mg/L	0.00033941	0.0051051	mg/L	0.00033941	6.65%
Cd 226.502	2052.7	0.0378823	mg/L	0.00003191	0.0378823	mg/L	0.00003191	0.08%
Ca 315.887	10235913.6	177.749	mg/L	2.2362	177.749	mg/L	2.2362	1.26%
Cr 206.158	-1011.7	0.184405	mg/L	0.0010472	0.184405	mg/L	0.0010472	0.57%
Co 228.616	614.7	0.0294002	mg/L	0.00018765	0.0294002	mg/L	0.00018765	0.64%
Cu 324.752	5361.0	0.0446455	mg/L	0.00009431	0.0446455	mg/L	0.00009431	0.21%
Fe 273.955	435298.1	27.2437	mg/L	0.03400	27.2437	mg/L	0.03400	0.12%
Pb 220.353	7911.8	1.45513	mg/L	0.000258	1.45513	mg/L	0.000258	0.02%
Mg 279.077	481585.8	36.3437	mg/L	0.22445	36.3437	mg/L	0.22445	0.62%
Mn 257.610	1331091.6	2.85782	mg/L	0.001722	2.85782	mg/L	0.001722	0.06%
Mo 202.031	78.3	0.0087552	mg/L	0.00009951	0.0087552	mg/L	0.00009951	1.14%
Ni 231.604	2916.2	0.0822530	mg/L	0.00012661	0.0822530	mg/L	0.00012661	0.15%
Se 196.026	-5.9	0.0521073	mg/L	0.00722025	0.0521073	mg/L	0.00722025	13.86%
Ag 328.068	-386.1	-0.0005838	mg/L	0.00033079	-0.0005838	mg/L	0.00033079	56.66%
Na 330.237	459124.3	903.628	mg/L	1.2353	903.628	mg/L	1.2353	0.14%
Tl 190.801	-6.6	-0.0093585	mg/L	0.00432296	-0.0093585	mg/L	0.00432296	46.19%
Sn 189.927	-39.9	0.0020847	mg/L	0.00074285	0.0020847	mg/L	0.00074285	35.63%
Ti 334.940	1058.2	0.0028495	mg/L	0.00002319	0.0028495	mg/L	0.00002319	0.81%
V 292.402	3339.9	0.0194564	mg/L	0.00007160	0.0194564	mg/L	0.00007160	0.37%
Zn 206.200	213258.2	11.7640	mg/L	0.01374	11.7640	mg/L	0.01374	0.12%

Sequence No.: 22  
 Sample ID: 63290-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 73  
 Date Collected: 12/22/2011 1:25:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	143.4	-0.0216946	mg/L	0.00096056	-0.0216946	mg/L	0.00096056	4.43%
Sb 206.836	-38.5	-0.0176739	mg/L	0.00156964	-0.0176739	mg/L	0.00156964	8.88%
As 188.979	-20.9	-0.0289362	mg/L	0.00809904	-0.0289362	mg/L	0.00809904	27.99%
Ba 233.527	236606.1	4.37034	mg/L	0.029227	4.37034	mg/L	0.029227	0.67%
Be 234.861	-189.7	-0.0000087	mg/L	0.00000518	-0.0000087	mg/L	0.00000518	59.60%
Cd 226.502	-387.8	-0.0094794	mg/L	0.00017693	-0.0094794	mg/L	0.00017693	1.87%
Ca 315.887	Saturated3							
Cr 206.158	3837.0	0.406764	mg/L	0.0005013	0.406764	mg/L	0.0005013	0.12%
Co 228.616	1587.1	0.0855561	mg/L	0.00046946	0.0855561	mg/L	0.00046946	0.55%
Cu 324.752	8480.8	0.0764690	mg/L	0.00141826	0.0764690	mg/L	0.00141826	1.85%
Fe 273.955	101.3	-0.0150164	mg/L	0.00004385	-0.0150164	mg/L	0.00004385	0.29%
Pb 220.353	-128.5	-0.0235482	mg/L	0.00046861	-0.0235482	mg/L	0.00046861	1.99%
Mg 279.077	219270.6	16.3481	mg/L	0.09138	16.3481	mg/L	0.09138	0.56%
Mn 257.610	926600.1	1.98763	mg/L	0.014572	1.98763	mg/L	0.014572	0.73%
Mo 202.031	23163.7	2.99014	mg/L	0.011699	2.99014	mg/L	0.011699	0.39%
Ni 231.604	527368.6	15.2727	mg/L	0.06937	15.2727	mg/L	0.06937	0.45%
Se 196.026	125.3	0.111818	mg/L	0.0052974	0.111818	mg/L	0.0052974	4.74%
Ag 328.068	-3728.7	-0.0327950	mg/L	0.00040866	-0.0327950	mg/L	0.00040866	1.25%
Na 330.237	82853.2	163.720	mg/L	1.5743	163.720	mg/L	1.5743	0.96%
Tl 190.801	-3.5	-0.0065486	mg/L	0.00101840	-0.0065486	mg/L	0.00101840	15.55%
Sn 189.927	-463.5	-0.145046	mg/L	0.0003801	-0.145046	mg/L	0.0003801	0.26%
Ti 334.940	-4011.2	-0.0125896	mg/L	0.00024821	-0.0125896	mg/L	0.00024821	1.97%
V 292.402	-491.2	0.0121487	mg/L	0.00024285	0.0121487	mg/L	0.00024285	2.00%
Zn 206.200	171.6	0.0071105	mg/L	0.00002191	0.0071105	mg/L	0.00002191	0.31%

Sequence No.: 23

Autosampler Location: 74

Sample ID: 63290-001 TCLP SPK

Date Collected: 12/22/2011 1:29:22 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63290-001 TCLP SPK

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	39464.0	4.45582	mg/L	0.003152	4.45582	mg/L	0.003152	0.07%
Sb 206.836	303.1	0.434338	mg/L	0.0014720	0.434338	mg/L	0.0014720	0.34%
As 188.979	285.3	0.434496	mg/L	0.0113254	0.434496	mg/L	0.0113254	2.61%
Ba 233.527	454277.8	8.39217	mg/L	0.003014	8.39217	mg/L	0.003014	0.04%
Be 234.861	189370.5	0.450841	mg/L	0.0000013	0.450841	mg/L	0.0000013	0.00%
Cd 226.502	20138.5	0.387331	mg/L	0.0016063	0.387331	mg/L	0.0016063	0.41%
Ca 315.887	Saturated3							
Cr 206.158	7472.0	0.804416	mg/L	0.0036844	0.804416	mg/L	0.0036844	0.46%
Co 228.616	8578.8	0.475940	mg/L	0.0002990	0.475940	mg/L	0.0002990	0.06%
Cu 324.752	56783.8	0.521738	mg/L	0.0022831	0.521738	mg/L	0.0022831	0.44%
Fe 273.955	62721.1	3.90720	mg/L	0.003875	3.90720	mg/L	0.003875	0.10%
Pb 220.353	21452.7	3.94170	mg/L	0.007308	3.94170	mg/L	0.007308	0.19%
Mg 279.077	724510.9	54.8611	mg/L	0.05094	54.8611	mg/L	0.05094	0.09%
Mn 257.610	1094792.8	2.34862	mg/L	0.002516	2.34862	mg/L	0.002516	0.11%
Mo 202.031	25525.6	3.29559	mg/L	0.003240	3.29559	mg/L	0.003240	0.10%
Ni 231.604	528877.9	15.3164	mg/L	0.04605	15.3164	mg/L	0.04605	0.30%
Se 196.026	585.0	0.556784	mg/L	0.0170698	0.556784	mg/L	0.0170698	3.07%
Ag 328.068	7026.0	0.0583672	mg/L	0.00026175	0.0583672	mg/L	0.00026175	0.45%
Na 330.237	107060.4	211.321	mg/L	0.9707	211.321	mg/L	0.9707	0.46%
Tl 190.801	445.4	0.398470	mg/L	0.0019984	0.398470	mg/L	0.0019984	0.50%
Sn 189.927	964.7	0.295077	mg/L	0.0022068	0.295077	mg/L	0.0022068	0.75%
Ti 334.940	137046.6	0.417010	mg/L	0.0007788	0.417010	mg/L	0.0007788	0.19%
V 292.402	41924.4	0.435511	mg/L	0.0020911	0.435511	mg/L	0.0020911	0.48%
Zn 206.200	7258.4	0.397137	mg/L	0.0015217	0.397137	mg/L	0.0015217	0.38%

Sequence No.: 24

Autosampler Location: 90

Sample ID: 63290-001 2D

Date Collected: 12/22/2011 1:33:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63290-001 2D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-36.4	-0.0239157	mg/L	0.00079441	-0.0239157	mg/L	0.00079441	3.32%
Sb 206.836	-12.4	-0.0005171	mg/L	0.00702892	-0.0005171	mg/L	0.00702892	>999.9%
As 188.979	-29.5	-0.0419265	mg/L	0.00324566	-0.0419265	mg/L	0.00324566	7.74%
Ba 233.527	126092.5	2.32739	mg/L	0.008952	2.32739	mg/L	0.008952	0.38%
Be 234.861	-72.1	0.0002527	mg/L	0.00000053	0.0002527	mg/L	0.00000053	0.21%
Cd 226.502	-197.6	-0.0058028	mg/L	0.00027222	-0.0058028	mg/L	0.00027222	4.69%
Ca 315.887	Saturated3							
Cr 206.158	2009.9	0.211870	mg/L	0.0017909	0.211870	mg/L	0.0017909	0.85%
Co 228.616	859.9	0.0443669	mg/L	0.00027410	0.0443669	mg/L	0.00027410	0.62%
Cu 324.752	5252.8	0.0474035	mg/L	0.00028659	0.0474035	mg/L	0.00028659	0.60%
Fe 273.955	-92.3	-0.0271443	mg/L	0.00005464	-0.0271443	mg/L	0.00005464	0.20%
Pb 220.353	-85.7	-0.0172649	mg/L	0.00015696	-0.0172649	mg/L	0.00015696	0.91%
Mg 279.077	118085.7	8.63509	mg/L	0.000587	8.63509	mg/L	0.000587	0.01%
Mn 257.610	494279.5	1.05884	mg/L	0.003717	1.05884	mg/L	0.003717	0.35%
Mo 202.031	12007.8	1.54893	mg/L	0.011529	1.54893	mg/L	0.011529	0.74%
Ni 231.604	284061.4	8.22573	mg/L	0.019266	8.22573	mg/L	0.019266	0.23%
Se 196.026	115.5	0.102962	mg/L	0.0016643	0.102962	mg/L	0.0016643	1.62%
Ag 328.068	-2859.7	-0.0249305	mg/L	0.00021237	-0.0249305	mg/L	0.00021237	0.85%
Na 330.237	39497.4	78.4636	mg/L	0.26532	78.4636	mg/L	0.26532	0.34%
Tl 190.801	-1.0	-0.0045165	mg/L	0.00036211	-0.0045165	mg/L	0.00036211	8.02%
Sn 189.927	-351.5	-0.110533	mg/L	0.0012764	-0.110533	mg/L	0.0012764	1.15%
Ti 334.940	-1923.7	-0.0062318	mg/L	0.00017577	-0.0062318	mg/L	0.00017577	2.82%
V 292.402	-390.5	0.0042780	mg/L	0.00030641	0.0042780	mg/L	0.00030641	7.16%
Zn 206.200	207.7	0.0093024	mg/L	0.00013053	0.0093024	mg/L	0.00013053	1.40%

Sequence No.: 25  
 Sample ID: 63290-001 4D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 91  
 Date Collected: 12/22/2011 1:37:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63290-001 4D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-130.2	-0.0253376	mg/L	0.00210725	-0.0253376	mg/L	0.00210725	8.32%
Sb 206.836	-9.1	-0.0049188	mg/L	0.00172340	-0.0049188	mg/L	0.00172340	35.04%
As 188.979	-24.6	0.0000717	mg/L	0.00556394	0.0000717	mg/L	0.00556394	>999.9%
Ba 233.527	68561.4	1.26388	mg/L	0.020782	1.26388	mg/L	0.020782	1.64%
Be 234.861	-51.3	0.0002952	mg/L	0.00000573	0.0002952	mg/L	0.00000573	1.94%
Cd 226.502	-90.5	-0.0037331	mg/L	0.00029889	-0.0037331	mg/L	0.00029889	8.01%
Ca 315.887	46573891.4	809.667	mg/L	10.4895	809.667	mg/L	10.4895	1.30%
Cr 206.158	1059.3	0.110451	mg/L	0.0007738	0.110451	mg/L	0.0007738	0.70%
Co 228.616	476.1	0.0226434	mg/L	0.00017855	0.0226434	mg/L	0.00017855	0.79%
Cu 324.752	2998.5	0.0065055	mg/L	0.00004859	0.0065055	mg/L	0.00004859	0.75%
Fe 273.955	-175.8	-0.0323742	mg/L	0.00023372	-0.0323742	mg/L	0.00023372	0.72%
Pb 220.353	-61.6	0.0002653	mg/L	0.00028123	0.0002653	mg/L	0.00028123	105.99%
Mg 279.077	64785.5	4.57217	mg/L	0.082961	4.57217	mg/L	0.082961	1.81%
Mn 257.610	268136.5	0.573001	mg/L	0.0090820	0.573001	mg/L	0.0090820	1.58%
Mo 202.031	6346.3	0.817516	mg/L	0.0039228	0.817516	mg/L	0.0039228	0.48%
Ni 231.604	155423.0	4.49996	mg/L	0.078388	4.49996	mg/L	0.078388	1.74%
Se 196.026	109.2	-0.0101186	mg/L	0.00950182	-0.0101186	mg/L	0.00950182	93.90%
Ag 328.068	-1855.8	-0.0010260	mg/L	0.00033716	-0.0010260	mg/L	0.00033716	32.86%
Na 330.237	19609.1	39.3548	mg/L	0.89890	39.3548	mg/L	0.89890	2.28%
Tl 190.801	0.7	-0.0080413	mg/L	0.00348265	-0.0080413	mg/L	0.00348265	43.31%
Sn 189.927	-244.4	-0.0017563	mg/L	0.00024330	-0.0017563	mg/L	0.00024330	13.85%
Ti 334.940	-1012.0	-0.0034552	mg/L	0.00009407	-0.0034552	mg/L	0.00009407	2.72%
V 292.402	-233.2	0.0014295	mg/L	0.00006521	0.0014295	mg/L	0.00006521	4.56%
Zn 206.200	207.8	0.0094130	mg/L	0.00015788	0.0094130	mg/L	0.00015788	1.68%

Sequence No.: 26  
 Sample ID: 63290-001 TCLP SPK 4D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 92  
 Date Collected: 12/22/2011 1:41:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63290-001 TCLP SPK 4D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	10195.9	1.15012	mg/L	0.005127	1.15012	mg/L	0.005127	0.45%
Sb 206.836	77.2	0.109795	mg/L	0.0000336	0.109795	mg/L	0.0000336	0.03%
As 188.979	52.8	0.117313	mg/L	0.0010348	0.117313	mg/L	0.0010348	0.88%
Ba 233.527	135238.0	2.49585	mg/L	0.015503	2.49585	mg/L	0.015503	0.62%
Be 234.861	50654.5	0.120982	mg/L	0.0004654	0.120982	mg/L	0.0004654	0.38%
Cd 226.502	5935.2	0.112756	mg/L	0.0012031	0.112756	mg/L	0.0012031	1.07%
Ca 315.887	46793649.8	813.489	mg/L	1.6287	813.489	mg/L	1.6287	0.20%
Cr 206.158	2130.2	0.227637	mg/L	0.0013246	0.227637	mg/L	0.0013246	0.58%
Co 228.616	2565.7	0.139336	mg/L	0.0006049	0.139336	mg/L	0.0006049	0.43%
Cu 324.752	15981.4	0.126077	mg/L	0.0001610	0.126077	mg/L	0.0001610	0.13%
Fe 273.955	17688.8	1.08659	mg/L	0.007560	1.08659	mg/L	0.007560	0.70%
Pb 220.353	6214.2	1.15344	mg/L	0.003059	1.15344	mg/L	0.003059	0.27%
Mg 279.077	217855.5	16.2403	mg/L	0.01948	16.2403	mg/L	0.01948	0.12%
Mn 257.610	322494.4	0.689672	mg/L	0.0042095	0.689672	mg/L	0.0042095	0.61%
Mo 202.031	7210.7	0.929278	mg/L	0.0036900	0.929278	mg/L	0.0036900	0.40%
Ni 231.604	159793.3	4.62655	mg/L	0.008243	4.62655	mg/L	0.008243	0.18%
Se 196.026	228.2	0.104895	mg/L	0.0007704	0.104895	mg/L	0.0007704	0.73%
Ag 328.068	1032.1	0.0235156	mg/L	0.00051601	0.0235156	mg/L	0.00051601	2.19%
Na 330.237	26376.6	52.6626	mg/L	0.16606	52.6626	mg/L	0.16606	0.32%
Tl 190.801	134.4	0.112480	mg/L	0.0045577	0.112480	mg/L	0.0045577	4.05%
Sn 189.927	166.7	0.125282	mg/L	0.0004985	0.125282	mg/L	0.0004985	0.40%
Ti 334.940	39438.6	0.119739	mg/L	0.0004393	0.119739	mg/L	0.0004393	0.37%
V 292.402	11411.2	0.117468	mg/L	0.0008725	0.117468	mg/L	0.0008725	0.74%
Zn 206.200	2318.4	0.125564	mg/L	0.0004929	0.125564	mg/L	0.0004929	0.39%

Sequence No.: 27

Autosampler Location: 75

Sample ID: 63290-002

Date Collected: 12/22/2011 1:46:03 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63290-002

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-58.0	-0.0375133	mg/L	0.00118924	-0.0375133	mg/L	0.00118924	3.17%
Sb 206.836	-21.3	-0.0018062	mg/L	0.00310226	-0.0018062	mg/L	0.00310226	171.76%
As 188.979	-35.0	-0.0503505	mg/L	0.00281434	-0.0503505	mg/L	0.00281434	5.59%
Ba 233.527	183186.9	3.38294	mg/L	0.038414	3.38294	mg/L	0.038414	1.14%
Be 234.861	-159.1	0.0000615	mg/L	0.00001057	0.0000615	mg/L	0.00001057	17.18%
Cd 226.502	-258.2	-0.0069749	mg/L	0.00047541	-0.0069749	mg/L	0.00047541	6.82%
Ca 315.887	Saturated3							
Cr 206.158	1863.1	0.196004	mg/L	0.0006979	0.196004	mg/L	0.0006979	0.36%
Co 228.616	958.7	0.0502043	mg/L	0.00014234	0.0502043	mg/L	0.00014234	0.28%
Cu 324.752	8867.0	0.0802979	mg/L	0.00012869	0.0802979	mg/L	0.00012869	0.16%
Fe 273.955	77.1	-0.0165340	mg/L	0.00065632	-0.0165340	mg/L	0.00065632	3.97%
Pb 220.353	-115.9	-0.0218668	mg/L	0.00052695	-0.0218668	mg/L	0.00052695	2.41%
Mg 279.077	161060.0	11.9109	mg/L	0.08584	11.9109	mg/L	0.08584	0.72%
Mn 257.610	603171.3	1.29276	mg/L	0.009781	1.29276	mg/L	0.009781	0.76%
Mo 202.031	18808.1	2.42746	mg/L	0.010202	2.42746	mg/L	0.010202	0.42%
Ni 231.604	350171.2	10.1407	mg/L	0.02943	10.1407	mg/L	0.02943	0.29%
Se 196.026	119.6	0.106795	mg/L	0.0056946	0.106795	mg/L	0.0056946	5.33%
Ag 328.068	-3516.5	-0.0307117	mg/L	0.00031619	-0.0307117	mg/L	0.00031619	1.03%
Na 330.237	107716.4	212.611	mg/L	2.0038	212.611	mg/L	2.0038	0.94%
Tl 190.801	-1.4	-0.0048470	mg/L	0.00023590	-0.0048470	mg/L	0.00023590	4.87%
Sn 189.927	-412.6	-0.129356	mg/L	0.0005391	-0.129356	mg/L	0.0005391	0.42%
Ti 334.940	-3332.2	-0.0105217	mg/L	0.00018682	-0.0105217	mg/L	0.00018682	1.78%
V 292.402	-625.6	0.0078318	mg/L	0.00045827	0.0078318	mg/L	0.00045827	5.85%
Zn 206.200	54.7	0.0007748	mg/L	0.00041386	0.0007748	mg/L	0.00041386	53.42%

Sequence No.: 28

Autosampler Location: 92

Sample ID: 63290-002 2D

*wrong location*

Date Collected: 12/22/2011 1:50:07 PM

Analyst:

Data Type: Original

Initial Sample Wt:

*really 63290.001 50K 4D*

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63290-002 2D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	10253.9	1.15670	mg/L	0.006875	1.15670	mg/L	0.006875	0.59%
Sb 206.836	80.3	0.113838	mg/L	0.0001487	0.113838	mg/L	0.0001487	0.13%
As 188.979	54.4	0.120246	mg/L	0.0160532	0.120246	mg/L	0.0160532	13.35%
Ba 233.527	133764.9	2.46864	mg/L	0.027699	2.46864	mg/L	0.027699	1.12%
Be 234.861	50019.5	0.119496	mg/L	0.0011991	0.119496	mg/L	0.0011991	1.00%
Cd 226.502	5879.6	0.111681	mg/L	0.0009011	0.111681	mg/L	0.0009011	0.81%
Ca 315.887	47425873.9	824.483	mg/L	9.1116	824.483	mg/L	9.1116	1.11%
Cr 206.158	2146.0	0.229313	mg/L	0.0009842	0.229313	mg/L	0.0009842	0.43%
Co 228.616	2588.4	0.140611	mg/L	0.0007511	0.140611	mg/L	0.0007511	0.53%
Cu 324.752	15799.9	0.124125	mg/L	0.0019956	0.124125	mg/L	0.0019956	1.61%
Fe 273.955	17800.9	1.09361	mg/L	0.006341	1.09361	mg/L	0.006341	0.58%
Pb 220.353	6223.0	1.15525	mg/L	0.007749	1.15525	mg/L	0.007749	0.67%
Mg 279.077	215513.9	16.0618	mg/L	0.08025	16.0618	mg/L	0.08025	0.50%
Mn 257.610	318537.5	0.681173	mg/L	0.0073354	0.681173	mg/L	0.0073354	1.08%
Mo 202.031	7226.2	0.931284	mg/L	0.0070429	0.931284	mg/L	0.0070429	0.76%
Ni 231.604	157653.9	4.56459	mg/L	0.027719	4.56459	mg/L	0.027719	0.61%
Se 196.026	235.5	0.110339	mg/L	0.0027651	0.110339	mg/L	0.0027651	2.51%
Ag 328.068	964.5	0.0231492	mg/L	0.00007586	0.0231492	mg/L	0.00007586	0.33%
Na 330.237	26124.8	52.1674	mg/L	0.60059	52.1674	mg/L	0.60059	1.15%
Tl 190.801	139.3	0.116827	mg/L	0.0046198	0.116827	mg/L	0.0046198	3.95%
Sn 189.927	158.5	0.123798	mg/L	0.0003079	0.123798	mg/L	0.0003079	0.25%
Ti 334.940	38842.0	0.117922	mg/L	0.0008266	0.117922	mg/L	0.0008266	0.70%
V 292.402	11460.1	0.118055	mg/L	0.0008103	0.118055	mg/L	0.0008103	0.69%
Zn 206.200	2316.9	0.125488	mg/L	0.0008891	0.125488	mg/L	0.0008891	0.71%

Sequence No.: 29

Autosampler Location: 4

Sample ID: CCV V-128659

Date Collected: 12/22/2011 1:54:23 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Al 308.215	43452.8	4.94602	mg/L	0.011499	4.94602	mg/L	0.23%
	QC value within limits for Al 308.215 Recovery = 98.92%						
Sb 206.836	363.3	0.480191	mg/L	0.0001797	0.480191	mg/L	0.04%
	QC value within limits for Sb 206.836 Recovery = 96.04%						
As 188.979	306.1	0.468139	mg/L	0.0085230	0.468139	mg/L	1.82%
	QC value within limits for As 188.979 Recovery = 93.63%						
Ba 233.527	27800.6	0.510455	mg/L	0.0015666	0.510455	mg/L	0.31%
	QC value within limits for Ba 233.527 Recovery = 102.09%						
Be 234.861	208279.3	0.496654	mg/L	0.0004207	0.496654	mg/L	0.08%
	QC value within limits for Be 234.861 Recovery = 99.33%						
Cd 226.502	25985.1	0.500358	mg/L	0.0003374	0.500358	mg/L	0.07%
	QC value within limits for Cd 226.502 Recovery = 100.07%						
Ca 315.887	2946994.7	50.9946	mg/L	0.14999	50.9946	mg/L	0.29%
	QC value within limits for Ca 315.887 Recovery = 101.99%						
Cr 206.158	4573.6	0.497392	mg/L	0.0001350	0.497392	mg/L	0.03%
	QC value within limits for Cr 206.158 Recovery = 99.48%						
Co 228.616	9056.0	0.501502	mg/L	0.0047997	0.501502	mg/L	0.96%
	QC value within limits for Co 228.616 Recovery = 100.30%						
Cu 324.752	54401.3	0.499860	mg/L	0.0003642	0.499860	mg/L	0.07%
	QC value within limits for Cu 324.752 Recovery = 99.97%						
Fe 273.955	79658.8	4.96811	mg/L	0.018120	4.96811	mg/L	0.36%
	QC value within limits for Fe 273.955 Recovery = 99.36%						
Pb 220.353	2689.8	0.493468	mg/L	0.0026195	0.493468	mg/L	0.53%
	QC value within limits for Pb 220.353 Recovery = 98.69%						
Mg 279.077	660505.4	49.9822	mg/L	0.31755	49.9822	mg/L	0.64%
	QC value within limits for Mg 279.077 Recovery = 99.96%						
Mn 257.610	234325.5	0.499899	mg/L	0.0003757	0.499899	mg/L	0.08%
	QC value within limits for Mn 257.610 Recovery = 99.98%						
Mo 202.031	3788.9	0.487494	mg/L	0.0014135	0.487494	mg/L	0.29%
	QC value within limits for Mo 202.031 Recovery = 97.50%						
Ni 231.604	17347.8	0.500944	mg/L	0.0007187	0.500944	mg/L	0.14%
	QC value within limits for Ni 231.604 Recovery = 100.19%						
Se 196.026	534.5	0.506535	mg/L	0.0071798	0.506535	mg/L	1.42%
	QC value within limits for Se 196.026 Recovery = 101.31%						
Ag 328.068	11492.1	0.0981969	mg/L	0.00008236	0.0981969	mg/L	0.08%
	QC value within limits for Ag 328.068 Recovery = 98.20%						
Na 330.237	23646.8	47.2947	mg/L	0.24831	47.2947	mg/L	0.53%
	QC value within limits for Na 330.237 Recovery = 94.59%						
Tl 190.801	579.9	0.518396	mg/L	0.0014839	0.518396	mg/L	0.29%
	QC value within limits for Tl 190.801 Recovery = 103.68%						
Sn 189.927	1639.3	0.507641	mg/L	0.0002873	0.507641	mg/L	0.06%
	QC value within limits for Sn 189.927 Recovery = 101.53%						
Ti 334.940	164236.4	0.499818	mg/L	0.0022141	0.499818	mg/L	0.44%
	QC value within limits for Ti 334.940 Recovery = 99.96%						
V 292.402	48910.5	0.486036	mg/L	0.0005346	0.486036	mg/L	0.11%
	QC value within limits for V 292.402 Recovery = 97.21%						
Zn 206.200	8863.7	0.485841	mg/L	0.0017444	0.485841	mg/L	0.36%
	QC value within limits for Zn 206.200 Recovery = 97.17%						

All analyte(s) passed QC.

Sequence No.: 30

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 12/22/2011 1:57:40 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-202.7	-0.0232288 mg/L	0.00647522	-0.0232288 mg/L	0.00647522	27.88%
QC value within limits for Al 308.215 Recovery = Not calculated						
Sb 206.836	-0.8	-0.0037030 mg/L	0.00105543	-0.0037030 mg/L	0.00105543	28.50%
QC value within limits for Sb 206.836 Recovery = Not calculated						
As 188.979	-1.9	-0.0000039 mg/L	0.00344101	-0.0000039 mg/L	0.00344101	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
Ba 233.527	137.5	-0.0009494 mg/L	0.00002782	-0.0009494 mg/L	0.00002782	2.93%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 234.861	64.4	0.0005640 mg/L	0.00000853	0.0005640 mg/L	0.00000853	1.51%
QC value within limits for Be 234.861 Recovery = Not calculated						
Cd 226.502	10.5	-0.0017798 mg/L	0.00009237	-0.0017798 mg/L	0.00009237	5.19%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Ca 315.887	57618.6	0.748241 mg/L	0.0898267	0.748241 mg/L	0.0898267	12.01%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Cr 206.158	6.2	-0.0019876 mg/L	0.00038379	-0.0019876 mg/L	0.00038379	19.31%
QC value within limits for Cr 206.158 Recovery = Not calculated						
Co 228.616	5.7	-0.0039574 mg/L	0.00045141	-0.0039574 mg/L	0.00045141	11.41%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cu 324.752	129.2	0.0008991 mg/L	0.00022617	0.0008991 mg/L	0.00022617	25.16%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 273.955	-217.8	-0.0350064 mg/L	0.00043781	-0.0350064 mg/L	0.00043781	1.25%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Pb 220.353	7.5	-0.0018225 mg/L	0.00087604	-0.0018225 mg/L	0.00087604	48.07%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Mg 279.077	47.4	-0.362624 mg/L	0.0051592	-0.362624 mg/L	0.0051592	1.42%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610	171.4	-0.0026872 mg/L	0.00002116	-0.0026872 mg/L	0.00002116	0.79%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031	13.5	-0.0006122 mg/L	0.00050349	-0.0006122 mg/L	0.00050349	82.24%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604	186.0	0.0038374 mg/L	0.00022714	0.0038374 mg/L	0.00022714	5.92%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Se 196.026	4.2	-0.0016147 mg/L	0.00676565	-0.0016147 mg/L	0.00676565	419.00%
QC value within limits for Se 196.026 Recovery = Not calculated						
Ag 328.068	-29.4	-0.0003534 mg/L	0.00030276	-0.0003534 mg/L	0.00030276	85.66%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Na 330.237	-123.8	0.551703 mg/L	0.1126302	0.551703 mg/L	0.1126302	20.41%
QC value within limits for Na 330.237 Recovery = Not calculated						
Tl 190.801	6.9	0.0022282 mg/L	0.00164735	0.0022282 mg/L	0.00164735	73.93%
QC value within limits for Tl 190.801 Recovery = Not calculated						
Sn 189.927	2.4	-0.0014707 mg/L	0.00084132	-0.0014707 mg/L	0.00084132	57.20%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940	30.4	-0.0002807 mg/L	0.00010529	-0.0002807 mg/L	0.00010529	37.51%
QC value within limits for Ti 334.940 Recovery = Not calculated						
V 292.402	-12.6	-0.0011486 mg/L	0.00064548	-0.0011486 mg/L	0.00064548	56.20%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200	152.6	0.0064934 mg/L	0.00004519	0.0064934 mg/L	0.00004519	0.70%
QC value within limits for Zn 206.200 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 31  
 Sample ID: 63334-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 76  
 Date Collected: 12/22/2011 2:00:54 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63334-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	63798.3	7.27102	mg/L	0.041306	7.27102	mg/L	0.041306	0.57%
Sb 206.836	131.5	0.181727	mg/L	0.0039288	0.181727	mg/L	0.0039288	2.16%
As 188.979	-8.3	0.0116819	mg/L	0.01326684	0.0116819	mg/L	0.01326684	113.57%
Ba 233.527	6954.6	0.124838	mg/L	0.0007473	0.124838	mg/L	0.0007473	0.60%
Be 234.861	-3956.8	0.0045664	mg/L	0.00014483	0.0045664	mg/L	0.00014483	3.17%
Cd 226.502	104.1	0.0001024	mg/L	0.00002988	0.0001024	mg/L	0.00002988	29.17%
Ca 315.887	41403756.4	719.759	mg/L	1.4261	719.759	mg/L	1.4261	0.20%
Cr 206.158	190.3	0.0342855	mg/L	0.00084557	0.0342855	mg/L	0.00084557	2.47%
Co 228.616	437.6	0.0199005	mg/L	0.00023338	0.0199005	mg/L	0.00023338	1.17%
Cu 324.752	205994.3	1.88030	mg/L	0.013906	1.88030	mg/L	0.013906	0.74%
Fe 273.955	171130.4	10.6975	mg/L	0.04752	10.6975	mg/L	0.04752	0.44%
Pb 220.353	870.6	0.170217	mg/L	0.0005329	0.170217	mg/L	0.0005329	0.31%
Mg 279.077	13629275.4	1038.55	mg/L	3.671	1038.55	mg/L	3.671	0.35%
Mn 257.610	477506.4	1.00729	mg/L	0.005720	1.00729	mg/L	0.005720	0.57%
Mo 202.031	-9.7	-0.0029593	mg/L	0.00030545	-0.0029593	mg/L	0.00030545	10.32%
Ni 231.604	1349.1	0.0372609	mg/L	0.00039306	0.0372609	mg/L	0.00039306	1.05%
Se 196.026	90.2	0.0175709	mg/L	0.00740569	0.0175709	mg/L	0.00740569	42.15%
Ag 328.068	-1709.4	-0.0013450	mg/L	0.00025377	-0.0013450	mg/L	0.00025377	18.87%
Na 330.237	4921.5	10.4728	mg/L	0.03879	10.4728	mg/L	0.03879	0.37%
Tl 190.801	-0.6	-0.0079013	mg/L	0.00131397	-0.0079013	mg/L	0.00131397	16.63%
Sn 189.927	-232.1	-0.0063628	mg/L	0.00206867	-0.0063628	mg/L	0.00206867	32.51%
Ti 334.940	3744.9	0.0110322	mg/L	0.00028707	0.0110322	mg/L	0.00028707	2.60%
V 292.402	21309.1	-0.175434	mg/L	0.0010749	-0.175434	mg/L	0.0010749	0.61%
Zn 206.200	12168.3	0.642545	mg/L	0.0073632	0.642545	mg/L	0.0073632	1.15%

Sequence No.: 32

Autosampler Location: 93

Sample ID: 63290-002 2D

Date Collected: 12/22/2011 2:05:14 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63290-002 2D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-80.3	-0.0261897	mg/L	0.00282120	-0.0261897	mg/L	0.00282120	10.77%
Sb 206.836	-15.3	-0.0068861	mg/L	0.00232475	-0.0068861	mg/L	0.00232475	33.76%
As 188.979	-26.1	-0.0368365	mg/L	0.00470558	-0.0368365	mg/L	0.00470558	12.77%
Ba 233.527	101713.3	1.87679	mg/L	0.018136	1.87679	mg/L	0.018136	0.97%
Be 234.861	-99.7	0.0001910	mg/L	0.00001008	0.0001910	mg/L	0.00001008	5.28%
Cd 226.502	-113.8	-0.0041837	mg/L	0.00007439	-0.0041837	mg/L	0.00007439	1.78%
Ca 315.887	Saturated3							
Cr 206.158	1008.6	0.105005	mg/L	0.0008128	0.105005	mg/L	0.0008128	0.77%
Co 228.616	551.2	0.0270226	mg/L	0.00063038	0.0270226	mg/L	0.00063038	2.33%
Cu 324.752	5606.0	0.0507626	mg/L	0.00046900	0.0507626	mg/L	0.00046900	0.92%
Fe 273.955	-53.1	-0.0246870	mg/L	0.00035102	-0.0246870	mg/L	0.00035102	1.42%
Pb 220.353	-89.2	-0.0181453	mg/L	0.00031223	-0.0181453	mg/L	0.00031223	1.72%
Mg 279.077	94606.5	6.84534	mg/L	0.078930	6.84534	mg/L	0.078930	1.15%
Mn 257.610	331880.1	0.709929	mg/L	0.0027546	0.709929	mg/L	0.0027546	0.39%
Mo 202.031	10344.3	1.33402	mg/L	0.005605	1.33402	mg/L	0.005605	0.42%
Ni 231.604	194603.3	5.63487	mg/L	0.006701	5.63487	mg/L	0.006701	0.12%
Se 196.026	127.2	0.114073	mg/L	0.0079828	0.114073	mg/L	0.0079828	7.00%
Ag 328.068	-2613.2	-0.0227081	mg/L	0.00032764	-0.0227081	mg/L	0.00032764	1.44%
Na 330.237	54413.5	107.795	mg/L	0.2097	107.795	mg/L	0.2097	0.19%
Tl 190.801	-1.5	-0.0051109	mg/L	0.00083355	-0.0051109	mg/L	0.00083355	16.31%
Sn 189.927	-314.3	-0.0990857	mg/L	0.00000158	-0.0990857	mg/L	0.00000158	0.00%
Ti 334.940	-1703.0	-0.0055598	mg/L	0.00038047	-0.0055598	mg/L	0.00038047	6.84%
V 292.402	-385.9	0.0032392	mg/L	0.00018655	0.0032392	mg/L	0.00018655	5.76%
Zn 206.200	179.9	0.0078143	mg/L	0.00022034	0.0078143	mg/L	0.00022034	2.82%

Sequence No.: 33  
 Sample ID: 63334-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 77  
 Date Collected: 12/22/2011 2:09:18 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63334-002

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	56622.1	6.45313	mg/L	0.141039	6.45313	mg/L	0.141039	2.19%
Sb 206.836	138.8	0.192676	mg/L	0.0055387	0.192676	mg/L	0.0055387	2.87%
As 188.979	-4.9	0.0096158	mg/L	0.00276918	0.0096158	mg/L	0.00276918	28.80%
Ba 233.527	5645.9	0.100658	mg/L	0.0009528	0.100658	mg/L	0.0009528	0.95%
Be 234.861	-4104.5	0.0042652	mg/L	0.00002799	0.0042652	mg/L	0.00002799	0.66%
Cd 226.502	97.5	-0.0000259	mg/L	0.00021041	-0.0000259	mg/L	0.00021041	812.87%
Ca 315.887	33499975.9	582.312	mg/L	0.5988	582.312	mg/L	0.5988	0.10%
Cr 206.158	178.2	0.0314656	mg/L	0.00060081	0.0314656	mg/L	0.00060081	1.91%
Co 228.616	410.9	0.0184049	mg/L	0.00016107	0.0184049	mg/L	0.00016107	0.88%
Cu 324.752	174040.7	1.58924	mg/L	0.036701	1.58924	mg/L	0.036701	2.31%
Fe 273.955	171718.7	10.7343	mg/L	0.21533	10.7343	mg/L	0.21533	2.01%
Pb 220.353	566.2	0.111802	mg/L	0.0021128	0.111802	mg/L	0.0021128	1.89%
Mg 279.077	15374335.8	1171.57	mg/L	0.148	1171.57	mg/L	0.148	0.01%
Mn 257.610	489447.9	1.03087	mg/L	0.018426	1.03087	mg/L	0.018426	1.79%
Mo 202.031	-2.5	-0.0020526	mg/L	0.00002911	-0.0020526	mg/L	0.00002911	1.42%
Ni 231.604	1270.0	0.0349713	mg/L	0.00031819	0.0349713	mg/L	0.00031819	0.91%
Se 196.026	78.0	0.0243706	mg/L	0.00050045	0.0243706	mg/L	0.00050045	2.05%
Ag 328.068	-1309.8	-0.0005300	mg/L	0.00005247	-0.0005300	mg/L	0.00005247	9.90%
Na 330.237	12797.9	25.9613	mg/L	0.22058	25.9613	mg/L	0.22058	0.85%
Tl 190.801	-4.2	-0.0103279	mg/L	0.00183469	-0.0103279	mg/L	0.00183469	17.76%
Sn 189.927	-203.4	-0.0103958	mg/L	0.00132409	-0.0103958	mg/L	0.00132409	12.74%
Ti 334.940	3986.1	0.0117666	mg/L	0.00028427	0.0117666	mg/L	0.00028427	2.42%
V 292.402	22024.2	-0.218432	mg/L	0.0018960	-0.218432	mg/L	0.0018960	0.87%
Zn 206.200	11060.0	0.577946	mg/L	0.0020003	0.577946	mg/L	0.0020003	0.35%

Sequence No.: 34  
 Sample ID: 63290-002 4D  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 94  
 Date Collected: 12/22/2011 2:13:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63290-002 4D

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-122.8	-0.0234441	mg/L	0.00018336	-0.0234441	mg/L	0.00018336	0.78%
Sb 206.836	-8.1	-0.0044752	mg/L	0.00191318	-0.0044752	mg/L	0.00191318	42.75%
As 188.979	-27.7	-0.0084576	mg/L	0.00646658	-0.0084576	mg/L	0.00646658	76.46%
Ba 233.527	56597.4	1.04277	mg/L	0.002087	1.04277	mg/L	0.002087	0.20%
Be 234.861	-70.7	0.0002515	mg/L	0.00000896	0.0002515	mg/L	0.00000896	3.56%
Cd 226.502	-51.1	-0.0029707	mg/L	0.00013228	-0.0029707	mg/L	0.00013228	4.45%
Ca 315.887	41456088.8	720.669	mg/L	2.6914	720.669	mg/L	2.6914	0.37%
Cr 206.158	547.5	0.0556846	mg/L	0.00043726	0.0556846	mg/L	0.00043726	0.79%
Co 228.616	319.0	0.0138257	mg/L	0.00052855	0.0138257	mg/L	0.00052855	3.82%
Cu 324.752	3393.5	0.0124358	mg/L	0.00005093	0.0124358	mg/L	0.00005093	0.41%
Fe 273.955	-150.7	-0.0308016	mg/L	0.00029163	-0.0308016	mg/L	0.00029163	0.95%
Pb 220.353	-73.6	-0.0035559	mg/L	0.00028169	-0.0035559	mg/L	0.00028169	7.92%
Mg 279.077	57606.9	4.02497	mg/L	0.008989	4.02497	mg/L	0.008989	0.22%
Mn 257.610	183356.7	0.390847	mg/L	0.0001550	0.390847	mg/L	0.0001550	0.04%
Mo 202.031	5707.1	0.734945	mg/L	0.0012929	0.734945	mg/L	0.0012929	0.18%
Ni 231.604	109218.3	3.16181	mg/L	0.000487	3.16181	mg/L	0.000487	0.02%
Se 196.026	109.1	0.0017292	mg/L	0.00853702	0.0017292	mg/L	0.00853702	493.70%
Ag 328.068	-1682.5	-0.0011550	mg/L	0.00024624	-0.0011550	mg/L	0.00024624	21.32%
Na 330.237	27930.1	55.7174	mg/L	0.03712	55.7174	mg/L	0.03712	0.07%
Tl 190.801	-0.9	-0.0089789	mg/L	0.00155572	-0.0089789	mg/L	0.00155572	17.33%
Sn 189.927	-222.2	-0.0032280	mg/L	0.00143151	-0.0032280	mg/L	0.00143151	44.35%
Ti 334.940	-956.6	-0.0032867	mg/L	0.00004866	-0.0032867	mg/L	0.00004866	1.48%
V 292.402	-208.1	0.0012180	mg/L	0.00003738	0.0012180	mg/L	0.00003738	3.07%
Zn 206.200	93.8	0.0031382	mg/L	0.00009169	0.0031382	mg/L	0.00009169	2.92%

Sequence No.: 35

Sample ID: CCV V-128659

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 12/22/2011 2:17:54 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	44302.8	5.04286	mg/L	0.050479	5.04286	mg/L	0.050479	1.00%
Sb 206.836	363.8	0.480875	mg/L	0.0172423	0.480875	mg/L	0.0172423	3.59%
As 188.979	312.2	0.477427	mg/L	0.0113986	0.477427	mg/L	0.0113986	2.39%
Ba 233.527	28169.2	0.517267	mg/L	0.0025974	0.517267	mg/L	0.0025974	0.50%
Be 234.861	211378.7	0.504071	mg/L	0.0024541	0.504071	mg/L	0.0024541	0.49%
Cd 226.502	26299.6	0.506437	mg/L	0.0000748	0.506437	mg/L	0.0000748	0.01%
Ca 315.887	2959507.9	51.2122	mg/L	0.34315	51.2122	mg/L	0.34315	0.67%
Cr 206.158	4568.7	0.496968	mg/L	0.0043958	0.496968	mg/L	0.0043958	0.88%
Co 228.616	9227.5	0.511083	mg/L	0.0018276	0.511083	mg/L	0.0018276	0.36%
Cu 324.752	55621.0	0.511099	mg/L	0.0030709	0.511099	mg/L	0.0030709	0.60%
Fe 273.955	81258.3	5.06829	mg/L	0.023180	5.06829	mg/L	0.023180	0.46%
Pb 220.353	2717.2	0.498535	mg/L	0.0015740	0.498535	mg/L	0.0015740	0.32%
Mg 279.077	674727.1	51.0663	mg/L	0.47876	51.0663	mg/L	0.47876	0.94%
Mn 257.610	236959.9	0.505547	mg/L	0.0021763	0.505547	mg/L	0.0021763	0.43%
Mo 202.031	3808.5	0.490030	mg/L	0.0035385	0.490030	mg/L	0.0035385	0.72%
Ni 231.604	17392.3	0.502232	mg/L	0.0039587	0.502232	mg/L	0.0039587	0.79%
Se 196.026	535.4	0.507689	mg/L	0.0009671	0.507689	mg/L	0.0009671	0.19%
Ag 328.068	11813.2	0.100925	mg/L	0.0007218	0.100925	mg/L	0.0007218	0.72%
Na 330.237	23982.6	47.9551	mg/L	0.31928	47.9551	mg/L	0.31928	0.67%
Tl 190.801	583.4	0.521573	mg/L	0.0012748	0.521573	mg/L	0.0012748	0.24%
Sn 189.927	1629.5	0.504670	mg/L	0.0047448	0.504670	mg/L	0.0047448	0.94%
Ti 334.940	166584.4	0.506969	mg/L	0.0023988	0.506969	mg/L	0.0023988	0.47%
V 292.402	49483.5	0.491529	mg/L	0.0040488	0.491529	mg/L	0.0040488	0.82%
Zn 206.200	8936.4	0.489820	mg/L	0.0023071	0.489820	mg/L	0.0023071	0.47%

Sequence No.: 36  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/22/2011 2:21:12 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	-110.1	-0.0126590	mg/L	0.00899911	-0.0126590	mg/L	0.00899911 71.09%
Sb 206.836	-4.3	-0.0082686	mg/L	0.00069294	-0.0082686	mg/L	0.00069294 8.38%
As 188.979	-1.5	0.0005555	mg/L	0.00176516	0.0005555	mg/L	0.00176516 317.74%
Ba 233.527	60.7	-0.0023699	mg/L	0.00004682	-0.0023699	mg/L	0.00004682 1.98%
Be 234.861	44.4	0.0005217	mg/L	0.00000613	0.0005217	mg/L	0.00000613 1.17%
Cd 226.502	8.7	-0.0018153	mg/L	0.00013160	-0.0018153	mg/L	0.00013160 7.25%
Ca 315.887	26975.0	0.215348	mg/L	0.0055435	0.215348	mg/L	0.0055435 2.57%
Cr 206.158	1.2	-0.0027302	mg/L	0.00030288	-0.0027302	mg/L	0.00030288 11.09%
Co 228.616	1.0	-0.0042239	mg/L	0.00005157	-0.0042239	mg/L	0.00005157 1.22%
Cu 324.752	257.0	0.0020907	mg/L	0.00013214	0.0020907	mg/L	0.00013214 6.32%
Fe 273.955	-157.1	-0.0311986	mg/L	0.00023949	-0.0311986	mg/L	0.00023949 0.77%
Pb 220.353	-2.5	-0.0036698	mg/L	0.00104053	-0.0036698	mg/L	0.00104053 28.35%
Mg 279.077	3702.5	-0.0840108	mg/L	0.00439739	-0.0840108	mg/L	0.00439739 5.23%
Mn 257.610	98.0	-0.0028490	mg/L	0.00004081	-0.0028490	mg/L	0.00004081 1.43%
Mo 202.031	8.4	-0.0012614	mg/L	0.00016166	-0.0012614	mg/L	0.00016166 12.82%
Ni 231.604	71.5	0.0005209	mg/L	0.00023499	0.0005209	mg/L	0.00023499 45.11%
Se 196.026	2.1	-0.0034953	mg/L	0.00452681	-0.0034953	mg/L	0.00452681 129.51%
Ag 328.068	-3.0	-0.0001398	mg/L	0.00025752	-0.0001398	mg/L	0.00025752 184.25%
Na 330.237	-187.6	0.426092	mg/L	0.2002705	0.426092	mg/L	0.2002705 47.00%
Tl 190.801	5.4	0.0008831	mg/L	0.00252474	0.0008831	mg/L	0.00252474 285.88%
Sn 189.927	4.2	-0.0009646	mg/L	0.00019751	-0.0009646	mg/L	0.00019751 20.48%
Ti 334.940	72.9	-0.0001513	mg/L	0.00012389	-0.0001513	mg/L	0.00012389 81.87%
V 292.402	32.7	-0.0007942	mg/L	0.00014706	-0.0007942	mg/L	0.00014706 18.52%
Zn 206.200	1.6	-0.0018415	mg/L	0.00004145	-0.0018415	mg/L	0.00004145 2.25%

Sequence No.: 37  
 Sample ID: 63334-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 78  
 Date Collected: 12/22/2011 2:24:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63334-003

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	33290.6	3.79403	mg/L	0.060429	3.79403	mg/L	0.060429	1.59%
Sb 206.836	126.5	0.175800	mg/L	0.0094924	0.175800	mg/L	0.0094924	5.40%
As 188.979	-6.6	0.0117455	mg/L	0.00173082	0.0117455	mg/L	0.00173082	14.74%
Ba 233.527	6211.5	0.111153	mg/L	0.0005249	0.111153	mg/L	0.0005249	0.47%
Be 234.861	-2730.2	0.0037530	mg/L	0.00011242	0.0037530	mg/L	0.00011242	3.00%
Cd 226.502	99.2	-0.0000124	mg/L	0.00004375	-0.0000124	mg/L	0.00004375	354.21%
Ca 315.887	40065992.9	696.495	mg/L	3.2657	696.495	mg/L	3.2657	0.47%
Cr 206.158	112.7	0.0256128	mg/L	0.00078615	0.0256128	mg/L	0.00078615	3.07%
Co 228.616	491.6	0.0230046	mg/L	0.00084131	0.0230046	mg/L	0.00084131	3.66%
Cu 324.752	156312.2	1.42294	mg/L	0.020282	1.42294	mg/L	0.020282	1.43%
Fe 273.955	124047.9	7.74844	mg/L	0.129773	7.74844	mg/L	0.129773	1.67%
Pb 220.353	616.9	0.122698	mg/L	0.0003152	0.122698	mg/L	0.0003152	0.26%
Mg 279.077	14995453.8	1142.69	mg/L	8.825	1142.69	mg/L	8.825	0.77%
Mn 257.610	517798.4	1.09209	mg/L	0.015300	1.09209	mg/L	0.015300	1.40%
Mo 202.031	0.2	-0.0019130	mg/L	0.00007510	-0.0019130	mg/L	0.00007510	3.93%
Ni 231.604	1433.3	0.0397716	mg/L	0.00025617	0.0397716	mg/L	0.00025617	0.64%
Se 196.026	111.2	0.0310818	mg/L	0.00070100	0.0310818	mg/L	0.00070100	2.26%
Ag 328.068	-1605.9	-0.0009560	mg/L	0.00029790	-0.0009560	mg/L	0.00029790	31.16%
Na 330.237	12774.7	25.9156	mg/L	0.08873	25.9156	mg/L	0.08873	0.34%
Tl 190.801	-2.1	-0.0092624	mg/L	0.00276941	-0.0092624	mg/L	0.00276941	29.90%
Sn 189.927	-222.0	-0.0054223	mg/L	0.00024253	-0.0054223	mg/L	0.00024253	4.47%
Ti 334.940	3692.5	0.0108726	mg/L	0.00063667	0.0108726	mg/L	0.00063667	5.86%
V 292.402	21345.7	-0.214466	mg/L	0.0017492	-0.214466	mg/L	0.0017492	0.82%
Zn 206.200	11885.3	0.624229	mg/L	0.0013284	0.624229	mg/L	0.0013284	0.21%

Sequence No.: 38  
 Sample ID: 63334-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 79  
 Date Collected: 12/22/2011 2:28:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63334-004

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	74142.5	8.44995	mg/L	0.110089	8.44995	mg/L	0.110089	1.30%
Sb 206.836	139.9	0.192854	mg/L	0.0009150	0.192854	mg/L	0.0009150	0.47%
As 188.979	-10.3	0.0083867	mg/L	0.00047966	0.0083867	mg/L	0.00047966	5.72%
Ba 233.527	7358.8	0.132342	mg/L	0.0006931	0.132342	mg/L	0.0006931	0.52%
Be 234.861	-2619.9	0.0046179	mg/L	0.00023486	0.0046179	mg/L	0.00023486	5.09%
Cd 226.502	98.0	-0.0000321	mg/L	0.00001639	-0.0000321	mg/L	0.00001639	51.10%
Ca 315.887	41901529.8	728.415	mg/L	2.7625	728.415	mg/L	2.7625	0.38%
Cr 206.158	213.2	0.0369976	mg/L	0.00109309	0.0369976	mg/L	0.00109309	2.95%
Co 228.616	432.6	0.0196813	mg/L	0.00044923	0.0196813	mg/L	0.00044923	2.28%
Cu 324.752	217364.2	1.98489	mg/L	0.026143	1.98489	mg/L	0.026143	1.32%
Fe 273.955	131756.3	8.23126	mg/L	0.101700	8.23126	mg/L	0.101700	1.24%
Pb 220.353	1154.0	0.222647	mg/L	0.0019947	0.222647	mg/L	0.0019947	0.90%
Mg 279.077	13902491.0	1059.38	mg/L	6.692	1059.38	mg/L	6.692	0.63%
Mn 257.610	462880.5	0.975413	mg/L	0.0130842	0.975413	mg/L	0.0130842	1.34%
Mo 202.031	-14.7	-0.0036471	mg/L	0.00040424	-0.0036471	mg/L	0.00040424	11.08%
Ni 231.604	1315.5	0.0363473	mg/L	0.00032273	0.0363473	mg/L	0.00032273	0.89%
Se 196.026	87.1	0.0057548	mg/L	0.00508471	0.0057548	mg/L	0.00508471	88.36%
Ag 328.068	-1728.1	-0.0013580	mg/L	0.00030310	-0.0013580	mg/L	0.00030310	22.32%
Na 330.237	11738.6	23.8782	mg/L	0.17865	23.8782	mg/L	0.17865	0.75%
Tl 190.801	-5.8	-0.0125826	mg/L	0.00110571	-0.0125826	mg/L	0.00110571	8.79%
Sn 189.927	-235.3	-0.0065408	mg/L	0.00199741	-0.0065408	mg/L	0.00199741	30.54%
Ti 334.940	5145.9	0.0152988	mg/L	0.00048902	0.0152988	mg/L	0.00048902	3.20%
V 292.402	21006.4	-0.186433	mg/L	0.0023390	-0.186433	mg/L	0.0023390	1.25%
Zn 206.200	12361.5	0.652666	mg/L	0.0046248	0.652666	mg/L	0.0046248	0.71%

Sequence No.: 39  
 Sample ID: EF-V-131199  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 80  
 Date Collected: 12/22/2011 2:33:01 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: EF-V-131199

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-62.4	-0.0071831	mg/L	0.00514785	-0.0071831	mg/L	0.00514785	71.67%
Sb 206.836	1.4	-0.0008726	mg/L	0.00465332	-0.0008726	mg/L	0.00465332	533.27%
As 188.979	-4.4	-0.0037424	mg/L	0.00527311	-0.0037424	mg/L	0.00527311	140.90%
Ba 233.527	115.6	-0.0013580	mg/L	0.00002628	-0.0013580	mg/L	0.00002628	1.94%
Be 234.861	-15.7	0.0003902	mg/L	0.00003296	0.0003902	mg/L	0.00003296	8.45%
Cd 226.502	2.0	-0.0019449	mg/L	0.00008533	-0.0019449	mg/L	0.00008533	4.39%
Ca 315.887	49536.9	0.607701	mg/L	0.0736078	0.607701	mg/L	0.0736078	12.11%
Cr 206.158	8.8	-0.0017731	mg/L	0.00021841	-0.0017731	mg/L	0.00021841	12.32%
Co 228.616	1.0	-0.0042205	mg/L	0.00014102	-0.0042205	mg/L	0.00014102	3.34%
Cu 324.752	701.5	0.0061789	mg/L	0.00096097	0.0061789	mg/L	0.00096097	15.55%
Fe 273.955	-32.9	-0.0234235	mg/L	0.00114794	-0.0234235	mg/L	0.00114794	4.90%
Pb 220.353	1.5	-0.0029369	mg/L	0.00109128	-0.0029369	mg/L	0.00109128	37.16%
Mg 279.077	11259.9	0.492068	mg/L	0.0916281	0.492068	mg/L	0.0916281	18.62%
Mn 257.610	172.1	-0.0026986	mg/L	0.00004320	-0.0026986	mg/L	0.00004320	1.60%
Mo 202.031	-15.4	-0.0043362	mg/L	0.00036595	-0.0043362	mg/L	0.00036595	8.44%
Ni 231.604	122.6	0.0019992	mg/L	0.00039194	0.0019992	mg/L	0.00039194	19.60%
Se 196.026	-3.2	-0.0084844	mg/L	0.00625478	-0.0084844	mg/L	0.00625478	73.72%
Ag 328.068	-27.1	-0.0003365	mg/L	0.00062410	-0.0003365	mg/L	0.00062410	185.47%
Na 330.237	759535.6	1494.36	mg/L	24.274	1494.36	mg/L	24.274	1.62%
Tl 190.801	0.4	-0.0035572	mg/L	0.00060130	-0.0035572	mg/L	0.00060130	16.90%
Sn 189.927	5.8	-0.0004436	mg/L	0.00117309	-0.0004436	mg/L	0.00117309	264.42%
Ti 334.940	-17.2	-0.0004255	mg/L	0.00006935	-0.0004255	mg/L	0.00006935	16.30%
V 292.402	47.2	-0.0008886	mg/L	0.00018186	-0.0008886	mg/L	0.00018186	20.47%
Zn 206.200	106.8	0.0039478	mg/L	0.00004142	0.0039478	mg/L	0.00004142	1.05%

Sequence No.: 40  
 Sample ID: EF-V-130604  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 81  
 Date Collected: 12/22/2011 2:36:11 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: EF-V-130604

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	524.2	0.0596707	mg/L	0.00040617	0.0596707	mg/L	0.00040617	0.68%
Sb 206.836	-0.6	-0.0034852	mg/L	0.00459302	-0.0034852	mg/L	0.00459302	131.79%
As 188.979	-0.7	0.0018327	mg/L	0.00152480	0.0018327	mg/L	0.00152480	83.20%
Ba 233.527	663.0	0.0087553	mg/L	0.00010763	0.0087553	mg/L	0.00010763	1.23%
Be 234.861	-25.2	0.0003828	mg/L	0.00000047	0.0003828	mg/L	0.00000047	0.12%
Cd 226.502	-0.6	-0.0019950	mg/L	0.00005692	-0.0019950	mg/L	0.00005692	2.85%
Ca 315.887	140630.6	2.19182	mg/L	0.043369	2.19182	mg/L	0.043369	1.98%
Cr 206.158	17.7	-0.0006246	mg/L	0.00022833	-0.0006246	mg/L	0.00022833	36.55%
Co 228.616	4.1	-0.0040523	mg/L	0.00012408	-0.0040523	mg/L	0.00012408	3.06%
Cu 324.752	539.4	0.0046452	mg/L	0.00000796	0.0046452	mg/L	0.00000796	0.17%
Fe 273.955	158.6	-0.0114257	mg/L	0.00053056	-0.0114257	mg/L	0.00053056	4.64%
Pb 220.353	6.9	-0.0019085	mg/L	0.00113115	-0.0019085	mg/L	0.00113115	59.27%
Mg 279.077	13423.5	0.656999	mg/L	0.0256490	0.656999	mg/L	0.0256490	3.90%
Mn 257.610	482.1	-0.0020344	mg/L	0.00007012	-0.0020344	mg/L	0.00007012	3.45%
Mo 202.031	-16.5	-0.0044794	mg/L	0.00033226	-0.0044794	mg/L	0.00033226	7.42%
Ni 231.604	45.7	-0.0002270	mg/L	0.00011690	-0.0002270	mg/L	0.00011690	51.50%
Se 196.026	6.6	0.0005474	mg/L	0.00440325	0.0005474	mg/L	0.00440325	804.42%
Ag 328.068	-11.9	-0.0001774	mg/L	0.00008216	-0.0001774	mg/L	0.00008216	46.30%
Na 330.237	7523.5	15.5894	mg/L	0.30722	15.5894	mg/L	0.30722	1.97%
Tl 190.801	0.2	-0.0037214	mg/L	0.00012890	-0.0037214	mg/L	0.00012890	3.46%
Sn 189.927	-3.7	-0.0032039	mg/L	0.00014696	-0.0032039	mg/L	0.00014696	4.59%
Ti 334.940	68.8	-0.0001636	mg/L	0.00007972	-0.0001636	mg/L	0.00007972	48.74%
V 292.402	67.7	-0.0007418	mg/L	0.00002177	-0.0007418	mg/L	0.00002177	2.93%
Zn 206.200	251.3	0.0119129	mg/L	0.00005014	0.0119129	mg/L	0.00005014	0.42%

Sequence No.: 41  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/22/2011 2:39:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	4022424.9	458.437	mg/L	5.7133	458.437	mg/L	5.7133	1.25%
QC value within limits for Al 308.215 Recovery = 91.69%								
Sb 206.836	-21.6	0.0111917	mg/L	0.00370311	0.0111917	mg/L	0.00370311	33.09%
As 188.979	-40.8	-0.0252397	mg/L	0.00221981	-0.0252397	mg/L	0.00221981	8.79%
Ba 233.527	136.8	-0.0035499	mg/L	0.00011640	-0.0035499	mg/L	0.00011640	3.28%
Be 234.861	-80738.5	0.0253389	mg/L	0.00142867	0.0253389	mg/L	0.00142867	5.64%
Cd 226.502	150.3	0.0020897	mg/L	0.00002097	0.0020897	mg/L	0.00002097	1.00%
Ca 315.887	26170001.3	454.843	mg/L	2.4030	454.843	mg/L	2.4030	0.53%
QC value within limits for Ca 315.887 Recovery = 90.97%								
Cr 206.158	13.9	-0.0014248	mg/L	0.00034621	-0.0014248	mg/L	0.00034621	24.30%
Co 228.616	64.0	-0.0051711	mg/L	0.00006705	-0.0051711	mg/L	0.00006705	1.30%
Cu 324.752	2114.4	0.0077258	mg/L	0.00048006	0.0077258	mg/L	0.00048006	6.21%
Fe 273.955	2734577.7	171.260	mg/L	2.3670	171.260	mg/L	2.3670	1.38%
QC value within limits for Fe 273.955 Recovery = 85.63%								
Pb 220.353	-361.7	0.0085778	mg/L	0.00011131	0.0085778	mg/L	0.00011131	1.30%
Mg 279.077	6436618.0	490.279	mg/L	1.2629	490.279	mg/L	1.2629	0.26%
QC value within limits for Mg 279.077 Recovery = 98.06%								
Mn 257.610	-2675.1	-0.0077487	mg/L	0.00007900	-0.0077487	mg/L	0.00007900	1.02%
Mo 202.031	-130.7	0.0036819	mg/L	0.00241468	0.0036819	mg/L	0.00241468	65.58%
Ni 231.604	305.9	0.0031727	mg/L	0.00039619	0.0031727	mg/L	0.00039619	12.49%
Se 196.026	-528.2	-0.0215133	mg/L	0.00079653	-0.0215133	mg/L	0.00079653	3.70%
Ag 328.068	-1204.7	-0.0000902	mg/L	0.00015464	-0.0000902	mg/L	0.00015464	171.50%
Na 330.237	-108.6	0.581537	mg/L	0.1042829	0.581537	mg/L	0.1042829	17.93%
Tl 190.801	-9.2	0.0012004	mg/L	0.00089474	0.0012004	mg/L	0.00089474	74.54%
Sn 189.927	-145.9	-0.0046349	mg/L	0.00158191	-0.0046349	mg/L	0.00158191	34.13%
Ti 334.940	-465.7	-0.0017916	mg/L	0.00004777	-0.0017916	mg/L	0.00004777	2.67%
V 292.402	16997.2	-0.0123135	mg/L	0.00027778	-0.0123135	mg/L	0.00027778	2.26%
Zn 206.200	-34.4	-0.0165413	mg/L	0.00004155	-0.0165413	mg/L	0.00004155	0.25%

All analyte(s) passed QC.

Sequence No.: 42

Autosampler Location: 6

Sample ID: ICSAB V-128667

Date Collected: 12/22/2011 2:43:50 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Al 308.215	4107489.7	468.131 mg/L	4.5317	468.131 mg/L	4.5317	0.97%	
QC value within limits for Al		308.215	Recovery = 93.63%				
Sb 206.836	674.5	0.923784 mg/L	0.0117762	0.923784 mg/L	0.0117762	1.27%	
QC value within limits for Sb		206.836	Recovery = 92.38%				
As 188.979	601.9	0.949687 mg/L	0.0143612	0.949687 mg/L	0.0143612	1.51%	
QC value within limits for As		188.979	Recovery = 94.97%				
Ba 233.527	26517.6	0.483811 mg/L	0.0101685	0.483811 mg/L	0.0101685	2.10%	
QC value within limits for Ba		233.527	Recovery = 96.76%				
Be 234.861	136807.1	0.540915 mg/L	0.0000052	0.540915 mg/L	0.0000052	0.00%	
QC value within limits for Be		234.861	Recovery = 108.18%				
Cd 226.502	47098.5	0.909645 mg/L	0.0240878	0.909645 mg/L	0.0240878	2.65%	
QC value within limits for Cd		226.502	Recovery = 90.96%				
Ca 315.887	26163077.9	454.723 mg/L	1.9213	454.723 mg/L	1.9213	0.42%	
QC value within limits for Ca		315.887	Recovery = 90.94%				
Cr 206.158	4102.8	0.457089 mg/L	0.0030454	0.457089 mg/L	0.0030454	0.67%	
QC value within limits for Cr		206.158	Recovery = 91.42%				
Co 228.616	8100.1	0.444352 mg/L	0.0015956	0.444352 mg/L	0.0015956	0.36%	
QC value within limits for Co		228.616	Recovery = 88.87%				
Cu 324.752	56180.7	0.506087 mg/L	0.0132830	0.506087 mg/L	0.0132830	2.62%	
QC value within limits for Cu		324.752	Recovery = 101.22%				
Fe 273.955	2783094.0	174.299 mg/L	1.7278	174.299 mg/L	1.7278	0.99%	
QC value within limits for Fe		273.955	Recovery = 87.15%				
Pb 220.353	4462.0	0.896211 mg/L	0.0037337	0.896211 mg/L	0.0037337	0.42%	
QC value within limits for Pb		220.353	Recovery = 89.62%				
Mg 279.077	6433721.2	490.058 mg/L	0.8165	490.058 mg/L	0.8165	0.17%	
QC value within limits for Mg		279.077	Recovery = 98.01%				
Mn 257.610	215315.0	0.460795 mg/L	0.0084405	0.460795 mg/L	0.0084405	1.83%	
QC value within limits for Mn		257.610	Recovery = 92.16%				
Mo 202.031	-124.6	0.0049245 mg/L	0.00102596	0.0049245 mg/L	0.00102596	20.83%	
QC value within limits for Mo		202.031	Recovery = Not calculated				
Ni 231.604	30867.6	0.888188 mg/L	0.0166246	0.888188 mg/L	0.0166246	1.87%	
QC value within limits for Ni		231.604	Recovery = 88.82%				
Se 196.026	394.0	0.856543 mg/L	0.0195091	0.856543 mg/L	0.0195091	2.28%	
QC value within limits for Se		196.026	Recovery = 85.65%				
Ag 328.068	119994.9	1.02838 mg/L	0.022697	1.02838 mg/L	0.022697	2.21%	
QC value within limits for Ag		328.068	Recovery = 102.84%				
Na 330.237	-515.4	-0.218319 mg/L	0.0875436	-0.218319 mg/L	0.0875436	40.10%	
QC value within limits for Na		330.237	Recovery = Not calculated				
Tl 190.801	995.4	0.897660 mg/L	0.0029698	0.897660 mg/L	0.0029698	0.33%	
QC value within limits for Tl		190.801	Recovery = 89.77%				
Sn 189.927	-156.7	-0.0079809 mg/L	0.00184262	-0.0079809 mg/L	0.00184262	23.09%	
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940	-457.4	-0.0017662 mg/L	0.00009782	-0.0017662 mg/L	0.00009782	5.54%	
QC value within limits for Ti		334.940	Recovery = Not calculated				
V 292.402	59799.6	0.427382 mg/L	0.0116928	0.427382 mg/L	0.0116928	2.74%	
QC value within limits for V		292.402	Recovery = 85.48%				
Zn 206.200	16034.7	0.870098 mg/L	0.0045063	0.870098 mg/L	0.0045063	0.52%	
QC value within limits for Zn		206.200	Recovery = 87.01%				

All analyte(s) passed QC.

Sequence No.: 43

Autosampler Location: 4

Sample ID: CCV V-128659

Date Collected: 12/22/2011 2:48:21 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Al 308.215	46073.3	5.24475	mg/L	0.045943	5.24475	mg/L	0.88%
QC value within limits for Al		308.215		Recovery = 104.89%			
Sb 206.836	368.6	0.487143	mg/L	0.0006577	0.487143	mg/L	0.14%
QC value within limits for Sb		206.836		Recovery = 97.43%			
As 188.979	312.9	0.478558	mg/L	0.0092699	0.478558	mg/L	1.94%
QC value within limits for As		188.979		Recovery = 95.71%			
Ba 233.527	27656.0	0.507778	mg/L	0.0041777	0.507778	mg/L	0.82%
QC value within limits for Ba		233.527		Recovery = 101.56%			
Be 234.861	207230.8	0.494373	mg/L	0.0021132	0.494373	mg/L	0.43%
QC value within limits for Be		234.861		Recovery = 98.87%			
Cd 226.502	26113.8	0.502847	mg/L	0.0002914	0.502847	mg/L	0.06%
QC value within limits for Cd		226.502		Recovery = 100.57%			
Ca 315.887	2943540.4	50.9345	mg/L	0.47172	50.9345	mg/L	0.93%
QC value within limits for Ca		315.887		Recovery = 101.87%			
Cr 206.158	4503.0	0.489926	mg/L	0.0021350	0.489926	mg/L	0.44%
QC value within limits for Cr		206.158		Recovery = 97.99%			
Co 228.616	9359.4	0.518481	mg/L	0.0016227	0.518481	mg/L	0.31%
QC value within limits for Co		228.616		Recovery = 103.70%			
Cu 324.752	54502.6	0.500796	mg/L	0.0039256	0.500796	mg/L	0.78%
QC value within limits for Cu		324.752		Recovery = 100.16%			
Fe 273.955	82015.5	5.11572	mg/L	0.040490	5.11572	mg/L	0.79%
QC value within limits for Fe		273.955		Recovery = 102.31%			
Pb 220.353	2653.0	0.486752	mg/L	0.0037527	0.486752	mg/L	0.77%
QC value within limits for Pb		220.353		Recovery = 97.35%			
Mg 279.077	677323.3	51.2642	mg/L	0.37042	51.2642	mg/L	0.72%
QC value within limits for Mg		279.077		Recovery = 102.53%			
Mn 257.610	231624.2	0.494082	mg/L	0.0042937	0.494082	mg/L	0.87%
QC value within limits for Mn		257.610		Recovery = 98.82%			
Mo 202.031	3746.6	0.482048	mg/L	0.0039364	0.482048	mg/L	0.82%
QC value within limits for Mo		202.031		Recovery = 96.41%			
Ni 231.604	17567.9	0.507313	mg/L	0.0036806	0.507313	mg/L	0.73%
QC value within limits for Ni		231.604		Recovery = 101.46%			
Se 196.026	527.6	0.500495	mg/L	0.0083116	0.500495	mg/L	1.66%
QC value within limits for Se		196.026		Recovery = 100.10%			
Ag 328.068	11558.6	0.0987641	mg/L	0.00179248	0.0987641	mg/L	1.81%
QC value within limits for Ag		328.068		Recovery = 98.76%			
Na 330.237	23544.3	47.0931	mg/L	0.23980	47.0931	mg/L	0.51%
QC value within limits for Na		330.237		Recovery = 94.19%			
Tl 190.801	573.2	0.512342	mg/L	0.0008603	0.512342	mg/L	0.17%
QC value within limits for Tl		190.801		Recovery = 102.47%			
Sn 189.927	1553.9	0.481349	mg/L	0.0036215	0.481349	mg/L	0.75%
QC value within limits for Sn		189.927		Recovery = 96.27%			
Ti 334.940	162404.0	0.494237	mg/L	0.0036956	0.494237	mg/L	0.75%
QC value within limits for Ti		334.940		Recovery = 98.85%			
V 292.402	48861.1	0.485002	mg/L	0.0043915	0.485002	mg/L	0.91%
QC value within limits for V		292.402		Recovery = 97.00%			
Zn 206.200	8911.9	0.488465	mg/L	0.0013958	0.488465	mg/L	0.29%
QC value within limits for Zn		206.200		Recovery = 97.69%			

All analyte(s) passed QC.

Sequence No.: 44  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/22/2011 2:51:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1728.0	0.196826	mg/L	0.0006390	0.196826	mg/L	0.0006390	0.32%
QC value within limits for Al 308.215	Recovery = Not calculated							
Sb 206.836	-3.1	-0.0066954	mg/L	0.00122575	-0.0066954	mg/L	0.00122575	18.31%
QC value within limits for Sb 206.836	Recovery = Not calculated							
As 188.979	-2.5	-0.0009708	mg/L	0.00056599	-0.0009708	mg/L	0.00056599	58.30%
QC value within limits for As 188.979	Recovery = Not calculated							
Ba 233.527	40.3	-0.0027477	mg/L	0.00020450	-0.0027477	mg/L	0.00020450	7.44%
QC value within limits for Ba 233.527	Recovery = Not calculated							
Be 234.861	84.6	0.0007267	mg/L	0.00000258	0.0007267	mg/L	0.00000258	0.36%
QC value within limits for Be 234.861	Recovery = Not calculated							
Cd 226.502	18.5	-0.0016256	mg/L	0.00017691	-0.0016256	mg/L	0.00017691	10.88%
QC value within limits for Cd 226.502	Recovery = Not calculated							
Ca 315.887	21798.5	0.125329	mg/L	0.0034695	0.125329	mg/L	0.0034695	2.77%
QC value within limits for Ca 315.887	Recovery = Not calculated							
Cr 206.158	8.3	-0.0018115	mg/L	0.00013278	-0.0018115	mg/L	0.00013278	7.33%
QC value within limits for Cr 206.158	Recovery = Not calculated							
Co 228.616	7.1	-0.0038847	mg/L	0.00035946	-0.0038847	mg/L	0.00035946	9.25%
QC value within limits for Co 228.616	Recovery = Not calculated							
Cu 324.752	304.9	0.0025346	mg/L	0.00040560	0.0025346	mg/L	0.00040560	16.00%
QC value within limits for Cu 324.752	Recovery = Not calculated							
Fe 273.955	1245.9	0.0566758	mg/L	0.00122253	0.0566758	mg/L	0.00122253	2.16%
QC value within limits for Fe 273.955	Recovery = Not calculated							
Pb 220.353	-5.3	-0.0041641	mg/L	0.00210851	-0.0041641	mg/L	0.00210851	50.64%
QC value within limits for Pb 220.353	Recovery = Not calculated							
Mg 279.077	5408.0	0.0459938	mg/L	0.00896359	0.0459938	mg/L	0.00896359	19.49%
QC value within limits for Mg 279.077	Recovery = Not calculated							
Mn 257.610	6.3	-0.0030436	mg/L	0.00003571	-0.0030436	mg/L	0.00003571	1.17%
QC value within limits for Mn 257.610	Recovery = Not calculated							
Mo 202.031	5.8	-0.0015885	mg/L	0.00031858	-0.0015885	mg/L	0.00031858	20.06%
QC value within limits for Mo 202.031	Recovery = Not calculated							
Ni 231.604	30.1	-0.0006800	mg/L	0.00005166	-0.0006800	mg/L	0.00005166	7.60%
QC value within limits for Ni 231.604	Recovery = Not calculated							
Se 196.026	9.9	0.0041202	mg/L	0.00177733	0.0041202	mg/L	0.00177733	43.14%
QC value within limits for Se 196.026	Recovery = Not calculated							
Ag 328.068	87.9	0.0006312	mg/L	0.00017526	0.0006312	mg/L	0.00017526	27.77%
QC value within limits for Ag 328.068	Recovery = Not calculated							
Na 330.237	-129.6	0.540147	mg/L	0.0873605	0.540147	mg/L	0.0873605	16.17%
QC value within limits for Na 330.237	Recovery = Not calculated							
Tl 190.801	0.9	-0.0031343	mg/L	0.00060049	-0.0031343	mg/L	0.00060049	19.16%
QC value within limits for Tl 190.801	Recovery = Not calculated							
Sn 189.927	3.7	-0.0011357	mg/L	0.00003613	-0.0011357	mg/L	0.00003613	3.18%
QC value within limits for Sn 189.927	Recovery = Not calculated							
Ti 334.940	17.3	-0.0003206	mg/L	0.00009682	-0.0003206	mg/L	0.00009682	30.20%
QC value within limits for Ti 334.940	Recovery = Not calculated							
V 292.402	33.6	-0.0008368	mg/L	0.00014671	-0.0008368	mg/L	0.00014671	17.53%
QC value within limits for V 292.402	Recovery = Not calculated							
Zn 206.200	119.4	0.0046553	mg/L	0.00005276	0.0046553	mg/L	0.00005276	1.13%
QC value within limits for Zn 206.200	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 45  
 Sample ID: 63081-025  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 82  
 Date Collected: 12/22/2011 2:54:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-025

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2394.0	0.272741	mg/L	0.0009851	0.272741	mg/L	0.0009851	0.36%
Sb 206.836	5.5	0.0046554	mg/L	0.00197643	0.0046554	mg/L	0.00197643	42.45%
As 188.979	-10.0	-0.0017648	mg/L	0.00011863	-0.0017648	mg/L	0.00011863	6.72%
Ba 233.527	38266.4	0.703503	mg/L	0.0029722	0.703503	mg/L	0.0029722	0.42%
Be 234.861	-80.0	0.0008444	mg/L	0.00001554	0.0008444	mg/L	0.00001554	1.84%
Cd 226.502	98.6	-0.0000748	mg/L	0.00022214	-0.0000748	mg/L	0.00022214	297.06%
Ca 315.887	14087448.4	244.727	mg/L	4.2717	244.727	mg/L	4.2717	1.75%
Cr 206.158	-106.2	0.0138035	mg/L	0.00044751	0.0138035	mg/L	0.00044751	3.24%
Co 228.616	401.6	0.0181753	mg/L	0.00035747	0.0181753	mg/L	0.00035747	1.97%
Cu 324.752	3085.6	0.0219819	mg/L	0.00011064	0.0219819	mg/L	0.00011064	0.50%
Fe 273.955	7672.7	0.459221	mg/L	0.0000239	0.459221	mg/L	0.0000239	0.01%
Pb 220.353	6695.4	1.23100	mg/L	0.004077	1.23100	mg/L	0.004077	0.33%
Mg 279.077	43377.5	2.94030	mg/L	0.030963	2.94030	mg/L	0.030963	1.05%
Mn 257.610	542530.6	1.16263	mg/L	0.005472	1.16263	mg/L	0.005472	0.47%
Mo 202.031	0.3	-0.0022866	mg/L	0.00009028	-0.0022866	mg/L	0.00009028	3.95%
Ni 231.604	606.1	0.0159906	mg/L	0.00009493	0.0159906	mg/L	0.00009493	0.59%
Se 196.026	77.5	0.0364426	mg/L	0.00130605	0.0364426	mg/L	0.00130605	3.58%
Ag 328.068	-601.5	-0.0009648	mg/L	0.00079769	-0.0009648	mg/L	0.00079769	82.68%
Na 330.237	761800.1	1498.82	mg/L	7.199	1498.82	mg/L	7.199	0.48%
Tl 190.801	-7.6	-0.0117716	mg/L	0.00186655	-0.0117716	mg/L	0.00186655	15.86%
Sn 189.927	-91.7	-0.0076176	mg/L	0.00092084	-0.0076176	mg/L	0.00092084	12.09%
Ti 334.940	-43.5	-0.0005058	mg/L	0.00000053	-0.0005058	mg/L	0.00000053	0.11%
V 292.402	523.1	0.0030891	mg/L	0.00002979	0.0030891	mg/L	0.00002979	0.96%
Zn 206.200	20226.6	1.11402	mg/L	0.000520	1.11402	mg/L	0.000520	0.05%

Sequence No.: 46  
 Sample ID: 63081-026  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 83  
 Date Collected: 12/22/2011 2:58:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63081-026

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3840.3	0.437594	mg/L	0.0063070	0.437594	mg/L	0.0063070	1.44%
Sb 206.836	-1.2	-0.0033821	mg/L	0.00763620	-0.0033821	mg/L	0.00763620	225.78%
As 188.979	-14.5	-0.0100727	mg/L	0.00036946	-0.0100727	mg/L	0.00036946	3.67%
Ba 233.527	24720.8	0.453091	mg/L	0.0151860	0.453091	mg/L	0.0151860	3.35%
Be 234.861	-4388.7	0.0028646	mg/L	0.00006814	0.0028646	mg/L	0.00006814	2.38%
Cd 226.502	82.4	-0.0003219	mg/L	0.00007854	-0.0003219	mg/L	0.00007854	24.40%
Ca 315.887	10309170.8	179.023	mg/L	0.0822	179.023	mg/L	0.0822	0.05%
Cr 206.158	21.7	0.0083363	mg/L	0.00035097	0.0083363	mg/L	0.00035097	4.21%
Co 228.616	496.8	0.0232504	mg/L	0.00014928	0.0232504	mg/L	0.00014928	0.64%
Cu 324.752	2807.3	0.0210794	mg/L	0.00020716	0.0210794	mg/L	0.00020716	0.98%
Fe 273.955	162401.1	10.1507	mg/L	0.28105	10.1507	mg/L	0.28105	2.77%
Pb 220.353	4296.8	0.789064	mg/L	0.0030567	0.789064	mg/L	0.0030567	0.39%
Mg 279.077	44196.2	3.00271	mg/L	0.063733	3.00271	mg/L	0.063733	2.12%
Mn 257.610	902297.8	1.93614	mg/L	0.054322	1.93614	mg/L	0.054322	2.81%
Mo 202.031	-7.0	-0.0028787	mg/L	0.00093730	-0.0028787	mg/L	0.00093730	32.56%
Ni 231.604	1344.1	0.0371302	mg/L	0.00001645	0.0371302	mg/L	0.00001645	0.04%
Se 196.026	38.0	0.0378422	mg/L	0.00354809	0.0378422	mg/L	0.00354809	9.38%
Ag 328.068	-371.2	-0.0003518	mg/L	0.00068661	-0.0003518	mg/L	0.00068661	195.17%
Na 330.237	788080.7	1550.50	mg/L	45.298	1550.50	mg/L	45.298	2.92%
Tl 190.801	-2.8	-0.0066666	mg/L	0.00012627	-0.0066666	mg/L	0.00012627	1.89%
Sn 189.927	-67.3	-0.0062419	mg/L	0.00103251	-0.0062419	mg/L	0.00103251	16.54%
Ti 334.940	388.3	0.0008094	mg/L	0.00007523	0.0008094	mg/L	0.00007523	9.30%
V 292.402	347.1	0.0012489	mg/L	0.00001603	0.0012489	mg/L	0.00001603	1.28%
Zn 206.200	6418.3	0.352128	mg/L	0.0000656	0.352128	mg/L	0.0000656	0.02%

Sequence No.: 47  
 Sample ID: 63111-034  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 84  
 Date Collected: 12/22/2011 3:01:34 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-034

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1783.1	0.203122	mg/L	0.0021887	0.203122	mg/L	0.0021887	1.08%
Sb 206.836	-0.6	-0.0033617	mg/L	0.00119157	-0.0033617	mg/L	0.00119157	35.45%
As 188.979	-17.7	-0.0184175	mg/L	0.00324353	-0.0184175	mg/L	0.00324353	17.61%
Ba 233.527	20858.6	0.381885	mg/L	0.0034201	0.381885	mg/L	0.0034201	0.90%
Be 234.861	-29.2	0.0004919	mg/L	0.00001707	0.0004919	mg/L	0.00001707	3.47%
Cd 226.502	148.3	0.0008834	mg/L	0.00004591	0.0008834	mg/L	0.00004591	5.20%
Ca 315.887	7383351.1	128.143	mg/L	1.5832	128.143	mg/L	1.5832	1.24%
Cr 206.158	-110.8	0.0198570	mg/L	0.00008994	0.0198570	mg/L	0.00008994	0.45%
Co 228.616	600.1	0.0292896	mg/L	0.00009748	0.0292896	mg/L	0.00009748	0.33%
Cu 324.752	4724.1	0.0400338	mg/L	0.00040014	0.0400338	mg/L	0.00040014	1.00%
Fe 273.955	1666.3	0.0830106	mg/L	0.00086745	0.0830106	mg/L	0.00086745	1.04%
Pb 220.353	1218.5	0.223091	mg/L	0.0017404	0.223091	mg/L	0.0017404	0.78%
Mg 279.077	102512.6	7.44800	mg/L	0.027876	7.44800	mg/L	0.027876	0.37%
Mn 257.610	1052093.0	2.25741	mg/L	0.001189	2.25741	mg/L	0.001189	0.05%
Mo 202.031	-1.5	-0.0025332	mg/L	0.00081192	-0.0025332	mg/L	0.00081192	32.05%
Ni 231.604	1208.6	0.0334481	mg/L	0.00017695	0.0334481	mg/L	0.00017695	0.53%
Se 196.026	77.2	0.0500925	mg/L	0.00247372	0.0500925	mg/L	0.00247372	4.94%
Ag 328.068	-267.1	-0.0006106	mg/L	0.00010991	-0.0006106	mg/L	0.00010991	18.00%
Na 330.237	791523.9	1557.27	mg/L	3.124	1557.27	mg/L	3.124	0.20%
Tl 190.801	-4.1	-0.0076154	mg/L	0.00279488	-0.0076154	mg/L	0.00279488	36.70%
Sn 189.927	-66.3	-0.0107093	mg/L	0.00060879	-0.0107093	mg/L	0.00060879	5.68%
Ti 334.940	657.5	0.0016293	mg/L	0.00005897	0.0016293	mg/L	0.00005897	3.62%
V 292.402	740.5	0.0036123	mg/L	0.00007063	0.0036123	mg/L	0.00007063	1.96%
Zn 206.200	24951.3	1.37460	mg/L	0.000692	1.37460	mg/L	0.000692	0.05%

Sequence No.: 48  
 Sample ID: 63111-035  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 85  
 Date Collected: 12/22/2011 3:04:53 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-035

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	568.4	0.0647014	mg/L	0.00419113	0.0647014	mg/L	0.00419113	6.48%
Sb 206.836	1.1	-0.0009652	mg/L	0.00747097	-0.0009652	mg/L	0.00747097	774.03%
As 188.979	-26.5	-0.0173500	mg/L	0.00161694	-0.0173500	mg/L	0.00161694	9.32%
Ba 233.527	57545.8	1.05968	mg/L	0.006346	1.05968	mg/L	0.006346	0.60%
Be 234.861	-783.7	0.0008662	mg/L	0.00001522	0.0008662	mg/L	0.00001522	1.76%
Cd 226.502	50.3	-0.0009979	mg/L	0.00000432	-0.0009979	mg/L	0.00000432	0.43%
Ca 315.887	26285504.5	456.852	mg/L	5.1693	456.852	mg/L	5.1693	1.13%
Cr 206.158	-197.5	0.0302072	mg/L	0.00161563	0.0302072	mg/L	0.00161563	5.35%
Co 228.616	643.9	0.0316993	mg/L	0.00000705	0.0316993	mg/L	0.00000705	0.02%
Cu 324.752	1440.6	0.0014572	mg/L	0.00026026	0.0014572	mg/L	0.00026026	17.86%
Fe 273.955	29021.7	1.79643	mg/L	0.010242	1.79643	mg/L	0.010242	0.57%
Pb 220.353	5523.6	1.01957	mg/L	0.002426	1.01957	mg/L	0.002426	0.24%
Mg 279.077	123435.9	9.04292	mg/L	0.079824	9.04292	mg/L	0.079824	0.88%
Mn 257.610	1067867.3	2.29137	mg/L	0.018887	2.29137	mg/L	0.018887	0.82%
Mo 202.031	-11.9	-0.0038182	mg/L	0.00048047	-0.0038182	mg/L	0.00048047	12.58%
Ni 231.604	1569.9	0.0438717	mg/L	0.00064437	0.0438717	mg/L	0.00064437	1.47%
Se 196.026	88.6	0.0227126	mg/L	0.00006003	0.0227126	mg/L	0.00006003	0.26%
Ag 328.068	-1130.7	-0.0017878	mg/L	0.00036530	-0.0017878	mg/L	0.00036530	20.43%
Na 330.237	769428.4	1513.82	mg/L	14.310	1513.82	mg/L	14.310	0.95%
Tl 190.801	-6.8	-0.0120191	mg/L	0.00465671	-0.0120191	mg/L	0.00465671	38.74%
Sn 189.927	-148.7	-0.0052954	mg/L	0.00101705	-0.0052954	mg/L	0.00101705	19.21%
Ti 334.940	-352.6	-0.0014470	mg/L	0.00005992	-0.0014470	mg/L	0.00005992	4.14%
V 292.402	843.0	0.0040524	mg/L	0.00011860	0.0040524	mg/L	0.00011860	2.93%
Zn 206.200	39112.5	2.15592	mg/L	0.016283	2.15592	mg/L	0.016283	0.76%

Sequence No.: 49  
 Sample ID: 63111-036  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 86  
 Date Collected: 12/22/2011 3:09:15 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-036

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1974.0	0.224883	mg/L	0.0023726	0.224883	mg/L	0.0023726	1.06%
Sb 206.836	0.6	-0.0014942	mg/L	0.00456162	-0.0014942	mg/L	0.00456162	305.30%
As 188.979	-23.6	-0.0214013	mg/L	0.00113169	-0.0214013	mg/L	0.00113169	5.29%
Ba 233.527	53151.7	0.978472	mg/L	0.0004110	0.978472	mg/L	0.0004110	0.04%
Be 234.861	-1538.6	0.0013258	mg/L	0.00008763	0.0013258	mg/L	0.00008763	6.61%
Cd 226.502	129.0	0.0005356	mg/L	0.00020363	0.0005356	mg/L	0.00020363	38.02%
Ca 315.887	14717182.4	255.678	mg/L	0.0112	255.678	mg/L	0.0112	0.00%
Cr 206.158	-156.1	0.0317356	mg/L	0.00053007	0.0317356	mg/L	0.00053007	1.67%
Co 228.616	629.9	0.0308713	mg/L	0.00073358	0.0308713	mg/L	0.00073358	2.38%
Cu 324.752	2146.8	0.0130526	mg/L	0.00007218	0.0130526	mg/L	0.00007218	0.55%
Fe 273.955	57475.3	3.57863	mg/L	0.008930	3.57863	mg/L	0.008930	0.25%
Pb 220.353	15988.6	2.93821	mg/L	0.000110	2.93821	mg/L	0.000110	0.00%
Mg 279.077	113817.9	8.30977	mg/L	0.016041	8.30977	mg/L	0.016041	0.19%
Mn 257.610	932127.6	1.99981	mg/L	0.002244	1.99981	mg/L	0.002244	0.11%
Mo 202.031	-7.8	-0.0032253	mg/L	0.00070727	-0.0032253	mg/L	0.00070727	21.93%
Ni 231.604	1799.3	0.0504709	mg/L	0.00046481	0.0504709	mg/L	0.00046481	0.92%
Se 196.026	80.5	0.0474745	mg/L	0.00369085	0.0474745	mg/L	0.00369085	7.77%
Ag 328.068	-628.8	-0.0011904	mg/L	0.00014425	-0.0011904	mg/L	0.00014425	12.12%
Na 330.237	771972.7	1518.82	mg/L	2.900	1518.82	mg/L	2.900	0.19%
Tl 190.801	0.4	-0.0043890	mg/L	0.00321673	-0.0043890	mg/L	0.00321673	73.29%
Sn 189.927	-92.9	-0.0069689	mg/L	0.00050041	-0.0069689	mg/L	0.00050041	7.18%
Ti 334.940	-202.0	-0.0009883	mg/L	0.00002830	-0.0009883	mg/L	0.00002830	2.86%
V 292.402	769.1	0.0035748	mg/L	0.00001280	0.0035748	mg/L	0.00001280	0.36%
Zn 206.200	37021.7	2.04058	mg/L	0.000049	2.04058	mg/L	0.000049	0.00%

Sequence No.: 50

Autosampler Location: 87

Sample ID: 63250-001

Date Collected: 12/22/2011 3:12:30 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: 63250-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	729.8	0.0830853	mg/L	0.00126543	0.0830853	mg/L	0.00126543	1.52%
Sb 206.836	-0.6	-0.0033863	mg/L	0.00501405	-0.0033863	mg/L	0.00501405	148.07%
As 188.979	-20.7	-0.0224813	mg/L	0.00417420	-0.0224813	mg/L	0.00417420	18.57%
Ba 233.527	33831.7	0.621574	mg/L	0.0028190	0.621574	mg/L	0.0028190	0.45%
Be 234.861	9.2	0.0004687	mg/L	0.00001070	0.0004687	mg/L	0.00001070	2.28%
Cd 226.502	226.2	0.0023889	mg/L	0.00005345	0.0023889	mg/L	0.00005345	2.24%
Ca 315.887	8007070.7	138.989	mg/L	0.2685	138.989	mg/L	0.2685	0.19%
Cr 206.158	-16.6	0.0232739	mg/L	0.00032747	0.0232739	mg/L	0.00032747	1.41%
Co 228.616	73.7	-0.0001557	mg/L	0.00063235	-0.0001557	mg/L	0.00063235	406.09%
Cu 324.752	18378.6	0.165620	mg/L	0.0005238	0.165620	mg/L	0.0005238	0.32%
Fe 273.955	219.2	-0.0076322	mg/L	0.00103776	-0.0076322	mg/L	0.00103776	13.60%
Pb 220.353	3059.7	0.561391	mg/L	0.0016503	0.561391	mg/L	0.0016503	0.29%
Mg 279.077	51507.3	3.56002	mg/L	0.015144	3.56002	mg/L	0.015144	0.43%
Mn 257.610	157550.6	0.335407	mg/L	0.0019400	0.335407	mg/L	0.0019400	0.58%
Mo 202.031	-8.1	-0.0033964	mg/L	0.00098368	-0.0033964	mg/L	0.00098368	28.96%
Ni 231.604	303.9	0.0072507	mg/L	0.00008585	0.0072507	mg/L	0.00008585	1.18%
Se 196.026	82.5	0.0540305	mg/L	0.00450477	0.0540305	mg/L	0.00450477	8.34%
Ag 328.068	-378.4	-0.0008243	mg/L	0.00021335	-0.0008243	mg/L	0.00021335	25.88%
Na 330.237	790182.5	1554.63	mg/L	6.158	1554.63	mg/L	6.158	0.40%
Tl 190.801	-2.5	-0.0068758	mg/L	0.00157161	-0.0068758	mg/L	0.00157161	22.86%
Sn 189.927	-60.4	-0.0078688	mg/L	0.00228712	-0.0078688	mg/L	0.00228712	29.07%
Ti 334.940	-95.3	-0.0006635	mg/L	0.00022036	-0.0006635	mg/L	0.00022036	33.21%
V 292.402	424.7	0.0018353	mg/L	0.00001962	0.0018353	mg/L	0.00001962	1.07%
Zn 206.200	20162.1	1.11045	mg/L	0.003869	1.11045	mg/L	0.003869	0.35%

Sequence No.: 51  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 3:15:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	42033.3	4.78448	mg/L	0.008367	4.78448	mg/L	0.008367	0.17%
Sb 206.836	351.7	0.464764	mg/L	0.0014404	0.464764	mg/L	0.0014404	0.31%
As 188.979	302.0	0.461930	mg/L	0.0063426	0.461930	mg/L	0.0063426	1.37%
Ba 233.527	26767.0	0.491346	mg/L	0.0028628	0.491346	mg/L	0.0028628	0.58%
Be 234.861	201448.2	0.480418	mg/L	0.0029754	0.480418	mg/L	0.0029754	0.62%
Cd 226.502	25034.9	0.481988	mg/L	0.0045630	0.481988	mg/L	0.0045630	0.95%
Ca 315.887	2833762.5	49.0255	mg/L	0.37812	49.0255	mg/L	0.37812	0.77%
Cr 206.158	4342.4	0.472281	mg/L	0.0003569	0.472281	mg/L	0.0003569	0.08%
Co 228.616	8924.7	0.494184	mg/L	0.0001898	0.494184	mg/L	0.0001898	0.04%
Cu 324.752	52589.6	0.483213	mg/L	0.0026083	0.483213	mg/L	0.0026083	0.54%
Fe 273.955	77546.8	4.83582	mg/L	0.017683	4.83582	mg/L	0.017683	0.37%
Pb 220.353	2615.3	0.479693	mg/L	0.0005969	0.479693	mg/L	0.0005969	0.12%
Mg 279.077	648222.3	49.0459	mg/L	0.34032	49.0459	mg/L	0.34032	0.69%
Mn 257.610	226971.0	0.484104	mg/L	0.0020117	0.484104	mg/L	0.0020117	0.42%
Mo 202.031	3641.9	0.468491	mg/L	0.0018892	0.468491	mg/L	0.0018892	0.40%
Ni 231.604	16664.7	0.481156	mg/L	0.0006927	0.481156	mg/L	0.0006927	0.14%
Se 196.026	503.1	0.476834	mg/L	0.0097691	0.476834	mg/L	0.0097691	2.05%
Ag 328.068	11175.4	0.0954789	mg/L	0.00032346	0.0954789	mg/L	0.00032346	0.34%
Na 330.237	23654.3	47.3094	mg/L	0.28110	47.3094	mg/L	0.28110	0.59%
Tl 190.801	551.7	0.493134	mg/L	0.0028620	0.493134	mg/L	0.0028620	0.58%
Sn 189.927	1544.1	0.478149	mg/L	0.0000968	0.478149	mg/L	0.0000968	0.02%
Ti 334.940	159347.7	0.484929	mg/L	0.0012429	0.484929	mg/L	0.0012429	0.26%
V 292.402	47337.9	0.470090	mg/L	0.0017163	0.470090	mg/L	0.0017163	0.37%
Zn 206.200	8538.3	0.467906	mg/L	0.0010072	0.467906	mg/L	0.0010072	0.22%

Sequence No.: 52  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/22/2011 3:18:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-108.4	-0.0124650	mg/L	0.00202452	-0.0124650	mg/L	0.00202452	16.24%
Sb 206.836	1.8	-0.0002869	mg/L	0.00487437	-0.0002869	mg/L	0.00487437	>999.9%
As 188.979	-1.1	0.0011858	mg/L	0.00471961	0.0011858	mg/L	0.00471961	398.00%
Ba 233.527	63.2	-0.0023228	mg/L	0.00002261	-0.0023228	mg/L	0.00002261	0.97%
Be 234.861	18.2	0.0004652	mg/L	0.00000660	0.0004652	mg/L	0.00000660	1.42%
Cd 226.502	5.3	-0.0018806	mg/L	0.00013724	-0.0018806	mg/L	0.00013724	7.30%
Ca 315.887	8895.3	-0.0990569	mg/L	0.00886963	-0.0990569	mg/L	0.00886963	8.95%
Cr 206.158	4.9	-0.0021560	mg/L	0.00046338	-0.0021560	mg/L	0.00046338	21.49%
Co 228.616	-3.3	-0.0044600	mg/L	0.00003602	-0.0044600	mg/L	0.00003602	0.81%
Cu 324.752	114.9	0.0007883	mg/L	0.00070130	0.0007883	mg/L	0.00070130	88.96%
Fe 273.955	-94.0	-0.0272517	mg/L	0.00022681	-0.0272517	mg/L	0.00022681	0.83%
Pb 220.353	6.0	-0.0021248	mg/L	0.00038448	-0.0021248	mg/L	0.00038448	18.09%
Mg 279.077	62.0	-0.361516	mg/L	0.0010214	-0.361516	mg/L	0.0010214	0.28%
Mn 257.610	456.7	-0.0020739	mg/L	0.00005881	-0.0020739	mg/L	0.00005881	2.84%
Mo 202.031	6.3	-0.0015382	mg/L	0.00059431	-0.0015382	mg/L	0.00059431	38.64%
Ni 231.604	13.1	-0.0011712	mg/L	0.00007450	-0.0011712	mg/L	0.00007450	6.36%
Se 196.026	7.0	0.0012409	mg/L	0.00075161	0.0012409	mg/L	0.00075161	60.57%
Ag 328.068	-15.7	-0.0002531	mg/L	0.00028934	-0.0002531	mg/L	0.00028934	114.32%
Na 330.237	345.8	1.47515	mg/L	0.105287	1.47515	mg/L	0.105287	7.14%
Tl 190.801	5.0	0.0005292	mg/L	0.00379245	0.0005292	mg/L	0.00379245	716.70%
Sn 189.927	2.0	-0.0016667	mg/L	0.00118103	-0.0016667	mg/L	0.00118103	70.86%
Ti 334.940	0.4	-0.0003720	mg/L	0.00011260	-0.0003720	mg/L	0.00011260	30.27%
V 292.402	5.9	-0.0009672	mg/L	0.00002002	-0.0009672	mg/L	0.00002002	2.07%
Zn 206.200	129.8	0.0052381	mg/L	0.00010590	0.0052381	mg/L	0.00010590	2.02%

Sequence No.: 53  
 Sample ID: 63279-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 88  
 Date Collected: 12/22/2011 3:22:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63279-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2055.6	0.234184	mg/L	0.0014040	0.234184	mg/L	0.0014040	0.60%
Sb 206.836	0.2	-0.0020312	mg/L	0.00050070	-0.0020312	mg/L	0.00050070	24.65%
As 188.979	-20.3	-0.0234390	mg/L	0.00152698	-0.0234390	mg/L	0.00152698	6.51%
Ba 233.527	13752.0	0.250584	mg/L	0.0013492	0.250584	mg/L	0.0013492	0.54%
Be 234.861	64.6	0.0006657	mg/L	0.00001475	0.0006657	mg/L	0.00001475	2.21%
Cd 226.502	58.3	-0.0008563	mg/L	0.00001368	-0.0008563	mg/L	0.00001368	1.60%
Ca 315.887	6500161.5	112.784	mg/L	0.8800	112.784	mg/L	0.8800	0.78%
Cr 206.158	2.0	-0.0020450	mg/L	0.00027763	-0.0020450	mg/L	0.00027763	13.58%
Co 228.616	104.3	0.0015522	mg/L	0.00014152	0.0015522	mg/L	0.00014152	9.12%
Cu 324.752	964.5	0.0057681	mg/L	0.00004278	0.0057681	mg/L	0.00004278	0.74%
Fe 273.955	1070.4	0.0456813	mg/L	0.00143601	0.0456813	mg/L	0.00143601	3.14%
Pb 220.353	-20.2	-0.0049522	mg/L	0.00121721	-0.0049522	mg/L	0.00121721	24.58%
Mg 279.077	390233.2	29.3801	mg/L	0.44790	29.3801	mg/L	0.44790	1.52%
Mn 257.610	500208.7	1.07126	mg/L	0.016025	1.07126	mg/L	0.016025	1.50%
Mo 202.031	-6.7	-0.0032056	mg/L	0.00079573	-0.0032056	mg/L	0.00079573	24.82%
Ni 231.604	212.4	0.0045981	mg/L	0.00044756	0.0045981	mg/L	0.00044756	9.73%
Se 196.026	76.5	0.0514938	mg/L	0.00525077	0.0514938	mg/L	0.00525077	10.20%
Ag 328.068	-323.4	-0.0010492	mg/L	0.00014238	-0.0010492	mg/L	0.00014238	13.57%
Na 330.237	750378.7	1476.36	mg/L	26.150	1476.36	mg/L	26.150	1.77%
Tl 190.801	-3.6	-0.0074670	mg/L	0.00014533	-0.0074670	mg/L	0.00014533	1.95%
Sn 189.927	-50.8	-0.0073503	mg/L	0.00015716	-0.0073503	mg/L	0.00015716	2.14%
Ti 334.940	894.5	0.0023511	mg/L	0.00002459	0.0023511	mg/L	0.00002459	1.05%
V 292.402	2477.7	0.0131471	mg/L	0.00025957	0.0131471	mg/L	0.00025957	1.97%
Zn 206.200	432.5	0.0211669	mg/L	0.00010495	0.0211669	mg/L	0.00010495	0.50%

Sequence No.: 54  
 Sample ID: 63298-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 89  
 Date Collected: 12/22/2011 3:25:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63298-001

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	8589.5	0.978856	mg/L	0.0059046	0.978856	mg/L	0.0059046 0.60%
Sb 206.836	1.5	-0.0005333	mg/L	0.00040383	-0.0005333	mg/L	0.00040383 75.73%
As 188.979	-19.7	-0.0180756	mg/L	0.00166502	-0.0180756	mg/L	0.00166502 9.21%
Ba 233.527	22472.3	0.411694	mg/L	0.0013690	0.411694	mg/L	0.0013690 0.33%
Be 234.861	284.5	0.0015263	mg/L	0.00002292	0.0015263	mg/L	0.00002292 1.50%
Cd 226.502	134.1	0.0006116	mg/L	0.00001521	0.0006116	mg/L	0.00001521 2.49%
Ca 315.887	12183717.9	211.621	mg/L	0.6364	211.621	mg/L	0.6364 0.30%
Cr 206.158	46.4	0.0055239	mg/L	0.00015261	0.0055239	mg/L	0.00015261 2.76%
Co 228.616	304.7	0.0127588	mg/L	0.00049139	0.0127588	mg/L	0.00049139 3.85%
Cu 324.752	1563.4	0.0087892	mg/L	0.00002811	0.0087892	mg/L	0.00002811 0.32%
Fe 273.955	5440.3	0.319393	mg/L	0.0009989	0.319393	mg/L	0.0009989 0.31%
Pb 220.353	136.2	0.0256174	mg/L	0.00111516	0.0256174	mg/L	0.00111516 4.35%
Mg 279.077	100231.1	7.27409	mg/L	0.092765	7.27409	mg/L	0.092765 1.28%
Mn 257.610	3052644.6	6.55593	mg/L	0.019183	6.55593	mg/L	0.019183 0.29%
Mo 202.031	-7.0	-0.0032082	mg/L	0.00030875	-0.0032082	mg/L	0.00030875 9.62%
Ni 231.604	609.8	0.0161003	mg/L	0.00001464	0.0161003	mg/L	0.00001464 0.09%
Se 196.026	88.9	0.0487717	mg/L	0.00226275	0.0487717	mg/L	0.00226275 4.64%
Ag 328.068	-401.7	-0.0013743	mg/L	0.00015734	-0.0013743	mg/L	0.00015734 11.45%
Na 330.237	777909.8	1530.50	mg/L	14.643	1530.50	mg/L	14.643 0.96%
Tl 190.801	-2.5	-0.0053356	mg/L	0.00357894	-0.0053356	mg/L	0.00357894 67.08%
Sn 189.927	-84.4	-0.0084635	mg/L	0.00069203	-0.0084635	mg/L	0.00069203 8.18%
Ti 334.940	274.2	0.0004619	mg/L	0.00006124	0.0004619	mg/L	0.00006124 13.26%
V 292.402	668.8	0.0029368	mg/L	0.00007853	0.0029368	mg/L	0.00007853 2.67%
Zn 206.200	2482.8	0.134872	mg/L	0.0005571	0.134872	mg/L	0.0005571 0.41%

Sequence No.: 55  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/22/2011 3:29:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	4006248.1	456.593	mg/L	11.8744	456.593	mg/L	11.8744	2.60%
QC value within limits for Al 308.215 Recovery = 91.32%								
Sb 206.836	-32.9	-0.0039127	mg/L	0.01137748	-0.0039127	mg/L	0.01137748	290.78%
As 188.979	-39.1	-0.0231151	mg/L	0.00763099	-0.0231151	mg/L	0.00763099	33.01%
Ba 233.527	156.6	-0.0031666	mg/L	0.00005087	-0.0031666	mg/L	0.00005087	1.61%
Be 234.861	-79243.6	0.0274227	mg/L	0.00485509	0.0274227	mg/L	0.00485509	17.70%
Cd 226.502	140.0	0.0018824	mg/L	0.00006330	0.0018824	mg/L	0.00006330	3.36%
Ca 315.887	25525317.0	443.632	mg/L	0.7725	443.632	mg/L	0.7725	0.17%
QC value within limits for Ca 315.887 Recovery = 88.73%								
Cr 206.158	28.6	0.0001539	mg/L	0.00053616	0.0001539	mg/L	0.00053616	348.48%
Co 228.616	65.1	-0.0050800	mg/L	0.00006523	-0.0050800	mg/L	0.00006523	1.28%
Cu 324.752	1711.6	0.0042950	mg/L	0.00038228	0.0042950	mg/L	0.00038228	8.90%
Fe 273.955	2716340.3	170.118	mg/L	3.9685	170.118	mg/L	3.9685	2.33%
QC value within limits for Fe 273.955 Recovery = 85.06%								
Pb 220.353	-346.8	0.0108365	mg/L	0.00058863	0.0108365	mg/L	0.00058863	5.43%
Mg 279.077	6244598.3	475.641	mg/L	1.5341	475.641	mg/L	1.5341	0.32%
QC value within limits for Mg 279.077 Recovery = 95.13%								
Mn 257.610	-1510.8	-0.0050768	mg/L	0.00061683	-0.0050768	mg/L	0.00061683	12.15%
Mo 202.031	-113.8	0.0057525	mg/L	0.00006299	0.0057525	mg/L	0.00006299	1.10%
Ni 231.604	288.7	0.0027029	mg/L	0.00007432	0.0027029	mg/L	0.00007432	2.75%
Se 196.026	-512.2	-0.0085804	mg/L	0.02573472	-0.0085804	mg/L	0.02573472	299.92%
Ag 328.068	-1204.1	-0.0003071	mg/L	0.00090986	-0.0003071	mg/L	0.00090986	296.25%
Na 330.237	345.7	1.47483	mg/L	0.013585	1.47483	mg/L	0.013585	0.92%
Tl 190.801	-11.4	-0.0008062	mg/L	0.00363363	-0.0008062	mg/L	0.00363363	450.74%
Sn 189.927	-149.5	-0.0067790	mg/L	0.00027735	-0.0067790	mg/L	0.00027735	4.09%
Ti 334.940	-414.1	-0.0016343	mg/L	0.00004216	-0.0016343	mg/L	0.00004216	2.58%
V 292.402	16688.0	-0.0099311	mg/L	0.00112549	-0.0099311	mg/L	0.00112549	11.33%
Zn 206.200	-29.4	-0.0158874	mg/L	0.00008493	-0.0158874	mg/L	0.00008493	0.53%

All analyte(s) passed QC.

Sequence No.: 56  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/22/2011 3:34:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected		Calib.		Sample Conc. Units	Std.Dev.	RSD
	Intensity	Conc. Units	Conc. Units	Std.Dev.			
Al 308.215	3982687.4	453.908 mg/L	453.908 mg/L	4.8143	453.908 mg/L	4.8143	1.06%
QC value within limits for Al		308.215	Recovery = 90.78%				
Sb 206.836	654.9	0.896994 mg/L	0.896994 mg/L	0.0063468	0.896994 mg/L	0.0063468	0.71%
QC value within limits for Sb		206.836	Recovery = 89.70%				
As 188.979	585.3	0.923762 mg/L	0.923762 mg/L	0.0123907	0.923762 mg/L	0.0123907	1.34%
QC value within limits for As		188.979	Recovery = 92.38%				
Ba 233.527	26110.0	0.476351 mg/L	0.476351 mg/L	0.0048179	0.476351 mg/L	0.0048179	1.01%
QC value within limits for Ba		233.527	Recovery = 95.27%				
Be 234.861	131493.9	0.522549 mg/L	0.522549 mg/L	0.0111165	0.522549 mg/L	0.0111165	2.13%
QC value within limits for Be		234.861	Recovery = 104.51%				
Cd 226.502	46123.1	0.890758 mg/L	0.890758 mg/L	0.0065301	0.890758 mg/L	0.0065301	0.73%
QC value within limits for Cd		226.502	Recovery = 89.08%				
Ca 315.887	25709807.5	446.840 mg/L	446.840 mg/L	0.8941	446.840 mg/L	0.8941	0.20%
QC value within limits for Ca		315.887	Recovery = 89.37%				
Cr 206.158	3970.6	0.442336 mg/L	0.442336 mg/L	0.0006663	0.442336 mg/L	0.0006663	0.15%
QC value within limits for Cr		206.158	Recovery = 88.47%				
Co 228.616	7969.8	0.437184 mg/L	0.437184 mg/L	0.0021674	0.437184 mg/L	0.0021674	0.50%
QC value within limits for Co		228.616	Recovery = 87.44%				
Cu 324.752	54990.2	0.495313 mg/L	0.495313 mg/L	0.0049837	0.495313 mg/L	0.0049837	1.01%
QC value within limits for Cu		324.752	Recovery = 99.06%				
Fe 273.955	2708415.5	169.622 mg/L	169.622 mg/L	1.5998	169.622 mg/L	1.5998	0.94%
QC value within limits for Fe		273.955	Recovery = 84.81%				
Pb 220.353	4344.5	0.872297 mg/L	0.872297 mg/L	0.0036903	0.872297 mg/L	0.0036903	0.42%
QC value within limits for Pb		220.353	Recovery = 87.23%				
Mg 279.077	6290880.2	479.169 mg/L	479.169 mg/L	0.4360	479.169 mg/L	0.4360	0.09%
QC value within limits for Mg		279.077	Recovery = 95.83%				
Mn 257.610	213159.4	0.456095 mg/L	0.456095 mg/L	0.0037834	0.456095 mg/L	0.0037834	0.83%
QC value within limits for Mn		257.610	Recovery = 91.22%				
Mo 202.031	-116.3	0.0053185 mg/L	0.0053185 mg/L	0.00014511	0.0053185 mg/L	0.00014511	2.73%
QC value within limits for Mo		202.031	Recovery = Not calculated				
Ni 231.604	30353.0	0.873400 mg/L	0.873400 mg/L	0.0068565	0.873400 mg/L	0.0068565	0.79%
QC value within limits for Ni		231.604	Recovery = 87.34%				
Se 196.026	384.3	0.833625 mg/L	0.833625 mg/L	0.0181532	0.833625 mg/L	0.0181532	2.18%
QC value within limits for Se		196.026	Recovery = 83.36%				
Ag 328.068	118858.1	1.01854 mg/L	1.01854 mg/L	0.013585	1.01854 mg/L	0.013585	1.33%
QC value within limits for Ag		328.068	Recovery = 101.85%				
Na 330.237	-204.3	0.393413 mg/L	0.393413 mg/L	0.1131440	0.393413 mg/L	0.1131440	28.76%
QC value within limits for Na		330.237	Recovery = Not calculated				
Tl 190.801	957.5	0.863479 mg/L	0.863479 mg/L	0.0038338	0.863479 mg/L	0.0038338	0.44%
QC value within limits for Tl		190.801	Recovery = 86.35%				
Sn 189.927	-147.0	-0.0057315 mg/L	-0.0057315 mg/L	0.00155214	-0.0057315 mg/L	0.00155214	27.08%
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940	-389.1	-0.0015582 mg/L	-0.0015582 mg/L	0.00001313	-0.0015582 mg/L	0.00001313	0.84%
QC value within limits for Ti		334.940	Recovery = Not calculated				
V 292.402	59065.4	0.423972 mg/L	0.423972 mg/L	0.0045640	0.423972 mg/L	0.0045640	1.08%
QC value within limits for V		292.402	Recovery = 84.79%				
Zn 206.200	15564.1	0.844419 mg/L	0.844419 mg/L	0.0039660	0.844419 mg/L	0.0039660	0.47%
QC value within limits for Zn		206.200	Recovery = 84.44%				

All analyte(s) passed QC.

Sequence No.: 57  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/22/2011 3:38:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: CCV V-128659

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc.	Units		Conc.	Units	
Al 308.215	45432.3	5.17181	mg/L	0.051506	5.17181	mg/L	1.00%
QC value within limits for Al		308.215	Recovery = 103.44%				
Sb 206.836	362.2	0.478600	mg/L	0.0004986	0.478600	mg/L	0.10%
QC value within limits for Sb		206.836	Recovery = 95.72%				
As 188.979	303.8	0.464631	mg/L	0.0087923	0.464631	mg/L	1.89%
QC value within limits for As		188.979	Recovery = 92.93%				
Ba 233.527	27113.0	0.497739	mg/L	0.0068320	0.497739	mg/L	1.37%
QC value within limits for Ba		233.527	Recovery = 99.55%				
Be 234.861	204490.3	0.487846	mg/L	0.0053893	0.487846	mg/L	1.10%
QC value within limits for Be		234.861	Recovery = 97.57%				
Cd 226.502	25522.6	0.491418	mg/L	0.0041525	0.491418	mg/L	0.85%
QC value within limits for Cd		226.502	Recovery = 98.28%				
Ca 315.887	2916056.4	50.4565	mg/L	0.10450	50.4565	mg/L	0.21%
QC value within limits for Ca		315.887	Recovery = 100.91%				
Cr 206.158	4350.8	0.473252	mg/L	0.0014680	0.473252	mg/L	0.31%
QC value within limits for Cr		206.158	Recovery = 94.65%				
Co 228.616	9047.5	0.501041	mg/L	0.0047820	0.501041	mg/L	0.95%
QC value within limits for Co		228.616	Recovery = 100.21%				
Cu 324.752	53386.3	0.490520	mg/L	0.0064022	0.490520	mg/L	1.31%
QC value within limits for Cu		324.752	Recovery = 98.10%				
Fe 273.955	80996.1	5.05187	mg/L	0.061167	5.05187	mg/L	1.21%
QC value within limits for Fe		273.955	Recovery = 101.04%				
Pb 220.353	2641.2	0.484535	mg/L	0.0007856	0.484535	mg/L	0.16%
QC value within limits for Pb		220.353	Recovery = 96.91%				
Mg 279.077	671591.3	50.8272	mg/L	0.06482	50.8272	mg/L	0.13%
QC value within limits for Mg		279.077	Recovery = 101.65%				
Mn 257.610	229156.7	0.488784	mg/L	0.0031278	0.488784	mg/L	0.64%
QC value within limits for Mn		257.610	Recovery = 97.76%				
Mo 202.031	3673.8	0.472630	mg/L	0.0049903	0.472630	mg/L	1.06%
QC value within limits for Mo		202.031	Recovery = 94.53%				
Ni 231.604	16815.5	0.485520	mg/L	0.0012140	0.485520	mg/L	0.25%
QC value within limits for Ni		231.604	Recovery = 97.10%				
Se 196.026	504.5	0.478603	mg/L	0.0101848	0.478603	mg/L	2.13%
QC value within limits for Se		196.026	Recovery = 95.72%				
Ag 328.068	11141.8	0.0952207	mg/L	0.00033380	0.0952207	mg/L	0.35%
QC value within limits for Ag		328.068	Recovery = 95.22%				
Na 330.237	23463.1	46.9335	mg/L	0.27343	46.9335	mg/L	0.58%
QC value within limits for Na		330.237	Recovery = 93.87%				
Tl 190.801	554.7	0.495843	mg/L	0.0079375	0.495843	mg/L	1.60%
QC value within limits for Tl		190.801	Recovery = 99.17%				
Sn 189.927	1509.8	0.467721	mg/L	0.0000099	0.467721	mg/L	0.00%
QC value within limits for Sn		189.927	Recovery = 93.54%				
Ti 334.940	160072.6	0.487137	mg/L	0.0027448	0.487137	mg/L	0.56%
QC value within limits for Ti		334.940	Recovery = 97.43%				
V 292.402	47593.4	0.472073	mg/L	0.0026630	0.472073	mg/L	0.56%
QC value within limits for V		292.402	Recovery = 94.41%				
Zn 206.200	8592.4	0.470847	mg/L	0.0036164	0.470847	mg/L	0.77%
QC value within limits for Zn		206.200	Recovery = 94.17%				

All analyte(s) passed QC.

Sequence No.: 58

Autosampler Location: 1

Sample ID: CCB

Date Collected: 12/22/2011 3:41:58 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	1711.5	0.194953 mg/L		0.0033607	0.194953 mg/L		0.0033607	1.72%
QC value within limits for Al 308.215 Recovery = Not calculated								
Sb 206.836	1.1	-0.0012467 mg/L		0.00301859	-0.0012467 mg/L		0.00301859	242.13%
QC value within limits for Sb 206.836 Recovery = Not calculated								
As 188.979	-2.5	-0.0009632 mg/L		0.00053908	-0.0009632 mg/L		0.00053908	55.97%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	52.2	-0.0025274 mg/L		0.00013625	-0.0025274 mg/L		0.00013625	5.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 234.861	84.8	0.0007313 mg/L		0.00001791	0.0007313 mg/L		0.00001791	2.45%
QC value within limits for Be 234.861 Recovery = Not calculated								
Cd 226.502	22.9	-0.0015396 mg/L		0.00005187	-0.0015396 mg/L		0.00005187	3.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ca 315.887	17668.7	0.0535127 mg/L		0.00019039	0.0535127 mg/L		0.00019039	0.36%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cr 206.158	3.1	-0.0025170 mg/L		0.00002830	-0.0025170 mg/L		0.00002830	1.12%
QC value within limits for Cr 206.158 Recovery = Not calculated								
Co 228.616	7.2	-0.0038804 mg/L		0.00011858	-0.0038804 mg/L		0.00011858	3.06%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cu 324.752	136.5	0.0009838 mg/L		0.00006929	0.0009838 mg/L		0.00006929	7.04%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	1299.2	0.0600119 mg/L		0.00015610	0.0600119 mg/L		0.00015610	0.26%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Pb 220.353	5.3	-0.0022065 mg/L		0.00011665	-0.0022065 mg/L		0.00011665	5.29%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Mg 279.077	3223.3	-0.120535 mg/L		0.0012070	-0.120535 mg/L		0.0012070	1.00%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	786.9	-0.0013637 mg/L		0.00002032	-0.0013637 mg/L		0.00002032	1.49%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031	5.1	-0.0016803 mg/L		0.00040631	-0.0016803 mg/L		0.00040631	24.18%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604	33.8	-0.0005734 mg/L		0.00016513	-0.0005734 mg/L		0.00016513	28.80%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Se 196.026	7.0	0.0014265 mg/L		0.00148089	0.0014265 mg/L		0.00148089	103.81%
QC value within limits for Se 196.026 Recovery = Not calculated								
Ag 328.068	50.7	0.0003135 mg/L		0.00044276	0.0003135 mg/L		0.00044276	141.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Na 330.237	71.4	0.935396 mg/L		0.0347463	0.935396 mg/L		0.0347463	3.71%
QC value within limits for Na 330.237 Recovery = Not calculated								
Tl 190.801	5.5	0.0009458 mg/L		0.00032758	0.0009458 mg/L		0.00032758	34.63%
QC value within limits for Tl 190.801 Recovery = Not calculated								
Sn 189.927	-0.6	-0.0024716 mg/L		0.00167971	-0.0024716 mg/L		0.00167971	67.96%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 334.940	32.5	-0.0002743 mg/L		0.00002357	-0.0002743 mg/L		0.00002357	8.59%
QC value within limits for Ti 334.940 Recovery = Not calculated								
V 292.402	19.6	-0.0009188 mg/L		0.00084429	-0.0009188 mg/L		0.00084429	91.89%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	13.5	-0.0011856 mg/L		0.00007956	-0.0011856 mg/L		0.00007956	6.71%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

# Run Log

1120830 0837

Data File: W:\METALS.FRM\ICPDATA\New\PEICP1A\I13395A.txt

Analysis Date: 12/19/11

Instrument: PEICP1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	18:35	1							V-129815(ICB/CCB)
Calib Std 1 V-128668	1	CAL	18:38	2							V-128668(ICS1 - Lowest std)
Calib Std 2 V-128664	1	CAL	18:42	3							V-128664(ICS2 - Low Std)
Calib Std 3 V-128660	1	CAL	18:45	4							V-128660(ICS3 - Middle Std)
Calib Std 4 V-129806	1	CAL	18:48	5							V-129806(ICS4 - High std)
ICS3 V-128660	1	ICS	18:51	6							V-128660(ICS3 - Middle Std)
ICV V-128235 (2)	1	ICV	18:55	7							V-128235(ICV)
ICB V-129815	1	ICB	18:58	8							V-129815(ICB/CCB)
ICSA V-128666	1	ICSA	19:01	9							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	19:06	10							V-128667(ICSAB)
MB 11703 (1)	1	MB	19:09	11		TCLP	TCLP	SW846	11703		0
LCSW 11703	1	LCS	19:13	12		TCLP	TCLP	SW846	11703		0
LCSW MR 11703	1	LCS	19:16	13		TCLP	TCLP	SW846	11703		0
AC63143-007	1	SMP	19:19	14	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-007	1	MR	19:22	15	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-007	1	MS	19:26	16	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-007	1	PS	19:29	17	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-007	5	SD	19:32	18	METALS-TCLP	TCLP	TCLP	SW846	11703		0
CCV V-128659	1	CCV	19:36	19							V-128659(CCV)
CCB	1	CCB	19:39	20							0
AC63111-037	1	SMP	19:42	21	PB-TCLP	TCLP	TCLP	SW846	11703		0
AC63249-001	1	SMP	19:45	22	METALS-TCLP	TCLP	TCLP	SW846	11703		0
EF-V-130938	1	EF	19:49	23		TCLP	TCLP	SW846	11703		V-130938(EF-1)
ICSA V-128666	1	ICSA	19:52	24							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	19:56	25							V-128667(ICSAB)
CCV V-128659	1	CCV	20:00	26							V-128659(CCV)
CCB	1	CCB	20:03	27							0
AC63143-013	1	SMP	20:07	28	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-020	1	SMP	20:10	29	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-026	1	SMP	20:13	30	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-033	1	SMP	20:16	31	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-039	1	SMP	20:20	32	METALS-TCLP	TCLP	TCLP	SW846	11703		0
CCV V-128659	1	CCV	20:23	33							V-128659(CCV)
CCB	1	CCB	20:26	34							0
AC63143-046	1	SMP	20:30	35	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-052	1	SMP	20:33	36	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-059	1	SMP	20:36	37	METALS-TCLP	TCLP	TCLP	SW846	11703		0
AC63143-065	1	SMP	20:39	38	METALS-TCLP	TCLP	TCLP	SW846	11703		0
ICSA V-128666	1	ICSA	20:43	39							V-128666(ICSA)
ICSAB V-128667	1	ICSAB	20:47	40							V-128667(ICSAB)
CCV V-128659	1	CCV	20:51	41							V-128659(CCV)
CCB	1	CCB	20:54	42							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

sean  
192.168.1.78 12/20/2011 11:13:44 AM

OK

*Shu 12/2*

Analyst S Blh 12/20/11

Method Loaded

Method Name: PE1 3000DV AXIAL  
IEC File: IEC092311.iec  
Method Description: 200.7/6010B

Method Last Saved: 12/19/2011 3:31:41 PM  
MSF File:

Sh 12/22/11

Sequence No.: 1  
Sample ID: Calib Blk 1 V-129815  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 1  
Date Collected: 12/19/2011 6:35:51 PM  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al 308.215	2975.7	110.97	3.73%	[0.00]	mg/L
Sb 206.836	1.8	1.71	96.43%	[0.00]	mg/L
As 188.979	-8.6	4.35	50.77%	[0.00]	mg/L
Ba 233.527	-49.8	0.37	0.74%	[0.00]	mg/L
Be 234.861	-171.8	2.11	1.23%	[0.00]	mg/L
Cd 226.502	-85.1	2.50	2.94%	[0.00]	mg/L
Ca 315.887	11351.8	786.43	6.93%	[0.00]	mg/L
Cr 206.158	26.1	0.02	0.06%	[0.00]	mg/L
Co 228.616	-191.7	2.82	1.47%	[0.00]	mg/L
Cu 324.752	1015.5	59.35	5.84%	[0.00]	mg/L
Fe 273.955	2021.0	23.69	1.17%	[0.00]	mg/L
Pb 220.353	114.2	6.70	5.87%	[0.00]	mg/L
Mg 279.077	2522.4	104.78	4.15%	[0.00]	mg/L
Mn 257.610	628.1	18.17	2.89%	[0.00]	mg/L
Mo 202.031	-141.5	4.97	3.52%	[0.00]	mg/L
Ni 231.604	-69.7	5.48	7.86%	[0.00]	mg/L
Se 196.026	22.6	2.30	10.15%	[0.00]	mg/L
Ag 328.068	83.2	25.38	30.50%	[0.00]	mg/L
Na 330.237	263.8	104.93	39.78%	[0.00]	mg/L
Tl 190.801	-22.9	4.81	21.00%	[0.00]	mg/L
Sn 189.927	13.3	0.73	5.46%	[0.00]	mg/L
Ti 334.940	600.4	34.35	5.72%	[0.00]	mg/L
V 292.402	32.9	87.35	265.34%	[0.00]	mg/L
Zn 206.200	78.2	4.84	6.19%	[0.00]	mg/L

13395  
11703

all elements reported

Sequence No.: 2

Sample ID: Calib Std 1 V-128668

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 158

Date Collected: 12/19/2011 6:38:59 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib Std 1 V-128668

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
As 188.979	6.8	1.58	23.33%	[0.005]	mg/L
Be 234.861	1346.0	8.55	0.64%	[0.003]	mg/L
Cd 226.502	200.8	1.05	0.52%	[0.003]	mg/L
Pb 220.353	23.8	4.01	16.87%	[0.004]	mg/L
Tl 190.801	11.0	4.19	38.00%	[0.005]	mg/L

Sequence No.: 3  
 Sample ID: Calib Std 2 V-128664  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 160  
 Date Collected: 12/19/2011 6:42:04 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib Std 2 V-128664

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Al 308.215	240.2	38.10	15.86%	[0.1] mg/L
Sb 206.836	1.5	1.90	126.01%	[0.01] mg/L
As 188.979	11.0	3.69	33.49%	[0.01] mg/L
Ba 233.527	634.9	10.01	1.58%	[0.01] mg/L
Be 234.861	4226.0	34.21	0.81%	[0.01] mg/L
Cd 226.502	635.5	3.61	0.57%	[0.01] mg/L
Ca 315.887	60341.9	100.41	0.17%	[1] mg/L
Cr 206.158	114.7	1.25	1.09%	[0.01] mg/L
Co 228.616	213.7	4.68	2.19%	[0.01] mg/L
Cu 324.752	1004.2	1.49	0.15%	[0.01] mg/L
Fe 273.955	839.7	60.25	7.18%	[0.1] mg/L
Pb 220.353	69.0	1.15	1.67%	[0.01] mg/L
Mg 279.077	15202.5	162.68	1.07%	[1] mg/L
Mn 257.610	6038.6	12.72	0.21%	[0.01] mg/L
Mo 202.031	97.0	0.83	0.85%	[0.01] mg/L
Ni 231.604	414.4	1.15	0.28%	[0.01] mg/L
Se 196.026	13.2	5.40	40.80%	[0.01] mg/L
Ag 328.068	261.6	63.42	24.24%	[0.002] mg/L
Na 330.237	572.7	9.70	1.69%	[1] mg/L
Tl 190.801	15.3	2.99	19.50%	[0.01] mg/L
Sn 189.927	40.7	7.43	18.25%	[0.01] mg/L
Ti 334.940	3031.6	45.89	1.51%	[0.01] mg/L
V 292.402	993.0	37.54	3.78%	[0.01] mg/L
Zn 206.200	235.9	1.02	0.43%	[0.01] mg/L

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib Std 3 V-128660

Date Collected: 12/19/2011 6:45:14 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: Calib Std 3 V-128660

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	45436.1	143.27	0.32%	[5]	mg/L
Sb 206.836	454.8	3.69	0.81%	[0.5]	mg/L
As 188.979	393.2	7.76	1.97%	[0.5]	mg/L
Ba 233.527	30568.4	0.11	0.00%	[0.5]	mg/L
Be 234.861	220660.4	50.57	0.02%	[0.5]	mg/L
Cd 226.502	31928.5	90.51	0.28%	[0.5]	mg/L
Ca 315.887	3095600.4	51769.03	1.67%	[50]	mg/L
Cr 206.158	5752.0	12.83	0.22%	[0.5]	mg/L
Co 228.616	10200.9	46.33	0.45%	[0.5]	mg/L
Cu 324.752	53935.9	85.98	0.16%	[0.5]	mg/L
Fe 273.955	84210.6	162.64	0.19%	[5]	mg/L
Pb 220.353	3460.7	13.99	0.40%	[0.5]	mg/L
Mg 279.077	759515.3	13902.42	1.83%	[50]	mg/L
Mn 257.610	250951.6	333.17	0.13%	[0.5]	mg/L
Mo 202.031	4597.4	18.00	0.39%	[0.5]	mg/L
Ni 231.604	20491.2	11.61	0.06%	[0.5]	mg/L
Se 196.026	664.6	1.12	0.17%	[0.5]	mg/L
Ag 328.068	12236.4	67.61	0.55%	[0.1]	mg/L
Na 330.237	28614.6	89.79	0.31%	[50]	mg/L
Tl 190.801	704.4	5.07	0.72%	[0.5]	mg/L
Sn 189.927	2123.6	3.58	0.17%	[0.5]	mg/L
Ti 334.940	163989.0	135.63	0.08%	[0.5]	mg/L
V 292.402	51134.1	69.39	0.14%	[0.5]	mg/L
Zn 206.200	12290.8	46.27	0.38%	[0.5]	mg/L

Sequence No.: 5  
 Sample ID: Calib Std 4 V-129806  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/19/2011 6:48:30 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib Std 4 V-129806

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Al 308.215	86323.6	148.98	0.17%	[10]	mg/L
Sb 206.836	892.5	3.82	0.43%	[1.0]	mg/L
As 188.979	784.2	0.03	0.00%	[1.0]	mg/L
Ba 233.527	57840.6	10.66	0.02%	[1.0]	mg/L
Be 234.861	430738.6	295.21	0.07%	[1.0]	mg/L
Cd 226.502	60733.7	39.74	0.07%	[1.0]	mg/L
Ca 315.887	5960700.7	35288.13	0.59%	[100]	mg/L
Cr 206.158	11330.7	51.25	0.45%	[1.0]	mg/L
Co 228.616	19972.3	80.47	0.40%	[1.0]	mg/L
Cu 324.752	104232.0	199.83	0.19%	[1.0]	mg/L
Fe 273.955	160362.9	335.24	0.21%	[10]	mg/L
Pb 220.353	6634.6	15.28	0.23%	[1.0]	mg/L
Mg 279.077	1447555.9	3343.10	0.23%	[100]	mg/L
Mn 257.610	482265.7	138.68	0.03%	[1.0]	mg/L
Mo 202.031	8880.1	3.71	0.04%	[1.0]	mg/L
Ni 231.604	38801.7	13.87	0.04%	[1.0]	mg/L
Se 196.026	1290.5	12.82	0.99%	[1.0]	mg/L
Ag 328.068	23945.5	190.64	0.80%	[0.2]	mg/L
Na 330.237	58105.0	114.65	0.20%	[100]	mg/L
Tl 190.801	1368.8	1.97	0.14%	[1.0]	mg/L
Sn 189.927	4102.5	8.82	0.22%	[1.0]	mg/L
Ti 334.940	315358.9	447.17	0.14%	[1.0]	mg/L
V 292.402	98063.4	588.46	0.60%	[1.0]	mg/L
Zn 206.200	24242.8	11.42	0.05%	[1.0]	mg/L

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 Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	3	Lin, Calc Int	131.1	8707	0.00000	0.999564	
Sb 206.836	3	Lin, Calc Int	-1.8	898.1	0.00000	0.999902	
As 188.979	4	Lin, Calc Int	2.0	782.2	0.00000	0.999994	
Ba 233.527	3	Lin, Calc Int	325.6	58110	0.00000	0.999577	
Be 234.861	4	Lin, Calc Int	650.8	432100	0.00000	0.999929	
Cd 226.502	4	Lin, Calc Int	209.2	61110	0.00000	0.999694	
Ca 315.887	3	Lin, Calc Int	21309.4	59810	0.00000	0.999802	
Cr 206.158	3	Lin, Calc Int	16.4	11350	0.00000	0.999969	
Co 228.616	3	Lin, Calc Int	45.4	20000	0.00000	0.999940	
Cu 324.752	3	Lin, Calc Int	313.9	104600	0.00000	0.999836	
Fe 273.955	3	Lin, Calc Int	386.5	16150	0.00000	0.999626	
Pb 220.353	4	Lin, Calc Int	17.8	6670	0.00000	0.999781	
Mg 279.077	3	Lin, Calc Int	6834.3	14540	0.00000	0.999680	
Mn 257.610	3	Lin, Calc Int	2339.1	483400	0.00000	0.999790	
Mo 202.031	3	Lin, Calc Int	32.3	8904	0.00000	0.999837	
Ni 231.604	3	Lin, Calc Int	210.4	38980	0.00000	0.999586	
Se 196.026	3	Lin, Calc Int	3.7	1294	0.00000	0.999881	
Ag 328.068	3	Lin, Calc Int	58.0	119900	0.00000	0.999938	
Na 330.237	3	Lin, Calc Int	-83.5	580.3	0.00000	0.999970	
Tl 190.801	4	Lin, Calc Int	4.3	1372	0.00000	0.999906	
Sn 189.927	3	Lin, Calc Int	13.0	4116	0.00000	0.999834	
Ti 334.940	3	Lin, Calc Int	1093.0	316600	0.00000	0.999785	
V 292.402	3	Lin, Calc Int	388.2	98440	0.00000	0.999757	
Zn 206.200	3	Lin, Calc Int	27.8	24280	0.00000	0.999973	

Sequence No.: 6  
 Sample ID: ICS3 V-128660  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 12/19/2011 6:51:49 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICS3 V-128660

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	44611.2	5.10205 mg/L	0.044019	5.10205 mg/L	0.044019	0.86%
QC value within limits for Al		308.215	Recovery = 102.04%			
Sb 206.836	453.3	0.514023 mg/L	0.0052715	0.514023 mg/L	0.0052715	1.03%
QC value within limits for Sb		206.836	Recovery = 102.80%			
As 188.979	393.7	0.502004 mg/L	0.0017457	0.502004 mg/L	0.0017457	0.35%
QC value within limits for As		188.979	Recovery = 100.40%			
Ba 233.527	30248.8	0.515296 mg/L	0.0073251	0.515296 mg/L	0.0073251	1.42%
QC value within limits for Ba		233.527	Recovery = 103.06%			
Be 234.861	218216.8	0.509937 mg/L	0.0066342	0.509937 mg/L	0.0066342	1.30%
QC value within limits for Be		234.861	Recovery = 101.99%			
Cd 226.502	31486.6	0.511895 mg/L	0.0082159	0.511895 mg/L	0.0082159	1.60%
QC value within limits for Cd		226.502	Recovery = 102.38%			
Ca 315.887	3127334.3	51.9310 mg/L	0.12573	51.9310 mg/L	0.12573	0.24%
QC value within limits for Ca		315.887	Recovery = 103.86%			
Cr 206.158	5757.8	0.518682 mg/L	0.0015160	0.518682 mg/L	0.0015160	0.29%
QC value within limits for Cr		206.158	Recovery = 103.74%			
Co 228.616	10163.9	0.504943 mg/L	0.0035673	0.504943 mg/L	0.0035673	0.71%
QC value within limits for Co		228.616	Recovery = 100.99%			
Cu 324.752	53185.3	0.504213 mg/L	0.0065209	0.504213 mg/L	0.0065209	1.29%
QC value within limits for Cu		324.752	Recovery = 100.84%			
Fe 273.955	82657.9	5.09416 mg/L	0.054337	5.09416 mg/L	0.054337	1.07%
QC value within limits for Fe		273.955	Recovery = 101.88%			
Pb 220.353	3456.8	0.518292 mg/L	0.0013631	0.518292 mg/L	0.0013631	0.26%
QC value within limits for Pb		220.353	Recovery = 103.66%			
Mg 279.077	765926.4	52.2215 mg/L	0.03550	52.2215 mg/L	0.03550	0.07%
QC value within limits for Mg		279.077	Recovery = 104.44%			
Mn 257.610	248934.1	0.509595 mg/L	0.0067544	0.509595 mg/L	0.0067544	1.33%
QC value within limits for Mn		257.610	Recovery = 101.92%			
Mo 202.031	4597.7	0.513096 mg/L	0.0029870	0.513096 mg/L	0.0029870	0.58%
QC value within limits for Mo		202.031	Recovery = 102.62%			
Ni 231.604	20283.2	0.514998 mg/L	0.0079280	0.514998 mg/L	0.0079280	1.54%
QC value within limits for Ni		231.604	Recovery = 103.00%			
Se 196.026	668.4	0.522604 mg/L	0.0122493	0.522604 mg/L	0.0122493	2.34%
QC value within limits for Se		196.026	Recovery = 104.52%			
Ag 328.068	12149.6	0.101642 mg/L	0.0015091	0.101642 mg/L	0.0015091	1.48%
QC value within limits for Ag		328.068	Recovery = 101.64%			
Na 330.237	28458.8	49.1850 mg/L	0.32897	49.1850 mg/L	0.32897	0.67%
QC value within limits for Na		330.237	Recovery = 98.37%			
Tl 190.801	724.2	0.530038 mg/L	0.0000672	0.530038 mg/L	0.0000672	0.01%
QC value within limits for Tl		190.801	Recovery = 106.01%			
Sn 189.927	2127.0	0.518780 mg/L	0.0025269	0.518780 mg/L	0.0025269	0.49%
QC value within limits for Sn		189.927	Recovery = 103.76%			
Ti 334.940	162859.5	0.511012 mg/L	0.0057627	0.511012 mg/L	0.0057627	1.13%
QC value within limits for Ti		334.940	Recovery = 102.20%			
V 292.402	50612.2	0.494427 mg/L	0.0070068	0.494427 mg/L	0.0070068	1.42%
QC value within limits for V		292.402	Recovery = 98.89%			
Zn 206.200	12254.1	0.502264 mg/L	0.0031316	0.502264 mg/L	0.0031316	0.62%
QC value within limits for Zn		206.200	Recovery = 100.45%			

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICV V-128235 (2)

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 159

Date Collected: 12/19/2011 6:55:05 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICV V-128235 (2)

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	87651.5	10.0390 mg/L		0.03191	10.0390 mg/L	0.03191	0.32%
QC value within limits for Al		308.215	Recovery =	100.39%			
Sb 206.836	887.4	1.00434 mg/L		0.002740	1.00434 mg/L	0.002740	0.27%
QC value within limits for Sb		206.836	Recovery =	100.43%			
As 188.979	790.7	1.01070 mg/L		0.009315	1.01070 mg/L	0.009315	0.92%
QC value within limits for As		188.979	Recovery =	101.07%			
Ba 233.527	59333.2	1.01614 mg/L		0.003663	1.01614 mg/L	0.003663	0.36%
QC value within limits for Ba		233.527	Recovery =	101.61%			
Be 234.861	434614.2	1.01689 mg/L		0.002068	1.01689 mg/L	0.002068	0.20%
QC value within limits for Be		234.861	Recovery =	101.69%			
Cd 226.502	61500.3	1.00311 mg/L		0.003683	1.00311 mg/L	0.003683	0.37%
QC value within limits for Cd		226.502	Recovery =	100.31%			
Ca 315.887	6001509.0	99.9856 mg/L		2.28762	99.9856 mg/L	2.28762	2.29%
QC value within limits for Ca		315.887	Recovery =	99.99%			
Cr 206.158	11381.4	1.02694 mg/L		0.001615	1.02694 mg/L	0.001615	0.16%
QC value within limits for Cr		206.158	Recovery =	102.69%			
Co 228.616	20582.0	1.02490 mg/L		0.001859	1.02490 mg/L	0.001859	0.18%
QC value within limits for Co		228.616	Recovery =	102.49%			
Cu 324.752	105795.8	1.00603 mg/L		0.001799	1.00603 mg/L	0.001799	0.18%
QC value within limits for Cu		324.752	Recovery =	100.60%			
Fe 273.955	161291.4	9.96306 mg/L		0.027335	9.96306 mg/L	0.027335	0.27%
QC value within limits for Fe		273.955	Recovery =	99.63%			
Pb 220.353	6669.3	1.00250 mg/L		0.004351	1.00250 mg/L	0.004351	0.43%
QC value within limits for Pb		220.353	Recovery =	100.25%			
Mg 279.077	1456200.2	99.7087 mg/L		0.09050	99.7087 mg/L	0.09050	0.09%
QC value within limits for Mg		279.077	Recovery =	99.71%			
Mn 257.610	485315.9	0.998123 mg/L		0.0021517	0.998123 mg/L	0.0021517	0.22%
QC value within limits for Mn		257.610	Recovery =	99.81%			
Mo 202.031	8978.9	1.00550 mg/L		0.003250	1.00550 mg/L	0.003250	0.32%
QC value within limits for Mo		202.031	Recovery =	100.55%			
Ni 231.604	39453.1	1.00683 mg/L		0.000619	1.00683 mg/L	0.000619	0.06%
QC value within limits for Ni		231.604	Recovery =	100.68%			
Se 196.026	1299.9	1.01927 mg/L		0.015849	1.01927 mg/L	0.015849	1.55%
QC value within limits for Se		196.026	Recovery =	101.93%			
Ag 328.068	23771.9	0.199304 mg/L		0.0003305	0.199304 mg/L	0.0003305	0.17%
QC value within limits for Ag		328.068	Recovery =	99.65%			
Na 330.237	58528.2	101.001 mg/L		0.4397	101.001 mg/L	0.4397	0.44%
QC value within limits for Na		330.237	Recovery =	101.00%			
Tl 190.801	1432.5	1.05149 mg/L		0.003998	1.05149 mg/L	0.003998	0.38%
QC value within limits for Tl		190.801	Recovery =	105.15%			
Sn 189.927	4179.8	1.02231 mg/L		0.001543	1.02231 mg/L	0.001543	0.15%
QC value within limits for Sn		189.927	Recovery =	102.23%			
Ti 334.940	318710.2	1.00334 mg/L		0.000743	1.00334 mg/L	0.000743	0.07%
QC value within limits for Ti		334.940	Recovery =	100.33%			
V 292.402	99109.5	0.972945 mg/L		0.0040348	0.972945 mg/L	0.0040348	0.41%
QC value within limits for V		292.402	Recovery =	97.29%			
Zn 206.200	24439.2	1.00295 mg/L		0.001106	1.00295 mg/L	0.001106	0.11%
QC value within limits for Zn		206.200	Recovery =	100.30%			

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/19/2011 6:58:25 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-1361.8	-0.171425	mg/L	0.0081481	-0.171425 mg/L	0.0081481	4.75%
QC value within limits for Al 308.215 Recovery = Not calculated							
Sb 206.836	0.7	0.0026828	mg/L	0.00091245	0.0026828 mg/L	0.00091245	34.01%
QC value within limits for Sb 206.836 Recovery = Not calculated							
As 188.979	1.5	-0.0006230	mg/L	0.00078888	-0.0006230 mg/L	0.00078888	126.63%
QC value within limits for As 188.979 Recovery = Not calculated							
Ba 233.527	46.0	-0.0048124	mg/L	0.00002297	-0.0048124 mg/L	0.00002297	0.48%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 234.861	490.9	-0.0005165	mg/L	0.00003209	-0.0005165 mg/L	0.00003209	6.21%
QC value within limits for Be 234.861 Recovery = Not calculated							
Cd 226.502	60.9	-0.0024278	mg/L	0.00003826	-0.0024278 mg/L	0.00003826	1.58%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Ca 315.887	-2138.2	-0.392030	mg/L	0.0023526	-0.392030 mg/L	0.0023526	0.60%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Cr 206.158	14.5	-0.0001604	mg/L	0.00018167	-0.0001604 mg/L	0.00018167	113.24%
QC value within limits for Cr 206.158 Recovery = Not calculated							
Co 228.616	19.5	-0.0012889	mg/L	0.00001903	-0.0012889 mg/L	0.00001903	1.48%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu 324.752	-71.0	-0.0036711	mg/L	0.00031297	-0.0036711 mg/L	0.00031297	8.53%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 273.955	-1497.4	-0.116651	mg/L	0.0001251	-0.116651 mg/L	0.0001251	0.11%
QC value within limits for Fe 273.955 Recovery = Not calculated							
Pb 220.353	6.7	-0.0017093	mg/L	0.00049220	-0.0017093 mg/L	0.00049220	28.80%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Mg 279.077	-490.3	-0.503891	mg/L	0.0091504	-0.503891 mg/L	0.0091504	1.82%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mn 257.610	199.2	-0.0044249	mg/L	0.00000801	-0.0044249 mg/L	0.00000801	0.18%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031	10.2	-0.0024990	mg/L	0.00082610	-0.0024990 mg/L	0.00082610	33.06%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Ni 231.604	35.3	-0.0044913	mg/L	0.00009364	-0.0044913 mg/L	0.00009364	2.08%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Se 196.026	-0.0	-0.0031641	mg/L	0.00387727	-0.0031641 mg/L	0.00387727	122.54%
QC value within limits for Se 196.026 Recovery = Not calculated							
Ag 328.068	130.6	0.0005985	mg/L	0.00022404	0.0005985 mg/L	0.00022404	37.43%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Na 330.237	78.8	0.279694	mg/L	0.1945219	0.279694 mg/L	0.1945219	69.55%
QC value within limits for Na 330.237 Recovery = Not calculated							
Tl 190.801	6.0	0.0012210	mg/L	0.00037993	0.0012210 mg/L	0.00037993	31.12%
QC value within limits for Tl 190.801 Recovery = Not calculated							
Sn 189.927	16.7	0.0008596	mg/L	0.00071000	0.0008596 mg/L	0.00071000	82.60%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti 334.940	-90.9	-0.0037399	mg/L	0.00016410	-0.0037399 mg/L	0.00016410	4.39%
QC value within limits for Ti 334.940 Recovery = Not calculated							
V 292.402	137.3	-0.0023773	mg/L	0.00008000	-0.0023773 mg/L	0.00008000	3.37%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200	29.9	0.0000963	mg/L	0.00007776	0.0000963 mg/L	0.00007776	80.75%
QC value within limits for Zn 206.200 Recovery = Not calculated							

All analyte(s) passed QC.

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Sequence No.: 9                               Autosampler Location: 5
Sample ID: ICSA V-128666                     Date Collected: 12/19/2011 7:01:33 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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## Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3871183.2	444.592 mg/L	3.1068	444.592 mg/L	3.1068	0.70%
QC value within limits for Al 308.215 Recovery = 88.92%						
Sb 206.836	-34.1	0.0051102 mg/L	0.00816532	0.0051102 mg/L	0.00816532	159.79%
As 188.979	-36.4	-0.0155399 mg/L	0.00899297	-0.0155399 mg/L	0.00899297	57.87%
Ba 233.527	156.1	-0.0054840 mg/L	0.00022941	-0.0054840 mg/L	0.00022941	4.18%
Be 234.861	-91311.9	0.0002954 mg/L	0.00319058	0.0002954 mg/L	0.00319058	>999.9%
Cd 226.502	114.9	-0.0003857 mg/L	0.00008437	-0.0003857 mg/L	0.00008437	21.87%
Ca 315.887	26836653.4	448.337 mg/L	2.7117	448.337 mg/L	2.7117	0.60%
QC value within limits for Ca 315.887 Recovery = 89.67%						
Cr 206.158	25.0	0.0007474 mg/L	0.00118397	0.0007474 mg/L	0.00118397	158.41%
Co 228.616	76.2	-0.0028900 mg/L	0.00077929	-0.0028900 mg/L	0.00077929	26.96%
Cu 324.752	1713.0	0.0020502 mg/L	0.00009095	0.0020502 mg/L	0.00009095	4.44%
Fe 273.955	2744684.6	169.924 mg/L	1.1636	169.924 mg/L	1.1636	0.68%
QC value within limits for Fe 273.955 Recovery = 84.96%						
Pb 220.353	-484.9	0.0005713 mg/L	0.00027923	0.0005713 mg/L	0.00027923	48.87%
Mg 279.077	6879310.2	472.790 mg/L	3.7702	472.790 mg/L	3.7702	0.80%
QC value within limits for Mg 279.077 Recovery = 94.56%						
Mn 257.610	-2988.7	-0.0097585 mg/L	0.00025102	-0.0097585 mg/L	0.00025102	2.57%
Mo 202.031	-139.3	0.0030809 mg/L	0.00085766	0.0030809 mg/L	0.00085766	27.84%
Ni 231.604	297.7	-0.0018651 mg/L	0.00009194	-0.0018651 mg/L	0.00009194	4.93%
Se 196.026	-625.3	-0.0084181 mg/L	0.00104418	-0.0084181 mg/L	0.00104418	12.40%
Ag 328.068	-1027.0	0.0010691 mg/L	0.00067226	0.0010691 mg/L	0.00067226	62.88%
Na 330.237	-162.8	-0.136666 mg/L	0.0081924	-0.136666 mg/L	0.0081924	5.99%
Tl 190.801	-19.4	-0.0043541 mg/L	0.00280453	-0.0043541 mg/L	0.00280453	64.41%
Sn 189.927	-181.7	-0.0053348 mg/L	0.00025733	-0.0053348 mg/L	0.00025733	4.82%
Ti 334.940	-630.0	-0.0054430 mg/L	0.00021186	-0.0054430 mg/L	0.00021186	3.89%
V 292.402	20100.8	0.0211461 mg/L	0.00322411	0.0211461 mg/L	0.00322411	15.25%
Zn 206.200	17.9	-0.0126662 mg/L	0.00001233	-0.0126662 mg/L	0.00001233	0.10%

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/19/2011 7:06:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3928222.0	451.142 mg/L		5.9752	451.142 mg/L	5.9752	1.32%
QC value within limits for Al		308.215	Recovery = 90.23%				
Sb 206.836	826.5	0.963945 mg/L		0.0270381	0.963945 mg/L	0.0270381	2.80%
QC value within limits for Sb		206.836	Recovery = 96.39%				
As 188.979	747.9	0.987504 mg/L		0.0088057	0.987504 mg/L	0.0088057	0.89%
QC value within limits for As		188.979	Recovery = 98.75%				
Ba 233.527	27837.5	0.470861 mg/L		0.0034647	0.470861 mg/L	0.0034647	0.74%
QC value within limits for Ba		233.527	Recovery = 94.17%				
Be 234.861	121998.3	0.497329 mg/L		0.0033719	0.497329 mg/L	0.0033719	0.68%
QC value within limits for Be		234.861	Recovery = 99.47%				
Cd 226.502	55571.3	0.907187 mg/L		0.0078777	0.907187 mg/L	0.0078777	0.87%
QC value within limits for Cd		226.502	Recovery = 90.72%				
Ca 315.887	26840314.5	448.399 mg/L		0.6181	448.399 mg/L	0.6181	0.14%
QC value within limits for Ca		315.887	Recovery = 89.68%				
Cr 206.158	5111.9	0.471919 mg/L		0.0024282	0.471919 mg/L	0.0024282	0.51%
QC value within limits for Cr		206.158	Recovery = 94.38%				
Co 228.616	8939.7	0.440141 mg/L		0.0015970	0.440141 mg/L	0.0015970	0.36%
QC value within limits for Co		228.616	Recovery = 88.03%				
Cu 324.752	53295.5	0.495283 mg/L		0.0064058	0.495283 mg/L	0.0064058	1.29%
QC value within limits for Cu		324.752	Recovery = 99.06%				
Fe 273.955	2787639.0	172.584 mg/L		2.1947	172.584 mg/L	2.1947	1.27%
QC value within limits for Fe		273.955	Recovery = 86.29%				
Pb 220.353	5680.4	0.926027 mg/L		0.0048999	0.926027 mg/L	0.0048999	0.53%
QC value within limits for Pb		220.353	Recovery = 92.60%				
Mg 279.077	6885555.9	473.220 mg/L		0.7338	473.220 mg/L	0.7338	0.16%
QC value within limits for Mg		279.077	Recovery = 94.64%				
Mn 257.610	223564.3	0.459058 mg/L		0.0066513	0.459058 mg/L	0.0066513	1.45%
QC value within limits for Mn		257.610	Recovery = 91.81%				
Mo 202.031	-149.2	0.0023047 mg/L		0.00021335	0.0023047 mg/L	0.00021335	9.26%
QC value within limits for Mo		202.031	Recovery = Not calculated				
Ni 231.604	33888.7	0.859736 mg/L		0.0012133	0.859736 mg/L	0.0012133	0.14%
QC value within limits for Ni		231.604	Recovery = 85.97%				
Se 196.026	544.2	0.903876 mg/L		0.0401874	0.903876 mg/L	0.0401874	4.45%
QC value within limits for Se		196.026	Recovery = 90.39%				
Ag 328.068	121302.4	1.02119 mg/L		0.013833	1.02119 mg/L	0.013833	1.35%
QC value within limits for Ag		328.068	Recovery = 102.12%				
Na 330.237	-558.3	-0.818232 mg/L		0.0855350	-0.818232 mg/L	0.0855350	10.45%
QC value less than the lower limit for Na		330.237	Recovery = Not calculated				
Tl 190.801	1217.7	0.897944 mg/L		0.0048780	0.897944 mg/L	0.0048780	0.54%
QC value within limits for Tl		190.801	Recovery = 89.79%				
Sn 189.927	-170.6	-0.0026365 mg/L		0.00336421	-0.0026365 mg/L	0.00336421	127.60%
QC value within limits for Sn		189.927	Recovery = Not calculated				
Ti 334.940	-721.9	-0.0057332 mg/L		0.00014408	-0.0057332 mg/L	0.00014408	2.51%
QC value within limits for Ti		334.940	Recovery = Not calculated				
V 292.402	63517.6	0.462044 mg/L		0.0049878	0.462044 mg/L	0.0049878	1.08%
QC value within limits for V		292.402	Recovery = 92.41%				
Zn 206.200	22091.0	0.896545 mg/L		0.0005088	0.896545 mg/L	0.0005088	0.06%
QC value within limits for Zn		206.200	Recovery = 89.65%				

QC Failed. Continue with analysis.

Sequence No.: 11  
 Sample ID: MB 11703 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 32  
 Date Collected: 12/19/2011 7:09:54 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: MB 11703 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3407.0	0.376281	mg/L	0.0113764	0.376281	mg/L	0.0113764	3.02%
Sb 206.836	3.8	0.0061807	mg/L	0.00727613	0.0061807	mg/L	0.00727613	117.72%
As 188.979	3.4	0.0017753	mg/L	0.00363997	0.0017753	mg/L	0.00363997	205.03%
Ba 233.527	0.8	-0.0055933	mg/L	0.00006074	-0.0055933	mg/L	0.00006074	1.09%
Be 234.861	102.0	-0.0011578	mg/L	0.00001094	-0.0011578	mg/L	0.00001094	0.94%
Cd 226.502	38.2	-0.0027988	mg/L	0.00006678	-0.0027988	mg/L	0.00006678	2.39%
Ca 315.887	24967.6	0.0611632	mg/L	0.00172182	0.0611632	mg/L	0.00172182	2.82%
Cr 206.158	4.5	-0.0010158	mg/L	0.00004125	-0.0010158	mg/L	0.00004125	4.06%
Co 228.616	14.9	-0.0015195	mg/L	0.00034487	-0.0015195	mg/L	0.00034487	22.70%
Cu 324.752	-106.2	-0.0040191	mg/L	0.00016482	-0.0040191	mg/L	0.00016482	4.10%
Fe 273.955	1834.8	0.0896794	mg/L	0.00193466	0.0896794	mg/L	0.00193466	2.16%
Pb 220.353	-9.1	-0.0039808	mg/L	0.00165565	-0.0039808	mg/L	0.00165565	41.59%
Mg 279.077	6292.1	-0.0372997	mg/L	0.00174032	-0.0372997	mg/L	0.00174032	4.67%
Mn 257.610	-173.3	-0.0051923	mg/L	0.00001561	-0.0051923	mg/L	0.00001561	0.30%
Mo 202.031	6.0	-0.0029417	mg/L	0.00034154	-0.0029417	mg/L	0.00034154	11.61%
Ni 231.604	24.7	-0.0047680	mg/L	0.00021469	-0.0047680	mg/L	0.00021469	4.50%
Se 196.026	8.9	0.0043322	mg/L	0.00253586	0.0043322	mg/L	0.00253586	58.53%
Ag 328.068	111.5	0.0004495	mg/L	0.00006904	0.0004495	mg/L	0.00006904	15.36%
Na 330.237	112.4	0.337593	mg/L	0.0346292	0.337593	mg/L	0.0346292	10.26%
Tl 190.801	6.3	0.0013991	mg/L	0.00448530	0.0013991	mg/L	0.00448530	320.58%
Sn 189.927	2.3	-0.0025994	mg/L	0.00084955	-0.0025994	mg/L	0.00084955	32.68%
Ti 334.940	-406.1	-0.0047355	mg/L	0.00007454	-0.0047355	mg/L	0.00007454	1.57%
V 292.402	54.8	-0.0033952	mg/L	0.00063419	-0.0033952	mg/L	0.00063419	18.68%
Zn 206.200	58.0	0.0012414	mg/L	0.00009708	0.0012414	mg/L	0.00009708	7.82%

Sequence No.: 12  
 Sample ID: LCSW 11703  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 33  
 Date Collected: 12/19/2011 7:13:04 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW 11703

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Al 308.215	47744.9	5.46188	mg/L	0.011570	5.46188	mg/L	0.011570	0.21%
Sb 206.836	454.0	0.514876	mg/L	0.0026165	0.514876	mg/L	0.0026165	0.51%
As 188.979	396.3	0.505306	mg/L	0.0009997	0.505306	mg/L	0.0009997	0.20%
Ba 233.527	30843.4	0.525532	mg/L	0.0004241	0.525532	mg/L	0.0004241	0.08%
Be 234.861	219920.2	0.514018	mg/L	0.0015826	0.514018	mg/L	0.0015826	0.31%
Cd 226.502	31759.7	0.516365	mg/L	0.0012804	0.516365	mg/L	0.0012804	0.25%
Ca 315.887	3152460.2	52.3511	mg/L	0.82726	52.3511	mg/L	0.82726	1.58%
Cr 206.158	5804.8	0.522964	mg/L	0.0022702	0.522964	mg/L	0.0022702	0.43%
Co 228.616	10448.7	0.519177	mg/L	0.0025313	0.519177	mg/L	0.0025313	0.49%
Cu 324.752	54453.1	0.516322	mg/L	0.0027117	0.516322	mg/L	0.0027117	0.53%
Fe 273.955	84439.0	5.20444	mg/L	0.022364	5.20444	mg/L	0.022364	0.43%
Pb 220.353	3484.8	0.522555	mg/L	0.0038554	0.522555	mg/L	0.0038554	0.74%
Mg 279.077	769242.7	52.4497	mg/L	0.82115	52.4497	mg/L	0.82115	1.57%
Mn 257.610	249612.7	0.511001	mg/L	0.0008220	0.511001	mg/L	0.0008220	0.16%
Mo 202.031	4652.7	0.519300	mg/L	0.0050867	0.519300	mg/L	0.0050867	0.98%
Ni 231.604	20467.0	0.519712	mg/L	0.0035905	0.519712	mg/L	0.0035905	0.69%
Se 196.026	669.6	0.523819	mg/L	0.0071548	0.523819	mg/L	0.0071548	1.37%
Ag 328.068	12098.2	0.101220	mg/L	0.0000385	0.101220	mg/L	0.0000385	0.04%
Na 330.237	28632.1	49.4835	mg/L	0.22610	49.4835	mg/L	0.22610	0.46%
Tl 190.801	747.7	0.547182	mg/L	0.0065584	0.547182	mg/L	0.0065584	1.20%
Sn 189.927	2148.7	0.524091	mg/L	0.0017119	0.524091	mg/L	0.0017119	0.33%
Ti 334.940	163040.9	0.511585	mg/L	0.0029029	0.511585	mg/L	0.0029029	0.57%
V 292.402	51123.1	0.499582	mg/L	0.0007864	0.499582	mg/L	0.0007864	0.16%
Zn 206.200	12386.1	0.507694	mg/L	0.0044405	0.507694	mg/L	0.0044405	0.87%

Sequence No.: 13  
 Sample ID: LCSW MR 11703  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 34  
 Date Collected: 12/19/2011 7:16:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCSW MR 11703

Analyte	Mean Corrected			Std.Dev.	Sample			RSD
	Intensity	Conc.	Units		Conc.	Units	Std.Dev.	
Al 308.215	45536.1	5.20817	mg/L	0.013865	5.20817	mg/L	0.013865	0.27%
Sb 206.836	455.7	0.516837	mg/L	0.0123691	0.516837	mg/L	0.0123691	2.39%
As 188.979	394.7	0.503216	mg/L	0.0064827	0.503216	mg/L	0.0064827	1.29%
Ba 233.527	30207.0	0.514584	mg/L	0.0064030	0.514584	mg/L	0.0064030	1.24%
Be 234.861	215062.5	0.502580	mg/L	0.0042252	0.502580	mg/L	0.0042252	0.84%
Cd 226.502	31110.6	0.505741	mg/L	0.0034680	0.505741	mg/L	0.0034680	0.69%
Ca 315.887	3086612.0	51.2501	mg/L	0.02892	51.2501	mg/L	0.02892	0.06%
Cr 206.158	5813.8	0.523819	mg/L	0.0006885	0.523819	mg/L	0.0006885	0.13%
Co 228.616	10441.1	0.518817	mg/L	0.0008519	0.518817	mg/L	0.0008519	0.16%
Cu 324.752	52915.7	0.501645	mg/L	0.0037899	0.501645	mg/L	0.0037899	0.76%
Fe 273.955	81936.2	5.04947	mg/L	0.017187	5.04947	mg/L	0.017187	0.34%
Pb 220.353	3496.1	0.524185	mg/L	0.0010793	0.524185	mg/L	0.0010793	0.21%
Mg 279.077	752665.0	51.3092	mg/L	0.01484	51.3092	mg/L	0.01484	0.03%
Mn 257.610	244931.0	0.501325	mg/L	0.0055853	0.501325	mg/L	0.0055853	1.11%
Mo 202.031	4674.5	0.521733	mg/L	0.0010925	0.521733	mg/L	0.0010925	0.21%
Ni 231.604	20111.6	0.510602	mg/L	0.0021296	0.510602	mg/L	0.0021296	0.42%
Se 196.026	674.2	0.527024	mg/L	0.0005961	0.527024	mg/L	0.0005961	0.11%
Ag 328.068	11888.3	0.0994498	mg/L	0.00056539	0.0994498	mg/L	0.00056539	0.57%
Na 330.237	28113.8	48.5904	mg/L	0.05429	48.5904	mg/L	0.05429	0.11%
Tl 190.801	758.9	0.555275	mg/L	0.0050989	0.555275	mg/L	0.0050989	0.92%
Sn 189.927	2168.8	0.528865	mg/L	0.0011153	0.528865	mg/L	0.0011153	0.21%
Ti 334.940	160633.7	0.503980	mg/L	0.0045549	0.503980	mg/L	0.0045549	0.90%
V 292.402	50351.7	0.492200	mg/L	0.0026743	0.492200	mg/L	0.0026743	0.54%
Zn 206.200	12444.5	0.510131	mg/L	0.0003429	0.510131	mg/L	0.0003429	0.07%

Sequence No.: 14  
 Sample ID: 63143-007  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 35  
 Date Collected: 12/19/2011 7:19:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63143-007

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	2584.2	0.281793	mg/L	0.0010711	0.281793	mg/L	0.0010711	0.38%
Sb 206.836	2.4	0.0048405	mg/L	0.01235753	0.0048405	mg/L	0.01235753	255.29%
As 188.979	-9.7	-0.0122274	mg/L	0.00364896	-0.0122274	mg/L	0.00364896	29.84%
Ba 233.527	12975.5	0.217687	mg/L	0.0002906	0.217687	mg/L	0.0002906	0.13%
Be 234.861	41.1	-0.0005109	mg/L	0.00001705	-0.0005109	mg/L	0.00001705	3.34%
Cd 226.502	160.4	-0.0007937	mg/L	0.00005402	-0.0007937	mg/L	0.00005402	6.81%
Ca 315.887	3915316.9	65.1056	mg/L	0.52312	65.1056	mg/L	0.52312	0.80%
Cr 206.158	-36.0	0.0082316	mg/L	0.00008512	0.0082316	mg/L	0.00008512	1.03%
Co 228.616	867.1	0.0410596	mg/L	0.00006638	0.0410596	mg/L	0.00006638	0.16%
Cu 324.752	761.6	0.0026356	mg/L	0.00045871	0.0026356	mg/L	0.00045871	17.40%
Fe 273.955	11977.5	0.717699	mg/L	0.0008722	0.717699	mg/L	0.0008722	0.12%
Pb 220.353	3315.2	0.495574	mg/L	0.0009975	0.495574	mg/L	0.0009975	0.20%
Mg 279.077	242972.1	16.2450	mg/L	0.00661	16.2450	mg/L	0.00661	0.04%
Mn 257.610	259611.7	0.532023	mg/L	0.0003880	0.532023	mg/L	0.0003880	0.07%
Mo 202.031	-3.1	-0.0039405	mg/L	0.00049988	-0.0039405	mg/L	0.00049988	12.69%
Ni 231.604	3958.5	0.0961259	mg/L	0.00022715	0.0961259	mg/L	0.00022715	0.24%
Se 196.026	51.1	0.0301819	mg/L	0.00642059	0.0301819	mg/L	0.00642059	21.27%
Ag 328.068	-103.1	-0.0002654	mg/L	0.00071464	-0.0002654	mg/L	0.00071464	269.31%
Na 330.237	823503.9	1419.23	mg/L	15.489	1419.23	mg/L	15.489	1.09%
Tl 190.801	-8.7	-0.0096886	mg/L	0.00145241	-0.0096886	mg/L	0.00145241	14.99%
Sn 189.927	-34.9	-0.0055508	mg/L	0.00040046	-0.0055508	mg/L	0.00040046	7.21%
Ti 334.940	464.7	-0.0019849	mg/L	0.00003445	-0.0019849	mg/L	0.00003445	1.74%
V 292.402	1821.3	0.0083774	mg/L	0.00021272	0.0083774	mg/L	0.00021272	2.54%
Zn 206.200	12459.0	0.511636	mg/L	0.0013882	0.511636	mg/L	0.0013882	0.27%

Sequence No.: 15  
 Sample ID: 63143-007 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 36  
 Date Collected: 12/19/2011 7:22:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-007 MR

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	1658.6	0.175484	mg/L	0.0043500	0.175484	mg/L	0.0043500	2.48%
Sb 206.836	0.1	0.0023200	mg/L	0.00654300	0.0023200	mg/L	0.00654300	282.02%
As 188.979	-8.5	-0.0109298	mg/L	0.00122381	-0.0109298	mg/L	0.00122381	11.20%
Ba 233.527	12293.2	0.205947	mg/L	0.0010257	0.205947	mg/L	0.0010257	0.50%
Be 234.861	-51.2	-0.0009482	mg/L	0.00002306	-0.0009482	mg/L	0.00002306	2.43%
Cd 226.502	126.4	-0.0013518	mg/L	0.00028260	-0.0013518	mg/L	0.00028260	20.91%
Ca 315.887	3664918.0	60.9191	mg/L	1.41177	60.9191	mg/L	1.41177	2.32%
Cr 206.158	-51.1	0.0061317	mg/L	0.00044367	0.0061317	mg/L	0.00044367	7.24%
Co 228.616	808.1	0.0381146	mg/L	0.00043516	0.0381146	mg/L	0.00043516	1.14%
Cu 324.752	583.0	0.0010332	mg/L	0.00012223	0.0010332	mg/L	0.00012223	11.83%
Fe 273.955	9097.0	0.539347	mg/L	0.0021723	0.539347	mg/L	0.0021723	0.40%
Pb 220.353	3119.3	0.466114	mg/L	0.0012387	0.466114	mg/L	0.0012387	0.27%
Mg 279.077	233460.1	15.5907	mg/L	0.01322	15.5907	mg/L	0.01322	0.08%
Mn 257.610	248329.9	0.508685	mg/L	0.0032295	0.508685	mg/L	0.0032295	0.63%
Mo 202.031	-1.5	-0.0037798	mg/L	0.00022644	-0.0037798	mg/L	0.00022644	5.99%
Ni 231.604	3699.9	0.0894959	mg/L	0.00004971	0.0894959	mg/L	0.00004971	0.06%
Se 196.026	57.1	0.0348045	mg/L	0.00231626	0.0348045	mg/L	0.00231626	6.66%
Ag 328.068	-35.0	0.0002287	mg/L	0.00000250	0.0002287	mg/L	0.00000250	1.10%
Na 330.237	760363.3	1310.42	mg/L	11.503	1310.42	mg/L	11.503	0.88%
Tl 190.801	-6.1	-0.0077883	mg/L	0.00095728	-0.0077883	mg/L	0.00095728	12.29%
Sn 189.927	-44.2	-0.0082003	mg/L	0.00087070	-0.0082003	mg/L	0.00087070	10.62%
Ti 334.940	267.7	-0.0026071	mg/L	0.00007096	-0.0026071	mg/L	0.00007096	2.72%
V 292.402	1656.5	0.0069531	mg/L	0.00015454	0.0069531	mg/L	0.00015454	2.22%
Zn 206.200	11715.5	0.481029	mg/L	0.0015216	0.481029	mg/L	0.0015216	0.32%

Sequence No.: 16

Sample ID: 63143-007 TCLP SPK

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 37

Date Collected: 12/19/2011 7:26:16 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63143-007 TCLP SPK

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	40393.2	4.61830	mg/L	0.010530	4.61830	mg/L	0.010530	0.23%
Sb 206.836	415.0	0.470785	mg/L	0.0074532	0.470785	mg/L	0.0074532	1.58%
As 188.979	377.8	0.484059	mg/L	0.0037951	0.484059	mg/L	0.0037951	0.78%
Ba 233.527	285987.9	4.91643	mg/L	0.025062	4.91643	mg/L	0.025062	0.51%
Be 234.861	202542.8	0.473626	mg/L	0.0024665	0.473626	mg/L	0.0024665	0.52%
Cd 226.502	28652.6	0.465515	mg/L	0.0048839	0.465515	mg/L	0.0048839	1.05%
Ca 315.887	6316155.4	105.246	mg/L	0.4047	105.246	mg/L	0.4047	0.38%
Cr 206.158	5030.1	0.465241	mg/L	0.0005764	0.465241	mg/L	0.0005764	0.12%
Co 228.616	9926.3	0.493142	mg/L	0.0019872	0.493142	mg/L	0.0019872	0.40%
Cu 324.752	51817.9	0.489794	mg/L	0.0025318	0.489794	mg/L	0.0025318	0.52%
Fe 273.955	82220.7	5.06709	mg/L	0.024773	5.06709	mg/L	0.024773	0.49%
Pb 220.353	34360.3	5.15201	mg/L	0.036327	5.15201	mg/L	0.036327	0.71%
Mg 279.077	886815.1	60.5380	mg/L	0.42768	60.5380	mg/L	0.42768	0.71%
Mn 257.610	471065.9	0.969005	mg/L	0.0043452	0.969005	mg/L	0.0043452	0.45%
Mo 202.031	4116.4	0.459026	mg/L	0.0014390	0.459026	mg/L	0.0014390	0.31%
Ni 231.604	21864.5	0.555539	mg/L	0.0034287	0.555539	mg/L	0.0034287	0.62%
Se 196.026	690.5	0.532434	mg/L	0.0013077	0.532434	mg/L	0.0013077	0.25%
Ag 328.068	11336.3	0.0957369	mg/L	0.00001009	0.0957369	mg/L	0.00001009	0.01%
Na 330.237	812894.4	1400.95	mg/L	3.328	1400.95	mg/L	3.328	0.24%
Tl 190.801	628.5	0.459552	mg/L	0.0020162	0.459552	mg/L	0.0020162	0.44%
Sn 189.927	1881.6	0.464105	mg/L	0.0026280	0.464105	mg/L	0.0026280	0.57%
Ti 334.940	146390.6	0.458987	mg/L	0.0014725	0.458987	mg/L	0.0014725	0.32%
V 292.402	48408.2	0.468470	mg/L	0.0001938	0.468470	mg/L	0.0001938	0.04%
Zn 206.200	22608.4	0.928556	mg/L	0.0035398	0.928556	mg/L	0.0035398	0.38%

Sequence No.: 17  
 Sample ID: 63143-007 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 12/19/2011 7:29:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-007 PS

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	40049.9	4.57875	mg/L	0.010611	4.57875	mg/L	0.010611	0.23%
Sb 206.836	423.0	0.479876	mg/L	0.0025307	0.479876	mg/L	0.0025307	0.53%
As 188.979	385.2	0.493535	mg/L	0.0025225	0.493535	mg/L	0.0025225	0.51%
Ba 233.527	341732.3	5.87578	mg/L	0.014753	5.87578	mg/L	0.014753	0.25%
Be 234.861	201582.2	0.471498	mg/L	0.0000587	0.471498	mg/L	0.0000587	0.01%
Cd 226.502	28685.6	0.466057	mg/L	0.0005656	0.466057	mg/L	0.0005656	0.12%
Ca 315.887	6421463.7	107.007	mg/L	2.5929	107.007	mg/L	2.5929	2.42%
Cr 206.158	5152.9	0.476583	mg/L	0.0040725	0.476583	mg/L	0.0040725	0.85%
Co 228.616	10066.9	0.500172	mg/L	0.0010283	0.500172	mg/L	0.0010283	0.21%
Cu 324.752	51589.4	0.487559	mg/L	0.0013121	0.487559	mg/L	0.0013121	0.27%
Fe 273.955	83443.6	5.14281	mg/L	0.001153	5.14281	mg/L	0.001153	0.02%
Pb 220.353	42177.4	6.32395	mg/L	0.032900	6.32395	mg/L	0.032900	0.52%
Mg 279.077	880313.8	60.0908	mg/L	0.14761	60.0908	mg/L	0.14761	0.25%
Mn 257.610	464869.9	0.956198	mg/L	0.0041526	0.956198	mg/L	0.0041526	0.43%
Mo 202.031	4205.2	0.469004	mg/L	0.0003881	0.469004	mg/L	0.0003881	0.08%
Ni 231.604	21834.1	0.554760	mg/L	0.0038703	0.554760	mg/L	0.0038703	0.70%
Se 196.026	696.0	0.536736	mg/L	0.0107303	0.536736	mg/L	0.0107303	2.00%
Ag 328.068	10527.1	0.0890244	mg/L	0.00004276	0.0890244	mg/L	0.00004276	0.05%
Na 330.237	793553.2	1367.62	mg/L	2.056	1367.62	mg/L	2.056	0.15%
Tl 190.801	634.9	0.464186	mg/L	0.0041403	0.464186	mg/L	0.0041403	0.89%
Sn 189.927	1922.5	0.474216	mg/L	0.0003981	0.474216	mg/L	0.0003981	0.08%
Ti 334.940	146277.2	0.458629	mg/L	0.0011314	0.458629	mg/L	0.0011314	0.25%
V 292.402	48259.8	0.467213	mg/L	0.0000544	0.467213	mg/L	0.0000544	0.01%
Zn 206.200	23103.4	0.948957	mg/L	0.0043557	0.948957	mg/L	0.0043557	0.46%

Sequence No.: 18  
 Sample ID: 63443-007 SD  
 Analyst: 14  
 Initial Sample Wt: 5B 12/20  
 Dilution:

Autosampler Location: 39  
 Date Collected: 12/19/2011 7:32:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

14

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 Mean Data: 63443-007 SD

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	-828.5	-0.110174	mg/L	0.0043498	-0.110174	mg/L	0.0043498 3.95%
Sb 206.836	3.9	0.0062946	mg/L	0.00393706	0.0062946	mg/L	0.00393706 62.55%
As 188.979	-0.0	-0.0020245	mg/L	0.00051210	-0.0020245	mg/L	0.00051210 25.30%
Ba 233.527	2850.2	0.0434446	mg/L	0.00024933	0.0434446	mg/L	0.00024933 0.57%
Be 234.861	41.8	-0.0013706	mg/L	0.00001648	-0.0013706	mg/L	0.00001648 1.20%
Cd 226.502	27.3	-0.0029768	mg/L	0.00012347	-0.0029768	mg/L	0.00012347 4.15%
Ca 315.887	811029.5	13.2037	mg/L	0.07808	13.2037	mg/L	0.07808 0.59%
Cr 206.158	-11.7	0.0001123	mg/L	0.00007667	0.0001123	mg/L	0.00007667 68.29%
Co 228.616	177.0	0.0065845	mg/L	0.00014271	0.0065845	mg/L	0.00014271 2.17%
Cu 324.752	14.7	-0.0031954	mg/L	0.00104495	-0.0031954	mg/L	0.00104495 32.70%
Fe 273.955	889.1	0.0311187	mg/L	0.00482194	0.0311187	mg/L	0.00482194 15.50%
Pb 220.353	709.7	0.103953	mg/L	0.0010555	0.103953	mg/L	0.0010555 1.02%
Mg 279.077	50726.1	3.01953	mg/L	0.021487	3.01953	mg/L	0.021487 0.71%
Mn 257.610	54857.5	0.108603	mg/L	0.0010291	0.108603	mg/L	0.0010291 0.95%
Mo 202.031	4.2	-0.0031649	mg/L	0.00021358	-0.0031649	mg/L	0.00021358 6.75%
Ni 231.604	773.9	0.0144518	mg/L	0.00026184	0.0144518	mg/L	0.00026184 1.81%
Se 196.026	18.8	0.0100286	mg/L	0.00145458	0.0100286	mg/L	0.00145458 14.50%
Ag 328.068	34.2	0.0000188	mg/L	0.00043482	0.0000188	mg/L	0.00043482 >999.9%
Na 330.237	157072.4	270.815	mg/L	2.9806	270.815	mg/L	2.9806 1.10%
Tl 190.801	-0.5	-0.0035818	mg/L	0.00041240	-0.0035818	mg/L	0.00041240 11.51%
Sn 189.927	-2.3	-0.0025015	mg/L	0.00063994	-0.0025015	mg/L	0.00063994 25.58%
Ti 334.940	-277.0	-0.0043277	mg/L	0.00005618	-0.0043277	mg/L	0.00005618 1.30%
V 292.402	351.2	-0.0015431	mg/L	0.00002668	-0.0015431	mg/L	0.00002668 1.73%
Zn 206.200	2532.3	0.103083	mg/L	0.0000144	0.103083	mg/L	0.0000144 0.01%

Sequence No.: 19  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 7:36:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	42906.9	4.90652 mg/L	0.109560	4.90652 mg/L	0.109560	2.23%
QC value within limits for Al 308.215 Recovery = 98.13%						
Sb 206.836	434.1	0.492453 mg/L	0.0055328	0.492453 mg/L	0.0055328	1.12%
QC value within limits for Sb 206.836 Recovery = 98.49%						
As 188.979	371.9	0.474020 mg/L	0.0046053	0.474020 mg/L	0.0046053	0.97%
QC value within limits for As 188.979 Recovery = 94.80%						
Ba 233.527	29498.5	0.502373 mg/L	0.0118984	0.502373 mg/L	0.0118984	2.37%
QC value within limits for Ba 233.527 Recovery = 100.47%						
Be 234.861	208921.8	0.488101 mg/L	0.0142237	0.488101 mg/L	0.0142237	2.91%
QC value within limits for Be 234.861 Recovery = 97.62%						
Cd 226.502	30065.8	0.488641 mg/L	0.0096678	0.488641 mg/L	0.0096678	1.98%
QC value within limits for Cd 226.502 Recovery = 97.73%						
Ca 315.887	3030580.7	50.3133 mg/L	0.37741	50.3133 mg/L	0.37741	0.75%
QC value within limits for Ca 315.887 Recovery = 100.63%						
Cr 206.158	5524.6	0.497616 mg/L	0.0013034	0.497616 mg/L	0.0013034	0.26%
QC value within limits for Cr 206.158 Recovery = 99.52%						
Co 228.616	9937.7	0.493670 mg/L	0.0000146	0.493670 mg/L	0.0000146	0.00%
QC value within limits for Co 228.616 Recovery = 98.73%						
Cu 324.752	51227.9	0.485537 mg/L	0.0181364	0.485537 mg/L	0.0181364	3.74%
QC value within limits for Cu 324.752 Recovery = 97.11%						
Fe 273.955	78494.0	4.83633 mg/L	0.101377	4.83633 mg/L	0.101377	2.10%
QC value within limits for Fe 273.955 Recovery = 96.73%						
Pb 220.353	3348.9	0.502021 mg/L	0.0018318	0.502021 mg/L	0.0018318	0.36%
QC value within limits for Pb 220.353 Recovery = 100.40%						
Mg 279.077	737006.5	50.2320 mg/L	0.47426	50.2320 mg/L	0.47426	0.94%
QC value within limits for Mg 279.077 Recovery = 100.46%						
Mn 257.610	238925.2	0.488907 mg/L	0.0142586	0.488907 mg/L	0.0142586	2.92%
QC value within limits for Mn 257.610 Recovery = 97.78%						
Mo 202.031	4451.8	0.496699 mg/L	0.0005427	0.496699 mg/L	0.0005427	0.11%
QC value within limits for Mo 202.031 Recovery = 99.34%						
Ni 231.604	19542.9	0.496007 mg/L	0.0128400	0.496007 mg/L	0.0128400	2.59%
QC value within limits for Ni 231.604 Recovery = 99.20%						
Se 196.026	650.6	0.508270 mg/L	0.0047603	0.508270 mg/L	0.0047603	0.94%
QC value within limits for Se 196.026 Recovery = 101.65%						
Ag 328.068	11562.2	0.0967181 mg/L	0.00406861	0.0967181 mg/L	0.00406861	4.21%
QC value within limits for Ag 328.068 Recovery = 96.72%						
Na 330.237	27652.9	47.7961 mg/L	0.92180	47.7961 mg/L	0.92180	1.93%
QC value within limits for Na 330.237 Recovery = 95.59%						
Tl 190.801	713.9	0.522371 mg/L	0.0028915	0.522371 mg/L	0.0028915	0.55%
QC value within limits for Tl 190.801 Recovery = 104.47%						
Sn 189.927	2062.7	0.502983 mg/L	0.0006696	0.502983 mg/L	0.0006696	0.13%
QC value within limits for Sn 189.927 Recovery = 100.60%						
Ti 334.940	157084.3	0.492768 mg/L	0.0159799	0.492768 mg/L	0.0159799	3.24%
QC value within limits for Ti 334.940 Recovery = 98.55%						
V 292.402	48710.0	0.475731 mg/L	0.0139644	0.475731 mg/L	0.0139644	2.94%
QC value within limits for V 292.402 Recovery = 95.15%						
Zn 206.200	11755.9	0.481793 mg/L	0.0010441	0.481793 mg/L	0.0010441	0.22%
QC value within limits for Zn 206.200 Recovery = 96.36%						

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/19/2011 7:39:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	-1486.4	-0.185733 mg/L	0.0025578	-0.185733 mg/L	0.0025578	1.38%
QC value within limits for Al		308.215	Recovery =	Not calculated		
Sb 206.836	2.7	0.0049062 mg/L	0.00712976	0.0049062 mg/L	0.00712976	145.32%
QC value within limits for Sb		206.836	Recovery =	Not calculated		
As 188.979	4.4	0.0030412 mg/L	0.00454930	0.0030412 mg/L	0.00454930	149.59%
QC value within limits for As		188.979	Recovery =	Not calculated		
Ba 233.527	155.3	-0.0029316 mg/L	0.00015657	-0.0029316 mg/L	0.00015657	5.34%
QC value within limits for Ba		233.527	Recovery =	Not calculated		
Be 234.861	141.4	-0.0013384 mg/L	0.00002401	-0.0013384 mg/L	0.00002401	1.79%
QC value within limits for Be		234.861	Recovery =	Not calculated		
Cd 226.502	6.1	-0.0033246 mg/L	0.00001505	-0.0033246 mg/L	0.00001505	0.45%
QC value within limits for Cd		226.502	Recovery =	Not calculated		
Ca 315.887	-3844.2	-0.420553 mg/L	0.0052208	-0.420553 mg/L	0.0052208	1.24%
QC value within limits for Ca		315.887	Recovery =	Not calculated		
Cr 206.158	-0.4	-0.0015158 mg/L	0.00064187	-0.0015158 mg/L	0.00064187	42.34%
QC value within limits for Cr		206.158	Recovery =	Not calculated		
Co 228.616	3.9	-0.0020663 mg/L	0.00033709	-0.0020663 mg/L	0.00033709	16.31%
QC value within limits for Co		228.616	Recovery =	Not calculated		
Cu 324.752	-239.3	-0.0052802 mg/L	0.00033990	-0.0052802 mg/L	0.00033990	6.44%
QC value within limits for Cu		324.752	Recovery =	Not calculated		
Fe 273.955	-1665.1	-0.127031 mg/L	0.0005878	-0.127031 mg/L	0.0005878	0.46%
QC value within limits for Fe		273.955	Recovery =	Not calculated		
Pb 220.353	16.0	-0.0003125 mg/L	0.00004450	-0.0003125 mg/L	0.00004450	14.24%
QC value within limits for Pb		220.353	Recovery =	Not calculated		
Mg 279.077	-1684.0	-0.586015 mg/L	0.0020199	-0.586015 mg/L	0.0020199	0.34%
QC value within limits for Mg		279.077	Recovery =	Not calculated		
Mn 257.610	-46.0	-0.0049315 mg/L	0.00002056	-0.0049315 mg/L	0.00002056	0.42%
QC value within limits for Mn		257.610	Recovery =	Not calculated		
Mo 202.031	8.0	-0.0027420 mg/L	0.00023593	-0.0027420 mg/L	0.00023593	8.60%
QC value within limits for Mo		202.031	Recovery =	Not calculated		
Ni 231.604	7.0	-0.0052163 mg/L	0.00019027	-0.0052163 mg/L	0.00019027	3.65%
QC value within limits for Ni		231.604	Recovery =	Not calculated		
Se 196.026	9.0	0.0037505 mg/L	0.00070033	0.0037505 mg/L	0.00070033	18.67%
QC value within limits for Se		196.026	Recovery =	Not calculated		
Ag 328.068	50.2	-0.0000726 mg/L	0.00007966	-0.0000726 mg/L	0.00007966	109.71%
QC value within limits for Ag		328.068	Recovery =	Not calculated		
Na 330.237	704.3	1.35764 mg/L	0.194889	1.35764 mg/L	0.194889	14.35%
QC value within limits for Na		330.237	Recovery =	Not calculated		
Tl 190.801	1.1	-0.0023645 mg/L	0.00047232	-0.0023645 mg/L	0.00047232	19.98%
QC value within limits for Tl		190.801	Recovery =	Not calculated		
Sn 189.927	1.2	-0.0029082 mg/L	0.00085205	-0.0029082 mg/L	0.00085205	29.30%
QC value within limits for Sn		189.927	Recovery =	Not calculated		
Ti 334.940	-367.5	-0.0046135 mg/L	0.00015214	-0.0046135 mg/L	0.00015214	3.30%
QC value within limits for Ti		334.940	Recovery =	Not calculated		
V 292.402	11.3	-0.0036279 mg/L	0.00009813	-0.0036279 mg/L	0.00009813	2.70%
QC value within limits for V		292.402	Recovery =	Not calculated		
Zn 206.200	-4.9	-0.0013351 mg/L	0.00014957	-0.0013351 mg/L	0.00014957	11.20%
QC value within limits for Zn		206.200	Recovery =	Not calculated		

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63111-037  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 40  
 Date Collected: 12/19/2011 7:42:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63111-037

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc. Units	Std.Dev.		
Al 308.215	792.7	0.0760425	mg/L	0.00061211	0.0760425	mg/L	0.00061211	0.80%
Sb 206.836	8.8	0.0130350	mg/L	0.00985977	0.0130350	mg/L	0.00985977	75.64%
As 188.979	3.1	0.0053831	mg/L	0.00173810	0.0053831	mg/L	0.00173810	32.29%
Ba 233.527	21427.9	0.362919	mg/L	0.0001925	0.362919	mg/L	0.0001925	0.05%
Be 234.861	-8373.6	-0.0007922	mg/L	0.00007022	-0.0007922	mg/L	0.00007022	8.86%
Cd 226.502	54.8	-0.0024186	mg/L	0.00019519	-0.0024186	mg/L	0.00019519	8.07%
Ca 315.887	2464620.9	40.8508	mg/L	0.15049	40.8508	mg/L	0.15049	0.37%
Cr 206.158	-2.3	0.0083424	mg/L	0.00032058	0.0083424	mg/L	0.00032058	3.84%
Co 228.616	305.4	0.0125821	mg/L	0.00005386	0.0125821	mg/L	0.00005386	0.43%
Cu 324.752	1401.0	0.0093622	mg/L	0.00100421	0.0093622	mg/L	0.00100421	10.73%
Fe 273.955	259114.9	16.0202	mg/L	0.03398	16.0202	mg/L	0.03398	0.21%
Pb 220.353	3169.4	0.473059	mg/L	0.0010830	0.473059	mg/L	0.0010830	0.23%
Mg 279.077	33560.4	1.83861	mg/L	0.004144	1.83861	mg/L	0.004144	0.23%
Mn 257.610	634289.6	1.30815	mg/L	0.004217	1.30815	mg/L	0.004217	0.32%
Mo 202.031	-8.3	-0.0039855	mg/L	0.00031325	-0.0039855	mg/L	0.00031325	7.86%
Ni 231.604	883.9	0.0168864	mg/L	0.00022352	0.0168864	mg/L	0.00022352	1.32%
Se 196.026	-33.3	0.0157325	mg/L	0.00035027	0.0157325	mg/L	0.00035027	2.23%
Ag 328.068	13.4	0.0001948	mg/L	0.00008781	0.0001948	mg/L	0.00008781	45.07%
Na 330.237	750153.7	1292.83	mg/L	0.820	1292.83	mg/L	0.820	0.06%
Tl 190.801	0.7	-0.0021623	mg/L	0.00416295	-0.0021623	mg/L	0.00416295	192.52%
Sn 189.927	-24.6	-0.0053163	mg/L	0.00053409	-0.0053163	mg/L	0.00053409	10.05%
Ti 334.940	-150.5	-0.0039281	mg/L	0.00000776	-0.0039281	mg/L	0.00000776	0.20%
V 292.402	439.1	-0.0002150	mg/L	0.00013462	-0.0002150	mg/L	0.00013462	62.60%
Zn 206.200	9695.9	0.398194	mg/L	0.0002863	0.398194	mg/L	0.0002863	0.07%

Sequence No.: 22  
 Sample ID: 63249-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 12/19/2011 7:45:58 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63249-001

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	137.2	0.0007652	mg/L	0.00323179	0.0007652	mg/L	0.00323179	422.32%
Sb 206.836	-2.3	-0.0004748	mg/L	0.00134774	-0.0004748	mg/L	0.00134774	283.86%
As 188.979	-12.2	-0.0152620	mg/L	0.00455943	-0.0152620	mg/L	0.00455943	29.87%
Ba 233.527	33737.2	0.574996	mg/L	0.0049811	0.574996	mg/L	0.0049811	0.87%
Be 234.861	70.8	-0.0011947	mg/L	0.00000875	-0.0011947	mg/L	0.00000875	0.73%
Cd 226.502	389.9	0.0029574	mg/L	0.00002049	0.0029574	mg/L	0.00002049	0.69%
Ca 315.887	4031861.5	67.0542	mg/L	0.98183	67.0542	mg/L	0.98183	1.46%
Cr 206.158	-62.5	0.0078863	mg/L	0.00002703	0.0078863	mg/L	0.00002703	0.34%
Co 228.616	438.0	0.0196289	mg/L	0.00036889	0.0196289	mg/L	0.00036889	1.88%
Cu 324.752	3384.1	0.0276619	mg/L	0.00040795	0.0276619	mg/L	0.00040795	1.47%
Fe 273.955	2288.8	0.117787	mg/L	0.0012924	0.117787	mg/L	0.0012924	1.10%
Pb 220.353	1091.6	0.162237	mg/L	0.0021245	0.162237	mg/L	0.0021245	1.31%
Mg 279.077	142358.8	9.32337	mg/L	0.118744	9.32337	mg/L	0.118744	1.27%
Mn 257.610	1393112.1	2.87706	mg/L	0.044119	2.87706	mg/L	0.044119	1.53%
Mo 202.031	-12.4	-0.0050213	mg/L	0.00056013	-0.0050213	mg/L	0.00056013	11.15%
Ni 231.604	480.2	0.0069137	mg/L	0.00016141	0.0069137	mg/L	0.00016141	2.33%
Se 196.026	66.5	0.0389971	mg/L	0.00223650	0.0389971	mg/L	0.00223650	5.74%
Ag 328.068	-107.7	-0.0009189	mg/L	0.00014762	-0.0009189	mg/L	0.00014762	16.07%
Na 330.237	736762.9	1269.75	mg/L	12.463	1269.75	mg/L	12.463	0.98%
Tl 190.801	-7.8	-0.0083973	mg/L	0.00523790	-0.0083973	mg/L	0.00523790	62.38%
Sn 189.927	-44.1	-0.0076158	mg/L	0.00074987	-0.0076158	mg/L	0.00074987	9.85%
Ti 334.940	-338.8	-0.0045230	mg/L	0.00000355	-0.0045230	mg/L	0.00000355	0.08%
V 292.402	950.9	0.0021480	mg/L	0.00002252	0.0021480	mg/L	0.00002252	1.05%
Zn 206.200	14383.6	0.591093	mg/L	0.0041651	0.591093	mg/L	0.0041651	0.70%

Sequence No.: 23  
 Sample ID: EF-V-130938  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 42  
 Date Collected: 12/19/2011 7:49:12 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: EF-V-130938

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	-1443.9	-0.180807	mg/L	0.0060155	-0.180807	mg/L	0.0060155	3.33%
Sb 206.836	1.9	0.0039949	mg/L	0.00345245	0.0039949	mg/L	0.00345245	86.42%
As 188.979	1.9	-0.0000996	mg/L	0.00748902	-0.0000996	mg/L	0.00748902	>999.9%
Ba 233.527	219.4	-0.0018311	mg/L	0.00000819	-0.0018311	mg/L	0.00000819	0.45%
Be 234.861	16.1	-0.0015375	mg/L	0.00001127	-0.0015375	mg/L	0.00001127	0.73%
Cd 226.502	0.2	-0.0034207	mg/L	0.00015599	-0.0034207	mg/L	0.00015599	4.56%
Ca 315.887	14107.9	-0.120404	mg/L	0.0071176	-0.120404	mg/L	0.0071176	5.91%
Cr 206.158	3.0	-0.0008866	mg/L	0.00044360	-0.0008866	mg/L	0.00044360	50.04%
Co 228.616	6.7	-0.0019249	mg/L	0.00019414	-0.0019249	mg/L	0.00019414	10.09%
Cu 324.752	-213.1	-0.0050355	mg/L	0.00047388	-0.0050355	mg/L	0.00047388	9.41%
Fe 273.955	-494.1	-0.0545286	mg/L	0.00048821	-0.0545286	mg/L	0.00048821	0.90%
Pb 220.353	-5.7	-0.0035567	mg/L	0.00069605	-0.0035567	mg/L	0.00069605	19.57%
Mg 279.077	-928.1	-0.534009	mg/L	0.0051961	-0.534009	mg/L	0.0051961	0.97%
Mn 257.610	1628.0	-0.0014655	mg/L	0.00035409	-0.0014655	mg/L	0.00035409	24.16%
Mo 202.031	-20.8	-0.0059803	mg/L	0.00032729	-0.0059803	mg/L	0.00032729	5.47%
Ni 231.604	102.8	-0.0027627	mg/L	0.00000001	-0.0027627	mg/L	0.00000001	0.00%
Se 196.026	-5.3	-0.0070652	mg/L	0.00654480	-0.0070652	mg/L	0.00654480	92.63%
Ag 328.068	31.9	-0.0002191	mg/L	0.00008856	-0.0002191	mg/L	0.00008856	40.42%
Na 330.237	772348.4	1331.08	mg/L	31.114	1331.08	mg/L	31.114	2.34%
Tl 190.801	-0.4	-0.0034636	mg/L	0.00011827	-0.0034636	mg/L	0.00011827	3.41%
Sn 189.927	-2.7	-0.0038297	mg/L	0.00037405	-0.0038297	mg/L	0.00037405	9.77%
Ti 334.940	-515.7	-0.0050819	mg/L	0.00007229	-0.0050819	mg/L	0.00007229	1.42%
V 292.402	14.3	-0.0036438	mg/L	0.00002580	-0.0036438	mg/L	0.00002580	0.71%
Zn 206.200	311.6	0.0117009	mg/L	0.00001679	0.0117009	mg/L	0.00001679	0.14%

Sequence No.: 24  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/19/2011 7:52:20 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3751129.5	430.803 mg/L		1.0823	430.803 mg/L	1.0823	0.25%
QC value within limits for Al 308.215 Recovery = 86.16%							
Sb 206.836	-31.0	0.0072243 mg/L		0.00361575	0.0072243 mg/L	0.00361575	50.05%
As 188.979	-38.1	-0.0189373 mg/L		0.00428215	-0.0189373 mg/L	0.00428215	22.61%
Ba 233.527	115.2	-0.0061013 mg/L		0.00000592	-0.0061013 mg/L	0.00000592	0.10%
Be 234.861	-90892.8	-0.0058877 mg/L		0.00056628	-0.0058877 mg/L	0.00056628	9.62%
Cd 226.502	45.7	-0.0015563 mg/L		0.00008945	-0.0015563 mg/L	0.00008945	5.75%
Ca 315.887	25679110.6	428.984 mg/L		1.3936	428.984 mg/L	1.3936	0.32%
QC value within limits for Ca 315.887 Recovery = 85.80%							
Cr 206.158	11.0	-0.0005157 mg/L		0.00077376	-0.0005157 mg/L	0.00077376	150.04%
Co 228.616	59.8	-0.0035610 mg/L		0.00092635	-0.0035610 mg/L	0.00092635	26.01%
Cu 324.752	1552.3	0.0010027 mg/L		0.00003494	0.0010027 mg/L	0.00003494	3.48%
Fe 273.955	2652582.4	164.221 mg/L		0.1594	164.221 mg/L	0.1594	0.10%
QC value within limits for Fe 273.955 Recovery = 82.11%							
Pb 220.353	-458.3	0.0021106 mg/L		0.00206953	0.0021106 mg/L	0.00206953	98.05%
Mg 279.077	6583968.8	452.472 mg/L		2.3046	452.472 mg/L	2.3046	0.51%
QC value within limits for Mg 279.077 Recovery = 90.49%							
Mn 257.610	-3072.0	-0.0099039 mg/L		0.00011488	-0.0099039 mg/L	0.00011488	1.16%
Mo 202.031	-128.8	0.0035481 mg/L		0.00002680	0.0035481 mg/L	0.00002680	0.76%
Ni 231.604	267.6	-0.0025005 mg/L		0.00010649	-0.0025005 mg/L	0.00010649	4.26%
Se 196.026	-579.4	0.0116163 mg/L		0.01130903	0.0116163 mg/L	0.01130903	97.35%
Ag 328.068	-1022.6	0.0006857 mg/L		0.00011367	0.0006857 mg/L	0.00011367	16.58%
Na 330.237	223.4	0.528799 mg/L		0.1034064	0.528799 mg/L	0.1034064	19.55%
Tl 190.801	-19.0	-0.0044506 mg/L		0.00032106	-0.0044506 mg/L	0.00032106	7.21%
Sn 189.927	-178.0	-0.0062464 mg/L		0.00017403	-0.0062464 mg/L	0.00017403	2.79%
Ti 334.940	-921.5	-0.0063638 mg/L		0.00030977	-0.0063638 mg/L	0.00030977	4.87%
V 292.402	19454.1	0.0222774 mg/L		0.00065207	0.0222774 mg/L	0.00065207	2.93%
Zn 206.200	-12.0	-0.0133695 mg/L		0.00004382	-0.0133695 mg/L	0.00004382	0.33%

All analyte(s) passed QC.

Sequence No.: 25

Sample ID: ICSAB V-128667

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/19/2011 7:56:43 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3740176.8	429.545 mg/L	0.1023	429.545 mg/L	0.1023	0.02%
QC value within limits for Al 308.215 Recovery = 85.91%						
Sb 206.836	755.3	0.882704 mg/L	0.0108666	0.882704 mg/L	0.0108666	1.23%
QC value within limits for Sb 206.836 Recovery = 88.27%						
As 188.979	668.7	0.885000 mg/L	0.0150113	0.885000 mg/L	0.0150113	1.70%
QC value within limits for As 188.979 Recovery = 88.50%						
Ba 233.527	26287.4	0.444315 mg/L	0.0053856	0.444315 mg/L	0.0053856	1.21%
QC value within limits for Ba 233.527 Recovery = 88.86%						
Be 234.861	110780.2	0.460534 mg/L	0.0014406	0.460534 mg/L	0.0014406	0.31%
QC value within limits for Be 234.861 Recovery = 92.11%						
Cd 226.502	51558.4	0.841456 mg/L	0.0039257	0.841456 mg/L	0.0039257	0.47%
QC value within limits for Cd 226.502 Recovery = 84.15%						
Ca 315.887	26093385.7	435.910 mg/L	4.3103	435.910 mg/L	4.3103	0.99%
QC value within limits for Ca 315.887 Recovery = 87.18%						
Cr 206.158	4778.4	0.440684 mg/L	0.0018411	0.440684 mg/L	0.0018411	0.42%
QC value within limits for Cr 206.158 Recovery = 88.14%						
Co 228.616	8312.2	0.408993 mg/L	0.0043354	0.408993 mg/L	0.0043354	1.06%
QC value within limits for Co 228.616 Recovery = 81.80%						
Cu 324.752	49761.8	0.461809 mg/L	0.0011770	0.461809 mg/L	0.0011770	0.25%
QC value within limits for Cu 324.752 Recovery = 92.36%						
Fe 273.955	2648174.7	163.948 mg/L	0.2460	163.948 mg/L	0.2460	0.15%
QC value within limits for Fe 273.955 Recovery = 81.97%						
Pb 220.353	5186.8	0.848498 mg/L	0.0115846	0.848498 mg/L	0.0115846	1.37%
QC value within limits for Pb 220.353 Recovery = 84.85%						
Mg 279.077	6635767.2	456.035 mg/L	3.7446	456.035 mg/L	3.7446	0.82%
QC value within limits for Mg 279.077 Recovery = 91.21%						
Mn 257.610	212662.1	0.436333 mg/L	0.0017325	0.436333 mg/L	0.0017325	0.40%
QC value within limits for Mn 257.610 Recovery = 87.27%						
Mo 202.031	-155.3	0.0005179 mg/L	0.00100163	0.0005179 mg/L	0.00100163	193.40%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604	31851.8	0.807693 mg/L	0.0057167	0.807693 mg/L	0.0057167	0.71%
QC value within limits for Ni 231.604 Recovery = 80.77%						
Se 196.026	475.8	0.825370 mg/L	0.0007595	0.825370 mg/L	0.0007595	0.09%
QC value within limits for Se 196.026 Recovery = 82.54%						
Ag 328.068	114590.5	0.964895 mg/L	0.0030775	0.964895 mg/L	0.0030775	0.32%
QC value within limits for Ag 328.068 Recovery = 96.49%						
Na 330.237	200.7	0.489720 mg/L	0.0022849	0.489720 mg/L	0.0022849	0.47%
QC value within limits for Na 330.237 Recovery = Not calculated						
Tl 190.801	1193.3	0.879436 mg/L	0.0159098	0.879436 mg/L	0.0159098	1.81%
QC value within limits for Tl 190.801 Recovery = 87.94%						
Sn 189.927	-160.2	-0.0012863 mg/L	0.00713150	-0.0012863 mg/L	0.00713150	554.42%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 334.940	-787.1	-0.0059392 mg/L	0.00001574	-0.0059392 mg/L	0.00001574	0.27%
QC value within limits for Ti 334.940 Recovery = Not calculated						
V 292.402	60607.7	0.438981 mg/L	0.0001073	0.438981 mg/L	0.0001073	0.02%
QC value within limits for V 292.402 Recovery = 87.80%						
Zn 206.200	20311.3	0.823683 mg/L	0.0088266	0.823683 mg/L	0.0088266	1.07%
QC value within limits for Zn 206.200 Recovery = 82.37%						

All analyte(s) passed QC.

Sequence No.: 26  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 8:00:34 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	44386.2	5.07653 mg/L	0.016427	5.07653 mg/L	0.016427	0.32%
QC value within limits for Al 308.215 Recovery = 101.53%						
Sb 206.836	430.5	0.488316 mg/L	0.0062727	0.488316 mg/L	0.0062727	1.28%
QC value within limits for Sb 206.836 Recovery = 97.66%						
As 188.979	370.7	0.472561 mg/L	0.0031736	0.472561 mg/L	0.0031736	0.67%
QC value within limits for As 188.979 Recovery = 94.51%						
Ba 233.527	28981.1	0.493463 mg/L	0.0018747	0.493463 mg/L	0.0018747	0.38%
QC value within limits for Ba 233.527 Recovery = 98.69%						
Be 234.861	206091.5	0.481606 mg/L	0.0023931	0.481606 mg/L	0.0023931	0.50%
QC value within limits for Be 234.861 Recovery = 96.32%						
Cd 226.502	29732.4	0.483186 mg/L	0.0022402	0.483186 mg/L	0.0022402	0.46%
QC value within limits for Cd 226.502 Recovery = 96.64%						
Ca 315.887	2992292.2	49.6732 mg/L	0.32834	49.6732 mg/L	0.32834	0.66%
QC value within limits for Ca 315.887 Recovery = 99.35%						
Cr 206.158	5429.8	0.489074 mg/L	0.0016322	0.489074 mg/L	0.0016322	0.33%
QC value within limits for Cr 206.158 Recovery = 97.81%						
Co 228.616	9807.4	0.487166 mg/L	0.0007909	0.487166 mg/L	0.0007909	0.16%
QC value within limits for Co 228.616 Recovery = 97.43%						
Cu 324.752	50403.1	0.477668 mg/L	0.0041653	0.477668 mg/L	0.0041653	0.87%
QC value within limits for Cu 324.752 Recovery = 95.53%						
Fe 273.955	79219.1	4.88123 mg/L	0.016109	4.88123 mg/L	0.016109	0.33%
QC value within limits for Fe 273.955 Recovery = 97.62%						
Pb 220.353	3282.8	0.492115 mg/L	0.0016100	0.492115 mg/L	0.0016100	0.33%
QC value within limits for Pb 220.353 Recovery = 98.42%						
Mg 279.077	727723.5	49.5934 mg/L	0.36547	49.5934 mg/L	0.36547	0.74%
QC value within limits for Mg 279.077 Recovery = 99.19%						
Mn 257.610	236337.8	0.483566 mg/L	0.0018440	0.483566 mg/L	0.0018440	0.38%
QC value within limits for Mn 257.610 Recovery = 96.71%						
Mo 202.031	4377.6	0.488372 mg/L	0.0027685	0.488372 mg/L	0.0027685	0.57%
QC value within limits for Mo 202.031 Recovery = 97.67%						
Ni 231.604	19282.9	0.489333 mg/L	0.0025595	0.489333 mg/L	0.0025595	0.52%
QC value within limits for Ni 231.604 Recovery = 97.87%						
Se 196.026	619.9	0.484716 mg/L	0.0055507	0.484716 mg/L	0.0055507	1.15%
QC value within limits for Se 196.026 Recovery = 96.94%						
Ag 328.068	11467.6	0.0959208 mg/L	0.00105833	0.0959208 mg/L	0.00105833	1.10%
QC value within limits for Ag 328.068 Recovery = 95.92%						
Na 330.237	27346.9	47.2689 mg/L	0.32566	47.2689 mg/L	0.32566	0.69%
QC value within limits for Na 330.237 Recovery = 94.54%						
Tl 190.801	698.0	0.510706 mg/L	0.0001339	0.510706 mg/L	0.0001339	0.03%
QC value within limits for Tl 190.801 Recovery = 102.14%						
Sn 189.927	2012.6	0.490741 mg/L	0.0024004	0.490741 mg/L	0.0024004	0.49%
QC value within limits for Sn 189.927 Recovery = 98.15%						
Ti 334.940	154924.6	0.485946 mg/L	0.0024632	0.485946 mg/L	0.0024632	0.51%
QC value within limits for Ti 334.940 Recovery = 97.19%						
V 292.402	48186.6	0.470589 mg/L	0.0020769	0.470589 mg/L	0.0020769	0.44%
QC value within limits for V 292.402 Recovery = 94.12%						
Zn 206.200	11576.6	0.474426 mg/L	0.0019948	0.474426 mg/L	0.0019948	0.42%
QC value within limits for Zn 206.200 Recovery = 94.89%						

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 12/19/2011 8:03:52 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	413.1	0.0324330 mg/L		0.00107668	0.0324330 mg/L		0.00107668	3.32%
QC value within limits for Al 308.215 Recovery = Not calculated								
Sb 206.836	1.6	0.0037555 mg/L		0.00178849	0.0037555 mg/L		0.00178849	47.62%
QC value within limits for Sb 206.836 Recovery = Not calculated								
As 188.979	2.7	0.0008038 mg/L		0.00183429	0.0008038 mg/L		0.00183429	228.20%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	23.5	-0.0052005 mg/L		0.00008492	-0.0052005 mg/L		0.00008492	1.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 234.861	104.2	-0.0013245 mg/L		0.00000816	-0.0013245 mg/L		0.00000816	0.62%
QC value within limits for Be 234.861 Recovery = Not calculated								
Cd 226.502	15.1	-0.0031771 mg/L		0.00001722	-0.0031771 mg/L		0.00001722	0.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ca 315.887	5930.1	-0.257132 mg/L		0.0073896	-0.257132 mg/L		0.0073896	2.87%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cr 206.158	1.3	-0.0013725 mg/L		0.00006888	-0.0013725 mg/L		0.00006888	5.02%
QC value within limits for Cr 206.158 Recovery = Not calculated								
Co 228.616	3.0	-0.0021100 mg/L		0.00046334	-0.0021100 mg/L		0.00046334	21.96%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cu 324.752	-189.4	-0.0048069 mg/L		0.00062168	-0.0048069 mg/L		0.00062168	12.93%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	-377.8	-0.0473239 mg/L		0.00192371	-0.0473239 mg/L		0.00192371	4.06%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Pb 220.353	-7.9	-0.0038639 mg/L		0.00066379	-0.0038639 mg/L		0.00066379	17.18%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Mg 279.077	1140.5	-0.391699 mg/L		0.0086995	-0.391699 mg/L		0.0086995	2.22%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	90.9	-0.0046472 mg/L		0.00002073	-0.0046472 mg/L		0.00002073	0.45%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031	2.7	-0.0033320 mg/L		0.00051314	-0.0033320 mg/L		0.00051314	15.40%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604	1.9	-0.0053486 mg/L		0.00004964	-0.0053486 mg/L		0.00004964	0.93%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Se 196.026	5.5	0.0013075 mg/L		0.00458276	0.0013075 mg/L		0.00458276	350.49%
QC value within limits for Se 196.026 Recovery = Not calculated								
Ag 328.068	66.7	0.0000684 mg/L		0.00006782	0.0000684 mg/L		0.00006782	99.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Na 330.237	590.1	1.16070 mg/L		0.017087	1.16070 mg/L		0.017087	1.47%
QC value within limits for Na 330.237 Recovery = Not calculated								
Tl 190.801	2.8	-0.0011139 mg/L		0.00018575	-0.0011139 mg/L		0.00018575	16.68%
QC value within limits for Tl 190.801 Recovery = Not calculated								
Sn 189.927	5.9	-0.0017617 mg/L		0.00080209	-0.0017617 mg/L		0.00080209	45.53%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 334.940	-453.7	-0.0048860 mg/L		0.00022124	-0.0048860 mg/L		0.00022124	4.53%
QC value within limits for Ti 334.940 Recovery = Not calculated								
V 292.402	48.8	-0.0033256 mg/L		0.00035754	-0.0033256 mg/L		0.00035754	10.75%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	-14.8	-0.0017479 mg/L		0.00031155	-0.0017479 mg/L		0.00031155	17.82%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 28  
 Sample ID: 63143-013  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 43  
 Date Collected: 12/19/2011 8:07:06 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-013

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	3651.4	0.404340	mg/L	0.0013166	0.404340	mg/L	0.0013166 0.33%
Sb 206.836	-4.7	-0.0029476	mg/L	0.00554740	-0.0029476	mg/L	0.00554740 188.20%
As 188.979	-17.7	-0.0152949	mg/L	0.00140537	-0.0152949	mg/L	0.00140537 9.19%
Ba 233.527	24999.7	0.424599	mg/L	0.0086270	0.424599	mg/L	0.0086270 2.03%
Be 234.861	-874.3	-0.0009142	mg/L	0.00000635	-0.0009142	mg/L	0.00000635 0.69%
Cd 226.502	193.8	-0.0002388	mg/L	0.00014600	-0.0002388	mg/L	0.00014600 61.13%
Ca 315.887	13471718.0	224.883	mg/L	1.9082	224.883	mg/L	1.9082 0.85%
Cr 206.158	-130.3	0.0179829	mg/L	0.00235390	0.0179829	mg/L	0.00235390 13.09%
Co 228.616	582.5	0.0267995	mg/L	0.00028921	0.0267995	mg/L	0.00028921 1.08%
Cu 324.752	13196.9	0.117502	mg/L	0.0034319	0.117502	mg/L	0.0034319 2.92%
Fe 273.955	34064.3	2.08529	mg/L	0.038475	2.08529	mg/L	0.038475 1.85%
Pb 220.353	1648.3	0.248575	mg/L	0.0009635	0.248575	mg/L	0.0009635 0.39%
Mg 279.077	203500.6	13.5296	mg/L	0.32248	13.5296	mg/L	0.32248 2.38%
Mn 257.610	455292.8	0.936955	mg/L	0.0198605	0.936955	mg/L	0.0198605 2.12%
Mo 202.031	8.2	-0.0026232	mg/L	0.00000509	-0.0026232	mg/L	0.00000509 0.19%
Ni 231.604	1937.1	0.0442406	mg/L	0.00052506	0.0442406	mg/L	0.00052506 1.19%
Se 196.026	93.2	0.0458221	mg/L	0.00557787	0.0458221	mg/L	0.00557787 12.17%
Ag 328.068	-403.7	0.0001159	mg/L	0.00047288	0.0001159	mg/L	0.00047288 407.91%
Na 330.237	750244.7	1292.99	mg/L	26.940	1292.99	mg/L	26.940 2.08%
Tl 190.801	-12.8	-0.0134940	mg/L	0.00368149	-0.0134940	mg/L	0.00368149 27.28%
Sn 189.927	-107.6	-0.0082467	mg/L	0.00112450	-0.0082467	mg/L	0.00112450 13.64%
Ti 334.940	116.2	-0.0030856	mg/L	0.00019085	-0.0030856	mg/L	0.00019085 6.19%
V 292.402	1856.3	0.0097720	mg/L	0.00035107	0.0097720	mg/L	0.00035107 3.59%
Zn 206.200	29944.2	1.23195	mg/L	0.026875	1.23195	mg/L	0.026875 2.18%

Sequence No.: 29  
 Sample ID: 63143-020  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 44  
 Date Collected: 12/19/2011 8:10:23 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-020

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	1835.1	0.195729	mg/L	0.0049728	0.195729	mg/L	0.0049728 2.54%
Sb 206.836	-6.5	-0.0051175	mg/L	0.00143153	-0.0051175	mg/L	0.00143153 27.97%
As 188.979	-17.8	-0.0140590	mg/L	0.00619220	-0.0140590	mg/L	0.00619220 44.04%
Ba 233.527	11806.1	0.197575	mg/L	0.0009009	0.197575	mg/L	0.0009009 0.46%
Be 234.861	58.3	-0.0014393	mg/L	0.00003022	-0.0014393	mg/L	0.00003022 2.10%
Cd 226.502	63.3	-0.0023875	mg/L	0.00000584	-0.0023875	mg/L	0.00000584 0.24%
Ca 315.887	15851311.3	264.669	mg/L	4.2072	264.669	mg/L	4.2072 1.59%
Cr 206.158	-8.5	0.0013633	mg/L	0.00020028	0.0013633	mg/L	0.00020028 14.69%
Co 228.616	168.0	0.0061349	mg/L	0.00005407	0.0061349	mg/L	0.00005407 0.88%
Cu 324.752	1252.4	0.0022815	mg/L	0.00024425	0.0022815	mg/L	0.00024425 10.71%
Fe 273.955	-488.2	-0.0541640	mg/L	0.00333980	-0.0541640	mg/L	0.00333980 6.17%
Pb 220.353	26.6	0.0059272	mg/L	0.00084839	0.0059272	mg/L	0.00084839 14.31%
Mg 279.077	126772.9	8.25114	mg/L	0.074174	8.25114	mg/L	0.074174 0.90%
Mn 257.610	87866.0	0.176805	mg/L	0.0012269	0.176805	mg/L	0.0012269 0.69%
Mo 202.031	18.1	-0.0015935	mg/L	0.00013972	-0.0015935	mg/L	0.00013972 8.77%
Ni 231.604	2302.0	0.0536525	mg/L	0.00018619	0.0536525	mg/L	0.00018619 0.35%
Se 196.026	106.5	0.0441685	mg/L	0.00043291	0.0441685	mg/L	0.00043291 0.98%
Ag 328.068	-456.1	0.0006103	mg/L	0.00053115	0.0006103	mg/L	0.00053115 87.03%
Na 330.237	743908.7	1282.07	mg/L	6.698	1282.07	mg/L	6.698 0.52%
Tl 190.801	-13.1	-0.0142510	mg/L	0.00299250	-0.0142510	mg/L	0.00299250 21.00%
Sn 189.927	-124.1	-0.0085505	mg/L	0.00133437	-0.0085505	mg/L	0.00133437 15.61%
Ti 334.940	-90.6	-0.0037390	mg/L	0.00010566	-0.0037390	mg/L	0.00010566 2.83%
V 292.402	1582.8	0.0090012	mg/L	0.00002091	0.0090012	mg/L	0.00002091 0.23%
Zn 206.200	3468.9	0.141528	mg/L	0.0004470	0.141528	mg/L	0.0004470 0.32%

Sequence No.: 30  
 Sample ID: 63143-026  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 12/19/2011 8:13:40 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63143-026

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Al 308.215	4300.6	0.478897 mg/L	0.0025815	0.478897 mg/L	0.0025815	0.54%	
Sb 206.836	2.3	0.0046623 mg/L	0.00197498	0.0046623 mg/L	0.00197498	42.36%	
As 188.979	-15.6	-0.0169818 mg/L	0.00585732	-0.0169818 mg/L	0.00585732	34.49%	
Ba 233.527	10979.3	0.183342 mg/L	0.0000753	0.183342 mg/L	0.0000753	0.04%	
Be 234.861	-0.1	-0.0013283 mg/L	0.00000481	-0.0013283 mg/L	0.00000481	0.36%	
Cd 226.502	109.0	-0.0016385 mg/L	0.00012744	-0.0016385 mg/L	0.00012744	7.78%	
Ca 315.887	7895184.1	131.647 mg/L	1.4657	131.647 mg/L	1.4657	1.11%	
Cr 206.158	-27.9	0.0040666 mg/L	0.00022690	0.0040666 mg/L	0.00022690	5.58%	
Co 228.616	1027.6	0.0491020 mg/L	0.00004399	0.0491020 mg/L	0.00004399	0.09%	
Cu 324.752	789.3	0.0012174 mg/L	0.00030471	0.0012174 mg/L	0.00030471	25.03%	
Fe 273.955	2682.0	0.142132 mg/L	0.0013031	0.142132 mg/L	0.0013031	0.92%	
Pb 220.353	260.6	0.0387976 mg/L	0.00213286	0.0387976 mg/L	0.00213286	5.50%	
Mg 279.077	145300.8	9.52577 mg/L	0.001402	9.52577 mg/L	0.001402	0.01%	
Mn 257.610	225228.7	0.460968 mg/L	0.0011734	0.460968 mg/L	0.0011734	0.25%	
Mo 202.031	11.2	-0.0023566 mg/L	0.00016375	-0.0023566 mg/L	0.00016375	6.95%	
Ni 231.604	5324.5	0.131181 mg/L	0.0002651	0.131181 mg/L	0.0002651	0.20%	
Se 196.026	82.7	0.0439619 mg/L	0.00617005	0.0439619 mg/L	0.00617005	14.03%	
Ag 328.068	-260.2	-0.0003188 mg/L	0.00027660	-0.0003188 mg/L	0.00027660	86.75%	
Na 330.237	760512.7	1310.68 mg/L	1.818	1310.68 mg/L	1.818	0.14%	
Tl 190.801	-3.8	-0.0066057 mg/L	0.00083943	-0.0066057 mg/L	0.00083943	12.71%	
Sn 189.927	-73.4	-0.0086684 mg/L	0.00027960	-0.0086684 mg/L	0.00027960	3.23%	
Ti 334.940	281.2	-0.0025644 mg/L	0.00000610	-0.0025644 mg/L	0.00000610	0.24%	
V 292.402	1245.9	0.0050891 mg/L	0.00016966	0.0050891 mg/L	0.00016966	3.33%	
Zn 206.200	7742.9	0.317548 mg/L	0.0000363	0.317548 mg/L	0.0000363	0.01%	

Sequence No.: 31  
 Sample ID: 63143-033  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 12/19/2011 8:16:57 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63143-033

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	334.3	0.0234150	mg/L	0.00087269	0.0234150	mg/L	0.00087269 3.73%
Sb 206.836	1.6	0.0037922	mg/L	0.01146286	0.0037922	mg/L	0.01146286 302.27%
As 188.979	-10.0	-0.0132392	mg/L	0.00148998	-0.0132392	mg/L	0.00148998 11.25%
Ba 233.527	14202.5	0.238812	mg/L	0.0014080	0.238812	mg/L	0.0014080 0.59%
Be 234.861	36.7	-0.0014250	mg/L	0.00000112	-0.0014250	mg/L	0.00000112 0.08%
Cd 226.502	85.4	-0.0020265	mg/L	0.00004305	-0.0020265	mg/L	0.00004305 2.12%
Ca 315.887	3152278.8	52.3480	mg/L	0.87305	52.3480	mg/L	0.87305 1.67%
Cr 206.158	-23.5	0.0011738	mg/L	0.00104005	0.0011738	mg/L	0.00104005 88.60%
Co 228.616	329.6	0.0142122	mg/L	0.00027908	0.0142122	mg/L	0.00027908 1.96%
Cu 324.752	510.9	0.0005607	mg/L	0.00060104	0.0005607	mg/L	0.00060104 107.19%
Fe 273.955	339.6	-0.0029038	mg/L	0.00108830	-0.0029038	mg/L	0.00108830 37.48%
Pb 220.353	137.2	0.0188246	mg/L	0.00001574	0.0188246	mg/L	0.00001574 0.08%
Mg 279.077	133806.4	8.73501	mg/L	0.171048	8.73501	mg/L	0.171048 1.96%
Mn 257.610	734200.4	1.51392	mg/L	0.025755	1.51392	mg/L	0.025755 1.70%
Mo 202.031	-20.6	-0.0059477	mg/L	0.00048172	-0.0059477	mg/L	0.00048172 8.10%
Ni 231.604	1322.3	0.0285198	mg/L	0.00005420	0.0285198	mg/L	0.00005420 0.19%
Se 196.026	39.1	0.0198830	mg/L	0.00235053	0.0198830	mg/L	0.00235053 11.82%
Ag 328.068	-145.7	-0.0011365	mg/L	0.00051138	-0.0011365	mg/L	0.00051138 45.00%
Na 330.237	763019.1	1315.00	mg/L	26.535	1315.00	mg/L	26.535 2.02%
Tl 190.801	-6.7	-0.0079211	mg/L	0.00005017	-0.0079211	mg/L	0.00005017 0.63%
Sn 189.927	-36.0	-0.0070271	mg/L	0.00116143	-0.0070271	mg/L	0.00116143 16.53%
Ti 334.940	-555.6	-0.0052079	mg/L	0.00001559	-0.0052079	mg/L	0.00001559 0.30%
V 292.402	882.4	0.0016677	mg/L	0.00011133	0.0016677	mg/L	0.00011133 6.68%
Zn 206.200	4566.9	0.186746	mg/L	0.0014720	0.186746	mg/L	0.0014720 0.79%

Sequence No.: 32  
 Sample ID: 63143-039  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 12/19/2011 8:20:13 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63143-039

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3014.2	0.331162	mg/L	0.0040253	0.331162	mg/L	0.0040253	1.22%
Sb 206.836	2.3	0.0046910	mg/L	0.00474887	0.0046910	mg/L	0.00474887	101.23%
As 188.979	-16.8	-0.0194472	mg/L	0.00079267	-0.0194472	mg/L	0.00079267	4.08%
Ba 233.527	16743.0	0.282528	mg/L	0.0002073	0.282528	mg/L	0.0002073	0.07%
Be 234.861	-153.5	-0.0011636	mg/L	0.00003426	-0.0011636	mg/L	0.00003426	2.94%
Cd 226.502	302.9	0.0015373	mg/L	0.00007063	0.0015373	mg/L	0.00007063	4.59%
Ca 315.887	6427538.8	107.109	mg/L	1.6244	107.109	mg/L	1.6244	1.52%
Cr 206.158	-87.1	0.0117563	mg/L	0.00010120	0.0117563	mg/L	0.00010120	0.86%
Co 228.616	507.3	0.0230853	mg/L	0.00004410	0.0230853	mg/L	0.00004410	0.19%
Cu 324.752	1645.6	0.0100250	mg/L	0.00017820	0.0100250	mg/L	0.00017820	1.78%
Fe 273.955	9374.8	0.556544	mg/L	0.0029652	0.556544	mg/L	0.0029652	0.53%
Pb 220.353	872.9	0.130245	mg/L	0.0007598	0.130245	mg/L	0.0007598	0.58%
Mg 279.077	178494.7	11.8093	mg/L	0.04320	11.8093	mg/L	0.04320	0.37%
Mn 257.610	629326.1	1.29694	mg/L	0.010191	1.29694	mg/L	0.010191	0.79%
Mo 202.031	6.5	-0.0028702	mg/L	0.00059116	-0.0028702	mg/L	0.00059116	20.60%
Ni 231.604	2639.2	0.0622866	mg/L	0.00042597	0.0622866	mg/L	0.00042597	0.68%
Se 196.026	86.8	0.0514503	mg/L	0.00403831	0.0514503	mg/L	0.00403831	7.85%
Ag 328.068	-182.2	-0.0003525	mg/L	0.00022049	-0.0003525	mg/L	0.00022049	62.55%
Na 330.237	752891.1	1297.55	mg/L	10.947	1297.55	mg/L	10.947	0.84%
Tl 190.801	-5.2	-0.0071618	mg/L	0.00204461	-0.0071618	mg/L	0.00204461	28.55%
Sn 189.927	-60.3	-0.0078034	mg/L	0.00042017	-0.0078034	mg/L	0.00042017	5.38%
Ti 334.940	-451.9	-0.0048804	mg/L	0.00001780	-0.0048804	mg/L	0.00001780	0.36%
V 292.402	1810.0	0.0099519	mg/L	0.00008046	0.0099519	mg/L	0.00008046	0.81%
Zn 206.200	20233.1	0.831976	mg/L	0.0015006	0.831976	mg/L	0.0015006	0.18%

Sequence No.: 33  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 8:23:30 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	41706.7	4.76887 mg/L	0.014325	4.76887 mg/L	0.014325	0.30%
QC value within limits for Al 308.215 Recovery = 95.38%						
Sb 206.836	420.0	0.476493 mg/L	0.0091908	0.476493 mg/L	0.0091908	1.93%
QC value within limits for Sb 206.836 Recovery = 95.30%						
As 188.979	362.3	0.461731 mg/L	0.0071456	0.461731 mg/L	0.0071456	1.55%
QC value within limits for As 188.979 Recovery = 92.35%						
Ba 233.527	28733.4	0.489196 mg/L	0.0017301	0.489196 mg/L	0.0017301	0.35%
QC value within limits for Ba 233.527 Recovery = 97.84%						
Be 234.861	203279.4	0.474908 mg/L	0.0032374	0.474908 mg/L	0.0032374	0.68%
QC value within limits for Be 234.861 Recovery = 94.98%						
Cd 226.502	29207.1	0.474588 mg/L	0.0024472	0.474588 mg/L	0.0024472	0.52%
QC value within limits for Cd 226.502 Recovery = 94.92%						
Ca 315.887	2957297.7	49.0881 mg/L	0.73508	49.0881 mg/L	0.73508	1.50%
QC value within limits for Ca 315.887 Recovery = 98.18%						
Cr 206.158	5356.3	0.482406 mg/L	0.0012123	0.482406 mg/L	0.0012123	0.25%
QC value within limits for Cr 206.158 Recovery = 96.48%						
Co 228.616	9709.5	0.482283 mg/L	0.0012803	0.482283 mg/L	0.0012803	0.27%
QC value within limits for Co 228.616 Recovery = 96.46%						
Cu 324.752	49848.6	0.472381 mg/L	0.0030859	0.472381 mg/L	0.0030859	0.65%
QC value within limits for Cu 324.752 Recovery = 94.48%						
Fe 273.955	76776.1	4.72996 mg/L	0.027081	4.72996 mg/L	0.027081	0.57%
QC value within limits for Fe 273.955 Recovery = 94.60%						
Pb 220.353	3244.4	0.486282 mg/L	0.0022153	0.486282 mg/L	0.0022153	0.46%
QC value within limits for Pb 220.353 Recovery = 97.26%						
Mg 279.077	717811.0	48.9114 mg/L	0.78630	48.9114 mg/L	0.78630	1.61%
QC value within limits for Mg 279.077 Recovery = 97.82%						
Mn 257.610	233484.8	0.477667 mg/L	0.0032935	0.477667 mg/L	0.0032935	0.69%
QC value within limits for Mn 257.610 Recovery = 95.53%						
Mo 202.031	4317.4	0.481591 mg/L	0.0011111	0.481591 mg/L	0.0011111	0.23%
QC value within limits for Mo 202.031 Recovery = 96.32%						
Ni 231.604	18950.0	0.480795 mg/L	0.0018591	0.480795 mg/L	0.0018591	0.39%
QC value within limits for Ni 231.604 Recovery = 96.16%						
Se 196.026	617.8	0.482681 mg/L	0.0050296	0.482681 mg/L	0.0050296	1.04%
QC value within limits for Se 196.026 Recovery = 96.54%						
Ag 328.068	11290.1	0.0944308 mg/L	0.00127508	0.0944308 mg/L	0.00127508	1.35%
QC value within limits for Ag 328.068 Recovery = 94.43%						
Na 330.237	27053.0	46.7624 mg/L	0.16050	46.7624 mg/L	0.16050	0.34%
QC value within limits for Na 330.237 Recovery = 93.52%						
Tl 190.801	691.9	0.506210 mg/L	0.0019324	0.506210 mg/L	0.0019324	0.38%
QC value within limits for Tl 190.801 Recovery = 101.24%						
Sn 189.927	1988.2	0.484761 mg/L	0.0047547	0.484761 mg/L	0.0047547	0.98%
QC value within limits for Sn 189.927 Recovery = 96.95%						
Ti 334.940	153268.5	0.480714 mg/L	0.0032816	0.480714 mg/L	0.0032816	0.68%
QC value within limits for Ti 334.940 Recovery = 96.14%						
V 292.402	47532.5	0.464150 mg/L	0.0020060	0.464150 mg/L	0.0020060	0.43%
QC value within limits for V 292.402 Recovery = 92.83%						
Zn 206.200	11392.6	0.466864 mg/L	0.0011203	0.466864 mg/L	0.0011203	0.24%
QC value within limits for Zn 206.200 Recovery = 93.37%						

All analyte(s) passed QC.

Sequence No.: 34  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 12/19/2011 8:26:47 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Al 308.215	-1613.9	-0.200374 mg/L		0.0011892	-0.200374 mg/L		0.0011892	0.59%
QC value within limits for Al		308.215	Recovery =	Not calculated				
Sb 206.836	-1.0	0.0008351 mg/L		0.00210395	0.0008351 mg/L		0.00210395	251.94%
QC value within limits for Sb		206.836	Recovery =	Not calculated				
As 188.979	4.7	0.0033504 mg/L		0.00070227	0.0033504 mg/L		0.00070227	20.96%
QC value within limits for As		188.979	Recovery =	Not calculated				
Ba 233.527	-24.0	-0.0060164 mg/L		0.00007693	-0.0060164 mg/L		0.00007693	1.28%
QC value within limits for Ba		233.527	Recovery =	Not calculated				
Be 234.861	0.4	-0.0016752 mg/L		0.00002287	-0.0016752 mg/L		0.00002287	1.37%
QC value within limits for Be		234.861	Recovery =	Not calculated				
Cd 226.502	-14.3	-0.0036586 mg/L		0.00004742	-0.0036586 mg/L		0.00004742	1.30%
QC value within limits for Cd		226.502	Recovery =	Not calculated				
Ca 315.887	-6448.9	-0.464102 mg/L		0.0065924	-0.464102 mg/L		0.0065924	1.42%
QC value within limits for Ca		315.887	Recovery =	Not calculated				
Cr 206.158	-1.9	-0.0016697 mg/L		0.00043886	-0.0016697 mg/L		0.00043886	26.28%
QC value within limits for Cr		206.158	Recovery =	Not calculated				
Co 228.616	-2.5	-0.0023808 mg/L		0.00019057	-0.0023808 mg/L		0.00019057	8.00%
QC value within limits for Co		228.616	Recovery =	Not calculated				
Cu 324.752	-284.1	-0.0057079 mg/L		0.00017233	-0.0057079 mg/L		0.00017233	3.02%
QC value within limits for Cu		324.752	Recovery =	Not calculated				
Fe 273.955	-1798.8	-0.135310 mg/L		0.0000712	-0.135310 mg/L		0.0000712	0.05%
QC value within limits for Fe		273.955	Recovery =	Not calculated				
Pb 220.353	-11.8	-0.0044847 mg/L		0.00012757	-0.0044847 mg/L		0.00012757	2.84%
QC value within limits for Pb		220.353	Recovery =	Not calculated				
Mg 279.077	-2537.0	-0.644695 mg/L		0.0029402	-0.644695 mg/L		0.0029402	0.46%
QC value within limits for Mg		279.077	Recovery =	Not calculated				
Mn 257.610	-169.9	-0.0051873 mg/L		0.00005638	-0.0051873 mg/L		0.00005638	1.09%
QC value within limits for Mn		257.610	Recovery =	Not calculated				
Mo 202.031	6.5	-0.0029126 mg/L		0.00005225	-0.0029126 mg/L		0.00005225	1.79%
QC value within limits for Mo		202.031	Recovery =	Not calculated				
Ni 231.604	-18.2	-0.0058630 mg/L		0.00001135	-0.0058630 mg/L		0.00001135	0.19%
QC value within limits for Ni		231.604	Recovery =	Not calculated				
Se 196.026	14.0	0.0075960 mg/L		0.00510387	0.0075960 mg/L		0.00510387	67.19%
QC value within limits for Se		196.026	Recovery =	Not calculated				
Ag 328.068	14.6	-0.0003701 mg/L		0.00057729	-0.0003701 mg/L		0.00057729	155.97%
QC value within limits for Ag		328.068	Recovery =	Not calculated				
Na 330.237	511.9	1.02608 mg/L		0.005289	1.02608 mg/L		0.005289	0.52%
QC value within limits for Na		330.237	Recovery =	Not calculated				
Tl 190.801	5.2	0.0005676 mg/L		0.00038183	0.0005676 mg/L		0.00038183	67.27%
QC value within limits for Tl		190.801	Recovery =	Not calculated				
Sn 189.927	-4.0	-0.0041889 mg/L		0.00010985	-0.0041889 mg/L		0.00010985	2.62%
QC value within limits for Sn		189.927	Recovery =	Not calculated				
Ti 334.940	-606.3	-0.0053680 mg/L		0.00007945	-0.0053680 mg/L		0.00007945	1.48%
QC value within limits for Ti		334.940	Recovery =	Not calculated				
V 292.402	7.0	-0.0036501 mg/L		0.00032818	-0.0036501 mg/L		0.00032818	8.99%
QC value within limits for V		292.402	Recovery =	Not calculated				
Zn 206.200	-26.6	-0.0022253 mg/L		0.00016850	-0.0022253 mg/L		0.00016850	7.57%
QC value within limits for Zn		206.200	Recovery =	Not calculated				

All analyte(s) passed QC.

Sequence No.: 35  
 Sample ID: 63143-046  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 12/19/2011 8:30:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-046

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Al 308.215	-262.9	-0.0451987	mg/L	0.00042689	-0.0451987	mg/L	0.00042689 0.94%
Sb 206.836	1.8	0.0041720	mg/L	0.00429932	0.0041720	mg/L	0.00429932 103.05%
As 188.979	0.5	-0.0009349	mg/L	0.00279242	-0.0009349	mg/L	0.00279242 298.70%
Ba 233.527	4811.7	0.0771972	mg/L	0.00003988	0.0771972	mg/L	0.00003988 0.05%
Be 234.861	-85.2	-0.0013670	mg/L	0.00001019	-0.0013670	mg/L	0.00001019 0.75%
Cd 226.502	6.5	-0.0033162	mg/L	0.00000592	-0.0033162	mg/L	0.00000592 0.18%
Ca 315.887	1657709.2	27.3597	mg/L	0.05548	27.3597	mg/L	0.05548 0.20%
Cr 206.158	-9.4	0.0009733	mg/L	0.00023854	0.0009733	mg/L	0.00023854 24.51%
Co 228.616	216.4	0.0085459	mg/L	0.00000280	0.0085459	mg/L	0.00000280 0.03%
Cu 324.752	93.1	-0.0028027	mg/L	0.00001270	-0.0028027	mg/L	0.00001270 0.45%
Fe 273.955	4719.2	0.268273	mg/L	0.0003854	0.268273	mg/L	0.0003854 0.14%
Pb 220.353	143.0	0.0192424	mg/L	0.00122691	0.0192424	mg/L	0.00122691 6.38%
Mg 279.077	329074.0	22.1684	mg/L	0.03723	22.1684	mg/L	0.03723 0.17%
Mn 257.610	161327.5	0.328580	mg/L	0.0008768	0.328580	mg/L	0.0008768 0.27%
Mo 202.031	-5.1	-0.0041996	mg/L	0.00016565	-0.0041996	mg/L	0.00016565 3.94%
Ni 231.604	726.2	0.0132211	mg/L	0.00008163	0.0132211	mg/L	0.00008163 0.62%
Se 196.026	30.6	0.0179262	mg/L	0.00584124	0.0179262	mg/L	0.00584124 32.58%
Ag 328.068	-78.4	-0.0007140	mg/L	0.00045940	-0.0007140	mg/L	0.00045940 64.34%
Na 330.237	785420.0	1353.60	mg/L	5.377	1353.60	mg/L	5.377 0.40%
Tl 190.801	-5.1	-0.0069647	mg/L	0.00309981	-0.0069647	mg/L	0.00309981 44.51%
Sn 189.927	-19.1	-0.0052378	mg/L	0.00000422	-0.0052378	mg/L	0.00000422 0.08%
Ti 334.940	-136.4	-0.0038836	mg/L	0.00011700	-0.0038836	mg/L	0.00011700 3.01%
V 292.402	2396.4	0.0119769	mg/L	0.00014060	0.0119769	mg/L	0.00014060 1.17%
Zn 206.200	3168.8	0.128806	mg/L	0.0006781	0.128806	mg/L	0.0006781 0.53%

Sequence No.: 36  
 Sample ID: 63143-052  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 49  
 Date Collected: 12/19/2011 8:33:14 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-052

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	3587.3	0.397010	mg/L	0.0032532	0.397010	mg/L	0.0032532	0.82%
Sb 206.836	-2.1	-0.0003326	mg/L	0.00220838	-0.0003326	mg/L	0.00220838	663.97%
As 188.979	-12.2	-0.0160430	mg/L	0.00138401	-0.0160430	mg/L	0.00138401	8.63%
Ba 233.527	4399.9	0.0701045	mg/L	0.00010670	0.0701045	mg/L	0.00010670	0.15%
Be 234.861	-203.3	-0.0013069	mg/L	0.00003213	-0.0013069	mg/L	0.00003213	2.46%
Cd 226.502	37.2	-0.0028121	mg/L	0.00003546	-0.0028121	mg/L	0.00003546	1.26%
Ca 315.887	2873355.1	47.6846	mg/L	1.22435	47.6846	mg/L	1.22435	2.57%
Cr 206.158	15.3	0.0015629	mg/L	0.00008228	0.0015629	mg/L	0.00008228	5.26%
Co 228.616	256.5	0.0105465	mg/L	0.00035321	0.0105465	mg/L	0.00035321	3.35%
Cu 324.752	876.8	0.0041771	mg/L	0.00142845	0.0041771	mg/L	0.00142845	34.20%
Fe 273.955	9013.5	0.534172	mg/L	0.0013310	0.534172	mg/L	0.0013310	0.25%
Pb 220.353	217.8	0.0308563	mg/L	0.00074798	0.0308563	mg/L	0.00074798	2.42%
Mg 279.077	62144.8	3.80507	mg/L	0.108890	3.80507	mg/L	0.108890	2.86%
Mn 257.610	149147.6	0.303682	mg/L	0.0088111	0.303682	mg/L	0.0088111	2.90%
Mo 202.031	-14.6	-0.0052434	mg/L	0.00009740	-0.0052434	mg/L	0.00009740	1.86%
Ni 231.604	1203.8	0.0254658	mg/L	0.00019797	0.0254658	mg/L	0.00019797	0.78%
Se 196.026	50.8	0.0316680	mg/L	0.01117720	0.0316680	mg/L	0.01117720	35.29%
Ag 328.068	-56.7	-0.0001434	mg/L	0.00039892	-0.0001434	mg/L	0.00039892	278.17%
Na 330.237	762784.4	1314.60	mg/L	33.141	1314.60	mg/L	33.141	2.52%
Tl 190.801	-11.4	-0.0116988	mg/L	0.00162724	-0.0116988	mg/L	0.00162724	13.91%
Sn 189.927	-34.9	-0.0071863	mg/L	0.00020308	-0.0071863	mg/L	0.00020308	2.83%
Ti 334.940	-211.6	-0.0041212	mg/L	0.00004615	-0.0041212	mg/L	0.00004615	1.12%
V 292.402	421.6	-0.0011426	mg/L	0.00001419	-0.0011426	mg/L	0.00001419	1.24%
Zn 206.200	1636.4	0.0661614	mg/L	0.00005893	0.0661614	mg/L	0.00005893	0.09%

Sequence No.: 37  
 Sample ID: 63143-059  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 50  
 Date Collected: 12/19/2011 8:36:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-059

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Al 308.215	6594.8	0.742395	mg/L	0.0025745	0.742395	mg/L	0.0025745	0.35%
Sb 206.836	7.8	0.0110958	mg/L	0.01020018	0.0110958	mg/L	0.01020018	91.93%
As 188.979	2.9	0.0026491	mg/L	0.00427871	0.0026491	mg/L	0.00427871	161.52%
Ba 233.527	3733.8	0.0586162	mg/L	0.00034325	0.0586162	mg/L	0.00034325	0.59%
Be 234.861	-1310.0	-0.0014932	mg/L	0.00000589	-0.0014932	mg/L	0.00000589	0.39%
Cd 226.502	20.1	-0.0030779	mg/L	0.00001013	-0.0030779	mg/L	0.00001013	0.33%
Ca 315.887	1835444.7	30.3313	mg/L	0.36799	30.3313	mg/L	0.36799	1.21%
Cr 206.158	-11.8	0.0093662	mg/L	0.00066728	0.0093662	mg/L	0.00066728	7.12%
Co 228.616	319.8	0.0136088	mg/L	0.00068183	0.0136088	mg/L	0.00068183	5.01%
Cu 324.752	201.9	-0.0018268	mg/L	0.00008865	-0.0018268	mg/L	0.00008865	4.85%
Fe 273.955	39592.6	2.42760	mg/L	0.034763	2.42760	mg/L	0.034763	1.43%
Pb 220.353	198.3	0.0277836	mg/L	0.00050774	0.0277836	mg/L	0.00050774	1.83%
Mg 279.077	231768.1	15.4743	mg/L	0.19444	15.4743	mg/L	0.19444	1.26%
Mn 257.610	167331.4	0.341215	mg/L	0.0046632	0.341215	mg/L	0.0046632	1.37%
Mo 202.031	10.0	-0.0023928	mg/L	0.00068961	-0.0023928	mg/L	0.00068961	28.82%
Ni 231.604	1700.2	0.0381557	mg/L	0.00065830	0.0381557	mg/L	0.00065830	1.73%
Se 196.026	21.0	0.0169561	mg/L	0.00996781	0.0169561	mg/L	0.00996781	58.79%
Ag 328.068	69.9	0.0005970	mg/L	0.00016421	0.0005970	mg/L	0.00016421	27.51%
Na 330.237	776249.9	1337.80	mg/L	18.142	1337.80	mg/L	18.142	1.36%
Tl 190.801	-5.0	-0.0065465	mg/L	0.00153790	-0.0065465	mg/L	0.00153790	23.49%
Sn 189.927	-14.4	-0.0038119	mg/L	0.00028485	-0.0038119	mg/L	0.00028485	7.47%
Ti 334.940	9054.6	0.0251504	mg/L	0.00322932	0.0251504	mg/L	0.00322932	12.84%
V 292.402	1817.0	0.0086251	mg/L	0.00000318	0.0086251	mg/L	0.00000318	0.04%
Zn 206.200	11493.4	0.471880	mg/L	0.0025414	0.471880	mg/L	0.0025414	0.54%

Sequence No.: 38  
 Sample ID: 63143-065  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 51  
 Date Collected: 12/19/2011 8:39:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63143-065

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Al 308.215	274.6	0.0164532	mg/L	0.00120933	0.0164532	mg/L	0.00120933	7.35%
Sb 206.836	3.2	0.0058939	mg/L	0.00325307	0.0058939	mg/L	0.00325307	55.19%
As 188.979	0.1	0.0009418	mg/L	0.00126116	0.0009418	mg/L	0.00126116	133.90%
Ba 233.527	7522.7	0.123860	mg/L	0.0009331	0.123860	mg/L	0.0009331	0.75%
Be 234.861	-56.7	-0.0015898	mg/L	0.00000896	-0.0015898	mg/L	0.00000896	0.56%
Cd 226.502	33.7	-0.0028718	mg/L	0.00013918	-0.0028718	mg/L	0.00013918	4.85%
Ca 315.887	5074981.6	84.4945	mg/L	0.56214	84.4945	mg/L	0.56214	0.67%
Cr 206.158	-14.2	0.0045914	mg/L	0.00017693	0.0045914	mg/L	0.00017693	3.85%
Co 228.616	475.9	0.0215226	mg/L	0.00020240	0.0215226	mg/L	0.00020240	0.94%
Cu 324.752	224.3	-0.0029957	mg/L	0.00033281	-0.0029957	mg/L	0.00033281	11.11%
Fe 273.955	1002.4	0.0381326	mg/L	0.00198423	0.0381326	mg/L	0.00198423	5.20%
Pb 220.353	77.9	0.0105204	mg/L	0.00024596	0.0105204	mg/L	0.00024596	2.34%
Mg 279.077	370792.9	25.0384	mg/L	0.02732	25.0384	mg/L	0.02732	0.11%
Mn 257.610	213748.8	0.436971	mg/L	0.0013775	0.436971	mg/L	0.0013775	0.32%
Mo 202.031	54.7	0.0025092	mg/L	0.00055460	0.0025092	mg/L	0.00055460	22.10%
Ni 231.604	1578.1	0.0350844	mg/L	0.00000876	0.0350844	mg/L	0.00000876	0.02%
Se 196.026	69.5	0.0397240	mg/L	0.00179309	0.0397240	mg/L	0.00179309	4.51%
Ag 328.068	-90.0	0.0002244	mg/L	0.00013460	0.0002244	mg/L	0.00013460	59.97%
Na 330.237	760158.1	1310.07	mg/L	5.817	1310.07	mg/L	5.817	0.44%
Tl 190.801	-6.0	-0.0079060	mg/L	0.00135076	-0.0079060	mg/L	0.00135076	17.09%
Sn 189.927	-53.5	-0.0082654	mg/L	0.00017915	-0.0082654	mg/L	0.00017915	2.17%
Ti 334.940	342.4	-0.0023710	mg/L	0.00024002	-0.0023710	mg/L	0.00024002	10.12%
V 292.402	3771.9	0.0249191	mg/L	0.00009090	0.0249191	mg/L	0.00009090	0.36%
Zn 206.200	7084.1	0.290009	mg/L	0.0026073	0.290009	mg/L	0.0026073	0.90%

Sequence No.: 39  
 Sample ID: ICSA V-128666  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 12/19/2011 8:43:03 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: ICSA V-128666

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3748718.7	430.526 mg/L	2.3417	430.526 mg/L	2.3417	0.54%
QC value within limits for Al 308.215 Recovery = 86.11%						
Sb 206.836	-37.0	0.0006106 mg/L	0.00164608	0.0006106 mg/L	0.00164608	269.60%
As 188.979	-38.8	-0.0197025 mg/L	0.00870362	-0.0197025 mg/L	0.00870362	44.18%
Ba 233.527	92.7	-0.0064898 mg/L	0.00011433	-0.0064898 mg/L	0.00011433	1.76%
Be 234.861	-88595.0	-0.0004383 mg/L	0.00169633	-0.0004383 mg/L	0.00169633	387.05%
Cd 226.502	43.1	-0.0015974 mg/L	0.00015906	-0.0015974 mg/L	0.00015906	9.96%
Ca 315.887	25930646.5	433.189 mg/L	1.2326	433.189 mg/L	1.2326	0.28%
QC value within limits for Ca 315.887 Recovery = 86.64%						
Cr 206.158	8.9	-0.0007096 mg/L	0.00058664	-0.0007096 mg/L	0.00058664	82.68%
Co 228.616	64.3	-0.0033355 mg/L	0.00014288	-0.0033355 mg/L	0.00014288	4.28%
Cu 324.752	1546.4	0.0008399 mg/L	0.00009126	0.0008399 mg/L	0.00009126	10.87%
Fe 273.955	2654274.3	164.326 mg/L	0.8213	164.326 mg/L	0.8213	0.50%
QC value within limits for Fe 273.955 Recovery = 82.16%						
Pb 220.353	-458.7	0.0020830 mg/L	0.00140726	0.0020830 mg/L	0.00140726	67.56%
Mg 279.077	6615515.2	454.642 mg/L	1.4801	454.642 mg/L	1.4801	0.33%
QC value within limits for Mg 279.077 Recovery = 90.93%						
Mn 257.610	-3278.2	-0.0103591 mg/L	0.00013833	-0.0103591 mg/L	0.00013833	1.34%
Mo 202.031	-129.3	0.0034854 mg/L	0.00041161	0.0034854 mg/L	0.00041161	11.81%
Ni 231.604	264.3	-0.0025871 mg/L	0.00014106	-0.0025871 mg/L	0.00014106	5.45%
Se 196.026	-566.4	0.0214308 mg/L	0.00099091	0.0214308 mg/L	0.00099091	4.62%
Ag 328.068	-1052.8	0.0005137 mg/L	0.00048594	0.0005137 mg/L	0.00048594	94.61%
Na 330.237	213.0	0.510937 mg/L	0.0239798	0.510937 mg/L	0.0239798	4.69%
Tl 190.801	-17.2	-0.0031888 mg/L	0.00129180	-0.0031888 mg/L	0.00129180	40.51%
Sn 189.927	-176.7	-0.0055447 mg/L	0.00150139	-0.0055447 mg/L	0.00150139	27.08%
Ti 334.940	-943.9	-0.0064343 mg/L	0.00003229	-0.0064343 mg/L	0.00003229	0.50%
V 292.402	19557.2	0.0225033 mg/L	0.00007222	0.0225033 mg/L	0.00007222	0.32%
Zn 206.200	-21.0	-0.0137993 mg/L	0.00017695	-0.0137993 mg/L	0.00017695	1.28%

All analyte(s) passed QC.

Sequence No.: 40  
 Sample ID: ICSAB V-128667  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 12/19/2011 8:47:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICSAB V-128667

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	3761407.3	431.984 mg/L		2.0812	431.984 mg/L	2.0812	0.48%
QC value within limits for Al		308.215	Recovery =	86.40%			
Sb 206.836	748.8	0.875697 mg/L		0.0217145	0.875697 mg/L	0.0217145	2.48%
QC value within limits for Sb		206.836	Recovery =	87.57%			
As 188.979	687.9	0.909612 mg/L		0.0156416	0.909612 mg/L	0.0156416	1.72%
QC value within limits for As		188.979	Recovery =	90.96%			
Ba 233.527	26800.6	0.453142 mg/L		0.0025796	0.453142 mg/L	0.0025796	0.57%
QC value within limits for Ba		233.527	Recovery =	90.63%			
Be 234.861	113939.9	0.468502 mg/L		0.0029526	0.468502 mg/L	0.0029526	0.63%
QC value within limits for Be		234.861	Recovery =	93.70%			
Cd 226.502	51815.1	0.845660 mg/L		0.0097376	0.845660 mg/L	0.0097376	1.15%
QC value within limits for Cd		226.502	Recovery =	84.57%			
Ca 315.887	26143974.6	436.756 mg/L		1.2200	436.756 mg/L	1.2200	0.28%
QC value within limits for Ca		315.887	Recovery =	87.35%			
Cr 206.158	4746.6	0.437955 mg/L		0.0018816	0.437955 mg/L	0.0018816	0.43%
QC value within limits for Cr		206.158	Recovery =	87.59%			
Co 228.616	8506.3	0.418685 mg/L		0.0007296	0.418685 mg/L	0.0007296	0.17%
QC value within limits for Co		228.616	Recovery =	83.74%			
Cu 324.752	50123.2	0.465242 mg/L		0.0014569	0.465242 mg/L	0.0014569	0.31%
QC value within limits for Cu		324.752	Recovery =	93.05%			
Fe 273.955	2656613.5	164.471 mg/L		0.7497	164.471 mg/L	0.7497	0.46%
QC value within limits for Fe		273.955	Recovery =	82.24%			
Pb 220.353	5249.1	0.858233 mg/L		0.0021976	0.858233 mg/L	0.0021976	0.26%
QC value within limits for Pb		220.353	Recovery =	85.82%			
Mg 279.077	6639411.9	456.286 mg/L		0.1772	456.286 mg/L	0.1772	0.04%
QC value within limits for Mg		279.077	Recovery =	91.26%			
Mn 257.610	213343.6	0.437765 mg/L		0.0017406	0.437765 mg/L	0.0017406	0.40%
QC value within limits for Mn		257.610	Recovery =	87.55%			
Mo 202.031	-123.9	0.0041582 mg/L		0.00160452	0.0041582 mg/L	0.00160452	38.59%
QC value within limits for Mo		202.031	Recovery =	Not calculated			
Ni 231.604	32386.8	0.821405 mg/L		0.0022314	0.821405 mg/L	0.0022314	0.27%
QC value within limits for Ni		231.604	Recovery =	82.14%			
Se 196.026	499.9	0.845577 mg/L		0.0197686	0.845577 mg/L	0.0197686	2.34%
QC value within limits for Se		196.026	Recovery =	84.56%			
Ag 328.068	114582.2	0.964846 mg/L		0.0059820	0.964846 mg/L	0.0059820	0.62%
QC value within limits for Ag		328.068	Recovery =	96.48%			
Na 330.237	219.6	0.522310 mg/L		0.1090557	0.522310 mg/L	0.1090557	20.88%
QC value greater than the upper limit for Na		330.237	Recovery =	Not calculated			
Tl 190.801	1157.7	0.853531 mg/L		0.0092934	0.853531 mg/L	0.0092934	1.09%
QC value within limits for Tl		190.801	Recovery =	85.35%			
Sn 189.927	-183.2	-0.0067869 mg/L		0.01091403	-0.0067869 mg/L	0.01091403	160.81%
QC value within limits for Sn		189.927	Recovery =	Not calculated			
Ti 334.940	-837.5	-0.0060984 mg/L		0.00020670	-0.0060984 mg/L	0.00020670	3.39%
QC value within limits for Ti		334.940	Recovery =	Not calculated			
V 292.402	60710.4	0.439959 mg/L		0.0011123	0.439959 mg/L	0.0011123	0.25%
QC value within limits for V		292.402	Recovery =	87.99%			
Zn 206.200	20381.1	0.826552 mg/L		0.0059959	0.826552 mg/L	0.0059959	0.73%
QC value within limits for Zn		206.200	Recovery =	82.66%			

QC Failed. Continue with analysis.

Sequence No.: 41  
 Sample ID: CCV V-128659  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 12/19/2011 8:51:24 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV V-128659

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	44484.4	5.08797 mg/L	0.009229	5.08797 mg/L	0.009229	0.18%
QC value within limits for Al 308.215 Recovery = 101.76%						
Sb 206.836	417.2	0.473387 mg/L	0.0010623	0.473387 mg/L	0.0010623	0.22%
QC value within limits for Sb 206.836 Recovery = 94.68%						
As 188.979	359.1	0.457666 mg/L	0.0113341	0.457666 mg/L	0.0113341	2.48%
QC value within limits for As 188.979 Recovery = 91.53%						
Ba 233.527	28841.9	0.491055 mg/L	0.0006938	0.491055 mg/L	0.0006938	0.14%
QC value within limits for Ba 233.527 Recovery = 98.21%						
Be 234.861	204354.6	0.477584 mg/L	0.0025912	0.477584 mg/L	0.0025912	0.54%
QC value within limits for Be 234.861 Recovery = 95.52%						
Cd 226.502	29182.9	0.474193 mg/L	0.0062861	0.474193 mg/L	0.0062861	1.33%
QC value within limits for Cd 226.502 Recovery = 94.84%						
Ca 315.887	3000645.2	49.8128 mg/L	0.45260	49.8128 mg/L	0.45260	0.91%
QC value within limits for Ca 315.887 Recovery = 99.63%						
Cr 206.158	5303.4	0.477574 mg/L	0.0020384	0.477574 mg/L	0.0020384	0.43%
QC value within limits for Cr 206.158 Recovery = 95.51%						
Co 228.616	9676.4	0.480618 mg/L	0.0004805	0.480618 mg/L	0.0004805	0.10%
QC value within limits for Co 228.616 Recovery = 96.12%						
Cu 324.752	50156.5	0.475311 mg/L	0.0027244	0.475311 mg/L	0.0027244	0.57%
QC value within limits for Cu 324.752 Recovery = 95.06%						
Fe 273.955	79184.7	4.87910 mg/L	0.021004	4.87910 mg/L	0.021004	0.43%
QC value within limits for Fe 273.955 Recovery = 97.58%						
Pb 220.353	3206.5	0.480659 mg/L	0.0007002	0.480659 mg/L	0.0007002	0.15%
QC value within limits for Pb 220.353 Recovery = 96.13%						
Mg 279.077	729484.6	49.7145 mg/L	0.29867	49.7145 mg/L	0.29867	0.60%
QC value within limits for Mg 279.077 Recovery = 99.43%						
Mn 257.610	235016.0	0.480830 mg/L	0.0014465	0.480830 mg/L	0.0014465	0.30%
QC value within limits for Mn 257.610 Recovery = 96.17%						
Mo 202.031	4260.2	0.475183 mg/L	0.0016657	0.475183 mg/L	0.0016657	0.35%
QC value within limits for Mo 202.031 Recovery = 95.04%						
Ni 231.604	18962.3	0.481103 mg/L	0.0035915	0.481103 mg/L	0.0035915	0.75%
QC value within limits for Ni 231.604 Recovery = 96.22%						
Se 196.026	611.1	0.477877 mg/L	0.0023585	0.477877 mg/L	0.0023585	0.49%
QC value within limits for Se 196.026 Recovery = 95.58%						
Ag 328.068	11403.1	0.0953882 mg/L	0.00051822	0.0953882 mg/L	0.00051822	0.54%
QC value within limits for Ag 328.068 Recovery = 95.39%						
Na 330.237	27595.0	47.6963 mg/L	0.33418	47.6963 mg/L	0.33418	0.70%
QC value within limits for Na 330.237 Recovery = 95.39%						
Tl 190.801	694.3	0.507946 mg/L	0.0017476	0.507946 mg/L	0.0017476	0.34%
QC value within limits for Tl 190.801 Recovery = 101.59%						
Sn 189.927	1962.5	0.478585 mg/L	0.0030119	0.478585 mg/L	0.0030119	0.63%
QC value within limits for Sn 189.927 Recovery = 95.72%						
Ti 334.940	154002.4	0.483032 mg/L	0.0011100	0.483032 mg/L	0.0011100	0.23%
QC value within limits for Ti 334.940 Recovery = 96.61%						
V 292.402	47739.7	0.465897 mg/L	0.0009321	0.465897 mg/L	0.0009321	0.20%
QC value within limits for V 292.402 Recovery = 93.18%						
Zn 206.200	11231.5	0.460208 mg/L	0.0000535	0.460208 mg/L	0.0000535	0.01%
QC value within limits for Zn 206.200 Recovery = 92.04%						

All analyte(s) passed QC.

Sequence No.: 42  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 12/19/2011 8:54:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Al 308.215	314.7	0.0211210 mg/L	0.00564108	0.0211210 mg/L	0.00564108	26.71%
QC value within limits for Al 308.215		Recovery = Not calculated				
Sb 206.836	-0.7	0.0012118 mg/L	0.01123466	0.0012118 mg/L	0.01123466	927.12%
QC value within limits for Sb 206.836		Recovery = Not calculated				
As 188.979	5.1	0.0039145 mg/L	0.00231125	0.0039145 mg/L	0.00231125	59.04%
QC value within limits for As 188.979		Recovery = Not calculated				
Ba 233.527	-16.1	-0.0058829 mg/L	0.00008279	-0.0058829 mg/L	0.00008279	1.41%
QC value within limits for Ba 233.527		Recovery = Not calculated				
Be 234.861	85.2	-0.0013775 mg/L	0.00000786	-0.0013775 mg/L	0.00000786	0.57%
QC value within limits for Be 234.861		Recovery = Not calculated				
Cd 226.502	7.4	-0.0033026 mg/L	0.00003802	-0.0033026 mg/L	0.00003802	1.15%
QC value within limits for Cd 226.502		Recovery = Not calculated				
Ca 315.887	6873.2	-0.241365 mg/L	0.0123532	-0.241365 mg/L	0.0123532	5.12%
QC value within limits for Ca 315.887		Recovery = Not calculated				
Cr 206.158	0.7	-0.0014136 mg/L	0.00028524	-0.0014136 mg/L	0.00028524	20.18%
QC value within limits for Cr 206.158		Recovery = Not calculated				
Co 228.616	8.1	-0.0018562 mg/L	0.00033862	-0.0018562 mg/L	0.00033862	18.24%
QC value within limits for Co 228.616		Recovery = Not calculated				
Cu 324.752	-219.9	-0.0050994 mg/L	0.00012964	-0.0050994 mg/L	0.00012964	2.54%
QC value within limits for Cu 324.752		Recovery = Not calculated				
Fe 273.955	-492.3	-0.0544130 mg/L	0.00240891	-0.0544130 mg/L	0.00240891	4.43%
QC value within limits for Fe 273.955		Recovery = Not calculated				
Pb 220.353	-11.1	-0.0043379 mg/L	0.00084121	-0.0043379 mg/L	0.00084121	19.39%
QC value within limits for Pb 220.353		Recovery = Not calculated				
Mg 279.077	1226.1	-0.385815 mg/L	0.0123662	-0.385815 mg/L	0.0123662	3.21%
QC value within limits for Mg 279.077		Recovery = Not calculated				
Mn 257.610	-93.0	-0.0050282 mg/L	0.00002194	-0.0050282 mg/L	0.00002194	0.44%
QC value within limits for Mn 257.610		Recovery = Not calculated				
Mo 202.031	6.4	-0.0029160 mg/L	0.00009568	-0.0029160 mg/L	0.00009568	3.28%
QC value within limits for Mo 202.031		Recovery = Not calculated				
Ni 231.604	3.4	-0.0053111 mg/L	0.00017471	-0.0053111 mg/L	0.00017471	3.29%
QC value within limits for Ni 231.604		Recovery = Not calculated				
Se 196.026	-0.8	-0.0035921 mg/L	0.00715057	-0.0035921 mg/L	0.00715057	199.06%
QC value within limits for Se 196.026		Recovery = Not calculated				
Ag 328.068	15.9	-0.0003550 mg/L	0.00040242	-0.0003550 mg/L	0.00040242	113.35%
QC value within limits for Ag 328.068		Recovery = Not calculated				
Na 330.237	661.0	1.28301 mg/L	0.173368	1.28301 mg/L	0.173368	13.51%
QC value within limits for Na 330.237		Recovery = Not calculated				
Tl 190.801	4.7	0.0002052 mg/L	0.00401633	0.0002052 mg/L	0.00401633	>999.9%
QC value within limits for Tl 190.801		Recovery = Not calculated				
Sn 189.927	-5.1	-0.0044290 mg/L	0.00152664	-0.0044290 mg/L	0.00152664	34.47%
QC value within limits for Sn 189.927		Recovery = Not calculated				
Ti 334.940	-456.0	-0.0048932 mg/L	0.00012676	-0.0048932 mg/L	0.00012676	2.59%
QC value within limits for Ti 334.940		Recovery = Not calculated				
V 292.402	71.6	-0.0030928 mg/L	0.00037575	-0.0030928 mg/L	0.00037575	12.15%
QC value within limits for V 292.402		Recovery = Not calculated				
Zn 206.200	2.1	-0.0010498 mg/L	0.00011999	-0.0010498 mg/L	0.00011999	11.43%
QC value within limits for Zn 206.200		Recovery = Not calculated				

All analyte(s) passed QC.

# Run Log

1120830 0880

Data File: W:\METALS.FRM\ICPDATA\New\PEICP3A\T13382A3.txt

Analysis Date: 12/14/11

Instrument: PEICP3A

Sample Id	Qc DF	Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-129815	1	CAL	12:55	1							V-129815(ICB/CCB)
Calib 1 V-128669	1	CAL	12:58	2							V-128669(ICS1 - Lowest std)
Calib 2 V-129804	1	CAL	13:02	3							V-129804(ICS2 - Low Std)
Calib 3 V-128661	1	CAL	13:05	4							V-128661(ICS3 - Middle Std)
Calib 4 V-129807	1	CAL	13:09	5							V-129807(ICS4 - High std)
ICS3 V-128661	1	ICS	13:13	6							V-128661(ICS3 - Middle Std)
ICV (2) V-129810	1	ICV	13:17	7							V-129810(ICV)
ICB V-129815	1	ICB	13:22	8							V-129815(ICB/CCB)
ICSA V-129812	1	ICSA	13:25	9							V-129812(ICSA)
ICSAB V-129814	1	ICSAB	13:30	10							V-129814(ICSAB)
MB 11688 (1)	1	MB	13:35	11	PB-TCLP	TCLP	TCLP	SW846	11688		0
LCSW 11688	1	LCS	13:38	12	PB-TCLP	TCLP	TCLP	SW846	11688		0
LCSW 11688 MR	1	LCS	13:42	13	PB-TCLP	TCLP	TCLP	SW846	11688		0
AC63118-004	1	SMP	13:46	14	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63118-004	1	MR	13:49	15	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63118-004	1	MS	13:53	16	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63118-004	1	PS	13:56	17	METALS-TCLP	TCLP	TCLP	SW846	11688		0
CCV V-129808	1	CCV	14:00	18							V-129808(CCV)
CCB V-129815	1	CCB	14:03	19							V-129815(ICB/CCB)
AC63118-004	5	SD	14:07	20	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63149-004	1	SMP	14:10	21	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63111-018	1	SMP	14:14	22	PB-TCLP	TCLP	TCLP	SW846	11688		0
AC63111-019	1	SMP	14:17	23	PB-TCLP	TCLP	TCLP	SW846	11688		0
AC63111-020	1	SMP	14:21	24	PB-TCLP	TCLP	TCLP	SW846	11688		0
ICSA V-129812	1	ICSA	14:25	25							V-129812(ICSA)
ICSAB V-129814	1	ICSAB	14:30	26							V-129814(ICSAB)
CCV V-129808	1	CCV	14:35	27							V-129808(CCV)
CCB V-129815	1	CCB	14:38	28							V-129815(ICB/CCB)
AC63139-002	1	SMP	14:42	29	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63139-004	1	SMP	14:45	30	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63139-006	1	SMP	14:49	31	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63150-011	1	SMP	14:52	32	METALS-TCLP	TCLP	TCLP	SW846	11688		0
AC63167-001	1	SMP	14:56	33	PB-TCLP	TCLP	TCLP	SW846	11688		0
CCV V-129808	1	CCV	15:01	34							V-129808(CCV)
CCB V-129815	1	CCB	15:05	35							V-129815(ICB/CCB)
AC63167-002	1	SMP	15:08	36	PB-TCLP	TCLP	TCLP	SW846	11688		0
AC63167-003	1	SMP	15:13	37	PB-TCLP	TCLP	TCLP	SW846	11688		0
AC63167-004	1	NA	15:18	38	PB-TCLP	TCLP	TCLP	SW846	11688	Pb not reported, above linear range.	0
EF-1 V-130089	1	EF	15:23	39	PB-TCLP	TCLP	TCLP	SW846	11688		V-130089(EF-1)
EF-2 V-129043	1	EF	15:26	40	PB-TCLP	TCLP	TCLP	SW846	11688		V-129043(EF-2)
EF-2 V-130604	1	EF	15:30	41	PB-TCLP	TCLP	TCLP	SW846	11688		V-130604(EF-2)
ICSA V-129812	1	ICSA	15:33	42							V-129812(ICSA)
ICSAB V-129814	1	ICSAB	15:38	43							V-129814(ICSAB)
CCV V-129808	1	CCV	15:43	44							V-129808(CCV)
CCB V-129815	1	CCB	15:47	45							V-129815(ICB/CCB)

Comments/Reviewed by:

Standard/Batch/SnCi2 Lot #:

gabrielle  
192.168.1.85 12/14/2011 4:17:23 PM

RUN OK.

*Sh*

*J. Kalin 12.15.11*

Analysis Begun

Start Time: 12/14/2011 12:54:26 PM Plasma On Time: 12/14/2011 12:01:04 PM  
 Logged In Analyst: usermet Technique: ICP Continuous  
 Spectrometer Model: Optima 7300 DV, S/N 077C0061602 Autosampler Model: S10

13382  
(11688)

Sample Information File: C:\pe\Administrator\Sample Information\TCLP.sif  
 Batch ID: TCLP  
 Results Data Set: T13382A3  
 Results Library: C:\pe\Administrator\Results\Results.mdb

*sh 12/16/11*

Method Loaded

Method Name: PE3 7300DV AXIAL Method Last Saved: 12/13/2011 12:42:48 PM  
 IEC File: IEC091211A.iec MSF File:  
 Method Description: 200.7/6010B

Sequence No.: 1

Sample ID: Calib Blk 1 V-129815 Autosampler Location: 1  
 Date Collected: 12/14/2011 12:55:27 PM  
 Analyst: Data Type: Original  
 Initial Sample Wt: Initial Sample Vol:  
 Dilution: Sample Prep Vol:

Mean Data: Calib Blk 1 V-129815

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	590677.2	2477.80	0.42%	100	%
Y 371.029	222005.4	852.16	0.38%	100	%
Ag 328.068†	210.3	38.64	18.37%	[0.00]	mg/L
Al 308.215†	2612.8	80.57	3.08%	[0.00]	mg/L
As 188.979†	26.2	4.19	16.00%	[0.00]	mg/L
Ba 233.527†	0.5	5.25	>999.9%	[0.00]	mg/L
Be 313.107†	947.6	16.41	1.73%	[0.00]	mg/L
Ca 317.933†	1668.5	76.13	4.56%	[0.00]	mg/L
Cd 228.802†	347.8	11.35	3.26%	[0.00]	mg/L
Co 228.616†	500.0	2.04	0.41%	[0.00]	mg/L
Cr 267.716†	24.2	7.14	29.48%	[0.00]	mg/L
Cu 327.393†	500.6	32.79	6.55%	[0.00]	mg/L
Fe 273.955†	-270.3	74.36	27.51%	[0.00]	mg/L
K 404.721†	-17773.5	41.81	0.24%	[0.00]	mg/L
Mg 279.077†	-9.4	45.29	482.27%	[0.00]	mg/L
Mn 257.610†	659.1	2.31	0.35%	[0.00]	mg/L
Mo 202.031†	25.4	10.87	42.72%	[0.00]	mg/L
Na 330.237†	-3590.7	14.52	0.40%	[0.00]	mg/L
Ni 231.604†	1323.7	2.46	0.19%	[0.00]	mg/L
Pb 220.353†	32.5	4.05	12.46%	[0.00]	mg/L
Sb 206.836†	48.2	3.62	7.52%	[0.00]	mg/L
Se 196.026†	3.3	0.90	26.98%	[0.00]	mg/L
Sn 189.927†	-21.6	1.74	8.07%	[0.00]	mg/L
Ti 334.940†	-2.4	24.83	>999.9%	[0.00]	mg/L
Tl 190.801†	-12.2	0.66	5.39%	[0.00]	mg/L
V 290.880†	1629.5	53.84	3.30%	[0.00]	mg/L
Zn 206.200†	-129.9	2.92	2.25%	[0.00]	mg/L

• All elements reported.  
 • 63167-004 NOT REPORTED.

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Sequence No.: 2                               Autosampler Location: 10
Sample ID: Calib 1 V-128669                   Date Collected: 12/14/2011 12:58:46 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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**Mean Data: Calib 1 V-128669**

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	600633.9	663.31	0.11%	102	%
Y 371.029	224138.6	34.59	0.02%	101	%
As 188.979†	5.0	0.34	6.79%	[0.005]	mg/L
Be 313.107†	6517.7	69.19	1.06%	[0.003]	mg/L
Cd 228.802†	99.4	10.46	10.52%	[0.003]	mg/L
Pb 220.353†	2.8	8.31	298.63%	[0.004]	mg/L
Tl 190.801†	4.4	3.19	71.97%	[0.005]	mg/L

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-129804

Date Collected: 12/14/2011 1:02:06 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----  
Mean Data: Calib 2 V-129804

Analyte	Mean Corrected		RSD	Calib	
	Intensity	Std.Dev.		Conc.	Units
Sc 361.383	585197.0	1511.12	0.26%	99.1	%
Y 371.029	219476.0	744.39	0.34%	98.9	%
Ag 328.068†	197.2	51.02	25.88%	[0.002]	mg/L
Al 308.215†	2284.1	103.57	4.53%	[0.10]	mg/L
As 188.979†	9.7	1.96	20.13%	[0.010]	mg/L
Ba 233.527†	1290.6	10.79	0.84%	[0.010]	mg/L
Be 313.107†	21287.8	162.61	0.76%	[0.010]	mg/L
Ca 317.933†	55188.8	24.07	0.04%	[1.0]	mg/L
Cd 228.802†	325.2	2.57	0.79%	[0.010]	mg/L
Co 228.616†	329.5	7.71	2.34%	[0.010]	mg/L
Cr 267.716†	332.1	1.09	0.33%	[0.010]	mg/L
Cu 327.393†	871.9	5.18	0.59%	[0.010]	mg/L
Fe 273.955†	2452.9	26.84	1.09%	[0.10]	mg/L
K 404.721†	65.2	68.80	105.48%	[1.0]	mg/L
Mg 279.077†	10573.2	10.93	0.10%	[1.0]	mg/L
Mn 257.610†	5087.7	25.22	0.50%	[0.010]	mg/L
Mo 202.031†	135.0	12.61	9.34%	[0.010]	mg/L
Na 330.237†	526.6	1.51	0.29%	[1.0]	mg/L
Ni 231.604†	350.3	3.06	0.87%	[0.010]	mg/L
Pb 220.353†	44.6	14.65	32.84%	[0.010]	mg/L
Sb 206.836†	15.8	0.58	3.65%	[0.010]	mg/L
Se 196.026†	4.3	2.26	52.19%	[0.010]	mg/L
Sn 189.927†	35.0	0.37	1.07%	[0.010]	mg/L
Ti 334.940†	4097.6	21.08	0.51%	[0.010]	mg/L
Tl 190.801†	10.2	4.39	43.23%	[0.010]	mg/L
V 290.880†	992.2	14.96	1.51%	[0.010]	mg/L
Zn 206.200†	405.3	9.54	2.35%	[0.010]	mg/L

Sequence No.: 4

Autosampler Location: 3

Sample ID: Calib 3 V-128661

Date Collected: 12/14/2011 1:05:27 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: Calib 3 V-128661

Analyte	Mean Corrected			Calib
	Intensity	Std.Dev.	RSD	Conc. Units
Sc 361.383	563052.7	1544.23	0.27%	95.3 %
Y 371.029	206895.7	3230.11	1.56%	93.2 %
Ag 328.068†	10783.6	133.37	1.24%	[0.10] mg/L
Al 308.215†	102454.3	1840.17	1.80%	[5.0] mg/L
As 188.979†	609.5	0.97	0.16%	[0.50] mg/L
Ba 233.527†	62074.1	1214.22	1.96%	[0.50] mg/L
Be 313.107†	1119253.9	389.71	0.03%	[0.50] mg/L
Ca 317.933†	2724230.9	6892.92	0.25%	[50] mg/L
Cd 228.802†	15959.1	161.47	1.01%	[0.50] mg/L
Co 228.616†	16192.2	317.10	1.96%	[0.50] mg/L
Cr 267.716†	17518.7	414.54	2.37%	[0.50] mg/L
Cu 327.393†	45828.0	842.60	1.84%	[0.50] mg/L
Fe 273.955†	124322.5	2331.49	1.88%	[5.0] mg/L
K 404.721†	1712.9	234.48	13.69%	[50] mg/L
Mg 279.077†	510265.7	128.29	0.03%	[50] mg/L
Mn 257.610†	216000.9	3907.46	1.81%	[0.50] mg/L
Mo 202.031†	6614.8	58.38	0.88%	[0.50] mg/L
Na 330.237†	30498.2	348.99	1.14%	[50] mg/L
Ni 231.604†	15516.5	276.91	1.78%	[0.50] mg/L
Pb 220.353†	2323.7	32.08	1.38%	[0.50] mg/L
Sb 206.836†	741.5	5.38	0.73%	[0.50] mg/L
Se 196.026†	406.9	3.40	0.83%	[0.50] mg/L
Sn 189.927†	1927.7	31.65	1.64%	[0.50] mg/L
Ti 334.940†	206096.1	3770.68	1.83%	[0.50] mg/L
Tl 190.801†	540.1	10.98	2.03%	[0.50] mg/L
V 290.880†	54590.2	1092.93	2.00%	[0.50] mg/L
Zn 206.200†	19956.6	401.31	2.01%	[0.50] mg/L

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Sequence No.: 5                               Autosampler Location: 4
Sample ID: Calib 4 V-129807                 Date Collected: 12/14/2011 1:09:00 PM
Analyst:                                     Data Type: Original
Initial Sample Wt:                           Initial Sample Vol:
Dilution:                                    Sample Prep Vol:
    
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Mean Data: Calib 4 V-129807

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	542545.6	1995.74	0.37%	91.9	%
Y 371.029	200323.4	581.00	0.29%	90.2	%
Ag 328.068†	21546.0	142.45	0.66%	[0.20]	mg/L
Al 308.215†	201590.6	401.73	0.20%	[10]	mg/L
As 188.979†	1237.2	13.75	1.11%	[1.0]	mg/L
Ba 233.527†	123114.8	191.41	0.16%	[1.0]	mg/L
Be 313.107†	2251959.8	25093.02	1.11%	[1.0]	mg/L
Ca 317.933†	5456896.0	8095.97	0.15%	[100]	mg/L
Cd 228.802†	32285.3	162.16	0.50%	[1.0]	mg/L
Co 228.616†	31965.1	195.73	0.61%	[1.0]	mg/L
Cr 267.716†	35078.0	51.68	0.15%	[1.0]	mg/L
Cu 327.393†	91119.9	265.49	0.29%	[1.0]	mg/L
Fe 273.955†	246361.9	491.84	0.20%	[10]	mg/L
K 404.721†	3811.0	201.91	5.30%	[100]	mg/L
Mg 279.077†	995482.3	1134.06	0.11%	[100]	mg/L
Mn 257.610†	430938.4	508.93	0.12%	[1.0]	mg/L
Mo 202.031†	13340.0	89.37	0.67%	[1.0]	mg/L
Na 330.237†	64036.4	13.58	0.02%	[100]	mg/L
Ni 231.604†	30583.3	76.31	0.25%	[1.0]	mg/L
Pb 220.353†	4697.1	20.96	0.45%	[1.0]	mg/L
Sb 206.836†	1509.1	3.68	0.24%	[1.0]	mg/L
Se 196.026†	818.5	2.76	0.34%	[1.0]	mg/L
Sn 189.927†	3855.9	14.08	0.37%	[1.0]	mg/L
Ti 334.940†	413323.4	1493.42	0.36%	[1.0]	mg/L
Tl 190.801†	1046.7	5.87	0.56%	[1.0]	mg/L
V 290.880†	108125.8	27.73	0.03%	[1.0]	mg/L
Zn 206.200†	39624.8	258.43	0.65%	[1.0]	mg/L

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Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	-6.4	107800	0.00000	0.999999	
Al 308.215	3	Lin, Calc Int	423.7	20170	0.00000	0.999966	
As 188.979	4	Lin, Calc Int	-2.3	1236	0.00000	0.999977	
Ba 233.527	3	Lin, Calc Int	121.0	123200	0.00000	0.999991	
Be 313.107	4	Lin, Calc Int	-1297.0	2251000	0.00000	0.999996	
Ca 317.933	3	Lin, Calc Int	-486.1	54560	0.00000	1.000000	
Cd 228.802	4	Lin, Calc Int	-21.3	32240	0.00000	0.999985	
Co 228.616	3	Lin, Calc Int	42.6	32000	0.00000	0.999978	
Cr 267.716	3	Lin, Calc Int	-12.2	35080	0.00000	1.000000	
Cu 327.393	3	Lin, Calc Int	31.0	91190	0.00000	0.999995	
Fe 273.955	3	Lin, Calc Int	202.9	24660	0.00000	0.999988	
K 404.721	3	Lin, Calc Int	-22.7	37.62	0.00000	0.998479	
Mg 279.077	3	Lin, Calc Int	2560.3	9974	0.00000	0.999918	
Mn 257.610	3	Lin, Calc Int	450.1	430600	0.00000	0.999998	
Mo 202.031	3	Lin, Calc Int	-9.3	13330	0.00000	0.999991	
Na 330.237	3	Lin, Calc Int	-328.3	638.2	0.00000	0.999707	
Ni 231.604	3	Lin, Calc Int	61.1	30600	0.00000	0.999973	
Pb 220.353	4	Lin, Calc Int	-8.9	4698	0.00000	0.999986	
Sb 206.836	3	Lin, Calc Int	-2.1	1506	0.00000	0.999959	
Se 196.026	3	Lin, Calc Int	-2.2	820.1	0.00000	0.999990	
Sn 189.927	3	Lin, Calc Int	-1.6	3858	0.00000	1.000000	
Ti 334.940	3	Lin, Calc Int	-119.1	413200	0.00000	0.999999	
Tl 190.801	4	Lin, Calc Int	1.7	1051	0.00000	0.999876	
V 290.880	3	Lin, Calc Int	55.5	108300	0.00000	0.999986	
Zn 206.200	3	Lin, Calc Int	30.3	39650	0.00000	0.999993	

Sequence No.: 6

Autosampler Location: 3

Sample ID: ICS3 V-128661

Date Collected: 12/14/2011 1:13:50 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICS3 V-128661

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Sc 361.383	561147.5	95.0	%	0.55			0.58%
Y 371.029	203411.1	91.6	%	1.06			1.16%
Ag 328.068†	10758.6	0.101746	mg/L	0.0006678	0.101746	mg/L	0.66%
QC value within limits for Ag	328.068	Recovery =	101.75%				
Al 308.215†	102335.7	5.03876	mg/L	0.041369	5.03876	mg/L	0.82%
QC value within limits for Al	308.215	Recovery =	100.78%				
As 188.979†	609.9	0.497849	mg/L	0.0045764	0.497849	mg/L	0.92%
QC value within limits for As	188.979	Recovery =	99.57%				
Ba 233.527†	61898.7	0.501541	mg/L	0.0054237	0.501541	mg/L	1.08%
QC value within limits for Ba	233.527	Recovery =	100.31%				
Be 313.107†	1125030.0	0.500405	mg/L	0.0000743	0.500405	mg/L	0.01%
QC value within limits for Be	313.107	Recovery =	100.08%				
Ca 317.933†	2791568.9	51.1759	mg/L	0.20581	51.1759	mg/L	0.40%
QC value within limits for Ca	317.933	Recovery =	102.35%				
Cd 228.802†	16042.2	0.499033	mg/L	0.0035655	0.499033	mg/L	0.71%
QC value within limits for Cd	228.802	Recovery =	99.81%				
Co 228.616†	16167.2	0.503389	mg/L	0.0045620	0.503389	mg/L	0.91%
QC value within limits for Co	228.616	Recovery =	100.68%				
Cr 267.716†	17500.4	0.499679	mg/L	0.0059399	0.499679	mg/L	1.19%
QC value within limits for Cr	267.716	Recovery =	99.94%				
Cu 327.393†	45191.1	0.498668	mg/L	0.0047026	0.498668	mg/L	0.94%
QC value within limits for Cu	327.393	Recovery =	99.73%				
Fe 273.955†	123960.9	5.01912	mg/L	0.048654	5.01912	mg/L	0.97%
QC value within limits for Fe	273.955	Recovery =	100.38%				
K 404.721†	1734.0	46.7019	mg/L	0.06163	46.7019	mg/L	0.13%
Mg 279.077†	514671.3	51.3548	mg/L	0.03697	51.3548	mg/L	0.07%
QC value within limits for Mg	279.077	Recovery =	102.71%				
Mn 257.610†	215279.2	0.498188	mg/L	0.0045855	0.498188	mg/L	0.92%
QC value within limits for Mn	257.610	Recovery =	99.64%				
Mo 202.031†	6615.3	0.497108	mg/L	0.0038621	0.497108	mg/L	0.78%
QC value within limits for Mo	202.031	Recovery =	99.42%				
Na 330.237†	30352.0	48.0702	mg/L	0.25477	48.0702	mg/L	0.53%
QC value within limits for Na	330.237	Recovery =	96.14%				
Ni 231.604†	15478.9	0.505234	mg/L	0.0074373	0.505234	mg/L	1.47%
QC value within limits for Ni	231.604	Recovery =	101.05%				
Pb 220.353†	2328.3	0.494723	mg/L	0.0013264	0.494723	mg/L	0.27%
QC value within limits for Pb	220.353	Recovery =	98.94%				
Sb 206.836†	742.7	0.504086	mg/L	0.0059120	0.504086	mg/L	1.17%
QC value within limits for Sb	206.836	Recovery =	100.82%				
Se 196.026†	410.6	0.506095	mg/L	0.0005282	0.506095	mg/L	0.10%
QC value within limits for Se	196.026	Recovery =	101.22%				
Sn 189.927†	1959.7	0.509229	mg/L	0.0029284	0.509229	mg/L	0.58%
QC value within limits for Sn	189.927	Recovery =	101.85%				
Ti 334.940†	206766.2	0.500519	mg/L	0.0090944	0.500519	mg/L	1.82%
QC value within limits for Ti	334.940	Recovery =	100.10%				
Tl 190.801†	535.5	0.509596	mg/L	0.0027592	0.509596	mg/L	0.54%
QC value within limits for Tl	190.801	Recovery =	101.92%				
V 290.880†	54478.3	0.494145	mg/L	0.0055343	0.494145	mg/L	1.12%
QC value within limits for V	290.880	Recovery =	98.83%				
Zn 206.200†	19905.7	0.500358	mg/L	0.0083551	0.500358	mg/L	1.67%
QC value within limits for Zn	206.200	Recovery =	100.07%				

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV (2) V-129810

Date Collected: 12/14/2011 1:17:23 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICV (2) V-129810

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc.	Units		Conc.	Units	
Sc 361.383	542077.6	91.8	%	0.79			0.86%
Y 371.029	200235.2	90.2	%	0.68			0.75%
Ag 328.068†	21562.8	0.203871	mg/L	0.0003681	0.203871	mg/L	0.18%
QC value within limits for Ag	328.068	Recovery =	101.94%				
Al 308.215†	204025.8	10.0658	mg/L	0.03423	10.0658	mg/L	0.34%
QC value within limits for Al	308.215	Recovery =	100.66%				
As 188.979†	1246.5	1.01536	mg/L	0.002527	1.01536	mg/L	0.25%
QC value within limits for As	188.979	Recovery =	101.54%				
Ba 233.527†	125545.8	1.01826	mg/L	0.001755	1.01826	mg/L	0.17%
QC value within limits for Ba	233.527	Recovery =	101.83%				
Be 313.107†	2292600.0	1.01913	mg/L	0.008472	1.01913	mg/L	0.83%
QC value within limits for Be	313.107	Recovery =	101.91%				
Ca 317.933†	5635804.6	103.308	mg/L	0.1686	103.308	mg/L	0.16%
QC value within limits for Ca	317.933	Recovery =	103.31%				
Cd 228.802†	32604.0	1.01353	mg/L	0.007652	1.01353	mg/L	0.75%
QC value within limits for Cd	228.802	Recovery =	101.35%				
Co 228.616†	32641.5	1.01772	mg/L	0.006829	1.01772	mg/L	0.67%
QC value within limits for Co	228.616	Recovery =	101.77%				
Cr 267.716†	35457.8	1.01207	mg/L	0.002080	1.01207	mg/L	0.21%
QC value within limits for Cr	267.716	Recovery =	101.21%				
Cu 327.393†	92383.6	1.01968	mg/L	0.002872	1.01968	mg/L	0.28%
QC value within limits for Cu	327.393	Recovery =	101.97%				
Fe 273.955†	246654.1	9.99505	mg/L	0.022688	9.99505	mg/L	0.23%
QC value within limits for Fe	273.955	Recovery =	99.95%				
K 404.721†	3815.2	102.026	mg/L	0.0361	102.026	mg/L	0.04%
Mg 279.077†	1002899.4	100.316	mg/L	0.3050	100.316	mg/L	0.30%
QC value within limits for Mg	279.077	Recovery =	100.32%				
Mn 257.610†	432725.2	1.00250	mg/L	0.001440	1.00250	mg/L	0.14%
QC value within limits for Mn	257.610	Recovery =	100.25%				
Mo 202.031†	13594.3	1.02079	mg/L	0.007381	1.02079	mg/L	0.72%
QC value within limits for Mo	202.031	Recovery =	102.08%				
Na 330.237†	64237.5	101.162	mg/L	0.0338	101.162	mg/L	0.03%
QC value within limits for Na	330.237	Recovery =	101.16%				
Ni 231.604†	31124.9	1.01800	mg/L	0.003965	1.01800	mg/L	0.39%
QC value within limits for Ni	231.604	Recovery =	101.80%				
Pb 220.353†	4755.5	1.00869	mg/L	0.011389	1.00869	mg/L	1.13%
QC value within limits for Pb	220.353	Recovery =	100.87%				
Sb 206.836†	1502.6	1.01875	mg/L	0.006759	1.01875	mg/L	0.66%
QC value within limits for Sb	206.836	Recovery =	101.87%				
Se 196.026†	834.3	1.02560	mg/L	0.011141	1.02560	mg/L	1.09%
QC value within limits for Se	196.026	Recovery =	102.56%				
Sn 189.927†	3975.6	1.03260	mg/L	0.012172	1.03260	mg/L	1.18%
QC value within limits for Sn	189.927	Recovery =	103.26%				
Ti 334.940†	417090.9	1.00936	mg/L	0.004288	1.00936	mg/L	0.42%
QC value within limits for Ti	334.940	Recovery =	100.94%				
Tl 190.801†	1129.5	1.07649	mg/L	0.005580	1.07649	mg/L	0.52%
QC value within limits for Tl	190.801	Recovery =	107.65%				
V 290.880†	109505.0	0.994286	mg/L	0.0006140	0.994286	mg/L	0.06%
QC value within limits for V	290.880	Recovery =	99.43%				
Zn 206.200†	39959.4	1.00531	mg/L	0.006473	1.00531	mg/L	0.64%
QC value within limits for Zn	206.200	Recovery =	100.53%				

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 1

Sample ID: ICB V-129815

Date Collected: 12/14/2011 1:22:15 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICB V-129815

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	580339.3	98.2 %		1.19			1.22%
Y 371.029	217869.5	98.1 %		1.14			1.16%
Ag 328.068†	10.9	0.0001600 mg/L		0.00027525	0.0001600 mg/L	0.00027525	172.04%
QC value within limits for Ag	328.068	Recovery = Not calculated					
Al 308.215†	1066.8	0.0318405 mg/L		0.07672576	0.0318405 mg/L	0.07672576	240.97%
QC value within limits for Al	308.215	Recovery = Not calculated					
As 188.979†	-0.3	0.0016361 mg/L		0.00141384	0.0016361 mg/L	0.00141384	86.42%
QC value within limits for As	188.979	Recovery = Not calculated					
Ba 233.527†	3.0	-0.0009585 mg/L		0.00000477	-0.0009585 mg/L	0.00000477	0.50%
QC value within limits for Ba	233.527	Recovery = Not calculated					
Be 313.107†	-24.4	0.0005654 mg/L		0.00003558	0.0005654 mg/L	0.00003558	6.29%
QC value within limits for Be	313.107	Recovery = Not calculated					
Ca 317.933†	10.6	0.0091041 mg/L		0.00032467	0.0091041 mg/L	0.00032467	3.57%
QC value within limits for Ca	317.933	Recovery = Not calculated					
Cd 228.802†	19.1	0.0012540 mg/L		0.00050102	0.0012540 mg/L	0.00050102	39.95%
QC value within limits for Cd	228.802	Recovery = Not calculated					
Co 228.616†	-2.4	-0.0014049 mg/L		0.00040420	-0.0014049 mg/L	0.00040420	28.77%
QC value within limits for Co	228.616	Recovery = Not calculated					
Cr 267.716†	11.7	0.0006824 mg/L		0.00002236	0.0006824 mg/L	0.00002236	3.28%
QC value within limits for Cr	267.716	Recovery = Not calculated					
Cu 327.393†	-30.5	-0.0006728 mg/L		0.00033134	-0.0006728 mg/L	0.00033134	49.25%
QC value within limits for Cu	327.393	Recovery = Not calculated					
Fe 273.955†	48.7	-0.0062522 mg/L		0.00004941	-0.0062522 mg/L	0.00004941	0.79%
QC value within limits for Fe	273.955	Recovery = Not calculated					
K 404.721†	-62.7	-1.06157 mg/L		5.849682	-1.06157 mg/L	5.849682	551.04%
Mg 279.077†	-5.0	-0.257163 mg/L		0.0013868	-0.257163 mg/L	0.0013868	0.54%
QC value within limits for Mg	279.077	Recovery = Not calculated					
Mn 257.610†	-58.3	-0.0011758 mg/L		0.00004360	-0.0011758 mg/L	0.00004360	3.71%
QC value within limits for Mn	257.610	Recovery = Not calculated					
Mo 202.031†	9.3	0.0013975 mg/L		0.00033013	0.0013975 mg/L	0.00033013	23.62%
QC value within limits for Mo	202.031	Recovery = Not calculated					
Na 330.237†	7.9	0.526664 mg/L		0.1362412	0.526664 mg/L	0.1362412	25.87%
QC value within limits for Na	330.237	Recovery = Not calculated					
Ni 231.604†	34.3	-0.0008714 mg/L		0.00059097	-0.0008714 mg/L	0.00059097	67.82%
QC value within limits for Ni	231.604	Recovery = Not calculated					
Pb 220.353†	-24.2	-0.0032903 mg/L		0.00157613	-0.0032903 mg/L	0.00157613	47.90%
QC value within limits for Pb	220.353	Recovery = Not calculated					
Sb 206.836†	0.1	0.0014934 mg/L		0.00231952	0.0014934 mg/L	0.00231952	155.32%
QC value within limits for Sb	206.836	Recovery = Not calculated					
Se 196.026†	0.1	0.0027743 mg/L		0.00198673	0.0027743 mg/L	0.00198673	71.61%
QC value within limits for Se	196.026	Recovery = Not calculated					
Sn 189.927†	22.9	0.0063680 mg/L		0.00070468	0.0063680 mg/L	0.00070468	11.07%
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	8.3	0.0003081 mg/L		0.00002115	0.0003081 mg/L	0.00002115	6.86%
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	2.4	0.0006544 mg/L		0.00418611	0.0006544 mg/L	0.00418611	639.68%
QC value within limits for Tl	190.801	Recovery = Not calculated					
V 290.880†	-66.6	-0.0010837 mg/L		0.00042064	-0.0010837 mg/L	0.00042064	38.81%
QC value within limits for V	290.880	Recovery = Not calculated					
Zn 206.200†	-12.8	-0.0010789 mg/L		0.00030343	-0.0010789 mg/L	0.00030343	28.13%
QC value within limits for Zn	206.200	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-129812

Date Collected: 12/14/2011 1:25:34 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-129812

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	512653.7		86.8 %	1.10			1.27%
Y 371.029	188752.0		85.0 %	0.98			1.16%
Ag 328.068†	-3893.4	0.0014180	mg/L	0.00006346	0.0014180	mg/L	0.00006346 4.48%
Al 308.215†	9999010.3	495.607	mg/L	8.8149	495.607	mg/L	8.8149 1.78%
QC value within limits for Al 308.215 Recovery = 99.12%							
As 188.979†	-1.2	0.0030384	mg/L	0.00415815	0.0030384	mg/L	0.00415815 136.85%
Ba 233.527†	810.9	0.0056004	mg/L	0.00014369	0.0056004	mg/L	0.00014369 2.57%
Be 313.107†	-1326.7	-0.0000132	mg/L	0.00001799	-0.0000132	mg/L	0.00001799 136.39%
Ca 317.933†	26555234.6	486.743	mg/L	4.6755	486.743	mg/L	4.6755 0.96%
QC value within limits for Ca 317.933 Recovery = 97.35%							
Cd 228.802†	92.5	0.0035312	mg/L	0.00002156	0.0035312	mg/L	0.00002156 0.61%
Co 228.616†	100.4	0.0018003	mg/L	0.00080608	0.0018003	mg/L	0.00080608 44.77%
Cr 267.716†	-84.0	-0.0020494	mg/L	0.00026990	-0.0020494	mg/L	0.00026990 13.17%
Cu 327.393†	-2425.7	0.0015161	mg/L	0.00128079	0.0015161	mg/L	0.00128079 84.48%
Fe 273.955†	4676782.2	189.663	mg/L	3.2666	189.663	mg/L	3.2666 1.72%
QC value within limits for Fe 273.955 Recovery = 94.83%							
K 404.721†	-2296.4	-60.4421	mg/L	10.65574	-60.4421	mg/L	10.65574 17.63%
Mg 279.077†	5185584.9	519.651	mg/L	9.0486	519.651	mg/L	9.0486 1.74%
QC value within limits for Mg 279.077 Recovery = 103.93%							
Mn 257.610†	1404.9	-0.0068164	mg/L	0.00055336	-0.0068164	mg/L	0.00055336 8.12%
Mo 202.031†	-45.5	-0.0027169	mg/L	0.00214596	-0.0027169	mg/L	0.00214596 78.99%
Na 330.237†	3783.0	6.44162	mg/L	0.117291	6.44162	mg/L	0.117291 1.82%
Ni 231.604†	101.8	0.0013205	mg/L	0.00000462	0.0013205	mg/L	0.00000462 0.35%
Pb 220.353†	1481.8	-0.0179823	mg/L	0.00507274	-0.0179823	mg/L	0.00507274 28.21%
Sb 206.836†	24.0	0.0019729	mg/L	0.00543329	0.0019729	mg/L	0.00543329 275.40%
Se 196.026†	-64.9	-0.0007202	mg/L	0.00535914	-0.0007202	mg/L	0.00535914 744.12%
Sn 189.927†	-28.4	0.0122571	mg/L	0.00054530	0.0122571	mg/L	0.00054530 4.45%
Ti 334.940†	-5.7	0.0002750	mg/L	0.00008303	0.0002750	mg/L	0.00008303 30.19%
Tl 190.801†	-3.7	-0.0019859	mg/L	0.00209623	-0.0019859	mg/L	0.00209623 105.55%
V 290.880†	9370.9	-0.0105279	mg/L	0.00028963	-0.0105279	mg/L	0.00028963 2.75%
Zn 206.200†	-63.8	-0.0195910	mg/L	0.00006843	-0.0195910	mg/L	0.00006843 0.35%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-129814

Date Collected: 12/14/2011 1:30:36 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-129814

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	505347.7	85.6	%	0.37			0.43%
Y 371.029	185629.9	83.6	%	0.52			0.62%
Ag 328.068†	112452.4	1.08180	mg/L	0.003197	1.08180	mg/L	0.30%
QC value within limits for Ag		328.068	Recovery =	108.18%			
Al 308.215†	10193154.1	505.230	mg/L	5.0275	505.230	mg/L	1.00%
QC value within limits for Al		308.215	Recovery =	101.05%			
As 188.979†	1302.2	1.05897	mg/L	0.006143	1.05897	mg/L	0.58%
QC value within limits for As		188.979	Recovery =	105.90%			
Ba 233.527†	65239.3	0.528662	mg/L	0.0004947	0.528662	mg/L	0.09%
QC value within limits for Ba		233.527	Recovery =	105.73%			
Be 313.107†	1167567.8	0.519304	mg/L	0.0059084	0.519304	mg/L	1.14%
QC value within limits for Be		313.107	Recovery =	103.86%			
Ca 317.933†	27475598.9	503.612	mg/L	4.9966	503.612	mg/L	0.99%
QC value within limits for Ca		317.933	Recovery =	100.72%			
Cd 228.802†	33650.4	1.04592	mg/L	0.000993	1.04592	mg/L	0.09%
QC value within limits for Cd		228.802	Recovery =	104.59%			
Co 228.616†	15827.9	0.493147	mg/L	0.0010651	0.493147	mg/L	0.22%
QC value within limits for Co		228.616	Recovery =	98.63%			
Cr 267.716†	17630.8	0.502870	mg/L	0.0015357	0.502870	mg/L	0.31%
QC value within limits for Cr		267.716	Recovery =	100.57%			
Cu 327.393†	45839.4	0.531680	mg/L	0.0003761	0.531680	mg/L	0.07%
QC value within limits for Cu		327.393	Recovery =	106.34%			
Fe 273.955†	4785893.0	194.088	mg/L	2.1160	194.088	mg/L	1.09%
QC value within limits for Fe		273.955	Recovery =	97.04%			
K 404.721†	-2784.2	-73.4100	mg/L	0.85863	-73.4100	mg/L	1.17%
Mg 279.077†	5311572.7	532.283	mg/L	6.8454	532.283	mg/L	1.29%
QC value within limits for Mg		279.077	Recovery =	106.46%			
Mn 257.610†	218112.4	0.496217	mg/L	0.0002136	0.496217	mg/L	0.04%
QC value within limits for Mn		257.610	Recovery =	99.24%			
Mo 202.031†	-28.4	-0.0012235	mg/L	0.00188927	-0.0012235	mg/L	154.42%
Na 330.237†	4313.4	7.27264	mg/L	0.206289	7.27264	mg/L	2.84%
Ni 231.604†	29637.4	0.966550	mg/L	0.0013506	0.966550	mg/L	0.14%
QC value within limits for Ni		231.604	Recovery =	96.65%			
Pb 220.353†	6205.4	0.981564	mg/L	0.0090998	0.981564	mg/L	0.93%
QC value within limits for Pb		220.353	Recovery =	98.16%			
Sb 206.836†	1591.4	1.04382	mg/L	0.013901	1.04382	mg/L	1.33%
QC value within limits for Sb		206.836	Recovery =	104.38%			
Se 196.026†	781.9	1.03312	mg/L	0.010487	1.03312	mg/L	1.02%
QC value within limits for Se		196.026	Recovery =	103.31%			
Sn 189.927†	-43.6	0.0087550	mg/L	0.00069883	0.0087550	mg/L	7.98%
Ti 334.940†	-110.3	-0.0001019	mg/L	0.00020334	-0.0001019	mg/L	199.51%
Tl 190.801†	1063.8	1.01324	mg/L	0.010978	1.01324	mg/L	1.08%
QC value within limits for Tl		190.801	Recovery =	101.32%			
V 290.880†	61084.3	0.464773	mg/L	0.0001204	0.464773	mg/L	0.03%
QC value within limits for V		290.880	Recovery =	92.95%			
Zn 206.200†	40303.7	0.998935	mg/L	0.0017575	0.998935	mg/L	0.18%
QC value within limits for Zn		206.200	Recovery =	99.89%			

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 11688 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 38  
 Date Collected: 12/14/2011 1:35:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 11688 (1)

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	600513.3	102	%	2.3				2.25%
Y 371.029	224463.1	101	%	2.4				2.41%
Ag 328.068†	-2.2	0.0000389	mg/L	0.00056082	0.0000389	mg/L	0.00056082	>999.9%
Al 308.215†	21.6	-0.0199346	mg/L	0.00171231	-0.0199346	mg/L	0.00171231	8.59%
As 188.979†	-2.1	0.0001856	mg/L	0.00292116	0.0001856	mg/L	0.00292116	>999.9%
Ba 233.527†	-5.2	-0.0010246	mg/L	0.00000183	-0.0010246	mg/L	0.00000183	0.18%
Be 313.107†	-55.4	0.0005516	mg/L	0.00003586	0.0005516	mg/L	0.00003586	6.50%
Ca 317.933†	-143.0	0.0062890	mg/L	0.00099022	0.0062890	mg/L	0.00099022	15.75%
Cd 228.802†	-10.7	0.0003266	mg/L	0.00022929	0.0003266	mg/L	0.00022929	70.20%
Co 228.616†	-25.9	-0.0021439	mg/L	0.00016192	-0.0021439	mg/L	0.00016192	7.55%
Cr 267.716†	7.1	0.0005501	mg/L	0.00024301	0.0005501	mg/L	0.00024301	44.17%
Cu 327.393†	-74.9	-0.0011601	mg/L	0.00003194	-0.0011601	mg/L	0.00003194	2.75%
Fe 273.955†	186.2	-0.0006772	mg/L	0.00010987	-0.0006772	mg/L	0.00010987	16.23%
K 404.721†	626.6	17.2611	mg/L	8.36204	17.2611	mg/L	8.36204	48.44%
Mg 279.077†	56.4	-0.251038	mg/L	0.0013842	-0.251038	mg/L	0.0013842	0.55%
Mn 257.610†	1.6	-0.0010372	mg/L	0.00002078	-0.0010372	mg/L	0.00002078	2.00%
Mo 202.031†	-8.0	0.0000976	mg/L	0.00112374	0.0000976	mg/L	0.00112374	>999.9%
Na 330.237†	64.4	0.615249	mg/L	0.0750817	0.615249	mg/L	0.0750817	12.20%
Ni 231.604†	-17.3	-0.0025611	mg/L	0.00041833	-0.0025611	mg/L	0.00041833	16.33%
Pb 220.353†	-29.7	-0.0044266	mg/L	0.00195800	-0.0044266	mg/L	0.00195800	44.23%
Sb 206.836†	0.7	0.0018732	mg/L	0.00393259	0.0018732	mg/L	0.00393259	209.94%
Se 196.026†	2.5	0.0056477	mg/L	0.00431652	0.0056477	mg/L	0.00431652	76.43%
Sn 189.927†	10.4	0.0031219	mg/L	0.00123751	0.0031219	mg/L	0.00123751	39.64%
Ti 334.940†	-40.3	0.0001906	mg/L	0.00014777	0.0001906	mg/L	0.00014777	77.54%
Tl 190.801†	-1.8	-0.0033367	mg/L	0.00120365	-0.0033367	mg/L	0.00120365	36.07%
V 290.880†	-81.9	-0.0012272	mg/L	0.00171201	-0.0012272	mg/L	0.00171201	139.51%
Zn 206.200†	103.6	0.0018578	mg/L	0.00030749	0.0018578	mg/L	0.00030749	16.55%

Sequence No.: 12

Autosampler Location: 39

Sample ID: LCSW 11688

Date Collected: 12/14/2011 1:38:58 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: LCSW 11688

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	567622.6	96.1	%	1.25				1.31%
Y 371.029	207113.2	93.3	%	1.57				1.68%
Ag 328.068†	10700.3	0.101170	mg/L	0.0001439	0.101170	mg/L	0.0001439	0.14%
Al 308.215†	103124.1	5.07804	mg/L	0.000177	5.07804	mg/L	0.000177	0.00%
As 188.979†	616.1	0.502871	mg/L	0.0103061	0.502871	mg/L	0.0103061	2.05%
Ba 233.527†	63815.6	0.517103	mg/L	0.0006024	0.517103	mg/L	0.0006024	0.12%
Be 313.107†	1134723.2	0.504712	mg/L	0.0076256	0.504712	mg/L	0.0076256	1.51%
Ca 317.933†	2695466.3	49.4144	mg/L	0.67676	49.4144	mg/L	0.67676	1.37%
Cd 228.802†	16257.8	0.505739	mg/L	0.0045802	0.505739	mg/L	0.0045802	0.91%
Co 228.616†	16741.3	0.521352	mg/L	0.0018650	0.521352	mg/L	0.0018650	0.36%
Cr 267.716†	17901.6	0.511107	mg/L	0.0005696	0.511107	mg/L	0.0005696	0.11%
Cu 327.393†	46356.0	0.511335	mg/L	0.0024356	0.511335	mg/L	0.0024356	0.48%
Fe 273.955†	125026.2	5.06232	mg/L	0.009328	5.06232	mg/L	0.009328	0.18%
K 404.721†	1989.2	53.4847	mg/L	10.55607	53.4847	mg/L	10.55607	19.74%
Mg 279.077†	519236.4	51.8123	mg/L	0.80648	51.8123	mg/L	0.80648	1.56%
Mn 257.610†	218567.3	0.505813	mg/L	0.0004577	0.505813	mg/L	0.0004577	0.09%
Mo 202.031†	6508.6	0.489100	mg/L	0.0054243	0.489100	mg/L	0.0054243	1.11%
Na 330.237†	30457.6	48.2356	mg/L	0.03882	48.2356	mg/L	0.03882	0.08%
Ni 231.604†	15837.4	0.516926	mg/L	0.0016064	0.516926	mg/L	0.0016064	0.31%
Pb 220.353†	2388.4	0.507507	mg/L	0.0037237	0.507507	mg/L	0.0037237	0.73%
Sb 206.836†	722.8	0.490798	mg/L	0.0041837	0.490798	mg/L	0.0041837	0.85%
Se 196.026†	411.8	0.507497	mg/L	0.0060827	0.507497	mg/L	0.0060827	1.20%
Sn 189.927†	1942.3	0.504721	mg/L	0.0043491	0.504721	mg/L	0.0043491	0.86%
Ti 334.940†	199841.8	0.483760	mg/L	0.0043887	0.483760	mg/L	0.0043887	0.91%
Tl 190.801†	563.7	0.536369	mg/L	0.0063503	0.536369	mg/L	0.0063503	1.18%
V 290.880†	55716.5	0.505498	mg/L	0.0005241	0.505498	mg/L	0.0005241	0.10%
Zn 206.200†	20418.6	0.513296	mg/L	0.0004424	0.513296	mg/L	0.0004424	0.09%

Sequence No.: 13  
 Sample ID: LCSW 11688 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 40  
 Date Collected: 12/14/2011 1:42:29 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: LCSW 11688 MR

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	571011.2		96.7 %	1.30			1.35%	
Y 371.029	210437.3		94.8 %	1.05			1.11%	
Ag 328.068†	10732.6	0.101503	mg/L	0.0028451	0.101503	mg/L	0.0028451	2.80%
Al 308.215†	103488.7	5.09633	mg/L	0.109595	5.09633	mg/L	0.109595	2.15%
As 188.979†	610.5	0.498322	mg/L	0.0109713	0.498322	mg/L	0.0109713	2.20%
Ba 233.527†	63863.7	0.517494	mg/L	0.0114481	0.517494	mg/L	0.0114481	2.21%
Be 313.107†	1122998.7	0.499503	mg/L	0.0012742	0.499503	mg/L	0.0012742	0.26%
Ca 317.933†	2773991.5	50.8537	mg/L	0.00569	50.8537	mg/L	0.00569	0.01%
Cd 228.802†	16145.9	0.502266	mg/L	0.0107243	0.502266	mg/L	0.0107243	2.14%
Co 228.616†	16702.9	0.520155	mg/L	0.0105020	0.520155	mg/L	0.0105020	2.02%
Cr 267.716†	17919.7	0.511616	mg/L	0.0136583	0.511616	mg/L	0.0136583	2.67%
Cu 327.393†	46501.1	0.512968	mg/L	0.0104133	0.512968	mg/L	0.0104133	2.03%
Fe 273.955†	125150.6	5.06737	mg/L	0.103518	5.06737	mg/L	0.103518	2.04%
K 404.721†	2204.5	59.2077	mg/L	0.76778	59.2077	mg/L	0.76778	1.30%
Mg 279.077†	512836.4	51.1704	mg/L	0.19181	51.1704	mg/L	0.19181	0.37%
Mn 257.610†	218543.0	0.505764	mg/L	0.0109368	0.505764	mg/L	0.0109368	2.16%
Mo 202.031†	6397.3	0.480752	mg/L	0.0112901	0.480752	mg/L	0.0112901	2.35%
Na 330.237†	30765.2	48.7175	mg/L	0.93645	48.7175	mg/L	0.93645	1.92%
Ni 231.604†	15789.0	0.515323	mg/L	0.0118199	0.515323	mg/L	0.0118199	2.29%
Pb 220.353†	2374.2	0.504433	mg/L	0.0152228	0.504433	mg/L	0.0152228	3.02%
Sb 206.836†	708.7	0.481296	mg/L	0.0105094	0.481296	mg/L	0.0105094	2.18%
Se 196.026†	409.8	0.505135	mg/L	0.0136543	0.505135	mg/L	0.0136543	2.70%
Sn 189.927†	1903.2	0.494581	mg/L	0.0145309	0.494581	mg/L	0.0145309	2.94%
Ti 334.940†	197000.1	0.476883	mg/L	0.0051995	0.476883	mg/L	0.0051995	1.09%
Tl 190.801†	566.5	0.538971	mg/L	0.0125876	0.538971	mg/L	0.0125876	2.34%
V 290.880†	55786.0	0.506242	mg/L	0.0124893	0.506242	mg/L	0.0124893	2.47%
Zn 206.200†	20376.5	0.512256	mg/L	0.0111804	0.512256	mg/L	0.0111804	2.18%

Sequence No.: 14  
 Sample ID: 63118-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 41  
 Date Collected: 12/14/2011 1:46:02 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63118-004

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sc 361.383	530466.2		89.8 %	0.00				0.01%
Y 371.029	197308.4		88.9 %	0.01				0.01%
Ag 328.068†	-256.1	0.0016906	mg/L	0.00024505	0.0016906	mg/L	0.00024505	14.49%
Al 308.215†	2872.0	0.121190	mg/L	0.0044132	0.121190	mg/L	0.0044132	3.64%
As 188.979†	8.2	0.0101754	mg/L	0.00154408	0.0101754	mg/L	0.00154408	15.17%
Ba 233.527†	64408.1	0.521913	mg/L	0.0004706	0.521913	mg/L	0.0004706	0.09%
Be 313.107†	238.8	0.0006823	mg/L	0.00001036	0.0006823	mg/L	0.00001036	1.52%
Ca 317.933†	9425228.3	172.765	mg/L	0.5035	172.765	mg/L	0.5035	0.29%
Cd 228.802†	69.9	0.0028663	mg/L	0.00021930	0.0028663	mg/L	0.00021930	7.65%
Co 228.616†	433.5	0.0122270	mg/L	0.00028003	0.0122270	mg/L	0.00028003	2.29%
Cr 267.716†	60.6	0.0020810	mg/L	0.00013696	0.0020810	mg/L	0.00013696	6.58%
Cu 327.393†	-129.1	0.0050248	mg/L	0.00048785	0.0050248	mg/L	0.00048785	9.71%
Fe 273.955†	4482.8	0.173576	mg/L	0.0032052	0.173576	mg/L	0.0032052	1.85%
K 404.721†	-1749.4	-45.9021	mg/L	0.78446	-45.9021	mg/L	0.78446	1.71%
Mg 279.077†	279873.0	27.8036	mg/L	0.01180	27.8036	mg/L	0.01180	0.04%
Mn 257.610†	1382662.9	3.20939	mg/L	0.000521	3.20939	mg/L	0.000521	0.02%
Mo 202.031†	77.2	0.0065935	mg/L	0.00023837	0.0065935	mg/L	0.00023837	3.62%
Na 330.237†	754748.3	1183.06	mg/L	1.571	1183.06	mg/L	1.571	0.13%
Ni 231.604†	839.9	0.0254671	mg/L	0.00000792	0.0254671	mg/L	0.00000792	0.03%
Pb 220.353†	244.8	0.0520781	mg/L	0.00434877	0.0520781	mg/L	0.00434877	8.35%
Sb 206.836†	14.6	0.0099769	mg/L	0.00286937	0.0099769	mg/L	0.00286937	28.76%
Se 196.026†	-12.6	-0.0097651	mg/L	0.00364502	-0.0097651	mg/L	0.00364502	37.33%
Sn 189.927†	34.6	0.0094083	mg/L	0.00118679	0.0094083	mg/L	0.00118679	12.61%
Ti 334.940†	-744.3	-0.0015135	mg/L	0.00026959	-0.0015135	mg/L	0.00026959	17.81%
Tl 190.801†	0.8	-0.0021409	mg/L	0.00031571	-0.0021409	mg/L	0.00031571	14.75%
V 290.880†	2497.0	0.0179106	mg/L	0.00017606	0.0179106	mg/L	0.00017606	0.98%
Zn 206.200†	20371.8	0.512161	mg/L	0.0006109	0.512161	mg/L	0.0006109	0.12%

Sequence No.: 15  
 Sample ID: 63118-004 MR  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 42  
 Date Collected: 12/14/2011 1:49:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63118-004 MR

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	508223.7	86.0	%	0.08			0.09%
Y 371.029	188559.8	84.9	%	0.30			0.36%
Ag 328.068†	-251.6	0.0018526	mg/L	0.00010888	0.0018526	mg/L	0.00010888 5.88%
Al 308.215†	3117.1	0.133375	mg/L	0.0041145	0.133375	mg/L	0.0041145 3.08%
As 188.979†	4.2	0.0069401	mg/L	0.00011576	0.0069401	mg/L	0.00011576 1.67%
Ba 233.527†	64088.9	0.519322	mg/L	0.0007453	0.519322	mg/L	0.0007453 0.14%
Be 313.107†	289.9	0.0007050	mg/L	0.00002185	0.0007050	mg/L	0.00002185 3.10%
Ca 317.933†	9692491.9	177.664	mg/L	2.3326	177.664	mg/L	2.3326 1.31%
Cd 228.802†	84.2	0.0033132	mg/L	0.00013733	0.0033132	mg/L	0.00013733 4.15%
Co 228.616†	478.5	0.0136329	mg/L	0.00009858	0.0136329	mg/L	0.00009858 0.72%
Cr 267.716†	47.9	0.0017179	mg/L	0.00003321	0.0017179	mg/L	0.00003321 1.93%
Cu 327.393†	-215.6	0.0042707	mg/L	0.00003768	0.0042707	mg/L	0.00003768 0.88%
Fe 273.955†	5710.9	0.223381	mg/L	0.0009275	0.223381	mg/L	0.0009275 0.42%
K 404.721†	-2137.8	-56.2251	mg/L	4.82231	-56.2251	mg/L	4.82231 8.58%
Mg 279.077†	276858.4	27.5013	mg/L	0.05659	27.5013	mg/L	0.05659 0.21%
Mn 257.610†	1373444.6	3.18798	mg/L	0.001594	3.18798	mg/L	0.001594 0.05%
Mo 202.031†	59.3	0.0052495	mg/L	0.00014270	0.0052495	mg/L	0.00014270 2.72%
Na 330.237†	754718.2	1183.01	mg/L	0.564	1183.01	mg/L	0.564 0.05%
Ni 231.604†	899.6	0.0274156	mg/L	0.00056282	0.0274156	mg/L	0.00056282 2.05%
Pb 220.353†	247.7	0.0526230	mg/L	0.00063785	0.0526230	mg/L	0.00063785 1.21%
Sb 206.836†	17.4	0.0118441	mg/L	0.00092874	0.0118441	mg/L	0.00092874 7.84%
Se 196.026†	-10.3	-0.0067254	mg/L	0.00728705	-0.0067254	mg/L	0.00728705 108.35%
Sn 189.927†	31.7	0.0086535	mg/L	0.00063665	0.0086535	mg/L	0.00063665 7.36%
Ti 334.940†	-784.7	-0.0016112	mg/L	0.00005914	-0.0016112	mg/L	0.00005914 3.67%
Tl 190.801†	-4.1	-0.0068526	mg/L	0.00001783	-0.0068526	mg/L	0.00001783 0.26%
V 290.880†	2496.1	0.0179491	mg/L	0.00012325	0.0179491	mg/L	0.00012325 0.69%
Zn 206.200†	20020.9	0.503318	mg/L	0.0027913	0.503318	mg/L	0.0027913 0.55%

Sequence No.: 16

Autosampler Location: 43

Sample ID: 63118-004 TCLP SPK

Date Collected: 12/14/2011 1:53:10 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63118-004 TCLP SPK

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc. Units	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.		
Sc 361.383	493390.2	83.5 %		1.29				1.54%
Y 371.029	183413.9	82.6 %		1.34				1.62%
Ag 328.068†	10728.7	0.105517 mg/L		0.0005823	0.105517 mg/L		0.0005823	0.55%
Al 308.215†	99851.6	4.91548 mg/L		0.027995	4.91548 mg/L		0.027995	0.57%
As 188.979†	661.0	0.540780 mg/L		0.0012679	0.540780 mg/L		0.0012679	0.23%
Ba 233.527†	705285.2	5.72486 mg/L		0.021766	5.72486 mg/L		0.021766	0.38%
Be 313.107†	1125450.3	0.500592 mg/L		0.0011093	0.500592 mg/L		0.0011093	0.22%
Ca 317.933†	12361050.3	226.576 mg/L		5.0396	226.576 mg/L		5.0396	2.22%
Cd 228.802†	16817.6	0.523137 mg/L		0.0010586	0.523137 mg/L		0.0010586	0.20%
Co 228.616†	16981.6	0.528874 mg/L		0.0017697	0.528874 mg/L		0.0017697	0.33%
Cr 267.716†	17840.8	0.509387 mg/L		0.0023724	0.509387 mg/L		0.0023724	0.47%
Cu 327.393†	47784.8	0.533964 mg/L		0.0006263	0.533964 mg/L		0.0006263	0.12%
Fe 273.955†	124701.9	5.04917 mg/L		0.023782	5.04917 mg/L		0.023782	0.47%
K 404.721†	411.6	11.5476 mg/L		0.43061	11.5476 mg/L		0.43061	3.73%
Mg 279.077†	762535.5	76.2058 mg/L		0.18364	76.2058 mg/L		0.18364	0.24%
Mn 257.610†	1598047.6	3.70892 mg/L		0.014194	3.70892 mg/L		0.014194	0.38%
Mo 202.031†	6689.3	0.502765 mg/L		0.0014135	0.502765 mg/L		0.0014135	0.28%
Na 330.237†	800090.4	1254.10 mg/L		7.973	1254.10 mg/L		7.973	0.64%
Ni 231.604†	16521.8	0.539331 mg/L		0.0016912	0.539331 mg/L		0.0016912	0.31%
Pb 220.353†	23822.5	5.06829 mg/L		0.002422	5.06829 mg/L		0.002422	0.05%
Sb 206.836†	765.8	0.518379 mg/L		0.0004237	0.518379 mg/L		0.0004237	0.08%
Se 196.026†	430.9	0.533920 mg/L		0.0070983	0.533920 mg/L		0.0070983	1.33%
Sn 189.927†	1952.2	0.507284 mg/L		0.0017610	0.507284 mg/L		0.0017610	0.35%
Ti 334.940†	201858.6	0.488640 mg/L		0.0030149	0.488640 mg/L		0.0030149	0.62%
Tl 190.801†	533.0	0.505873 mg/L		0.0085607	0.505873 mg/L		0.0085607	1.69%
V 290.880†	57642.3	0.519229 mg/L		0.0019519	0.519229 mg/L		0.0019519	0.38%
Zn 206.200†	40336.4	1.01488 mg/L		0.001389	1.01488 mg/L		0.001389	0.14%

Sequence No.: 17

Sample ID: 63118-004 PS

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 44

Date Collected: 12/14/2011 1:56:48 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: 63118-004 PS

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	491862.1	83.3	%	0.76			0.91%
Y 371.029	182575.6	82.2	%	0.78			0.95%
Ag 328.068†	9980.9	0.0983033	mg/L	0.00080332	0.0983033 mg/L	0.00080332	0.82%
Al 308.215†	99801.9	4.91252	mg/L	0.005964	4.91252 mg/L	0.005964	0.12%
As 188.979†	654.7	0.535583	mg/L	0.0013526	0.535583 mg/L	0.0013526	0.25%
Ba 233.527†	705985.8	5.73055	mg/L	0.013069	5.73055 mg/L	0.013069	0.23%
Be 313.107†	1119547.0	0.497969	mg/L	0.0000365	0.497969 mg/L	0.0000365	0.01%
Ca 317.933†	11704649.9	214.545	mg/L	1.6382	214.545 mg/L	1.6382	0.76%
Cd 228.802†	16651.3	0.517969	mg/L	0.0039083	0.517969 mg/L	0.0039083	0.75%
Co 228.616†	16792.3	0.522938	mg/L	0.0032654	0.522938 mg/L	0.0032654	0.62%
Cr 267.716†	17680.9	0.504853	mg/L	0.0025624	0.504853 mg/L	0.0025624	0.51%
Cu 327.393†	47832.3	0.534067	mg/L	0.0001264	0.534067 mg/L	0.0001264	0.02%
Fe 273.955†	125019.5	5.06205	mg/L	0.008176	5.06205 mg/L	0.008176	0.16%
K 404.721†	263.8	7.61623	mg/L	3.343091	7.61623 mg/L	3.343091	43.89%
Mg 279.077†	748219.0	74.7708	mg/L	0.23441	74.7708 mg/L	0.23441	0.31%
Mn 257.610†	1531037.3	3.55333	mg/L	0.004059	3.55333 mg/L	0.004059	0.11%
Mo 202.031†	6951.8	0.522447	mg/L	0.0030160	0.522447 mg/L	0.0030160	0.58%
Na 330.237†	765037.5	1199.18	mg/L	1.362	1199.18 mg/L	1.362	0.11%
Ni 231.604†	16322.1	0.532858	mg/L	0.0026269	0.532858 mg/L	0.0026269	0.49%
Pb 220.353†	23968.7	5.09958	mg/L	0.038124	5.09958 mg/L	0.038124	0.75%
Sb 206.836†	779.8	0.528115	mg/L	0.0080007	0.528115 mg/L	0.0080007	1.51%
Se 196.026†	421.3	0.521965	mg/L	0.0067371	0.521965 mg/L	0.0067371	1.29%
Sn 189.927†	2033.1	0.528276	mg/L	0.0086414	0.528276 mg/L	0.0086414	1.64%
Ti 334.940†	211248.7	0.511365	mg/L	0.0002929	0.511365 mg/L	0.0002929	0.06%
Tl 190.801†	523.1	0.496635	mg/L	0.0046931	0.496635 mg/L	0.0046931	0.94%
V 290.880†	57576.1	0.518868	mg/L	0.0007190	0.518868 mg/L	0.0007190	0.14%
Zn 206.200†	38988.6	0.980922	mg/L	0.0069975	0.980922 mg/L	0.0069975	0.71%

Sequence No.: 18

Sample ID: CCV V-129808

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 12/14/2011 2:00:21 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	518562.6	87.8 %	0.23			0.26%
Y 371.029	191086.7	86.1 %	1.35			1.56%
Ag 328.068†	10640.8	0.100613 mg/L	0.0011021	0.100613 mg/L	0.0011021	1.10%
		QC value within limits for Ag	328.068 Recovery = 100.61%			
Al 308.215†	102981.4	5.07075 mg/L	0.075140	5.07075 mg/L	0.075140	1.48%
		QC value within limits for Al	308.215 Recovery = 101.41%			
As 188.979†	588.8	0.480742 mg/L	0.0084787	0.480742 mg/L	0.0084787	1.76%
		QC value within limits for As	188.979 Recovery = 96.15%			
Ba 233.527†	62702.7	0.508068 mg/L	0.0076400	0.508068 mg/L	0.0076400	1.50%
		QC value within limits for Ba	233.527 Recovery = 101.61%			
Be 313.107†	1100240.1	0.489392 mg/L	0.0003983	0.489392 mg/L	0.0003983	0.08%
		QC value within limits for Be	313.107 Recovery = 97.88%			
Ca 317.933†	2712441.5	49.7256 mg/L	0.20684	49.7256 mg/L	0.20684	0.42%
		QC value within limits for Ca	317.933 Recovery = 99.45%			
Cd 228.802†	15813.1	0.491921 mg/L	0.0025300	0.491921 mg/L	0.0025300	0.51%
		QC value within limits for Cd	228.802 Recovery = 98.38%			
Co 228.616†	16301.8	0.507588 mg/L	0.0093128	0.507588 mg/L	0.0093128	1.83%
		QC value within limits for Co	228.616 Recovery = 101.52%			
Cr 267.716†	17458.3	0.498480 mg/L	0.0063636	0.498480 mg/L	0.0063636	1.28%
		QC value within limits for Cr	267.716 Recovery = 99.70%			
Cu 327.393†	45540.8	0.502451 mg/L	0.0063598	0.502451 mg/L	0.0063598	1.27%
		QC value within limits for Cu	327.393 Recovery = 100.49%			
Fe 273.955†	122841.2	4.97370 mg/L	0.072776	4.97370 mg/L	0.072776	1.46%
		QC value within limits for Fe	273.955 Recovery = 99.47%			
K 404.721†	1265.3	34.2415 mg/L	2.15005	34.2415 mg/L	2.15005	6.28%
Mg 279.077†	496852.2	49.5682 mg/L	0.01198	49.5682 mg/L	0.01198	0.02%
		QC value within limits for Mg	279.077 Recovery = 99.14%			
Mn 257.610†	215503.0	0.498739 mg/L	0.0069525	0.498739 mg/L	0.0069525	1.39%
		QC value within limits for Mn	257.610 Recovery = 99.75%			
Mo 202.031†	6625.4	0.497861 mg/L	0.0007889	0.497861 mg/L	0.0007889	0.16%
		QC value within limits for Mo	202.031 Recovery = 99.57%			
Na 330.237†	31415.0	49.7356 mg/L	0.65648	49.7356 mg/L	0.65648	1.32%
		QC value within limits for Na	330.237 Recovery = 99.47%			
Ni 231.604†	15401.9	0.502719 mg/L	0.0104667	0.502719 mg/L	0.0104667	2.08%
		QC value within limits for Ni	231.604 Recovery = 100.54%			
Pb 220.353†	2298.6	0.488390 mg/L	0.0065461	0.488390 mg/L	0.0065461	1.34%
		QC value within limits for Pb	220.353 Recovery = 97.68%			
Sb 206.836†	740.4	0.502637 mg/L	0.0036598	0.502637 mg/L	0.0036598	0.73%
		QC value within limits for Sb	206.836 Recovery = 100.53%			
Se 196.026†	393.8	0.485558 mg/L	0.0131252	0.485558 mg/L	0.0131252	2.70%
		QC value within limits for Se	196.026 Recovery = 97.11%			
Sn 189.927†	1968.3	0.511468 mg/L	0.0024846	0.511468 mg/L	0.0024846	0.49%
		QC value within limits for Sn	189.927 Recovery = 102.29%			
Ti 334.940†	208213.1	0.504020 mg/L	0.0074073	0.504020 mg/L	0.0074073	1.47%
		QC value within limits for Ti	334.940 Recovery = 100.80%			
Tl 190.801†	548.1	0.521591 mg/L	0.0027631	0.521591 mg/L	0.0027631	0.53%
		QC value within limits for Tl	190.801 Recovery = 104.32%			
V 290.880†	54919.5	0.498521 mg/L	0.0086008	0.498521 mg/L	0.0086008	1.73%
		QC value within limits for V	290.880 Recovery = 99.70%			
Zn 206.200†	19533.2	0.491019 mg/L	0.0113389	0.491019 mg/L	0.0113389	2.31%
		QC value within limits for Zn	206.200 Recovery = 98.20%			

All analyte(s) passed QC.

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Sequence No.: 19                               Autosampler Location: 2
Sample ID: CCB V-129815                       Date Collected: 12/14/2011 2:03:52 PM
Analyst:                                       Data Type: Original
Initial Sample Wt:                             Initial Sample Vol:
Dilution:                                     Sample Prep Vol:
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Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	543325.6	92.0 %		0.39			0.42%
Y 371.029	203306.6	91.6 %		0.10			0.11%
Ag 328.068†	16.2	0.0002088 mg/L		0.00031577	0.0002088 mg/L	0.00031577	151.24%
QC value within limits for Ag 328.068							Recovery = Not calculated
Al 308.215†	90.7	-0.0165216 mg/L		0.00394470	-0.0165216 mg/L	0.00394470	23.88%
QC value within limits for Al 308.215							Recovery = Not calculated
As 188.979†	0.7	0.0024316 mg/L		0.00062440	0.0024316 mg/L	0.00062440	25.68%
QC value within limits for As 188.979							Recovery = Not calculated
Ba 233.527†	-11.5	-0.0010759 mg/L		0.00005049	-0.0010759 mg/L	0.00005049	4.69%
QC value within limits for Ba 233.527							Recovery = Not calculated
Be 313.107†	122.6	0.0006307 mg/L		0.00000800	0.0006307 mg/L	0.00000800	1.27%
QC value within limits for Be 313.107							Recovery = Not calculated
Ca 317.933†	-82.5	0.0073980 mg/L		0.00057224	0.0073980 mg/L	0.00057224	7.74%
QC value within limits for Ca 317.933							Recovery = Not calculated
Cd 228.802†	4.9	0.0008112 mg/L		0.00043090	0.0008112 mg/L	0.00043090	53.12%
QC value within limits for Cd 228.802							Recovery = Not calculated
Co 228.616†	0.5	-0.0013157 mg/L		0.00011196	-0.0013157 mg/L	0.00011196	8.51%
QC value within limits for Co 228.616							Recovery = Not calculated
Cr 267.716†	12.7	0.0007079 mg/L		0.00001699	0.0007079 mg/L	0.00001699	2.40%
QC value within limits for Cr 267.716							Recovery = Not calculated
Cu 327.393†	-158.9	-0.0020823 mg/L		0.00061103	-0.0020823 mg/L	0.00061103	29.34%
QC value within limits for Cu 327.393							Recovery = Not calculated
Fe 273.955†	35.2	-0.0068016 mg/L		0.00320493	-0.0068016 mg/L	0.00320493	47.12%
QC value within limits for Fe 273.955							Recovery = Not calculated
K 404.721†	-429.8	-10.8213 mg/L		3.80044	-10.8213 mg/L	3.80044	35.12%
Mg 279.077†	1.1	-0.256572 mg/L		0.0019842	-0.256572 mg/L	0.0019842	0.77%
QC value within limits for Mg 279.077							Recovery = Not calculated
Mn 257.610†	3.6	-0.0010322 mg/L		0.00003114	-0.0010322 mg/L	0.00003114	3.02%
QC value within limits for Mn 257.610							Recovery = Not calculated
Mo 202.031†	-0.6	0.0006523 mg/L		0.00074327	0.0006523 mg/L	0.00074327	113.94%
QC value within limits for Mo 202.031							Recovery = Not calculated
Na 330.237†	730.8	1.65931 mg/L		0.144943	1.65931 mg/L	0.144943	8.74%
QC value within limits for Na 330.237							Recovery = Not calculated
Ni 231.604†	46.6	-0.0004736 mg/L		0.00059815	-0.0004736 mg/L	0.00059815	126.30%
QC value within limits for Ni 231.604							Recovery = Not calculated
Pb 220.353†	-6.1	0.0005922 mg/L		0.00193345	0.0005922 mg/L	0.00193345	326.47%
QC value within limits for Pb 220.353							Recovery = Not calculated
Sb 206.836†	8.5	0.0070455 mg/L		0.00048403	0.0070455 mg/L	0.00048403	6.87%
QC value within limits for Sb 206.836							Recovery = Not calculated
Se 196.026†	1.1	0.0039996 mg/L		0.00703900	0.0039996 mg/L	0.00703900	175.99%
QC value within limits for Se 196.026							Recovery = Not calculated
Sn 189.927†	23.6	0.0065428 mg/L		0.00117343	0.0065428 mg/L	0.00117343	17.93%
QC value within limits for Sn 189.927							Recovery = Not calculated
Ti 334.940†	-80.6	0.0000929 mg/L		0.00011032	0.0000929 mg/L	0.00011032	118.77%
QC value within limits for Ti 334.940							Recovery = Not calculated
Tl 190.801†	3.4	0.0015606 mg/L		0.00439779	0.0015606 mg/L	0.00439779	281.80%
QC value within limits for Tl 190.801							Recovery = Not calculated
V 290.880†	-94.1	-0.0013386 mg/L		0.00070129	-0.0013386 mg/L	0.00070129	52.39%
QC value within limits for V 290.880							Recovery = Not calculated
Zn 206.200†	-29.5	-0.0014993 mg/L		0.00008669	-0.0014993 mg/L	0.00008669	5.78%
QC value within limits for Zn 206.200							Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: 63118-004 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 45  
 Date Collected: 12/14/2011 2:07:12 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63118-004 SD

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	534663.0		90.5 %	1.13				1.25%
Y 371.029	201347.3		90.7 %	0.41				0.45%
Ag 328.068†	-85.1	0.0000513	mg/L	0.00007897	0.0000513	mg/L	0.00007897	153.91%
Al 308.215†	4286.7	0.191418	mg/L	0.2513073	0.191418	mg/L	0.2513073	131.29%
As 188.979†	0.6	0.0026730	mg/L	0.00109473	0.0026730	mg/L	0.00109473	40.95%
Ba 233.527†	12726.5	0.102337	mg/L	0.0015417	0.102337	mg/L	0.0015417	1.51%
Be 313.107†	72.2	0.0006083	mg/L	0.00003067	0.0006083	mg/L	0.00003067	5.04%
Ca 317.933†	1838760.4	33.7118	mg/L	0.03697	33.7118	mg/L	0.03697	0.11%
Cd 228.802†	20.3	0.0012989	mg/L	0.00054193	0.0012989	mg/L	0.00054193	41.72%
Co 228.616†	87.5	0.0014086	mg/L	0.00045046	0.0014086	mg/L	0.00045046	31.98%
Cr 267.716†	15.8	0.0007998	mg/L	0.00003791	0.0007998	mg/L	0.00003791	4.74%
Cu 327.393†	-219.2	-0.0014219	mg/L	0.00027488	-0.0014219	mg/L	0.00027488	19.33%
Fe 273.955†	939.9	0.0298904	mg/L	0.00044274	0.0298904	mg/L	0.00044274	1.48%
K 404.721†	-911.7	-23.6314	mg/L	2.57846	-23.6314	mg/L	2.57846	10.91%
Mg 279.077†	55547.1	5.31253	mg/L	0.088122	5.31253	mg/L	0.088122	1.66%
Mn 257.610†	272356.8	0.631349	mg/L	0.0091061	0.631349	mg/L	0.0091061	1.44%
Mo 202.031†	23.3	0.0024681	mg/L	0.00003612	0.0024681	mg/L	0.00003612	1.46%
Na 330.237†	134343.4	211.005	mg/L	3.6252	211.005	mg/L	3.6252	1.72%
Ni 231.604†	219.2	0.0051717	mg/L	0.00053482	0.0051717	mg/L	0.00053482	10.34%
Pb 220.353†	35.0	0.0088510	mg/L	0.00355425	0.0088510	mg/L	0.00355425	40.16%
Sb 206.836†	6.5	0.0054838	mg/L	0.00188540	0.0054838	mg/L	0.00188540	34.38%
Se 196.026†	-6.3	-0.0044995	mg/L	0.00960600	-0.0044995	mg/L	0.00960600	213.49%
Sn 189.927†	24.8	0.0068655	mg/L	0.00008577	0.0068655	mg/L	0.00008577	1.25%
Ti 334.940†	-512.7	-0.0009526	mg/L	0.00008577	-0.0009526	mg/L	0.00008577	9.00%
Tl 190.801†	-3.5	-0.0052694	mg/L	0.00451784	-0.0052694	mg/L	0.00451784	85.74%
V 290.880†	508.3	0.0032961	mg/L	0.00036242	0.0032961	mg/L	0.00036242	11.00%
Zn 206.200†	3801.6	0.0949477	mg/L	0.00085505	0.0949477	mg/L	0.00085505	0.90%

Sequence No.: 21  
 Sample ID: 63149-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 46  
 Date Collected: 12/14/2011 2:10:43 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63149-004

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	494321.3	83.7	%	1.34				1.60%
Y 371.029	184439.4	83.1	%	1.06				1.28%
Ag 328.068†	-911.6	0.0033879	mg/L	0.00028483	0.0033879	mg/L	0.00028483	8.41%
Al 308.215†	4013.2	0.177714	mg/L	0.0016320	0.177714	mg/L	0.0016320	0.92%
As 188.979†	4.9	0.0103165	mg/L	0.00157463	0.0103165	mg/L	0.00157463	15.26%
Ba 233.527†	15394.0	0.123993	mg/L	0.0009920	0.123993	mg/L	0.0009920	0.80%
Be 313.107†	-817.4	0.0002131	mg/L	0.00000793	0.0002131	mg/L	0.00000793	3.72%
Ca 317.933†	27763970.8	508.898	mg/L	1.7084	508.898	mg/L	1.7084	0.34%
Cd 228.802†	28.1	0.0015900	mg/L	0.00054484	0.0015900	mg/L	0.00054484	34.27%
Co 228.616†	1084.5	0.0325549	mg/L	0.00072568	0.0325549	mg/L	0.00072568	2.23%
Cr 267.716†	77.2	0.0025543	mg/L	0.00017843	0.0025543	mg/L	0.00017843	6.99%
Cu 327.393†	-1625.9	0.0018240	mg/L	0.00009060	0.0018240	mg/L	0.00009060	4.97%
Fe 273.955†	9443.2	0.374751	mg/L	0.0010627	0.374751	mg/L	0.0010627	0.28%
K 404.721†	-2398.8	-63.1641	mg/L	8.95176	-63.1641	mg/L	8.95176	14.17%
Mg 279.077†	163686.5	16.1547	mg/L	0.15295	16.1547	mg/L	0.15295	0.95%
Mn 257.610†	237565.9	0.550369	mg/L	0.0049988	0.550369	mg/L	0.0049988	0.91%
Mo 202.031†	98.0	0.0082079	mg/L	0.00011716	0.0082079	mg/L	0.00011716	1.43%
Na 330.237†	750111.7	1175.79	mg/L	11.016	1175.79	mg/L	11.016	0.94%
Ni 231.604†	1221.5	0.0379424	mg/L	0.00224765	0.0379424	mg/L	0.00224765	5.92%
Pb 220.353†	12.8	-0.0013585	mg/L	0.00290496	-0.0013585	mg/L	0.00290496	213.83%
Sb 206.836†	17.3	0.0099493	mg/L	0.00068739	0.0099493	mg/L	0.00068739	6.91%
Se 196.026†	-19.4	0.0004933	mg/L	0.00479325	0.0004933	mg/L	0.00479325	971.64%
Sn 189.927†	32.7	0.0089534	mg/L	0.00155280	0.0089534	mg/L	0.00155280	17.34%
Ti 334.940†	2952.7	0.0074329	mg/L	0.00002365	0.0074329	mg/L	0.00002365	0.32%
Tl 190.801†	2.6	0.0006045	mg/L	0.00157428	0.0006045	mg/L	0.00157428	260.44%
V 290.880†	2684.2	0.0215716	mg/L	0.00055652	0.0215716	mg/L	0.00055652	2.58%
Zn 206.200†	30279.8	0.762459	mg/L	0.0051510	0.762459	mg/L	0.0051510	0.68%

Sequence No.: 22  
 Sample ID: 63111-018  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 47  
 Date Collected: 12/14/2011 2:14:18 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-018

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	523196.3		88.6 %	0.93			1.05%	
Y 371.029	208885.9		94.1 %	1.60			1.71%	
Ag 328.068†	-894.3	0.0002311	mg/L	0.00000399	0.0002311	mg/L	0.00000399	1.72%
Al 308.215†	8352.2	0.392931	mg/L	0.0121719	0.392931	mg/L	0.0121719	3.10%
As 188.979†	-0.9	0.0070926	mg/L	0.00038305	0.0070926	mg/L	0.00038305	5.40%
Ba 233.527†	64914.3	0.526023	mg/L	0.0142829	0.526023	mg/L	0.0142829	2.72%
Be 313.107†	3098.9	0.0019530	mg/L	0.00008235	0.0019530	mg/L	0.00008235	4.22%
Ca 317.933†	1997883.9	36.6283	mg/L	0.00659	36.6283	mg/L	0.00659	0.02%
Cd 228.802†	53.4	0.0024130	mg/L	0.00012451	0.0024130	mg/L	0.00012451	5.16%
Co 228.616†	1945.4	0.0594702	mg/L	0.00075033	0.0594702	mg/L	0.00075033	1.26%
Cr 267.716†	186.5	0.0056656	mg/L	0.00035698	0.0056656	mg/L	0.00035698	6.30%
Cu 327.393†	41.4	0.0042682	mg/L	0.00152328	0.0042682	mg/L	0.00152328	35.69%
Fe 273.955†	1358085.5	55.0701	mg/L	0.24092	55.0701	mg/L	0.24092	0.44%
K 404.721†	-1984.4	-52.1483	mg/L	4.32386	-52.1483	mg/L	4.32386	8.29%
Mg 279.077†	34964.2	3.24888	mg/L	0.107373	3.24888	mg/L	0.107373	3.30%
Mn 257.610†	1111687.2	2.58053	mg/L	0.010617	2.58053	mg/L	0.010617	0.41%
Mo 202.031†	24.9	0.0025891	mg/L	0.00028716	0.0025891	mg/L	0.00028716	11.09%
Na 330.237†	728736.0	1142.30	mg/L	0.564	1142.30	mg/L	0.564	0.05%
Ni 231.604†	1992.8	0.0631334	mg/L	0.00029621	0.0631334	mg/L	0.00029621	0.47%
Pb 220.353†	73.0	0.0149117	mg/L	0.00184840	0.0149117	mg/L	0.00184840	12.40%
Sb 206.836†	11.2	0.0091395	mg/L	0.00475911	0.0091395	mg/L	0.00475911	52.07%
Se 196.026†	-8.8	0.0027436	mg/L	0.00076105	0.0027436	mg/L	0.00076105	27.74%
Sn 189.927†	0.4	0.0060921	mg/L	0.00052659	0.0060921	mg/L	0.00052659	8.64%
Ti 334.940†	-568.7	-0.0010893	mg/L	0.00029206	-0.0010893	mg/L	0.00029206	26.81%
Tl 190.801†	0.3	-0.0024263	mg/L	0.00050702	-0.0024263	mg/L	0.00050702	20.90%
V 290.880†	971.0	0.0050263	mg/L	0.00006323	0.0050263	mg/L	0.00006323	1.26%
Zn 206.200†	4704.2	0.117790	mg/L	0.0005236	0.117790	mg/L	0.0005236	0.44%

Sequence No.: 23  
 Sample ID: 63111-019  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 48  
 Date Collected: 12/14/2011 2:17:50 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-019

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD	
	Intensity				Conc. Units	Std.Dev.		
Sc 361.383	503169.6		85.2 %	1.26			1.48%	
Y 371.029	191962.5		86.5 %	0.21			0.25%	
Ag 328.068†	-974.2	-0.0021486	mg/L	0.00006364	-0.0021486	mg/L	0.00006364	2.96%
Al 308.215†	6062.1	0.279411	mg/L	0.0085909	0.279411	mg/L	0.0085909	3.07%
As 188.979†	0.1	0.0056354	mg/L	0.00385296	0.0056354	mg/L	0.00385296	68.37%
Ba 233.527†	121840.2	0.988175	mg/L	0.0137821	0.988175	mg/L	0.0137821	1.39%
Be 313.107†	1331.8	0.0011679	mg/L	0.00002767	0.0011679	mg/L	0.00002767	2.37%
Ca 317.933†	7912873.9	145.045	mg/L	0.5699	145.045	mg/L	0.5699	0.39%
Cd 228.802†	63.0	0.0027017	mg/L	0.00008107	0.0027017	mg/L	0.00008107	3.00%
Co 228.616†	2825.0	0.0869637	mg/L	0.00299683	0.0869637	mg/L	0.00299683	3.45%
Cr 267.716†	38.3	0.0014410	mg/L	0.00017597	0.0014410	mg/L	0.00017597	12.21%
Cu 327.393†	-636.1	-0.0003888	mg/L	0.00074230	-0.0003888	mg/L	0.00074230	190.92%
Fe 273.955†	621021.1	25.1778	mg/L	0.38480	25.1778	mg/L	0.38480	1.53%
K 404.721†	-2186.0	-57.5086	mg/L	4.94650	-57.5086	mg/L	4.94650	8.60%
Mg 279.077†	45256.1	4.28075	mg/L	0.068596	4.28075	mg/L	0.068596	1.60%
Mn 257.610†	2266387.8	5.26204	mg/L	0.007700	5.26204	mg/L	0.007700	0.15%
Mo 202.031†	26.9	0.0028320	mg/L	0.00083118	0.0028320	mg/L	0.00083118	29.35%
Na 330.237†	749568.6	1174.94	mg/L	5.958	1174.94	mg/L	5.958	0.51%
Ni 231.604†	1859.0	0.0587618	mg/L	0.00167314	0.0587618	mg/L	0.00167314	2.85%
Pb 220.353†	884.5	0.187629	mg/L	0.0007899	0.187629	mg/L	0.0007899	0.42%
Sb 206.836†	3.7	0.0032664	mg/L	0.00673274	0.0032664	mg/L	0.00673274	206.12%
Se 196.026†	-13.4	-0.0089920	mg/L	0.00077736	-0.0089920	mg/L	0.00077736	8.65%
Sn 189.927†	23.9	0.0091595	mg/L	0.00004468	0.0091595	mg/L	0.00004468	0.49%
Ti 334.940†	-1139.5	-0.0024697	mg/L	0.00001907	-0.0024697	mg/L	0.00001907	0.77%
Tl 190.801†	-7.9	-0.0112616	mg/L	0.00413196	-0.0112616	mg/L	0.00413196	36.69%
V 290.880†	910.6	0.0058651	mg/L	0.00060326	0.0058651	mg/L	0.00060326	10.29%
Zn 206.200†	21314.9	0.536728	mg/L	0.0071694	0.536728	mg/L	0.0071694	1.34%

Sequence No.: 24  
 Sample ID: 63111-020  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 49  
 Date Collected: 12/14/2011 2:21:36 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63111-020

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	511332.1		86.6 %	1.31				1.51%
Y 371.029	190330.5		85.7 %	1.40				1.63%
Ag 328.068†	-405.1	0.0016271	mg/L	0.00020375	0.0016271	mg/L	0.00020375	12.52%
Al 308.215†	4109.0	0.182610	mg/L	0.0056964	0.182610	mg/L	0.0056964	3.12%
As 188.979†	10.6	0.0095579	mg/L	0.00262867	0.0095579	mg/L	0.00262867	27.50%
Ba 233.527†	108694.2	0.881449	mg/L	0.0019918	0.881449	mg/L	0.0019918	0.23%
Be 313.107†	250.5	0.0006875	mg/L	0.00000855	0.0006875	mg/L	0.00000855	1.24%
Ca 317.933†	12068312.7	221.210	mg/L	5.9187	221.210	mg/L	5.9187	2.68%
Cd 228.802†	65.2	0.0027160	mg/L	0.00006248	0.0027160	mg/L	0.00006248	2.30%
Co 228.616†	892.0	0.0265505	mg/L	0.00072274	0.0265505	mg/L	0.00072274	2.72%
Cr 267.716†	124.6	0.0038999	mg/L	0.00010724	0.0038999	mg/L	0.00010724	2.75%
Cu 327.393†	-337.3	0.0047123	mg/L	0.00035072	0.0047123	mg/L	0.00035072	7.44%
Fe 273.955†	40439.0	1.63181	mg/L	0.004829	1.63181	mg/L	0.004829	0.30%
K 404.721†	-2167.3	-57.0092	mg/L	2.67554	-57.0092	mg/L	2.67554	4.69%
Mg 279.077†	62634.1	6.02307	mg/L	0.024677	6.02307	mg/L	0.024677	0.41%
Mn 257.610†	815363.3	1.89234	mg/L	0.002934	1.89234	mg/L	0.002934	0.16%
Mo 202.031†	23.1	0.0054286	mg/L	0.00079437	0.0054286	mg/L	0.00079437	14.63%
Na 330.237†	734803.8	1151.81	mg/L	0.063	1151.81	mg/L	0.063	0.01%
Ni 231.604†	742.7	0.0222804	mg/L	0.00001285	0.0222804	mg/L	0.00001285	0.06%
Pb 220.353†	11719.7	2.50183	mg/L	0.030480	2.50183	mg/L	0.030480	1.22%
Sb 206.836†	23.1	0.0154540	mg/L	0.00296100	0.0154540	mg/L	0.00296100	19.16%
Se 196.026†	-14.6	-0.0077817	mg/L	0.00464310	-0.0077817	mg/L	0.00464310	59.67%
Sn 189.927†	33.6	0.0092924	mg/L	0.00156165	0.0092924	mg/L	0.00156165	16.81%
Ti 334.940†	-1014.5	-0.0021676	mg/L	0.00004838	-0.0021676	mg/L	0.00004838	2.23%
Tl 190.801†	-8.2	-0.0102352	mg/L	0.00095495	-0.0102352	mg/L	0.00095495	9.33%
V 290.880†	802.1	0.0058074	mg/L	0.00020013	0.0058074	mg/L	0.00020013	3.45%
Zn 206.200†	578690.9	14.5955	mg/L	0.06847	14.5955	mg/L	0.06847	0.47%

Sequence No.: 25  
 Sample ID: ICSA V-129812  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/14/2011 2:25:10 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSA V-129812

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	451237.3		76.4 %	0.75			0.98%
Y 371.029	165936.2		74.7 %	0.86			1.14%
Ag 328.068†	-3755.5	0.0024327	mg/L	0.00206092	0.0024327	mg/L	0.00206092 84.72%
Al 308.215†	9980759.1	494.702	mg/L	11.4494	494.702	mg/L	11.4494 2.31%
QC value within limits for Al 308.215 Recovery = 98.94%							
As 188.979†	-1.2	0.0026556	mg/L	0.00773487	0.0026556	mg/L	0.00773487 291.27%
Ba 233.527†	827.7	0.0057369	mg/L	0.00018304	0.0057369	mg/L	0.00018304 3.19%
Be 313.107†	-1028.7	0.0001192	mg/L	0.00001856	0.0001192	mg/L	0.00001856 15.57%
Ca 317.933†	27142151.6	497.500	mg/L	10.6035	497.500	mg/L	10.6035 2.13%
QC value within limits for Ca 317.933 Recovery = 99.50%							
Cd 228.802†	96.3	0.0036543	mg/L	0.00060590	0.0036543	mg/L	0.00060590 16.58%
Co 228.616†	133.0	0.0028255	mg/L	0.00072251	0.0028255	mg/L	0.00072251 25.57%
Cr 267.716†	-92.8	-0.0023002	mg/L	0.00032360	-0.0023002	mg/L	0.00032360 14.07%
Cu 327.393†	-2824.1	-0.0026165	mg/L	0.00052667	-0.0026165	mg/L	0.00052667 20.13%
Fe 273.955†	4585433.1	185.958	mg/L	4.4293	185.958	mg/L	4.4293 2.38%
QC value within limits for Fe 273.955 Recovery = 92.98%							
K 404.721†	-3225.5	-85.1424	mg/L	7.44021	-85.1424	mg/L	7.44021 8.74%
Mg 279.077†	4984107.3	499.451	mg/L	12.8526	499.451	mg/L	12.8526 2.57%
QC value within limits for Mg 279.077 Recovery = 99.89%							
Mn 257.610†	879.1	-0.0076857	mg/L	0.00031787	-0.0076857	mg/L	0.00031787 4.14%
Mo 202.031†	-24.5	-0.0011368	mg/L	0.00356655	-0.0011368	mg/L	0.00356655 313.75%
Na 330.237†	5568.5	9.23919	mg/L	0.078004	9.23919	mg/L	0.078004 0.84%
Ni 231.604†	207.0	0.0047638	mg/L	0.00030440	0.0047638	mg/L	0.00030440 6.39%
Pb 220.353†	1411.3	-0.0324095	mg/L	0.01003486	-0.0324095	mg/L	0.01003486 30.96%
Sb 206.836†	31.2	0.0067958	mg/L	0.00152103	0.0067958	mg/L	0.00152103 22.38%
Se 196.026†	-57.9	0.0074515	mg/L	0.00591893	0.0074515	mg/L	0.00591893 79.43%
Sn 189.927†	-42.2	0.0083074	mg/L	0.00182088	0.0083074	mg/L	0.00182088 21.92%
Ti 334.940†	-548.9	-0.0010396	mg/L	0.00029088	-0.0010396	mg/L	0.00029088 27.98%
Tl 190.801†	-9.8	-0.0078189	mg/L	0.00423821	-0.0078189	mg/L	0.00423821 54.21%
V 290.880†	10151.3	0.0002422	mg/L	0.00027027	0.0002422	mg/L	0.00027027 111.59%
Zn 206.200†	-80.1	-0.0193341	mg/L	0.00099980	-0.0193341	mg/L	0.00099980 5.17%

All analyte(s) passed QC.

Sequence No.: 26

Autosampler Location: 8

Sample ID: ICSAB V-129814

Date Collected: 12/14/2011 2:30:12 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-129814

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sc 361.383	458620.4		77.6 %	0.73			0.94%
Y 371.029	169600.3		76.4 %	0.67			0.88%
Ag 328.068†	112226.3	1.07820	mg/L	0.004134	1.07820	mg/L	0.004134 0.38%
QC value within limits for Ag		328.068	Recovery =	107.82%			
Al 308.215†	10030110.6	497.148	mg/L	14.2663	497.148	mg/L	14.2663 2.87%
QC value within limits for Al		308.215	Recovery =	99.43%			
As 188.979†	1218.3	0.990365	mg/L	0.0313803	0.990365	mg/L	0.0313803 3.17%
QC value within limits for As		188.979	Recovery =	99.04%			
Ba 233.527†	64588.9	0.523381	mg/L	0.0002106	0.523381	mg/L	0.0002106 0.04%
QC value within limits for Ba		233.527	Recovery =	104.68%			
Be 313.107†	1123185.8	0.499586	mg/L	0.0169606	0.499586	mg/L	0.0169606 3.39%
QC value within limits for Be		313.107	Recovery =	99.92%			
Ca 317.933†	26247589.9	481.104	mg/L	4.4293	481.104	mg/L	4.4293 0.92%
QC value within limits for Ca		317.933	Recovery =	96.22%			
Cd 228.802†	32538.5	1.01137	mg/L	0.021746	1.01137	mg/L	0.021746 2.15%
QC value within limits for Cd		228.802	Recovery =	101.14%			
Co 228.616†	15288.3	0.476289	mg/L	0.0098590	0.476289	mg/L	0.0098590 2.07%
QC value within limits for Co		228.616	Recovery =	95.26%			
Cr 267.716†	17048.5	0.486275	mg/L	0.0111748	0.486275	mg/L	0.0111748 2.30%
QC value within limits for Cr		267.716	Recovery =	97.25%			
Cu 327.393†	45216.7	0.523614	mg/L	0.0009131	0.523614	mg/L	0.0009131 0.17%
QC value within limits for Cu		327.393	Recovery =	104.72%			
Fe 273.955†	4609671.4	186.941	mg/L	6.0238	186.941	mg/L	6.0238 3.22%
QC value within limits for Fe		273.955	Recovery =	93.47%			
K 404.721†	-3084.4	-81.3891	mg/L	12.11717	-81.3891	mg/L	12.11717 14.89%
Mg 279.077†	5007701.4	501.817	mg/L	17.8803	501.817	mg/L	17.8803 3.56%
QC value within limits for Mg		279.077	Recovery =	100.36%			
Mn 257.610†	215820.0	0.491424	mg/L	0.0001681	0.491424	mg/L	0.0001681 0.03%
QC value within limits for Mn		257.610	Recovery =	98.28%			
Mo 202.031†	-27.8	-0.0011877	mg/L	0.00227698	-0.0011877	mg/L	0.00227698 191.71%
Na 330.237†	5500.9	9.13314	mg/L	0.102925	9.13314	mg/L	0.102925 1.13%
Ni 231.604†	28349.6	0.924462	mg/L	0.0217820	0.924462	mg/L	0.0217820 2.36%
QC value within limits for Ni		231.604	Recovery =	92.45%			
Pb 220.353†	5861.9	0.914194	mg/L	0.0185067	0.914194	mg/L	0.0185067 2.02%
QC value within limits for Pb		220.353	Recovery =	91.42%			
Sb 206.836†	1529.7	1.00322	mg/L	0.017927	1.00322	mg/L	0.017927 1.79%
QC value within limits for Sb		206.836	Recovery =	100.32%			
Se 196.026†	728.0	0.964501	mg/L	0.0266521	0.964501	mg/L	0.0266521 2.76%
QC value within limits for Se		196.026	Recovery =	96.45%			
Sn 189.927†	-45.3	0.0076022	mg/L	0.00193821	0.0076022	mg/L	0.00193821 25.50%
Ti 334.940†	-355.0	-0.0006901	mg/L	0.00000281	-0.0006901	mg/L	0.00000281 0.41%
Tl 190.801†	1027.4	0.978539	mg/L	0.0252497	0.978539	mg/L	0.0252497 2.58%
QC value within limits for Tl		190.801	Recovery =	97.85%			
V 290.880†	61226.6	0.471541	mg/L	0.0047309	0.471541	mg/L	0.0047309 1.00%
QC value within limits for V		290.880	Recovery =	94.31%			
Zn 206.200†	37861.3	0.938316	mg/L	0.0209818	0.938316	mg/L	0.0209818 2.24%
QC value within limits for Zn		206.200	Recovery =	93.83%			

All analyte(s) passed QC.

Sequence No.: 27

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/14/2011 2:35:15 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-129808

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sc 361.383	505042.3	85.5 %		0.65			0.76%
Y 371.029	182123.2	82.0 %		0.32			0.39%
Ag 328.068†	10476.1	0.0990569 mg/L		0.00032702	0.0990569 mg/L	0.00032702	0.33%
	QC value within limits for Ag	328.068	Recovery = 99.06%				
Al 308.215†	99915.9	4.91897 mg/L		0.021457	4.91897 mg/L	0.021457	0.44%
	QC value within limits for Al	308.215	Recovery = 98.38%				
As 188.979†	581.0	0.474353 mg/L		0.0008905	0.474353 mg/L	0.0008905	0.19%
	QC value within limits for As	188.979	Recovery = 94.87%				
Ba 233.527†	60717.7	0.491953 mg/L		0.0016000	0.491953 mg/L	0.0016000	0.33%
	QC value within limits for Ba	233.527	Recovery = 98.39%				
Be 313.107†	1100686.7	0.489590 mg/L		0.0002493	0.489590 mg/L	0.0002493	0.05%
	QC value within limits for Be	313.107	Recovery = 97.92%				
Ca 317.933†	2695850.2	49.4215 mg/L		0.34861	49.4215 mg/L	0.34861	0.71%
	QC value within limits for Ca	317.933	Recovery = 98.84%				
Cd 228.802†	15607.7	0.485531 mg/L		0.0003472	0.485531 mg/L	0.0003472	0.07%
	QC value within limits for Cd	228.802	Recovery = 97.11%				
Co 228.616†	15803.5	0.492043 mg/L		0.0012764	0.492043 mg/L	0.0012764	0.26%
	QC value within limits for Co	228.616	Recovery = 98.41%				
Cr 267.716†	17086.1	0.487866 mg/L		0.0018474	0.487866 mg/L	0.0018474	0.38%
	QC value within limits for Cr	267.716	Recovery = 97.57%				
Cu 327.393†	44722.4	0.493423 mg/L		0.0017274	0.493423 mg/L	0.0017274	0.35%
	QC value within limits for Cu	327.393	Recovery = 98.68%				
Fe 273.955†	119042.3	4.81964 mg/L		0.015469	4.81964 mg/L	0.015469	0.32%
	QC value within limits for Fe	273.955	Recovery = 96.39%				
K 404.721†	1105.6	29.9966 mg/L		0.79319	29.9966 mg/L	0.79319	2.64%
Mg 279.077†	494359.8	49.3182 mg/L		0.07601	49.3182 mg/L	0.07601	0.15%
	QC value within limits for Mg	279.077	Recovery = 98.64%				
Mn 257.610†	209557.3	0.484933 mg/L		0.0015044	0.484933 mg/L	0.0015044	0.31%
	QC value within limits for Mn	257.610	Recovery = 96.99%				
Mo 202.031†	6533.3	0.490943 mg/L		0.0008948	0.490943 mg/L	0.0008948	0.18%
	QC value within limits for Mo	202.031	Recovery = 98.19%				
Na 330.237†	30169.0	47.7833 mg/L		0.42515	47.7833 mg/L	0.42515	0.89%
	QC value within limits for Na	330.237	Recovery = 95.57%				
Ni 231.604†	14997.8	0.489494 mg/L		0.0010403	0.489494 mg/L	0.0010403	0.21%
	QC value within limits for Ni	231.604	Recovery = 97.90%				
Pb 220.353†	2231.2	0.474129 mg/L		0.0023101	0.474129 mg/L	0.0023101	0.49%
	QC value within limits for Pb	220.353	Recovery = 94.83%				
Sb 206.836†	725.7	0.492670 mg/L		0.0024824	0.492670 mg/L	0.0024824	0.50%
	QC value within limits for Sb	206.836	Recovery = 98.53%				
Se 196.026†	380.4	0.469147 mg/L		0.0017457	0.469147 mg/L	0.0017457	0.37%
	QC value within limits for Se	196.026	Recovery = 93.83%				
Sn 189.927†	1910.5	0.496450 mg/L		0.0033196	0.496450 mg/L	0.0033196	0.67%
	QC value within limits for Sn	189.927	Recovery = 99.29%				
Ti 334.940†	202164.9	0.489387 mg/L		0.0026410	0.489387 mg/L	0.0026410	0.54%
	QC value within limits for Ti	334.940	Recovery = 97.88%				
Tl 190.801†	540.1	0.513904 mg/L		0.0050591	0.513904 mg/L	0.0050591	0.98%
	QC value within limits for Tl	190.801	Recovery = 102.78%				
V 290.880†	53307.0	0.483673 mg/L		0.0016654	0.483673 mg/L	0.0016654	0.34%
	QC value within limits for V	290.880	Recovery = 96.73%				
Zn 206.200†	18695.9	0.469893 mg/L		0.0008607	0.469893 mg/L	0.0008607	0.18%
	QC value within limits for Zn	206.200	Recovery = 93.98%				

All analyte(s) passed QC.

Sequence No.: 28  
 Sample ID: CCB V-129815  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 12/14/2011 2:38:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	508319.4	86.1 %		2.34			2.71%
Y 371.029	190647.5	85.9 %		2.23			2.60%
Ag 328.068†	53.6	0.0005556 mg/L		0.00020435	0.0005556 mg/L	0.00020435	36.78%
QC value within limits for Ag	328.068	Recovery = Not calculated					
Al 308.215†	105.9	-0.0158161 mg/L		0.00297695	-0.0158161 mg/L	0.00297695	18.82%
QC value within limits for Al	308.215	Recovery = Not calculated					
As 188.979†	1.1	0.0028110 mg/L		0.00079302	0.0028110 mg/L	0.00079302	28.21%
QC value within limits for As	188.979	Recovery = Not calculated					
Ba 233.527†	-10.8	-0.0010706 mg/L		0.00002591	-0.0010706 mg/L	0.00002591	2.42%
QC value within limits for Ba	233.527	Recovery = Not calculated					
Be 313.107†	200.8	0.0006654 mg/L		0.00000709	0.0006654 mg/L	0.00000709	1.06%
QC value within limits for Be	313.107	Recovery = Not calculated					
Ca 317.933†	-148.7	0.0061845 mg/L		0.00038914	0.0061845 mg/L	0.00038914	6.29%
QC value within limits for Ca	317.933	Recovery = Not calculated					
Cd 228.802†	34.5	0.0017343 mg/L		0.00013736	0.0017343 mg/L	0.00013736	7.92%
QC value within limits for Cd	228.802	Recovery = Not calculated					
Co 228.616†	2.6	-0.0012479 mg/L		0.00025501	-0.0012479 mg/L	0.00025501	20.43%
QC value within limits for Co	228.616	Recovery = Not calculated					
Cr 267.716†	8.1	0.0005812 mg/L		0.00016189	0.0005812 mg/L	0.00016189	27.85%
QC value within limits for Cr	267.716	Recovery = Not calculated					
Cu 327.393†	-174.7	-0.0022553 mg/L		0.00051484	-0.0022553 mg/L	0.00051484	22.83%
QC value within limits for Cu	327.393	Recovery = Not calculated					
Fe 273.955†	24.0	-0.0072546 mg/L		0.00104926	-0.0072546 mg/L	0.00104926	14.46%
QC value within limits for Fe	273.955	Recovery = Not calculated					
K 404.721†	-895.7	-23.2066 mg/L		8.14318	-23.2066 mg/L	8.14318	35.09%
Mg 279.077†	14.5	-0.255191 mg/L		0.0035949	-0.255191 mg/L	0.0035949	1.41%
QC value within limits for Mg	279.077	Recovery = Not calculated					
Mn 257.610†	145.4	-0.0007022 mg/L		0.00007503	-0.0007022 mg/L	0.00007503	10.68%
QC value within limits for Mn	257.610	Recovery = Not calculated					
Mo 202.031†	23.5	0.0024642 mg/L		0.00137928	0.0024642 mg/L	0.00137928	55.97%
QC value within limits for Mo	202.031	Recovery = Not calculated					
Na 330.237†	534.2	1.35128 mg/L		0.066306	1.35128 mg/L	0.066306	4.91%
QC value within limits for Na	330.237	Recovery = Not calculated					
Ni 231.604†	108.7	0.0015604 mg/L		0.00102671	0.0015604 mg/L	0.00102671	65.80%
QC value within limits for Ni	231.604	Recovery = Not calculated					
Pb 220.353†	0.3	0.0019547 mg/L		0.00149472	0.0019547 mg/L	0.00149472	76.47%
QC value within limits for Pb	220.353	Recovery = Not calculated					
Sb 206.836†	6.6	0.0057947 mg/L		0.00137569	0.0057947 mg/L	0.00137569	23.74%
QC value within limits for Sb	206.836	Recovery = Not calculated					
Se 196.026†	-5.0	-0.0034840 mg/L		0.00081216	-0.0034840 mg/L	0.00081216	23.31%
QC value within limits for Se	196.026	Recovery = Not calculated					
Sn 189.927†	5.6	0.0018740 mg/L		0.00088190	0.0018740 mg/L	0.00088190	47.06%
QC value within limits for Sn	189.927	Recovery = Not calculated					
Ti 334.940†	-37.3	0.0001978 mg/L		0.00008293	0.0001978 mg/L	0.00008293	41.92%
QC value within limits for Ti	334.940	Recovery = Not calculated					
Tl 190.801†	0.9	-0.0007829 mg/L		0.00262154	-0.0007829 mg/L	0.00262154	334.87%
QC value within limits for Tl	190.801	Recovery = Not calculated					
V 290.880†	-17.8	-0.0006330 mg/L		0.00018017	-0.0006330 mg/L	0.00018017	28.46%
QC value within limits for V	290.880	Recovery = Not calculated					
Zn 206.200†	-35.4	-0.0016501 mg/L		0.00002548	-0.0016501 mg/L	0.00002548	1.54%
QC value within limits for Zn	206.200	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: 63139-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 50  
 Date Collected: 12/14/2011 2:42:05 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63139-002

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	484787.2		82.1 %	1.32				1.61%
Y 371.029	184538.7		83.1 %	1.20				1.44%
Ag 328.068†	-429.7	0.0029143	mg/L	0.00041785	0.0029143	mg/L	0.00041785	14.34%
Al 308.215†	18107.9	0.876450	mg/L	0.0249215	0.876450	mg/L	0.0249215	2.84%
As 188.979†	0.6	0.0053264	mg/L	0.00261231	0.0053264	mg/L	0.00261231	49.04%
Ba 233.527†	60682.7	0.491669	mg/L	0.0005058	0.491669	mg/L	0.0005058	0.10%
Be 313.107†	60.2	0.0006030	mg/L	0.00001161	0.0006030	mg/L	0.00001161	1.92%
Ca 317.933†	15834500.1	290.241	mg/L	4.6810	290.241	mg/L	4.6810	1.61%
Cd 228.802†	115.0	0.0042683	mg/L	0.00081366	0.0042683	mg/L	0.00081366	19.06%
Co 228.616†	1259.1	0.0379018	mg/L	0.00077765	0.0379018	mg/L	0.00077765	2.05%
Cr 267.716†	21.6	0.0009661	mg/L	0.00015334	0.0009661	mg/L	0.00015334	15.87%
Cu 327.393†	-494.7	0.0057948	mg/L	0.00097853	0.0057948	mg/L	0.00097853	16.89%
Fe 273.955†	26776.3	1.07771	mg/L	0.008212	1.07771	mg/L	0.008212	0.76%
K 404.721†	-2488.2	-65.5407	mg/L	4.12211	-65.5407	mg/L	4.12211	6.29%
Mg 279.077†	480449.4	47.9134	mg/L	0.05624	47.9134	mg/L	0.05624	0.12%
Mn 257.610†	1348434.3	3.12955	mg/L	0.003595	3.12955	mg/L	0.003595	0.11%
Mo 202.031†	50.6	0.0045269	mg/L	0.00114881	0.0045269	mg/L	0.00114881	25.38%
Na 330.237†	757435.1	1187.27	mg/L	3.519	1187.27	mg/L	3.519	0.30%
Ni 231.604†	907.0	0.0276565	mg/L	0.00112588	0.0276565	mg/L	0.00112588	4.07%
Pb 220.353†	-10.0	-0.0043569	mg/L	0.00703186	-0.0043569	mg/L	0.00703186	161.40%
Sb 206.836†	8.5	0.0052529	mg/L	0.00168762	0.0052529	mg/L	0.00168762	32.13%
Se 196.026†	-8.0	0.0013344	mg/L	0.00361736	0.0013344	mg/L	0.00361736	271.09%
Sn 189.927†	34.2	0.0094392	mg/L	0.00144207	0.0094392	mg/L	0.00144207	15.28%
Ti 334.940†	21640.0	0.0526547	mg/L	0.01383601	0.0526547	mg/L	0.01383601	26.28%
Tl 190.801†	0.4	-0.0022300	mg/L	0.00191426	-0.0022300	mg/L	0.00191426	85.84%
V 290.880†	3922.2	0.0276740	mg/L	0.00137900	0.0276740	mg/L	0.00137900	4.98%
Zn 206.200†	6236.1	0.154944	mg/L	0.0037575	0.154944	mg/L	0.0037575	2.43%

Sequence No.: 30  
 Sample ID: 63139-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 51  
 Date Collected: 12/14/2011 2:45:41 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63139-004

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	523093.9	88.6	%	1.42				1.61%
Y 371.029	197726.8	89.1	%	1.23				1.38%
Ag 328.068†	-395.7	0.0023749	mg/L	0.00014540	0.0023749	mg/L	0.00014540	6.12%
Al 308.215†	1959.7	0.0760313	mg/L	0.00002278	0.0760313	mg/L	0.00002278	0.03%
As 188.979†	-3.2	0.0019515	mg/L	0.00279448	0.0019515	mg/L	0.00279448	143.20%
Ba 233.527†	56403.6	0.456929	mg/L	0.0025065	0.456929	mg/L	0.0025065	0.55%
Be 313.107†	-113.6	0.0005258	mg/L	0.00003032	0.0005258	mg/L	0.00003032	5.77%
Ca 317.933†	14134525.6	259.082	mg/L	8.6381	259.082	mg/L	8.6381	3.33%
Cd 228.802†	121.1	0.0044540	mg/L	0.00006519	0.0044540	mg/L	0.00006519	1.46%
Co 228.616†	1095.0	0.0328957	mg/L	0.00021575	0.0328957	mg/L	0.00021575	0.66%
Cr 267.716†	-4.6	0.0002202	mg/L	0.00017186	0.0002202	mg/L	0.00017186	78.05%
Cu 327.393†	-462.0	0.0047577	mg/L	0.00081983	0.0047577	mg/L	0.00081983	17.23%
Fe 273.955†	2600.1	0.0972210	mg/L	0.00196861	0.0972210	mg/L	0.00196861	2.02%
K 404.721†	-1775.4	-46.5908	mg/L	3.97593	-46.5908	mg/L	3.97593	8.53%
Mg 279.077†	567204.4	56.6114	mg/L	0.37264	56.6114	mg/L	0.37264	0.66%
Mn 257.610†	1488714.1	3.45516	mg/L	0.010898	3.45516	mg/L	0.010898	0.32%
Mo 202.031†	44.8	0.0040961	mg/L	0.00063087	0.0040961	mg/L	0.00063087	15.40%
Na 330.237†	756835.1	1186.33	mg/L	1.600	1186.33	mg/L	1.600	0.13%
Ni 231.604†	785.7	0.0236910	mg/L	0.00080026	0.0236910	mg/L	0.00080026	3.38%
Pb 220.353†	-18.8	-0.0052743	mg/L	0.00190515	-0.0052743	mg/L	0.00190515	36.12%
Sb 206.836†	8.0	0.0048837	mg/L	0.00171920	0.0048837	mg/L	0.00171920	35.20%
Se 196.026†	-9.2	-0.0021472	mg/L	0.00910606	-0.0021472	mg/L	0.00910606	424.09%
Sn 189.927†	31.9	0.0087071	mg/L	0.00201685	0.0087071	mg/L	0.00201685	23.16%
Ti 334.940†	-427.4	-0.0007462	mg/L	0.00018779	-0.0007462	mg/L	0.00018779	25.17%
Tl 190.801†	-3.3	-0.0061379	mg/L	0.00603938	-0.0061379	mg/L	0.00603938	98.39%
V 290.880†	3885.8	0.0259386	mg/L	0.00068354	0.0259386	mg/L	0.00068354	2.64%
Zn 206.200†	6499.1	0.161288	mg/L	0.0016385	0.161288	mg/L	0.0016385	1.02%

Sequence No.: 31  
 Sample ID: 63139-006  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 52  
 Date Collected: 12/14/2011 2:49:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63139-006

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	539839.8		91.4 %	0.72				0.79%
Y 371.029	206414.6		93.0 %	0.79				0.85%
Ag 328.068†	-353.1	0.0018405	mg/L	0.00036525	0.0018405	mg/L	0.00036525	19.84%
Al 308.215†	3301.5	0.142580	mg/L	0.0008106	0.142580	mg/L	0.0008106	0.57%
As 188.979†	-0.3	0.0037607	mg/L	0.00263491	0.0037607	mg/L	0.00263491	70.07%
Ba 233.527†	62798.8	0.508848	mg/L	0.0096067	0.508848	mg/L	0.0096067	1.89%
Be 313.107†	283.0	0.0007020	mg/L	0.00001374	0.0007020	mg/L	0.00001374	1.96%
Ca 317.933†	11267571.3	206.533	mg/L	3.2965	206.533	mg/L	3.2965	1.60%
Cd 228.802†	98.3	0.0037564	mg/L	0.00012972	0.0037564	mg/L	0.00012972	3.45%
Co 228.616†	1433.2	0.0434570	mg/L	0.00055634	0.0434570	mg/L	0.00055634	1.28%
Cr 267.716†	30.7	0.0012234	mg/L	0.00025288	0.0012234	mg/L	0.00025288	20.67%
Cu 327.393†	547.7	0.0138770	mg/L	0.00075671	0.0138770	mg/L	0.00075671	5.45%
Fe 273.955†	52742.1	2.13077	mg/L	0.045239	2.13077	mg/L	0.045239	2.12%
K 404.721†	-1615.8	-42.3500	mg/L	6.39246	-42.3500	mg/L	6.39246	15.09%
Mg 279.077†	242557.5	24.0622	mg/L	0.49557	24.0622	mg/L	0.49557	2.06%
Mn 257.610†	1619539.2	3.75954	mg/L	0.071861	3.75954	mg/L	0.071861	1.91%
Mo 202.031†	24.7	0.0026285	mg/L	0.00006375	0.0026285	mg/L	0.00006375	2.43%
Na 330.237†	758116.3	1188.34	mg/L	24.206	1188.34	mg/L	24.206	2.04%
Ni 231.604†	981.3	0.0300783	mg/L	0.00229587	0.0300783	mg/L	0.00229587	7.63%
Pb 220.353†	-6.9	-0.0021037	mg/L	0.00230302	-0.0021037	mg/L	0.00230302	109.47%
Sb 206.836†	5.8	0.0039492	mg/L	0.00022270	0.0039492	mg/L	0.00022270	5.64%
Se 196.026†	-10.7	-0.0062989	mg/L	0.00499087	-0.0062989	mg/L	0.00499087	79.23%
Sn 189.927†	23.2	0.0066597	mg/L	0.00012237	0.0066597	mg/L	0.00012237	1.84%
Ti 334.940†	786.3	0.0021906	mg/L	0.00166174	0.0021906	mg/L	0.00166174	75.86%
Tl 190.801†	-3.3	-0.0062591	mg/L	0.00025530	-0.0062591	mg/L	0.00025530	4.08%
V 290.880†	2131.3	0.0150513	mg/L	0.00096105	0.0150513	mg/L	0.00096105	6.39%
Zn 206.200†	13983.0	0.351136	mg/L	0.0076931	0.351136	mg/L	0.0076931	2.19%

Sequence No.: 32  
 Sample ID: 63150-011  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 53  
 Date Collected: 12/14/2011 2:52:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63150-011  
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Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	531136.7	89.9	%	0.70				0.78%
Y 371.029	195240.2	87.9	%	0.37				0.42%
Ag 328.068†	-69.8	0.0003056	mg/L	0.00049058	0.0003056	mg/L	0.00049058	160.54%
Al 308.215†	8210.3	0.385878	mg/L	0.0068128	0.385878	mg/L	0.0068128	1.77%
As 188.979†	18.7	0.0170761	mg/L	0.00406816	0.0170761	mg/L	0.00406816	23.82%
Ba 233.527†	64518.1	0.522806	mg/L	0.0075982	0.522806	mg/L	0.0075982	1.45%
Be 313.107†	825.8	0.0009431	mg/L	0.00003548	0.0009431	mg/L	0.00003548	3.76%
Ca 317.933†	2040722.3	37.4135	mg/L	0.36401	37.4135	mg/L	0.36401	0.97%
Cd 228.802†	462.2	0.0150445	mg/L	0.00003455	0.0150445	mg/L	0.00003455	0.23%
Co 228.616†	562.7	0.0162483	mg/L	0.00090348	0.0162483	mg/L	0.00090348	5.56%
Cr 267.716†	44.4	0.0016147	mg/L	0.00007343	0.0016147	mg/L	0.00007343	4.55%
Cu 327.393†	4770.2	0.0534576	mg/L	0.00082716	0.0534576	mg/L	0.00082716	1.55%
Fe 273.955†	5708.0	0.223266	mg/L	0.0058187	0.223266	mg/L	0.0058187	2.61%
K 404.721†	-2070.5	-54.4379	mg/L	5.78148	-54.4379	mg/L	5.78148	10.62%
Mg 279.077†	46772.4	4.43279	mg/L	0.077441	4.43279	mg/L	0.077441	1.75%
Mn 257.610†	1510547.3	3.50677	mg/L	0.010442	3.50677	mg/L	0.010442	0.30%
Mo 202.031†	34.0	0.0034613	mg/L	0.00007694	0.0034613	mg/L	0.00007694	2.22%
Na 330.237†	734466.5	1151.28	mg/L	5.392	1151.28	mg/L	5.392	0.47%
Ni 231.604†	1035.9	0.0318658	mg/L	0.00076789	0.0318658	mg/L	0.00076789	2.41%
Pb 220.353†	647.9	0.139664	mg/L	0.0005521	0.139664	mg/L	0.0005521	0.40%
Sb 206.836†	11.3	0.0086979	mg/L	0.00286246	0.0086979	mg/L	0.00286246	32.91%
Se 196.026†	-3.5	-0.0049986	mg/L	0.00538273	-0.0049986	mg/L	0.00538273	107.68%
Sn 189.927†	14.6	0.0042251	mg/L	0.00155811	0.0042251	mg/L	0.00155811	36.88%
Ti 334.940†	1318.1	0.0034775	mg/L	0.00011509	0.0034775	mg/L	0.00011509	3.31%
Tl 190.801†	-0.2	-0.0032365	mg/L	0.00192675	-0.0032365	mg/L	0.00192675	59.53%
V 290.880†	809.3	0.0062136	mg/L	0.00000669	0.0062136	mg/L	0.00000669	0.11%
Zn 206.200†	40548.8	1.02187	mg/L	0.018818	1.02187	mg/L	0.018818	1.84%

Sequence No.: 33  
 Sample ID: 63167-001  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 54  
 Date Collected: 12/14/2011 2:56:23 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63167-001

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sc 361.383	488185.0	82.6	%	0.48				0.59%
Y 371.029	204757.4	92.2	%	0.45				0.49%
Ag 328.068†	-1567.9	0.0077458	mg/L	0.00031755	0.0077458	mg/L	0.00031755	4.10%
Al 308.215†	184254.2	9.11191	mg/L	0.001826	9.11191	mg/L	0.001826	0.02%
As 188.979†	-2.8	0.0129342	mg/L	0.00577613	0.0129342	mg/L	0.00577613	44.66%
Ba 233.527†	34654.2	0.280356	mg/L	0.0003368	0.280356	mg/L	0.0003368	0.12%
Be 313.107†	4822.9	0.0027190	mg/L	0.00000220	0.0027190	mg/L	0.00000220	0.08%
Ca 317.933†	52144200.0	955.766	mg/L	8.0894	955.766	mg/L	8.0894	0.85%
Cd 228.802†	87.3	0.0034218	mg/L	0.00046880	0.0034218	mg/L	0.00046880	13.70%
Co 228.616†	702.1	0.0205811	mg/L	0.00006902	0.0205811	mg/L	0.00006902	0.34%
Cr 267.716†	788.1	0.0228161	mg/L	0.00002276	0.0228161	mg/L	0.00002276	0.10%
Cu 327.393†	202745.0	2.26058	mg/L	0.001320	2.26058	mg/L	0.001320	0.06%
Fe 273.955†	35015.7	1.41186	mg/L	0.004837	1.41186	mg/L	0.004837	0.34%
K 404.721†	-1480.3	-38.7482	mg/L	0.61692	-38.7482	mg/L	0.61692	1.59%
Mg 279.077†	6091387.7	610.468	mg/L	1.3277	610.468	mg/L	1.3277	0.22%
Mn 257.610†	388156.5	0.889749	mg/L	0.0015211	0.889749	mg/L	0.0015211	0.17%
Mo 202.031†	60.0	0.0053685	mg/L	0.00013724	0.0053685	mg/L	0.00013724	2.56%
Na 330.237†	11798.8	19.0008	mg/L	0.05830	19.0008	mg/L	0.05830	0.31%
Ni 231.604†	1108.1	0.0342304	mg/L	0.00029124	0.0342304	mg/L	0.00029124	0.85%
Pb 220.353†	151057.6	32.1394	mg/L	0.02468	32.1394	mg/L	0.02468	0.08%
Sb 206.836†	255.6	0.161884	mg/L	0.0011536	0.161884	mg/L	0.0011536	0.71%
Se 196.026†	-19.0	0.0202961	mg/L	0.00793461	0.0202961	mg/L	0.00793461	39.09%
Sn 189.927†	-12.9	-0.0027655	mg/L	0.00036190	-0.0027655	mg/L	0.00036190	13.09%
Ti 334.940†	5313.5	0.0131408	mg/L	0.00052024	0.0131408	mg/L	0.00052024	3.96%
Tl 190.801†	-2.4	-0.0041374	mg/L	0.00037280	-0.0041374	mg/L	0.00037280	9.01%
V 290.880†	8359.5	-0.0251258	mg/L	0.00030224	-0.0251258	mg/L	0.00030224	1.20%
Zn 206.200†	32064.4	0.787816	mg/L	0.0003415	0.787816	mg/L	0.0003415	0.04%

Sequence No.: 34

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/14/2011 3:01:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	510455.5	86.4	%	0.21			0.24%
Y 371.029	193489.1	87.2	%	1.45			1.67%
Ag 328.068†	10978.1	0.103773	mg/L	0.0012598	0.103773 mg/L	0.0012598	1.21%
QC value within limits for Ag		328.068	Recovery =	103.77%			
Al 308.215†	105741.7	5.20723	mg/L	0.055726	5.20723 mg/L	0.055726	1.07%
QC value within limits for Al		308.215	Recovery =	104.14%			
As 188.979†	601.1	0.490754	mg/L	0.0049666	0.490754 mg/L	0.0049666	1.01%
QC value within limits for As		188.979	Recovery =	98.15%			
Ba 233.527†	64652.0	0.523893	mg/L	0.0058211	0.523893 mg/L	0.0058211	1.11%
QC value within limits for Ba		233.527	Recovery =	104.78%			
Be 313.107†	1098215.7	0.488492	mg/L	0.0015632	0.488492 mg/L	0.0015632	0.32%
QC value within limits for Be		313.107	Recovery =	97.70%			
Ca 317.933†	2736577.2	50.1679	mg/L	0.41600	50.1679 mg/L	0.41600	0.83%
QC value within limits for Ca		317.933	Recovery =	100.34%			
Cd 228.802†	16178.6	0.503289	mg/L	0.0014588	0.503289 mg/L	0.0014588	0.29%
QC value within limits for Cd		228.802	Recovery =	100.66%			
Co 228.616†	16467.4	0.512746	mg/L	0.0021454	0.512746 mg/L	0.0021454	0.42%
QC value within limits for Co		228.616	Recovery =	102.55%			
Cr 267.716†	18052.4	0.515427	mg/L	0.0087039	0.515427 mg/L	0.0087039	1.69%
QC value within limits for Cr		267.716	Recovery =	103.09%			
Cu 327.393†	47088.3	0.519480	mg/L	0.0069659	0.519480 mg/L	0.0069659	1.34%
QC value within limits for Cu		327.393	Recovery =	103.90%			
Fe 273.955†	126532.1	5.12339	mg/L	0.063889	5.12339 mg/L	0.063889	1.25%
QC value within limits for Fe		273.955	Recovery =	102.47%			
K 404.721†	968.9	26.3609	mg/L	2.61489	26.3609 mg/L	2.61489	9.92%
QC value within limits for Mg		279.077	Recovery =	99.09%			
Mg 279.077†	496616.9	49.5449	mg/L	0.00470	49.5449 mg/L	0.00470	0.01%
QC value within limits for Mg		279.077	Recovery =	99.09%			
Mn 257.610†	221940.0	0.513692	mg/L	0.0058064	0.513692 mg/L	0.0058064	1.13%
QC value within limits for Mn		257.610	Recovery =	102.74%			
Mo 202.031†	6796.6	0.510703	mg/L	0.0019939	0.510703 mg/L	0.0019939	0.39%
QC value within limits for Mo		202.031	Recovery =	102.14%			
Na 330.237†	31979.9	50.6207	mg/L	0.33424	50.6207 mg/L	0.33424	0.66%
QC value within limits for Na		330.237	Recovery =	101.24%			
Ni 231.604†	15996.9	0.522200	mg/L	0.0094693	0.522200 mg/L	0.0094693	1.81%
QC value within limits for Ni		231.604	Recovery =	104.44%			
Pb 220.353†	2418.2	0.513784	mg/L	0.0017054	0.513784 mg/L	0.0017054	0.33%
QC value within limits for Pb		220.353	Recovery =	102.76%			
Sb 206.836†	748.6	0.508337	mg/L	0.0015175	0.508337 mg/L	0.0015175	0.30%
QC value within limits for Sb		206.836	Recovery =	101.67%			
Se 196.026†	403.0	0.496773	mg/L	0.0030085	0.496773 mg/L	0.0030085	0.61%
QC value within limits for Se		196.026	Recovery =	99.35%			
Sn 189.927†	2018.5	0.524498	mg/L	0.0052300	0.524498 mg/L	0.0052300	1.00%
QC value within limits for Sn		189.927	Recovery =	104.90%			
Ti 334.940†	213972.7	0.517954	mg/L	0.0055110	0.517954 mg/L	0.0055110	1.06%
QC value within limits for Ti		334.940	Recovery =	103.59%			
Tl 190.801†	566.6	0.539201	mg/L	0.0042797	0.539201 mg/L	0.0042797	0.79%
QC value within limits for Tl		190.801	Recovery =	107.84%			
V 290.880†	56558.7	0.513665	mg/L	0.0060198	0.513665 mg/L	0.0060198	1.17%
QC value within limits for V		290.880	Recovery =	102.73%			
Zn 206.200†	20073.3	0.504668	mg/L	0.0058762	0.504668 mg/L	0.0058762	1.16%
QC value within limits for Zn		206.200	Recovery =	100.93%			

All analyte(s) passed QC.

Sequence No.: 35

Autosampler Location: 2

Sample ID: CCB V-129815

Date Collected: 12/14/2011 3:05:00 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	542934.5	91.9 %		0.58			0.63%
Y 371.029	204389.8	92.1 %		0.72			0.79%
Ag 328.068†	17.6	0.0002213 mg/L		0.00030916	0.0002213 mg/L	0.00030916	139.72%
QC value within limits for Ag 328.068		Recovery = Not calculated					
Al 308.215†	-5.2	-0.0212945 mg/L		0.00045993	-0.0212945 mg/L	0.00045993	2.16%
QC value within limits for Al 308.215		Recovery = Not calculated					
As 188.979†	1.3	0.0029026 mg/L		0.00381010	0.0029026 mg/L	0.00381010	131.26%
QC value within limits for As 188.979		Recovery = Not calculated					
Ba 233.527†	8.3	-0.0009157 mg/L		0.00009783	-0.0009157 mg/L	0.00009783	10.68%
QC value within limits for Ba 233.527		Recovery = Not calculated					
Be 313.107†	149.2	0.0006425 mg/L		0.00003232	0.0006425 mg/L	0.00003232	5.03%
QC value within limits for Be 313.107		Recovery = Not calculated					
Ca 317.933†	-110.2	0.0068892 mg/L		0.00098784	0.0068892 mg/L	0.00098784	14.34%
QC value within limits for Ca 317.933		Recovery = Not calculated					
Cd 228.802†	23.3	0.0013840 mg/L		0.00026868	0.0013840 mg/L	0.00026868	19.41%
QC value within limits for Cd 228.802		Recovery = Not calculated					
Co 228.616†	2.6	-0.0012496 mg/L		0.00023691	-0.0012496 mg/L	0.00023691	18.96%
QC value within limits for Co 228.616		Recovery = Not calculated					
Cr 267.716†	11.5	0.0006759 mg/L		0.00044482	0.0006759 mg/L	0.00044482	65.81%
QC value within limits for Cr 267.716		Recovery = Not calculated					
Cu 327.393†	-122.4	-0.0016815 mg/L		0.00115889	-0.0016815 mg/L	0.00115889	68.92%
QC value within limits for Cu 327.393		Recovery = Not calculated					
Fe 273.955†	36.5	-0.0067491 mg/L		0.00085274	-0.0067491 mg/L	0.00085274	12.63%
QC value within limits for Fe 273.955		Recovery = Not calculated					
K 404.721†	-542.1	-13.8068 mg/L		1.07718	-13.8068 mg/L	1.07718	7.80%
Mg 279.077†	30.9	-0.253573 mg/L		0.0030220	-0.253573 mg/L	0.0030220	1.19%
QC value within limits for Mg 279.077		Recovery = Not calculated					
Mn 257.610†	-53.0	-0.0011635 mg/L		0.00002975	-0.0011635 mg/L	0.00002975	2.56%
QC value within limits for Mn 257.610		Recovery = Not calculated					
Mo 202.031†	7.5	0.0012657 mg/L		0.00031749	0.0012657 mg/L	0.00031749	25.08%
QC value within limits for Mo 202.031		Recovery = Not calculated					
Na 330.237†	590.9	1.44020 mg/L		0.056760	1.44020 mg/L	0.056760	3.94%
QC value within limits for Na 330.237		Recovery = Not calculated					
Ni 231.604†	47.3	-0.0004478 mg/L		0.00025171	-0.0004478 mg/L	0.00025171	56.21%
QC value within limits for Ni 231.604		Recovery = Not calculated					
Pb 220.353†	15.7	0.0052383 mg/L		0.00041178	0.0052383 mg/L	0.00041178	7.86%
QC value within limits for Pb 220.353		Recovery = Not calculated					
Sb 206.836†	1.3	0.0022780 mg/L		0.00152634	0.0022780 mg/L	0.00152634	67.00%
QC value within limits for Sb 206.836		Recovery = Not calculated					
Se 196.026†	2.7	0.0059089 mg/L		0.00465553	0.0059089 mg/L	0.00465553	78.79%
QC value within limits for Se 196.026		Recovery = Not calculated					
Sn 189.927†	7.9	0.0024639 mg/L		0.00123238	0.0024639 mg/L	0.00123238	50.02%
QC value within limits for Sn 189.927		Recovery = Not calculated					
Ti 334.940†	1.3	0.0002911 mg/L		0.00012753	0.0002911 mg/L	0.00012753	43.81%
QC value within limits for Ti 334.940		Recovery = Not calculated					
Tl 190.801†	2.7	0.0008886 mg/L		0.00239437	0.0008886 mg/L	0.00239437	269.46%
QC value within limits for Tl 190.801		Recovery = Not calculated					
V 290.880†	-127.1	-0.0016428 mg/L		0.00012800	-0.0016428 mg/L	0.00012800	7.79%
QC value within limits for V 290.880		Recovery = Not calculated					
Zn 206.200†	-42.3	-0.0018238 mg/L		0.00024930	-0.0018238 mg/L	0.00024930	13.67%
QC value within limits for Zn 206.200		Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 36  
 Sample ID: 63167-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 55  
 Date Collected: 12/14/2011 3:08:21 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63167-002  
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Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	523978.0	88.7	%	0.36				0.41%
Y 371.029	213595.8	96.2	%	0.30				0.31%
Ag 328.068†	-1547.0	0.0063590	mg/L	0.00050956	0.0063590	mg/L	0.00050956	8.01%
Al 308.215†	183148.8	9.05710	mg/L	0.002443	9.05710	mg/L	0.002443	0.03%
As 188.979†	2.8	0.0167717	mg/L	0.00301886	0.0167717	mg/L	0.00301886	18.00%
Ba 233.527†	25441.6	0.205564	mg/L	0.0024586	0.205564	mg/L	0.0024586	1.20%
Be 313.107†	4796.9	0.0027074	mg/L	0.00002853	0.0027074	mg/L	0.00002853	1.05%
Ca 317.933†	46364130.6	849.822	mg/L	29.3283	849.822	mg/L	29.3283	3.45%
Cd 228.802†	68.2	0.0028258	mg/L	0.00010851	0.0028258	mg/L	0.00010851	3.84%
Co 228.616†	685.0	0.0200273	mg/L	0.00010017	0.0200273	mg/L	0.00010017	0.50%
Cr 267.716†	822.4	0.0237937	mg/L	0.00077713	0.0237937	mg/L	0.00077713	3.27%
Cu 327.393†	273765.7	3.03558	mg/L	0.000274	3.03558	mg/L	0.000274	0.01%
Fe 273.955†	188605.9	7.64085	mg/L	0.007461	7.64085	mg/L	0.007461	0.10%
K 404.721†	-679.7	-17.4640	mg/L	3.64502	-17.4640	mg/L	3.64502	20.87%
Mg 279.077†	5640560.1	565.267	mg/L	23.8257	565.267	mg/L	23.8257	4.21%
Mn 257.610†	379641.8	0.870761	mg/L	0.0005766	0.870761	mg/L	0.0005766	0.07%
Mo 202.031†	69.9	0.0061073	mg/L	0.00041333	0.0061073	mg/L	0.00041333	6.77%
Na 330.237†	16704.0	26.6862	mg/L	0.06209	26.6862	mg/L	0.06209	0.23%
Ni 231.604†	1056.8	0.0325548	mg/L	0.00074761	0.0325548	mg/L	0.00074761	2.30%
Pb 220.353†	4521.3	0.948109	mg/L	0.0112149	0.948109	mg/L	0.0112149	1.18%
Sb 206.836†	254.8	0.162336	mg/L	0.0028185	0.162336	mg/L	0.0028185	1.74%
Se 196.026†	-7.6	0.0311140	mg/L	0.00103365	0.0311140	mg/L	0.00103365	3.32%
Sn 189.927†	-5.6	-0.0002482	mg/L	0.00109776	-0.0002482	mg/L	0.00109776	442.21%
Ti 334.940†	8712.2	0.0213650	mg/L	0.00027363	0.0213650	mg/L	0.00027363	1.28%
Tl 190.801†	2.1	0.0001888	mg/L	0.00087824	0.0001888	mg/L	0.00087824	465.13%
V 290.880†	8376.0	-0.0177654	mg/L	0.00113995	-0.0177654	mg/L	0.00113995	6.42%
Zn 206.200†	32111.5	0.790502	mg/L	0.0117772	0.790502	mg/L	0.0117772	1.49%

Sequence No.: 37  
 Sample ID: 63167-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 56  
 Date Collected: 12/14/2011 3:13:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63167-003

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	572793.9	97.0	%	2.61				2.70%
Y 371.029	241665.2	109	%	2.7				2.47%
Ag 328.068†	-1679.0	0.0066787	mg/L	0.00050951	0.0066787	mg/L	0.00050951	7.63%
Al 308.215†	188583.4	9.32649	mg/L	0.072903	9.32649	mg/L	0.072903	0.78%
As 188.979†	-7.0	0.0098328	mg/L	0.00739592	0.0098328	mg/L	0.00739592	75.22%
Ba 233.527†	38244.0	0.309501	mg/L	0.0016523	0.309501	mg/L	0.0016523	0.53%
Be 313.107†	4798.3	0.0027080	mg/L	0.00001666	0.0027080	mg/L	0.00001666	0.62%
Ca 317.933†	52251812.0	957.738	mg/L	23.3586	957.738	mg/L	23.3586	2.44%
Cd 228.802†	64.7	0.0027286	mg/L	0.00103617	0.0027286	mg/L	0.00103617	37.97%
Co 228.616†	985.7	0.0294324	mg/L	0.00156344	0.0294324	mg/L	0.00156344	5.31%
Cr 267.716†	891.4	0.0257605	mg/L	0.00063067	0.0257605	mg/L	0.00063067	2.45%
Cu 327.393†	216718.6	2.41388	mg/L	0.015849	2.41388	mg/L	0.015849	0.66%
Fe 273.955†	20451.7	0.821207	mg/L	0.0283758	0.821207	mg/L	0.0283758	3.46%
K 404.721†	202.5	5.98856	mg/L	8.597570	5.98856	mg/L	8.597570	143.57%
Mg 279.077†	6516559.4	653.095	mg/L	3.7219	653.095	mg/L	3.7219	0.57%
Mn 257.610†	497962.6	1.14401	mg/L	0.005850	1.14401	mg/L	0.005850	0.51%
Mo 202.031†	63.2	0.0056217	mg/L	0.00012676	0.0056217	mg/L	0.00012676	2.25%
Na 330.237†	22266.7	35.4019	mg/L	0.30352	35.4019	mg/L	0.30352	0.86%
Ni 231.604†	1328.8	0.0414430	mg/L	0.00164760	0.0414430	mg/L	0.00164760	3.98%
Pb 220.353†	124085.3	26.3978	mg/L	0.07867	26.3978	mg/L	0.07867	0.30%
Sb 206.836†	232.3	0.146177	mg/L	0.0029257	0.146177	mg/L	0.0029257	2.00%
Se 196.026†	-8.4	0.0328939	mg/L	0.00548746	0.0328939	mg/L	0.00548746	16.68%
Sn 189.927†	-14.5	-0.0032308	mg/L	0.00058962	-0.0032308	mg/L	0.00058962	18.25%
Ti 334.940†	6943.1	0.0170834	mg/L	0.00082714	0.0170834	mg/L	0.00082714	4.84%
Tl 190.801†	-2.2	-0.0040904	mg/L	0.00246149	-0.0040904	mg/L	0.00246149	60.18%
V 290.880†	7253.4	-0.0424161	mg/L	0.00016943	-0.0424161	mg/L	0.00016943	0.40%
Zn 206.200†	34265.7	0.841933	mg/L	0.0273255	0.841933	mg/L	0.0273255	3.25%

Sequence No.: 38  
 Sample ID: 63167-004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 57  
 Date Collected: 12/14/2011 3:18:33 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63167-004

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	597195.5	101	%	0.8				0.84%
Y 371.029	247913.3	112	%	1.0				0.85%
Ag 328.068†	-1596.1	0.0062436	mg/L	0.00038542	0.0062436	mg/L	0.00038542	6.17%
Al 308.215†	230044.1	11.3816	mg/L	0.00219	11.3816	mg/L	0.00219	0.02%
As 188.979†	2.4	0.0157706	mg/L	0.00018502	0.0157706	mg/L	0.00018502	1.17%
Ba 233.527†	28619.5	0.231364	mg/L	0.0002283	0.231364	mg/L	0.0002283	0.10%
Be 313.107†	5274.4	0.0029196	mg/L	0.00001924	0.0029196	mg/L	0.00001924	0.66%
Ca 317.933†	49082370.1	899.645	mg/L	16.3152	899.645	mg/L	16.3152	1.81%
Cd 228.802†	42.9	0.0020404	mg/L	0.00042186	0.0020404	mg/L	0.00042186	20.68%
Co 228.616†	643.5	0.0187323	mg/L	0.00090056	0.0187323	mg/L	0.00090056	4.81%
Cr 267.716†	1050.1	0.0302824	mg/L	0.00022876	0.0302824	mg/L	0.00022876	0.76%
Cu 327.393†	261355.3	2.90115	mg/L	0.009138	2.90115	mg/L	0.009138	0.31%
Fe 273.955†	44553.7	1.79869	mg/L	0.002096	1.79869	mg/L	0.002096	0.12%
K 404.721†	304.9	8.70986	mg/L	6.353296	8.70986	mg/L	6.353296	72.94%
Mg 279.077†	5195130.3	520.609	mg/L	12.5195	520.609	mg/L	12.5195	2.40%
Mn 257.610†	348762.9	0.799828	mg/L	0.0003414	0.799828	mg/L	0.0003414	0.04%
Mo 202.031†	61.0	0.0055033	mg/L	0.00088022	0.0055033	mg/L	0.00088022	15.99%
Na 330.237†	14147.5	22.6807	mg/L	0.28594	22.6807	mg/L	0.28594	1.26%
Ni 231.604†	1037.6	0.0319244	mg/L	0.00107670	0.0319244	mg/L	0.00107670	3.37%
Pb 220.353†	239531.0	50.9716	mg/L	0.19380	50.9716	mg/L	0.19380	0.38%
Sb 206.836†	420.9	0.272459	mg/L	0.0014431	0.272459	mg/L	0.0014431	0.53%
Se 196.026†	-8.0	0.0315899	mg/L	0.00429273	0.0315899	mg/L	0.00429273	13.59%
Sn 189.927†	-15.5	-0.0033991	mg/L	0.00012082	-0.0033991	mg/L	0.00012082	3.55%
Ti 334.940†	7749.1	0.0190328	mg/L	0.00003089	0.0190328	mg/L	0.00003089	0.16%
Tl 190.801†	3.9	0.0018799	mg/L	0.00291946	0.0018799	mg/L	0.00291946	155.30%
V 290.880†	6981.8	-0.0228928	mg/L	0.00231549	-0.0228928	mg/L	0.00231549	10.11%
Zn 206.200†	44529.9	1.10523	mg/L	0.008022	1.10523	mg/L	0.008022	0.73%

Sequence No.: 39  
 Sample ID: EF-1 V-130089  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 58  
 Date Collected: 12/14/2011 3:23:38 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: EF-1 V-130089

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	596057.0	101	%	1.7				1.70%
Y 371.029	220778.4	99.4	%	1.71				1.72%
Ag 328.068†	22.6	0.0002737	mg/L	0.00047031	0.0002737	mg/L	0.00047031	171.83%
Al 308.215†	451.8	0.0013441	mg/L	0.00336196	0.0013441	mg/L	0.00336196	250.12%
As 188.979†	-0.6	0.0014419	mg/L	0.00235236	0.0014419	mg/L	0.00235236	163.15%
Ba 233.527†	215.8	0.0007690	mg/L	0.00009632	0.0007690	mg/L	0.00009632	12.53%
Be 313.107†	-136.4	0.0005157	mg/L	0.00007318	0.0005157	mg/L	0.00007318	14.19%
Ca 317.933†	10243.2	0.196658	mg/L	0.0270576	0.196658	mg/L	0.0270576	13.76%
Cd 228.802†	5.8	0.0008444	mg/L	0.00035481	0.0008444	mg/L	0.00035481	42.02%
Co 228.616†	25.3	-0.0005386	mg/L	0.00011086	-0.0005386	mg/L	0.00011086	20.58%
Cr 267.716†	19.4	0.0009018	mg/L	0.00023149	0.0009018	mg/L	0.00023149	25.67%
Cu 327.393†	101.1	0.0007763	mg/L	0.00000725	0.0007763	mg/L	0.00000725	0.93%
Fe 273.955†	287.0	0.0034126	mg/L	0.00084220	0.0034126	mg/L	0.00084220	24.68%
K 404.721†	-1296.1	-33.8508	mg/L	3.87152	-33.8508	mg/L	3.87152	11.44%
Mg 279.077†	870.9	-0.169335	mg/L	0.0158444	-0.169335	mg/L	0.0158444	9.36%
Mn 257.610†	103.3	-0.0008018	mg/L	0.00001438	-0.0008018	mg/L	0.00001438	1.79%
Mo 202.031†	15.7	0.0018802	mg/L	0.00044154	0.0018802	mg/L	0.00044154	23.48%
Na 330.237†	747194.6	1171.22	mg/L	5.288	1171.22	mg/L	5.288	0.45%
Ni 231.604†	135.3	0.0024306	mg/L	0.00081082	0.0024306	mg/L	0.00081082	33.36%
Pb 220.353†	124.0	0.0282885	mg/L	0.00230201	0.0282885	mg/L	0.00230201	8.14%
Sb 206.836†	1.6	0.0024419	mg/L	0.00409925	0.0024419	mg/L	0.00409925	167.87%
Se 196.026†	-2.2	-0.0000094	mg/L	0.00507075	-0.0000094	mg/L	0.00507075	>999.9%
Sn 189.927†	0.6	0.0005872	mg/L	0.00040606	0.0005872	mg/L	0.00040606	69.16%
Ti 334.940†	-174.8	-0.0001351	mg/L	0.00018317	-0.0001351	mg/L	0.00018317	135.58%
Tl 190.801†	-0.9	-0.0025352	mg/L	0.00001976	-0.0025352	mg/L	0.00001976	0.78%
V 290.880†	63.1	0.0000992	mg/L	0.00024693	0.0000992	mg/L	0.00024693	249.01%
Zn 206.200†	312.6	0.0071263	mg/L	0.00005478	0.0071263	mg/L	0.00005478	0.77%

Sequence No.: 40  
 Sample ID: EF-2 V-129043  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 59  
 Date Collected: 12/14/2011 3:26:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: EF-2 V-129043

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	638710.8		108 %	1.2				1.10%
Y 371.029	237516.8		107 %	1.0				0.96%
Ag 328.068†	15.3	0.0002532	mg/L	0.00031611	0.0002532	mg/L	0.00031611	124.85%
Al 308.215†	1041.9	0.0306038	mg/L	0.00019786	0.0306038	mg/L	0.00019786	0.65%
As 188.979†	-2.5	-0.0000781	mg/L	0.00137255	-0.0000781	mg/L	0.00137255	>999.9%
Ba 233.527†	1500.4	0.0111980	mg/L	0.00020434	0.0111980	mg/L	0.00020434	1.82%
Be 313.107†	-144.9	0.0005119	mg/L	0.00000160	0.0005119	mg/L	0.00000160	0.31%
Ca 317.933†	108197.2	1.99207	mg/L	0.006184	1.99207	mg/L	0.006184	0.31%
Cd 228.802†	-11.6	0.0002969	mg/L	0.00000185	0.0002969	mg/L	0.00000185	0.62%
Co 228.616†	-29.9	-0.0022653	mg/L	0.00002947	-0.0022653	mg/L	0.00002947	1.30%
Cr 267.716†	46.4	0.0016707	mg/L	0.00016470	0.0016707	mg/L	0.00016470	9.86%
Cu 327.393†	85.2	0.0006756	mg/L	0.00211331	0.0006756	mg/L	0.00211331	312.82%
Fe 273.955†	1290.0	0.0440892	mg/L	0.00109886	0.0440892	mg/L	0.00109886	2.49%
K 404.721†	451.5	12.6061	mg/L	1.78363	12.6061	mg/L	1.78363	14.15%
Mg 279.077†	4202.4	0.164674	mg/L	0.0060923	0.164674	mg/L	0.0060923	3.70%
Mn 257.610†	590.2	0.0003228	mg/L	0.00008251	0.0003228	mg/L	0.00008251	25.56%
Mo 202.031†	9.5	0.0014174	mg/L	0.00028449	0.0014174	mg/L	0.00028449	20.07%
Na 330.237†	9376.0	15.2047	mg/L	0.03124	15.2047	mg/L	0.03124	0.21%
Ni 231.604†	-3.7	-0.0021135	mg/L	0.00076275	-0.0021135	mg/L	0.00076275	36.09%
Pb 220.353†	50.8	0.0126706	mg/L	0.00361350	0.0126706	mg/L	0.00361350	28.52%
Sb 206.836†	-4.1	-0.0013212	mg/L	0.00215648	-0.0013212	mg/L	0.00215648	163.22%
Se 196.026†	2.7	0.0059795	mg/L	0.00181036	0.0059795	mg/L	0.00181036	30.28%
Sn 189.927†	13.0	0.0037974	mg/L	0.00066045	0.0037974	mg/L	0.00066045	17.39%
Ti 334.940†	23.8	0.0003454	mg/L	0.00003245	0.0003454	mg/L	0.00003245	9.40%
Tl 190.801†	3.9	0.0020777	mg/L	0.00300698	0.0020777	mg/L	0.00300698	144.73%
V 290.880†	-72.9	-0.0012153	mg/L	0.00020526	-0.0012153	mg/L	0.00020526	16.89%
Zn 206.200†	634.2	0.0152288	mg/L	0.00000007	0.0152288	mg/L	0.00000007	0.00%

Sequence No.: 41  
 Sample ID: EF-2 V-130604  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 60  
 Date Collected: 12/14/2011 3:30:22 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: EF-2 V-130604

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	641134.4		109 %	1.5				1.43%
Y 371.029	239496.7		108 %	1.5				1.42%
Ag 328.068†	-3.6	0.0000737	mg/L	0.00038670	0.0000737	mg/L	0.00038670	524.37%
Al 308.215†	1108.6	0.0339080	mg/L	0.00042325	0.0339080	mg/L	0.00042325	1.25%
As 188.979†	-0.9	0.0011464	mg/L	0.00677059	0.0011464	mg/L	0.00677059	590.58%
Ba 233.527†	1598.0	0.0119906	mg/L	0.00001400	0.0119906	mg/L	0.00001400	0.12%
Be 313.107†	-193.5	0.0004903	mg/L	0.00003680	0.0004903	mg/L	0.00003680	7.51%
Ca 317.933†	112223.6	2.06587	mg/L	0.025099	2.06587	mg/L	0.025099	1.21%
Cd 228.802†	-10.8	0.0003199	mg/L	0.00051502	0.0003199	mg/L	0.00051502	161.01%
Co 228.616†	-21.0	-0.0019876	mg/L	0.00039508	-0.0019876	mg/L	0.00039508	19.88%
Cr 267.716†	39.0	0.0014603	mg/L	0.00029946	0.0014603	mg/L	0.00029946	20.51%
Cu 327.393†	25.3	0.0000199	mg/L	0.00017187	0.0000199	mg/L	0.00017187	864.70%
Fe 273.955†	277.0	0.0030051	mg/L	0.00020811	0.0030051	mg/L	0.00020811	6.93%
K 404.721†	687.0	18.8688	mg/L	0.12986	18.8688	mg/L	0.12986	0.69%
Mg 279.077†	4701.8	0.214741	mg/L	0.0094329	0.214741	mg/L	0.0094329	4.39%
Mn 257.610†	1253.5	0.0018625	mg/L	0.00002336	0.0018625	mg/L	0.00002336	1.25%
Mo 202.031†	10.6	0.0015008	mg/L	0.00002202	0.0015008	mg/L	0.00002202	1.47%
Na 330.237†	8970.2	14.5690	mg/L	0.16911	14.5690	mg/L	0.16911	1.16%
Ni 231.604†	-53.0	-0.0037248	mg/L	0.00115607	-0.0037248	mg/L	0.00115607	31.04%
Pb 220.353†	21.6	0.0064606	mg/L	0.00027078	0.0064606	mg/L	0.00027078	4.19%
Sb 206.836†	-2.7	-0.0003872	mg/L	0.00039941	-0.0003872	mg/L	0.00039941	103.15%
Se 196.026†	1.9	0.0050060	mg/L	0.00072484	0.0050060	mg/L	0.00072484	14.48%
Sn 189.927†	8.1	0.0025313	mg/L	0.00170114	0.0025313	mg/L	0.00170114	67.20%
Ti 334.940†	-21.3	0.0002363	mg/L	0.00007982	0.0002363	mg/L	0.00007982	33.77%
Tl 190.801†	-0.7	-0.0022787	mg/L	0.00003960	-0.0022787	mg/L	0.00003960	1.74%
V 290.880†	-126.6	-0.0017170	mg/L	0.00080479	-0.0017170	mg/L	0.00080479	46.87%
Zn 206.200†	954.3	0.0233003	mg/L	0.00013664	0.0233003	mg/L	0.00013664	0.59%

Sequence No.: 42  
 Sample ID: ICSA V-129812  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 12/14/2011 3:33:45 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSA V-129812

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	513149.7	86.9	%	0.67				0.77%
Y 371.029	189020.8	85.1	%	0.85				1.00%
Ag 328.068†	-3896.4	0.0020439	mg/L	0.00015377	0.0020439	mg/L	0.00015377	7.52%
Al 308.215†	10088576.8	500.046	mg/L	7.4610	500.046	mg/L	7.4610	1.49%
QC value within limits for Al 308.215 Recovery = 100.01%								
As 188.979†	-7.2	-0.0015586	mg/L	0.00080998	-0.0015586	mg/L	0.00080998	51.97%
Ba 233.527†	829.5	0.0057519	mg/L	0.00030062	0.0057519	mg/L	0.00030062	5.23%
Be 313.107†	-1317.9	-0.0000093	mg/L	0.00002310	-0.0000093	mg/L	0.00002310	249.16%
Ca 317.933†	27216063.3	498.855	mg/L	5.8866	498.855	mg/L	5.8866	1.18%
QC value within limits for Ca 317.933 Recovery = 99.77%								
Cd 228.802†	79.7	0.0031369	mg/L	0.00066041	0.0031369	mg/L	0.00066041	21.05%
Co 228.616†	107.5	0.0020242	mg/L	0.00036514	0.0020242	mg/L	0.00036514	18.04%
Cr 267.716†	-87.0	-0.0021334	mg/L	0.00037146	-0.0021334	mg/L	0.00037146	17.41%
Cu 327.393†	-2635.7	-0.0001783	mg/L	0.00081300	-0.0001783	mg/L	0.00081300	456.02%
Fe 273.955†	4743466.4	192.367	mg/L	2.7955	192.367	mg/L	2.7955	1.45%
QC value within limits for Fe 273.955 Recovery = 96.18%								
K 404.721†	-2437.5	-64.1919	mg/L	2.07666	-64.1919	mg/L	2.07666	3.24%
Mg 279.077†	5262463.1	527.359	mg/L	7.3151	527.359	mg/L	7.3151	1.39%
QC value within limits for Mg 279.077 Recovery = 105.47%								
Mn 257.610†	892.1	-0.0081406	mg/L	0.00009663	-0.0081406	mg/L	0.00009663	1.19%
Mo 202.031†	-27.2	-0.0013402	mg/L	0.00036611	-0.0013402	mg/L	0.00036611	27.32%
Na 330.237†	4718.6	7.90747	mg/L	0.185532	7.90747	mg/L	0.185532	2.35%
Ni 231.604†	113.7	0.0017135	mg/L	0.00075419	0.0017135	mg/L	0.00075419	44.01%
Pb 220.353†	1684.5	0.0220339	mg/L	0.00697532	0.0220339	mg/L	0.00697532	31.66%
Sb 206.836†	24.8	0.0023295	mg/L	0.00312290	0.0023295	mg/L	0.00312290	134.06%
Se 196.026†	-67.9	-0.0030386	mg/L	0.00357349	-0.0030386	mg/L	0.00357349	117.60%
Sn 189.927†	-55.5	0.0054977	mg/L	0.00005923	0.0054977	mg/L	0.00005923	1.08%
Ti 334.940†	-89.5	0.0000722	mg/L	0.00008949	0.0000722	mg/L	0.00008949	123.98%
Tl 190.801†	-2.8	-0.0010521	mg/L	0.00502080	-0.0010521	mg/L	0.00502080	477.21%
V 290.880†	9486.5	-0.0108859	mg/L	0.00263945	-0.0108859	mg/L	0.00263945	24.25%
Zn 206.200†	-104.5	-0.0208743	mg/L	0.00050730	-0.0208743	mg/L	0.00050730	2.43%

All analyte(s) passed QC.

Sequence No.: 43

Autosampler Location: 8

Sample ID: ICSAB V-129814

Date Collected: 12/14/2011 3:38:47 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-129814

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	514542.3	87.1 %	0.68			0.78%
Y 371.029	189625.2	85.4 %	0.66			0.77%
Ag 328.068†	112737.5	1.08336 mg/L	0.006346	1.08336 mg/L	0.006346	0.59%
QC value within limits for Ag		328.068	Recovery = 108.34%			
Al 308.215†	9933786.8	492.373 mg/L	1.4725	492.373 mg/L	1.4725	0.30%
QC value within limits for Al		308.215	Recovery = 98.47%			
As 188.979†	1261.8	1.02607 mg/L	0.014420	1.02607 mg/L	0.014420	1.41%
QC value within limits for As		188.979	Recovery = 102.61%			
Ba 233.527†	65746.9	0.532782 mg/L	0.0010048	0.532782 mg/L	0.0010048	0.19%
QC value within limits for Ba		233.527	Recovery = 106.56%			
Be 313.107†	1123265.0	0.499621 mg/L	0.0012200	0.499621 mg/L	0.0012200	0.24%
QC value within limits for Be		313.107	Recovery = 99.92%			
Ca 317.933†	26832754.8	491.830 mg/L	3.7799	491.830 mg/L	3.7799	0.77%
QC value within limits for Ca		317.933	Recovery = 98.37%			
Cd 228.802†	32942.3	1.02392 mg/L	0.005735	1.02392 mg/L	0.005735	0.56%
QC value within limits for Cd		228.802	Recovery = 102.39%			
Co 228.616†	15494.8	0.482741 mg/L	0.0027706	0.482741 mg/L	0.0027706	0.57%
QC value within limits for Co		228.616	Recovery = 96.55%			
Cr 267.716†	17231.9	0.491500 mg/L	0.0003879	0.491500 mg/L	0.0003879	0.08%
QC value within limits for Cr		267.716	Recovery = 98.30%			
Cu 327.393†	45574.9	0.528027 mg/L	0.0017409	0.528027 mg/L	0.0017409	0.33%
QC value within limits for Cu		327.393	Recovery = 105.61%			
Fe 273.955†	4640460.9	188.190 mg/L	0.2170	188.190 mg/L	0.2170	0.12%
QC value within limits for Fe		273.955	Recovery = 94.09%			
K 404.721†	-2044.5	-53.7459 mg/L	4.86611	-53.7459 mg/L	4.86611	9.05%
Mg 279.077†	5123511.4	513.428 mg/L	0.0239	513.428 mg/L	0.0239	0.00%
QC value within limits for Mg		279.077	Recovery = 102.69%			
Mn 257.610†	218882.5	0.498334 mg/L	0.0012709	0.498334 mg/L	0.0012709	0.26%
QC value within limits for Mn		257.610	Recovery = 99.67%			
Mo 202.031†	-18.9	-0.0005173 mg/L	0.00015259	-0.0005173 mg/L	0.00015259	29.50%
Na 330.237†	5075.2	8.46614 mg/L	0.093670	8.46614 mg/L	0.093670	1.11%
Ni 231.604†	28866.3	0.941350 mg/L	0.0057424	0.941350 mg/L	0.0057424	0.61%
QC value within limits for Ni		231.604	Recovery = 94.13%			
Pb 220.353†	6098.6	0.967530 mg/L	0.0123216	0.967530 mg/L	0.0123216	1.27%
QC value within limits for Pb		220.353	Recovery = 96.75%			
Sb 206.836†	1567.0	1.02801 mg/L	0.002847	1.02801 mg/L	0.002847	0.28%
QC value within limits for Sb		206.836	Recovery = 102.80%			
Se 196.026†	766.0	1.01149 mg/L	0.009152	1.01149 mg/L	0.009152	0.90%
QC value within limits for Se		196.026	Recovery = 101.15%			
Sn 189.927†	-45.7	0.0076119 mg/L	0.00146442	0.0076119 mg/L	0.00146442	19.24%
Ti 334.940†	-24.2	0.0001093 mg/L	0.00024999	0.0001093 mg/L	0.00024999	228.69%
Tl 190.801†	1040.4	0.990866 mg/L	0.0059177	0.990866 mg/L	0.0059177	0.60%
QC value within limits for Tl		190.801	Recovery = 99.09%			
V 290.880†	61060.6	0.468007 mg/L	0.0025324	0.468007 mg/L	0.0025324	0.54%
QC value within limits for V		290.880	Recovery = 93.60%			
Zn 206.200†	39262.8	0.973288 mg/L	0.0077684	0.973288 mg/L	0.0077684	0.80%
QC value within limits for Zn		206.200	Recovery = 97.33%			

All analyte(s) passed QC.

Sequence No.: 44

Autosampler Location: 6

Sample ID: CCV V-129808

Date Collected: 12/14/2011 3:43:49 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----  
Mean Data: CCV V-129808

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	560330.5	94.9 %		1.08			1.14%
Y 371.029	204435.6	92.1 %		1.26			1.36%
Ag 328.068†	10639.5	0.100619 mg/L		0.0036564	0.100619 mg/L	0.0036564	3.63%
							QC value within limits for Ag 328.068 Recovery = 100.62%
Al 308.215†	101870.0	5.01563 mg/L		0.132891	5.01563 mg/L	0.132891	2.65%
							QC value within limits for Al 308.215 Recovery = 100.31%
As 188.979†	597.4	0.487666 mg/L		0.0026242	0.487666 mg/L	0.0026242	0.54%
							QC value within limits for As 188.979 Recovery = 97.53%
Ba 233.527†	62662.5	0.507742 mg/L		0.0155009	0.507742 mg/L	0.0155009	3.05%
							QC value within limits for Ba 233.527 Recovery = 101.55%
Be 313.107†	1114221.0	0.495603 mg/L		0.0012256	0.495603 mg/L	0.0012256	0.25%
							QC value within limits for Be 313.107 Recovery = 99.12%
Ca 317.933†	2752977.0	50.4685 mg/L		0.14223	50.4685 mg/L	0.14223	0.28%
							QC value within limits for Ca 317.933 Recovery = 100.94%
Cd 228.802†	15450.5	0.480679 mg/L		0.0048618	0.480679 mg/L	0.0048618	1.01%
							QC value within limits for Cd 228.802 Recovery = 96.14%
Co 228.616†	16166.0	0.503360 mg/L		0.0036117	0.503360 mg/L	0.0036117	0.72%
							QC value within limits for Co 228.616 Recovery = 100.67%
Cr 267.716†	17474.2	0.498937 mg/L		0.0127602	0.498937 mg/L	0.0127602	2.56%
							QC value within limits for Cr 267.716 Recovery = 99.79%
Cu 327.393†	45524.3	0.502284 mg/L		0.0137053	0.502284 mg/L	0.0137053	2.73%
							QC value within limits for Cu 327.393 Recovery = 100.46%
Fe 273.955†	123058.4	4.98251 mg/L		0.148541	4.98251 mg/L	0.148541	2.98%
							QC value within limits for Fe 273.955 Recovery = 99.65%
K 404.721†	1829.2	49.2322 mg/L		4.59423	49.2322 mg/L	4.59423	9.33%
Mg 279.077†	511741.0	51.0610 mg/L		0.18038	51.0610 mg/L	0.18038	0.35%
							QC value within limits for Mg 279.077 Recovery = 102.12%
Mn 257.610†	214843.1	0.497181 mg/L		0.0150006	0.497181 mg/L	0.0150006	3.02%
							QC value within limits for Mn 257.610 Recovery = 99.44%
Mo 202.031†	6636.2	0.498669 mg/L		0.0042262	0.498669 mg/L	0.0042262	0.85%
							QC value within limits for Mo 202.031 Recovery = 99.73%
Na 330.237†	30939.4	48.9905 mg/L		1.25571	48.9905 mg/L	1.25571	2.56%
							QC value within limits for Na 330.237 Recovery = 97.98%
Ni 231.604†	15493.2	0.505705 mg/L		0.0147937	0.505705 mg/L	0.0147937	2.93%
							QC value within limits for Ni 231.604 Recovery = 101.14%
Pb 220.353†	2355.6	0.500567 mg/L		0.0036998	0.500567 mg/L	0.0036998	0.74%
							QC value within limits for Pb 220.353 Recovery = 100.11%
Sb 206.836†	736.2	0.499835 mg/L		0.0051544	0.499835 mg/L	0.0051544	1.03%
							QC value within limits for Sb 206.836 Recovery = 99.97%
Se 196.026†	403.8	0.497749 mg/L		0.0020570	0.497749 mg/L	0.0020570	0.41%
							QC value within limits for Se 196.026 Recovery = 99.55%
Sn 189.927†	1976.1	0.513486 mg/L		0.0035023	0.513486 mg/L	0.0035023	0.68%
							QC value within limits for Sn 189.927 Recovery = 102.70%
Ti 334.940†	205205.3	0.496742 mg/L		0.0117925	0.496742 mg/L	0.0117925	2.37%
							QC value within limits for Ti 334.940 Recovery = 99.35%
Tl 190.801†	557.0	0.530011 mg/L		0.0007549	0.530011 mg/L	0.0007549	0.14%
							QC value within limits for Tl 190.801 Recovery = 106.00%
V 290.880†	54513.4	0.494521 mg/L		0.0154199	0.494521 mg/L	0.0154199	3.12%
							QC value within limits for V 290.880 Recovery = 98.90%
Zn 206.200†	19753.1	0.496518 mg/L		0.0163630	0.496518 mg/L	0.0163630	3.30%
							QC value within limits for Zn 206.200 Recovery = 99.30%

All analyte(s) passed QC.

Sequence No.: 45

Autosampler Location: 1

Sample ID: CCB V-129815

Date Collected: 12/14/2011 3:47:20 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----  
Mean Data: CCB V-129815

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	583946.0	98.9 %		0.16			0.16%
Y 371.029	219415.0	98.8 %		0.00			0.00%
Ag 328.068†	-48.4	-0.0003901 mg/L		0.00032866	-0.0003901 mg/L	0.00032866	84.25%
QC value within limits for Ag 328.068							Recovery = Not calculated
Al 308.215†	-93.8	-0.0256486 mg/L		0.00196959	-0.0256486 mg/L	0.00196959	7.68%
QC value within limits for Al 308.215							Recovery = Not calculated
As 188.979†	-1.1	0.0010116 mg/L		0.00306334	0.0010116 mg/L	0.00306334	302.81%
QC value within limits for As 188.979							Recovery = Not calculated
Ba 233.527†	-25.3	-0.0011877 mg/L		0.00018379	-0.0011877 mg/L	0.00018379	15.47%
QC value within limits for Ba 233.527							Recovery = Not calculated
Be 313.107†	11.5	0.0005814 mg/L		0.00005154	0.0005814 mg/L	0.00005154	8.86%
QC value within limits for Be 313.107							Recovery = Not calculated
Ca 317.933†	549.8	0.0189865 mg/L		0.01677460	0.0189865 mg/L	0.01677460	88.35%
QC value within limits for Ca 317.933							Recovery = Not calculated
Cd 228.802†	12.5	0.0010468 mg/L		0.00012352	0.0010468 mg/L	0.00012352	11.80%
QC value within limits for Cd 228.802							Recovery = Not calculated
Co 228.616†	-13.2	-0.0017470 mg/L		0.00041210	-0.0017470 mg/L	0.00041210	23.59%
QC value within limits for Co 228.616							Recovery = Not calculated
Cr 267.716†	9.2	0.0006080 mg/L		0.00022314	0.0006080 mg/L	0.00022314	36.70%
QC value within limits for Cr 267.716							Recovery = Not calculated
Cu 327.393†	-33.8	-0.0007086 mg/L		0.00000746	-0.0007086 mg/L	0.00000746	1.05%
QC value within limits for Cu 327.393							Recovery = Not calculated
Fe 273.955†	81.3	-0.0049303 mg/L		0.00164323	-0.0049303 mg/L	0.00164323	33.33%
QC value within limits for Fe 273.955							Recovery = Not calculated
K 404.721†	196.3	5.82354 mg/L		1.380950	5.82354 mg/L	1.380950	23.71%
Mg 279.077†	43.2	-0.252363 mg/L		0.0016802	-0.252363 mg/L	0.0016802	0.67%
QC value within limits for Mg 279.077							Recovery = Not calculated
Mn 257.610†	-53.8	-0.0011659 mg/L		0.00003060	-0.0011659 mg/L	0.00003060	2.62%
QC value within limits for Mn 257.610							Recovery = Not calculated
Mo 202.031†	-10.2	-0.0000634 mg/L		0.00081320	-0.0000634 mg/L	0.00081320	>999.9%
QC value within limits for Mo 202.031							Recovery = Not calculated
Na 330.237†	606.4	1.46440 mg/L		0.011821	1.46440 mg/L	0.011821	0.81%
QC value within limits for Na 330.237							Recovery = Not calculated
Ni 231.604†	2.7	-0.0019088 mg/L		0.00008704	-0.0019088 mg/L	0.00008704	4.56%
QC value within limits for Ni 231.604							Recovery = Not calculated
Pb 220.353†	2.1	0.0023403 mg/L		0.00038235	0.0023403 mg/L	0.00038235	16.34%
QC value within limits for Pb 220.353							Recovery = Not calculated
Sb 206.836†	-3.4	-0.0009094 mg/L		0.00279863	-0.0009094 mg/L	0.00279863	307.76%
QC value within limits for Sb 206.836							Recovery = Not calculated
Se 196.026†	-1.8	0.0004952 mg/L		0.00070613	0.0004952 mg/L	0.00070613	142.59%
QC value within limits for Se 196.026							Recovery = Not calculated
Sn 189.927†	8.4	0.0026002 mg/L		0.00103885	0.0026002 mg/L	0.00103885	39.95%
QC value within limits for Sn 189.927							Recovery = Not calculated
Ti 334.940†	88.0	0.0005009 mg/L		0.00017143	0.0005009 mg/L	0.00017143	34.23%
QC value within limits for Ti 334.940							Recovery = Not calculated
Tl 190.801†	3.6	0.0018013 mg/L		0.00570471	0.0018013 mg/L	0.00570471	316.70%
QC value within limits for Tl 190.801							Recovery = Not calculated
V 290.880†	-104.9	-0.0014389 mg/L		0.00011523	-0.0014389 mg/L	0.00011523	8.01%
QC value within limits for V 290.880							Recovery = Not calculated
Zn 206.200†	-49.2	-0.0019979 mg/L		0.00016253	-0.0019979 mg/L	0.00016253	8.14%
QC value within limits for Zn 206.200							Recovery = Not calculated

All analyte(s) passed QC.

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\HGCV1A\H13407T.txt

Analysis Date: 12/14/11

Instrument: HGCV1A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	16:51	1							0
.2 PPB	1	CAL	16:53	2							0
.5 PPB	1	CAL	16:54	3							0
1 PPB	1	CAL	16:55	4							0
2 PPB	1	CAL	16:57	5							0
5 PPB	1	CAL	16:58	6							0
10 PPB	1	CAL	16:59	7							0
25 PPB	1	CAL	17:01	8							0
ICV (2)	1	ICV	17:02	9							0
ICB	1	ICB	17:04	10							0
MB 11716 (1)	1	MB	17:05	11		TCLP	TCLP	SW846	11716		0
LCSW 11716	1	LCS	17:06	12		TCLP	TCLP	SW846	11716		0
LCSW MR 11716	1	LCS	17:08	13		TCLP	TCLP	SW846	11716		0
AC63111-043	1	SMP	17:09	14	HG-TCLP	TCLP	TCLP	SW846	11716		0
AC63111-043	1	MR	17:10	15	HG-TCLP	TCLP	TCLP	SW846	11716		0
AC63111-043	1	MS	17:12	16	HG-TCLP	TCLP	TCLP	SW846	11716		0
AC63111-044	1	SMP	17:13	17	HG-TCLP	TCLP	TCLP	SW846	11716		0
AC63111-045	1	SMP	17:14	18	HG-TCLP	TCLP	TCLP	SW846	11716		0
EF-V-130089	1	EF	17:16	19		TCLP	TCLP	SW846	11716		V-130089(EF-1)
CCV	1	CCV	17:17	20							0
CCB	1	CCB	17:19	21							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 12/14/2011 11:28:35 PM

V-130827

RUN IS OK

*Sh* 12/15/11



1	[1]	0.0046	0.0178	0.0048	16:56:40	Yes
2	[1]	0.0045	0.0168	0.0047	16:57:13	Yes
Mean:	[1]	0.0046				
SD:	0	0.0000				
%RSD:	0	0.36				

Standard number 3 applied. [1]  
Correlation Coef.: 0.994311 Slope: 0.00451 Intercept: -0.00009

=====  
Sequence No.: 5 Autosampler Location: 5  
Sample ID: 2 PPB Date Collected: 12/14/2011 4:57:15 PM  
Analyst: Data Type: Original

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0094	0.0378	0.0096	16:58:01	Yes
2		[2]	0.0095	0.0398	0.0097	16:58:35	Yes
Mean:		[2]	0.0095				
SD:	0	0.0001					
%RSD:	0	0.77					

Standard number 4 applied. [2]  
Correlation Coef.: 0.998397 Slope: 0.00479 Intercept: -0.00019

=====  
Sequence No.: 6 Autosampler Location: 6  
Sample ID: 5 PPB Date Collected: 12/14/2011 4:58:36 PM  
Analyst: Data Type: Original

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0249	0.0991	0.0251	16:59:23	Yes
2		[5]	0.0249	0.0984	0.0251	16:59:56	Yes
Mean:		[5]	0.0249				
SD:	0	0.0000					
%RSD:	0	0.04					

Standard number 5 applied. [5]  
Correlation Coef.: 0.999615 Slope: 0.00502 Intercept: -0.00033

=====  
Sequence No.: 7 Autosampler Location: 7  
Sample ID: 10 PPB Date Collected: 12/14/2011 4:59:57 PM  
Analyst: Data Type: Original

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0497	0.1891	0.0499	17:00:44	Yes
2		[10]	0.0496	0.1863	0.0498	17:01:17	Yes
Mean:		[10]	0.0497				
SD:	0	0.0001					
%RSD:	0	0.13					

Standard number 6 applied. [10]  
Correlation Coef.: 0.999913 Slope: 0.00500 Intercept: -0.00031

=====  
Sequence No.: 8 Autosampler Location: 8  
Sample ID: 25 PPB Date Collected: 12/14/2011 5:01:19 PM  
Analyst: Data Type: Original

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1235	0.4638	0.1237	17:02:06	Yes
2		[25]	0.1235	0.4601	0.1237	17:02:39	Yes
Mean:		[25]	0.1235				
SD:	0	0.0000					
%RSD:	0	0.01					

Standard number 7 applied. [25]  
Correlation Coef.: 0.999978 Slope: 0.00495 Intercept: -0.00021

Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	0.043	0.00	9.2
.2 PPB	0.0009	0.2	0.222	0.00	1.1
.5 PPB	0.0018	0.5	0.416	0.00	5.9
1 PPB	0.0046	1.0	0.963	0.00	0.4
2 PPB	0.0095	2.0	1.958	0.00	0.8
5 PPB	0.0249	5.0	5.067	0.00	0.0
10 PPB	0.0497	10.0	10.065	0.00	0.1
25 PPB	0.1235	25.0	24.967	0.00	0.0

Correlation Coef.: 0.999978 Slope: 0.00495 Intercept: -0.00021

Sequence No.: 9

Autosampler Location: 10

Sample ID: ICV (2)

Date Collected: 12/14/2011 5:02:41 PM

Analyst:

Data Type: Original

Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.11	20.11	0.0994	0.3764	0.0996	17:03:31	Yes
2	20.11	20.11	0.0994	0.3776	0.0996	17:04:04	Yes
Mean:	20.11	20.11	0.0994				
SD:	0.000	0.000	0.0000				
%RSD:	0.001	0.001	0.00				

QC value within limits for Hg 253.7 Recovery = 100.55%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 1

Sample ID: ICB

Date Collected: 12/14/2011 5:04:06 PM

Analyst:

Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.042	0.042	-0.0000	0.0001	0.0002	17:04:53	Yes
2	0.033	0.033	-0.0000	0.0009	0.0001	17:05:26	Yes
Mean:	0.037	0.037	-0.0000				
SD:	0.007	0.007	0.0000				
%RSD:	18.06	18.06	132.59				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 11

Sample ID: MB 11716 (1)

Date Collected: 12/14/2011 5:05:27 PM

Analyst:

Data Type: Original



Replicate Data: MB 11716 (1)

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	-0.0001	-0.0007	0.0001	17:06:15	Yes
2	0.083	0.083	0.0002	0.0044	0.0004	17:06:48	Yes
Mean:	0.050	0.050	0.0000				
SD:	0.046	0.046	0.0002				
%RSD:	91.73	91.73	601.02				

Sequence No.: 12

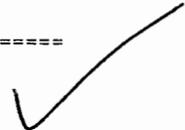
Autosampler Location: 12

Sample ID: LCSW 11716

Date Collected: 12/14/2011 5:06:50 PM

Analyst:

Data Type: Original



Replicate Data: LCSW 11716

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.01	10.01	0.0494	0.1888	0.0496	17:07:36	Yes
2	10.10	10.10	0.0499	0.1937	0.0501	17:08:09	Yes
Mean:	10.06	10.06	0.0496				

SD: 0.069 0.069 0.0003  
 %RSD: 0.688 0.688 0.69

Sequence No.: 13 Autosampler Location: 13  
 Sample ID: LCSW MR 11716 Date Collected: 12/14/2011 5:08:11 PM  
 Analyst: Data Type: Original

## Replicate Data: LCSW MR 11716

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.25	10.25	0.0506	0.1922	0.0508	17:08:58	Yes
2	10.25	10.25	0.0506	0.1929	0.0508	17:09:31	Yes
Mean:	10.25	10.25	0.0506				
SD:	0.003	0.003	0.0000				
%RSD:	0.030	0.030	0.03				

Sequence No.: 14 Autosampler Location: 14  
 Sample ID: 63111-043 Date Collected: 12/14/2011 5:09:32 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-043

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.102	0.102	0.0003	0.0031	0.0005	17:10:19	Yes
2	0.076	0.076	0.0002	0.0018	0.0004	17:10:52	Yes
Mean:	0.089	0.089	0.0002				
SD:	0.019	0.019	0.0001				
%RSD:	20.86	20.86	39.91				

Sequence No.: 15 Autosampler Location: 15  
 Sample ID: 63111-043 MR Date Collected: 12/14/2011 5:10:54 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-043 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	-0.0002	-0.0024	0.0000	17:11:40	Yes
2	-0.012	-0.012	-0.0003	-0.0031	-0.0001	17:12:13	Yes
Mean:	-0.003	-0.003	-0.0002				
SD:	0.012	0.012	0.0001				
%RSD:	388.0	388.0	27.19				

Sequence No.: 16 Autosampler Location: 16  
 Sample ID: 63111-043 TCLP SPK Date Collected: 12/14/2011 5:12:15 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-043 TCLP SPK

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.64	10.64	0.0525	0.1937	0.0527	17:13:01	Yes
2	10.43	10.43	0.0515	0.1910	0.0517	17:13:34	Yes
Mean:	10.53	10.53	0.0520				
SD:	0.147	0.147	0.0007				
%RSD:	1.398	1.398	1.40				

Sequence No.: 17 Autosampler Location: 17  
 Sample ID: 63111-044 Date Collected: 12/14/2011 5:13:36 PM  
 Analyst: Data Type: Original

## Replicate Data: 63111-044

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.143	0.143	0.0005	0.0005	0.0007	17:14:22	Yes
2	0.153	0.153	0.0005	0.0019	0.0007	17:14:56	Yes
Mean:	0.148	0.148	0.0005				
SD:	0.007	0.007	0.0000				

%RSD: 5.023 5.023 7.05

Sequence No.: 18

Sample ID: 63111-045

Analyst:

Autosampler Location: 18

Date Collected: 12/14/2011 5:14:57 PM

Data Type: Original

Replicate Data: 63111-045

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	-0.0000	0.0004	0.0002	17:15:44	Yes
2	0.047	0.047	0.0000	0.0016	0.0002	17:16:17	Yes
Mean:	0.042	0.042	-0.0000				
SD:	0.007	0.007	0.0000				
%RSD:	17.75	17.75	>999.9%				

Sequence No.: 19

Sample ID: EF-V-130089

Analyst:

Autosampler Location: 19

Date Collected: 12/14/2011 5:16:19 PM

Data Type: Original

Replicate Data: EF-V-130089

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.161	0.161	0.0006	0.0080	0.0008	17:17:09	Yes
2	0.121	0.121	0.0004	0.0061	0.0006	17:17:42	Yes
Mean:	0.141	0.141	0.0005				
SD:	0.028	0.028	0.0001				
%RSD:	19.76	19.76	28.32				

Sequence No.: 20

Sample ID: CCV

Analyst:

Autosampler Location: 9

Date Collected: 12/14/2011 5:17:44 PM

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.16	10.16	0.0502	0.1906	0.0504	17:18:30	Yes
2	10.01	10.01	0.0494	0.1875	0.0496	17:19:04	Yes
Mean:	10.09	10.09	0.0498				
SD:	0.106	0.106	0.0005				
%RSD:	1.053	1.053	1.06				

QC value within limits for Hg 253.7 Recovery = 100.90%

All analyte(s) passed QC.

Sequence No.: 21

Sample ID: CCB

Analyst:

Autosampler Location: 1

Date Collected: 12/14/2011 5:19:05 PM

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.047	0.047	0.0000	0.0015	0.0002	17:19:52	Yes
2	0.055	0.055	0.0001	0.0022	0.0003	17:20:25	Yes
Mean:	0.051	0.051	0.0000				
SD:	0.006	0.006	0.0000				
%RSD:	11.85	11.85	70.44				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

**TCLP  
Metal Data  
Digestion Logbook Data**

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13480 Analyst: 84  
 QC Number: 12491 Prep Date: 11/3/12  
 Matrix: TCLP Reviewed By: SO

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml					--
LCS							--
LCSD							--
1. Ac 63081-028					V-132485		63081-028
MR 63081-028							
MS 63081-028							
MSD 63081-028							
2. 63081-007047							
3. 63111-003							
4. 63111-039							
5. FF-V-132485	↓	↓			↓		↓
6.							
7.							
8.							
9.							
10.							
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15.							
16.							
17.							
18.							
19.							
20.							

JU  
11/3/12

Hot Plate Temperature: 92.3° C (90-95° C)

	Volume mL	Lot #
LCS, LCSD	0.5ml	V-6495, 6496
LLCS, LLCSD		V-
MS, MSD	0.5 (0.225)	V-6495, 6496, 5702, 5716
LLMS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3	V-6454
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5ml	V-130673

Relinquished By JU Date 11/3/12  
 Received By JL Date 11/3/12

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13414 Analyst: OA  
 QC Number: 11724 Prep Date: 12/22/2011  
 Matrix: TCLP Reviewed By: FB

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml					--
LCS							--
LCSD							--
1. AC63081-024					V-131199		AC63081-024
MR AC63081-024							
MS AC63081-024							
MSD							
2. AC63081-025	50ml	50ml			V-131199		AC63081-024
3. AC63081-026							
4. AC63111-024							
5. AC63111-035							
6. AC63111-036							
7. AC63250-001							
8. AC63269-001							AC63290-001
9. AC63290-001					V-130604		
10. AC63290-001 SRK							
11. AC63290-002							
12. AC63279-001					V-131199		AC63081-024
13. AC63278-001							
14. AC63334-001							
15. AC63394-002							
16. AC63334-003							
17. AC63334-004							
18. EF-1-V-131199							
19. EF-2-V-130604					V-130604		
20.							

Hot Plate Temperature: 92.3°C (90-95°C)

	Volume mL	Lot #
LCS, LCSD	0.5ml	V-6495, 6496
LLCS, LLLCS		V-
MS, MSD	0.5ml; 0.25ml	V-6495, 6496; 5716
LLMS, LLMSD		V-5702

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3.0ml	V-6444
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5.0ml	V-130673

Relinquished By: OA Date: 12/22/2011  
 Received By: [Signature] Date: 12/22/11

Hampton-Clarke/Veritech

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13395 Analyst: EB  
 QC Number: 11703 Prep Date: 12/17/2011  
 Matrix: TCLP Reviewed By: JB

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml					
LCS							
LCSD							
1. AC63143-007					V-130938	AC63143-007	
MR AC63143-007							
MS AC63143-007							
MSD							
2. AC63143-013	50ml	50ml			V-130938	AC63143-007	
3. AC63143-020							
4. AC63143-026							
5. AC63143-033							
6. AC63143-039							
7. AC63143-046							
8. AC63143-052							
9. AC63143-059							
10. AC63143-065							
11. AC63111-037							
12. AC63249-001							
13. EF-LV-130938							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 93.2 C (90-95° C)

	Volume mL	Lot #
ES, LCSD	0.5ml	V-6495, 6496
LCS, LLLCSD		V-
S, MSD	0.5ml, 0.225	V-6495, 6496, 5702
MS, LLMSD		V-5746

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3.0ml	V-6454
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5.0ml	V-130673

Relinquished By: EB Date: 12/17/2011  
 Received By: [Signature] Date: 12/17/11

HG SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 245.1 7470A 7471A OTHER \_\_\_\_\_

Batch No.:\* 13407

Analyst: OA

QC Number: 11716

Prep Date: 12/14/2011

Matrix: TCLP

Review By: SB

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25ml	
LCS			
LCSD			
1 AC63111-043			
MR AC63111-043			
MS AC63111-043			
MSD			
2 AC63111-044	25ml	25ml	
3 AC63111-045			
4 EF-1-V-130089			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 128167	HNO <sub>3</sub>	0.625 ml	V- 6433
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V- 126648	HCl		V-
NH <sub>2</sub> OH: V- 126650	H <sub>2</sub> SO <sub>4</sub>	1.25 ml	V- 6386
	Aqua Regia		V-

\*\*Block Temp.: 93.3 °C  
 Time In Block: 14:20  
 Time Out of Block: 16:20  
 \*\* Required range = 90-95 °

Spike Volume & Lot #  
 LCS v- 130779 0.15 / 0.25 ml  
 MS v- 130779 0.250 ml  
 Standards/Control Batch B- 11599

Relinquished By: OA

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13382 Analyst: DA  
 QC Number: 11688 Prep Date: 12/13/2011  
 Matrix: TCLP Reviewed By: JK

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml					
LCS							
LCS D							
1. AC63118-004					EF-1 130089	AC63118-004	
MR AC63118-004							
MS AC63118-004							
MSD							
2. AC63111-018	50ml	50ml			EF-1 130089	AC63118-004	
3. AC63111-019							
4. AC63111-020							
5. AC63111-043							
6. AC63111-044							
7. AC63111-045							
8. AC63149-004							
9. AC63139-002							
10. AC63139-004							
11. AC63139-006							
12. AC63150-011							
13. AC63167-001					EF-2 129043		
14. AC63167-002					EF-2 130604		
15. AC63167-003							
16. AC63167-004							
17. EF-1-V-130089					EF-1 130089		
18. EF-2-V-129043					EF-2 129043		
19. EF-2-V-130604					EF-2 130604		
20.							

Hot Plate Temperature: 92.2° C (90-95° C)

	Volume mL	Lot #
LCS, LCS D	0.5ml	V-6495, 6496
LLCS, LLLCS D		V-
MS, MSD	0.5ml; 0.25ml	6495, 6496, 5702
LLMS, LLMS D		V- 5716

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3.0ml	V-6445
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5.0ml	V-130673

Relinquished By: DA Date: 12/13/2011  
 Received By: J. Galin Date: 12/13/11

### LEACHATE PREPARATION LOG (TCLP, SPLP)

Start Date: 12/12/2011

Finish Date: 12/13/2011

\*\*TCLP Ext. Fluid #1 pH: 4.93 (criteria: 4.93 ± 0.5)  
 \*\*TCLP Ext. Fluid #2 pH: \_\_\_\_\_ (criteria: 2.88 ± 0.05)  
 \*\*SPLP Ext. Fluid #3 pH: 4.25 (criteria: 4.20 ± 0.5)

Sample #	pH (units)	pH In HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt./Vol of Sample (g or mL)	Start Time	Finish Time	Analyst (s)	Ext. Type*	Comments
03134-001	—	—	8.00	SPLP-130232	100g/2L	18:41	10:51	gka	F	ORGANICS ONLY
03134-002	—	—	8.40	↓	↓	↓	↓	↓	↓	
02983-003	—	—	9.98	↓	↓	↓	↓	↓	↓	
SPLP-130232	4.25	—	10.12	↓	2L	↓	↓	gka	↓	
03118-004	8.59	1.75	5.21	EF-1 130089	100g/2L	↓	↓	gka	T	
03111-018	7.33	1.70	5.01	↓	↓	↓	↓	↓	↓	
03111-019	8.62	1.80	5.17	↓	↓	↓	↓	↓	↓	
03111-020	8.78	1.82	5.29	↓	↓	↓	↓	↓	↓	
03111-043	8.76	1.82	5.39	↓	↓	↓	↓	↓	↓	
03111-044	8.93	1.95	6.04	↓	↓	↓	↓	↓	↓	
03111-045	9.02	1.09	5.23	↓	↓	↓	↓	↓	↓	
03149-004	8.72	1.89	6.36	↓	150g/3L	↓	↓	↓	↓	
03139-002	10.31	1.73	5.58	↓	↓	↓	↓	↓	↓	
03139-004	10.39	1.78	5.61	↓	↓	↓	↓	↓	↓	
03139-006	10.54	1.85	5.32	↓	↓	↓	↓	↓	↓	
03150-011	9.53	1.09	4.94	↓	150g/3L	↓	↓	↓	↓	
EF-1-130089	4.93	—	4.94	EF-1 130089	3L	↓	↓	gka	↓	
03167-001	10.32	5.84	4.55	EF-2 129043	100g/2L	↓	↓	gka	T	
03167-002	10.37	5.82	4.54	EF-2 130004	↓	↓	↓	↓	↓	
03167-003	10.33	5.60	4.65	↓	↓	↓	↓	↓	↓	
03167-004	10.37	6.06	4.49	↓	↓	↓	↓	↓	↓	
EF-2-129043	2.90	—	3.22	EF-2 129043	2L	↓	↓	↓	↓	
EF-2-130004	2.95	—	3.16	EF-2 130004	2L	↓	↓	↓	↓	

\*Ext. Type: TCLP = T (Method 1311) LAMP=L (Methods 1317 / ANSINEMA C78 LL 1256-2003)  
 SPLP = P (Method 1312) MEP=M (Method 1320)  
 ZHE = Z (Method 1311/1312)

\*\* The pH of the extraction fluid must be checked prior to use and must be within limits specified above

Leachate prep log 2010.xls

LEACHATE PREPARATION LOG  
(TCLP, SPLP)

Start Date: 12/15/2011

Finish Date: 12/16/2011

\*\*TCLP Ext. Fluid #1 pH: 4.13 (criteria: 4.93 ± 0.5)  
 \*\*TCLP Ext. Fluid #2 pH: (criteria: 2.88 ± 0.05)  
 \*\*SPLP Ext. Fluid #3 pH: 4.25 (criteria: 4.20 ± 0.5)

Sample #	pH (units)	pH in HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt./Vol of Sample (g or mL)	Start Time	Finish Time	Analyst (s)	Ext. Type*	Comments
03143-007	8.37	1.86	4.95	130935	150g/3L	10:14	11:26	GA	T	
03143-013	9.50	2.11	5.21							
03143-020	8.10	2.15	5.13							
03143-020	9.09	1.71	4.99							
03143-033	7.11	1.59	4.90							
03143-039	8.30	1.67	4.99							
03143-046	7.63	1.66	4.87							
03143-052	3.93	1.60	4.82							
03143-059	7.62	1.77	4.84							
03143-065	9.04	1.58	5.01							
03111-037	8.45	1.63	4.94		100g/2L					
EF-1-130938	4.93		4.89		3L					
EF-2-130904	7.88				3L					
EF-1-03249-001	7.88	1.52	4.86		150g/2L				T	
02810-011			9.26	SPLP 130698	140g/1L			GA	P	Limited Sample
02810-012			9.22		140g/1L					
02752-010			12.17		150g/3L					
03059-003			9.81		100g/2L					ORGANICS ONLY
03226-001			8.05							
03226-002			9.70							
03226-003			8.24							
SPLP-130698	4.25		4.25		3L					

Limited Sample  
 300mL for Wet Chem  
 HEXCR.

\* Ext. Type: TCLP = T (Method 1311) LAMP=L (Methods 1311 / ANSI/NEMA C78.11 1256-2003)  
 SPLP = P (Method 1312) MEP=M (Method 1320)  
 ZHE = Z (Method 1311/1312)

\*\* The pH of the extraction fluid must be checked prior to use and must be within limits specified above

LEACHATE PREPARATION LOG  
(TCLP, SPLP)

Start Date: 12/19/2011  
Finish Date: 12/20/2011

\*\*TCLP Ext. Fluid #1 pH: 4.91 (criteria: 4.93 ± 0.5)  
\*\*TCLP Ext. Fluid #2 pH: (criteria: 2.88 ± 0.05)  
\*\*SPLP Ext. Fluid #3 pH: (criteria: 4.20 ± 0.5)

Sample #	pH (units)	pH in HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt./Vol of Sample (g or mL)	Start Time	Finish Time	Analyst (s)	Ext. Type*	Comments
03290-001	8.59	1.11	0.10	EF-1 (31199)	100g/3L	20:30	12:30	ga	P	NOT TUMBLED, OIL SAMPLE
03290-001	11.9	7.46		EF-2 (30004)						RE TUMBLED
03290-002	11.30	8.86								55% SOLID 45% LIQUID (SLUDGE)
03299-001	8.45	1.05	5.11	EF-1 (31199)	100g/2L					41% SOLID 59% LIQUID (SLUDGE)
03081-024	7.02	1.08	5.06							METALS ONLY
03081-025	7.79	1.21	9.29							
03081-026	8.34	1.18	9.18							
03111-034	8.21	1.13	9.12		50g/L					
03111-035	8.67	1.28	9.10							
03111-036	8.61	1.22	9.38							
03269-001	8.62	5.00		EF-2 (30004)						45% SOLID 55% LIQUID
03268-001	10.96	1.10	5.22							
EF-1-131199	4.91	—	4.93		3L					
03334-0012	10.09	6.51		EF-2 (30004)	100g/2L					METALS ONLY
03334-0021	10.02	6.79								RE TUMBLED 12/20/2011
03334-003	10.11	5.72								
03334-004	10.06	6.42								
EF-2-130004	2.89	—	2.88		3L					

\*Ext. Type: TCLP = T (Method 1311) LAMP-L (Methods 1311 / ANSI/NEMA C78.1L 1256-2003)  
SPLP = P (Method 1312) MEP-M (Method 1320)  
ZHE = Z (Method 1311/1312)

\*\* The pH of the extraction fluid must be checked prior to use and must be within limits specified above

USE  
ga  
12/20/11

USE  
ga  
12/20/11

USE  
ga  
12/20/11

RE TUMBLED  
12/20/2011

RE TUMBLED

OILY  
SLUDGE

LEACHATE PREPARATION LOG  
(TCLP, SPLP)

Start Date: 11/2/2012

Finish Date: 11/3/2012

\*\*TCLP Ext. Fluid #1 pH: 4.93 (criteria: 4.93 ± 0.5)  
 \*\*TCLP Ext. Fluid #2 pH: (criteria: 2.88 ± 0.05)  
 \*\*SPLP Ext. Fluid #3 pH: 4.16 (criteria: 4.20 ± 0.5)

Sample #	pH (units)	pH in HCL (units)	Final pH (units)	Ext. Fluid (number)	Wt./Vol of Sample (g or mL)	Start Time	Finish Time	Analyst (s)	Ext. Type*	Comments
03044-001	6.58	1.89	4.95	EF-1 132082	150g/3L	8:02	10:50	CRA	T	
03044-002	6.87	1.94	5.13							
03044-003	7.80	2.10	5.12							
03044-004	6.02	1.81	4.95							
03044-005	7.04	1.87	4.98							
03044-006	8.01	1.93	5.06							
03044-007	6.65	1.85	4.93							
03044-008	8.20	1.81	5.04							
03044-009	7.15	1.61	5.01							
03044-010	6.95	1.49	4.89							
03081-028	8.85	1.66	5.29		100g/2L					LIMITED SAMPLE 50g/1L
03081-047	8.64	1.85	5.33							
03111-003	8.76	1.77	5.22							
03111-039	8.77	1.94	5.31							
EF-1-132485	4.93		4.96		3L					
EF-2					3L					
03029-002			8.98	SPLP 132082	100g/2L					
03053-001			9.31							
03053-002			8.02							
03053-003			9.42							
03014-002			9.33							ORGANICS ONLY
03040-005			6.03							
03024-005			6.26							
SPLP-132082	4.16		4.48		3L					

0/1/12/12  
0/1/12/12

\*Ext. Type: TCLP = T (Method 1311) LAMP=L (Methods 1311 / ANSI/NEMA C78.11 1256-2003)  
 SPLP = P (Method 1312) MEP=M (Method 1320)  
 ZHE = Z (Method 1311/1312)

\*\* The pH of the extraction fluid must be checked prior to use and must be within limits specified above

## **Wet Chemistry Data**

**VERITECH Wet Chem Form1 Analysis Summary**  
**% Solids**

TestGroupName: % Solids SM2540G

Project #: 1120830

TestGroup: %SOLIDS

Lab#	Client SampleID	Matrix	Dilution:	Result	Units:	RL	Prep Date	Analysis Date	Received Date	Collect Date
AC63111-001	B-15 4-6	Soil	1	67	Percent			12/12/11	12/08/11	12/08/11
AC63111-002	B-15 8-10	Soil	1	72	Percent			12/12/11	12/08/11	12/08/11
AC63111-003	B-15 10-12	Soil	1	67	Percent			12/12/11	12/08/11	12/08/11
AC63111-004	B-15 12-14	Soil	1	72	Percent			12/16/11	12/08/11	12/08/11
AC63111-005	B-13 4-6	Soil	1	68	Percent			12/12/11	12/08/11	12/08/11
AC63111-006	B-13 8-10	Soil	1	83	Percent			12/12/11	12/08/11	12/08/11
AC63111-007	B-13 10-12	Soil	1	77	Percent			12/12/11	12/08/11	12/08/11
AC63111-008	B-13 12-14	Soil	1	79	Percent			12/16/11	12/08/11	12/08/11
AC63111-009	B-17 4-6	Soil	1	78	Percent			12/12/11	12/08/11	12/08/11
AC63111-010	B-17 8-10	Soil	1	71	Percent			12/12/11	12/08/11	12/08/11
AC63111-011	B-17 10-12	Soil	1	67	Percent			12/12/11	12/08/11	12/08/11
AC63111-012	B-17 12-14	Soil	1	77	Percent			12/16/11	12/08/11	12/08/11
AC63111-013	B-18 4-6	Soil	1	85	Percent			12/12/11	12/08/11	12/08/11
AC63111-014	B-18 8-10	Soil	1	78	Percent			12/12/11	12/08/11	12/08/11
AC63111-015	B-18 10-12	Soil	1	79	Percent			12/12/11	12/08/11	12/08/11
AC63111-017	B-12 4-6	Soil	1	69	Percent			12/12/11	12/08/11	12/08/11
AC63111-019	B-12 8'-10'	Soil	1	81	Percent			12/12/11	12/08/11	12/08/11
AC63111-020	B-12 10'-12'	Soil	1	40	Percent			12/12/11	12/08/11	12/08/11
AC63111-021	B-12 12-14	Soil	1	65	Percent			12/16/11	12/08/11	12/08/11
AC63111-022	B-11 4-6	Soil	1	86	Percent			12/12/11	12/08/11	12/08/11
AC63111-023	B-11 8-10	Soil	1	83	Percent			12/12/11	12/08/11	12/08/11
AC63111-024	B-11 10-12	Soil	1	77	Percent			12/12/11	12/08/11	12/08/11
AC63111-026	B-10 4-6	Soil	1	89	Percent			12/12/11	12/08/11	12/08/11
AC63111-027	B-10 8-10	Soil	1	69	Percent			12/12/11	12/08/11	12/08/11
AC63111-028	B-10 10-12	Soil	1	82	Percent			12/12/11	12/08/11	12/08/11
AC63111-030	B-9 4-6	Soil	1	79	Percent			12/12/11	12/08/11	12/08/11
AC63111-031	B-9 8-10	Soil	1	59	Percent			12/12/11	12/08/11	12/08/11
AC63111-032	B-9 10-12	Soil	1	81	Percent			12/12/11	12/08/11	12/08/11
AC63111-034	B-1 4-6	Soil	1	83	Percent			12/12/11	12/08/11	12/08/11
AC63111-035	B-1 8-10	Soil	1	65	Percent			12/12/11	12/08/11	12/08/11
AC63111-036	B-1 10-12	Soil	1	60	Percent			12/12/11	12/08/11	12/08/11
AC63111-037	B-1 12-14	Soil	1	82	Percent			12/16/11	12/08/11	12/08/11
AC63111-038	B-2 4-6	Soil	1	71	Percent			12/12/11	12/08/11	12/08/11
AC63111-039	B-2 8-10	Soil	1	76	Percent			12/12/11	12/08/11	12/08/11
AC63111-040	B-2 10-12	Soil	1	81	Percent			12/12/11	12/08/11	12/08/11
AC63111-042	B-8 4-6	Soil	1	80	Percent			12/12/11	12/08/11	12/08/11
AC63111-044	B-8 8-10	Soil	1	68	Percent			12/12/11	12/08/11	12/08/11
AC63111-045	B-8 10-12	Soil	1	76	Percent			12/12/11	12/08/11	12/08/11

## % Solids Report

Analysis Type: SOLIDS-SS  
 BatchID: SOLIDS-SS-272

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AC63111-001	68	68.17289	Percent	1.05	11.23	7.99	12/12/11	simon	1.2	5
Sample	AC63111-001	67	67.33467	Percent	1.06	11.04	7.80	12/12/11	simon		
Sample	AC63111-002	72	71.98880	Percent	1.05	11.76	8.77	12/12/11	simon		
Sample	AC63111-003	67	66.79960	Percent	1.05	11.08	7.76	12/12/11	simon		
Sample	AC63111-005	68	67.92098	Percent	1.06	11.69	8.29	12/12/11	simon		
Sample	AC63111-006	83	82.94224	Percent	1.06	12.14	10.26	12/12/11	simon		
Sample	AC63111-007	77	77.30871	Percent	1.07	12.44	9.88	12/12/11	simon		
Sample	AC63111-009	78	77.66059	Percent	1.06	11.49	9.17	12/12/11	simon		
Sample	AC63111-010	71	71.47059	Percent	1.06	11.26	8.35	12/12/11	simon		
Sample	AC63111-011	67	66.94291	Percent	1.06	11.92	8.34	12/12/11	simon		
Sample	AC63111-013	85	85.07605	Percent	1.05	11.57	10.02	12/12/11	simon		
Sample	AC63111-014	78	77.73399	Percent	1.05	11.20	8.94	12/12/11	simon		
Sample	AC63111-015	79	78.59031	Percent	1.06	12.41	9.99	12/12/11	simon		
Sample	AC63111-017	69	68.86051	Percent	1.06	11.24	8.08	12/12/11	simon		
Sample	AC63111-019	81	80.77969	Percent	1.06	12.09	9.97	12/12/11	simon		
Sample	AC63111-020	40	39.69697	Percent	1.05	10.95	4.99	12/12/11	simon		
Sample	AC63111-022	86	85.91288	Percent	1.05	11.84	10.33	12/12/11	simon		
Sample	AC63111-023	83	82.74112	Percent	1.05	12.87	10.83	12/12/11	simon		
Sample	AC63111-024	77	77.13737	Percent	1.05	11.46	9.08	12/12/11	simon		
Sample	AC63111-026	89	88.93805	Percent	1.06	12.36	11.11	12/12/11	simon		
Sample	AC63111-027	69	69.31268	Percent	1.06	11.39	8.22	12/12/11	simon		

\* - Indicates Failed Rpd Criteria

## % Solids Report

Analysis Type: SOLIDS-SS  
BatchID: SOLIDS-SS-273

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AC63112-001	88	87.90787	Percent	1.06	11.48	10.23	12/12/11	simon	0.87	5
Sample	AC63111-028	82	82.44275	Percent	1.06	12.85	10.78	12/12/11	simon		
Sample	AC63111-030	79	79.13810	Percent	1.06	11.27	9.14	12/12/11	simon		
Sample	AC63111-031	59	58.86320	Percent	1.05	11.43	7.16	12/12/11	simon		
Sample	AC63111-032	81	81.02410	Percent	1.05	11.01	9.13	12/12/11	simon		
Sample	AC63111-034	83	83.00395	Percent	1.05	11.17	9.45	12/12/11	simon		
Sample	AC63111-035	65	64.59144	Percent	1.05	11.33	7.70	12/12/11	simon		
Sample	AC63111-036	60	59.57854	Percent	1.06	11.50	7.29	12/12/11	simon		
Sample	AC63111-038	71	71.30841	Percent	1.03	11.73	8.67	12/12/11	simon		
Sample	AC63111-039	76	75.96525	Percent	1.04	11.40	8.91	12/12/11	simon		
Sample	AC63111-040	81	80.55556	Percent	1.05	12.57	10.33	12/12/11	simon		
Sample	AC63111-042	80	79.88107	Percent	1.06	11.15	9.13	12/12/11	simon		
Sample	AC63111-044	68	67.60181	Percent	1.04	12.09	8.52	12/12/11	simon		
Sample	AC63111-045	76	75.79681	Percent	1.06	11.10	8.66	12/12/11	simon		
Sample	AC63112-001	89	88.67925	Percent	1.06	11.66	10.46	12/12/11	simon		
Sample	AC63112-002	87	86.92380	Percent	1.06	11.69	10.31	12/12/11	simon		
Sample	AC63112-003	89	89.42390	Percent	1.06	12.69	11.46	12/12/11	simon		
Sample	AC63112-004	89	89.27614	Percent	1.06	12.25	11.06	12/12/11	simon		
Sample	AC63112-005	87	86.50519	Percent	1.05	12.61	11.05	12/12/11	simon		
Sample	AC63112-006	87	87.17949	Percent	1.06	11.59	10.24	12/12/11	simon		
Sample	AC63112-007	89	89.27563	Percent	1.06	11.69	10.55	12/12/11	simon		

\* - Indicates Failed Rpd Criteria

## % Solids Report

Analysis Type: SOLIDS-SS  
 BatchID: SOLIDS-SS-304

QcType	SampleID:	Rounded Result	Raw Result	Units	Tare Weight	Wet Weight	Dry Weight	Analysis Date	Analyzed By	QC RPD	Rpd Limit
DUP	AC63213-001	87	87.05441	Percent	1.07	11.73	10.35	12/16/11	simon	0.77	5
Sample	AC63081-037	73	73.36207	Percent	1.07	12.67	9.59	12/16/11	simon		
Sample	AC63081-047	74	74.21442	Percent	1.06	11.88	9.09	12/16/11	simon		
Sample	AC63111-004	72	71.89672	Percent	1.07	11.14	8.32	12/16/11	simon		
Sample	AC63111-008	79	78.75000	Percent	1.07	11.47	9.27	12/16/11	simon		
Sample	AC63111-012	77	77.24329	Percent	1.06	11.87	9.42	12/16/11	simon		
Sample	AC63111-021	65	64.95984	Percent	1.06	11.02	7.54	12/16/11	simon		
Sample	AC63111-037	82	81.59938	Percent	1.06	13.94	11.56	12/16/11	simon		
Sample	AC63213-001	88	87.73006	Percent	1.06	10.84	9.65	12/16/11	simon		
Sample	AC63214-001	89	89.06917	Percent	1.06	12.77	11.50	12/16/11	simon		
Sample	AC63215-001	86	86.26482	Percent	1.06	11.18	9.78	12/16/11	simon		
Sample	AC63217-001	68	68.43718	Percent	1.06	10.85	7.75	12/16/11	simon		
Sample	AC63217-002	78	77.74594	Percent	1.06	11.53	9.20	12/16/11	simon		
Sample	AC63217-003	85	84.74886	Percent	1.06	12.01	10.33	12/16/11	simon		
Sample	AC63217-004	84	84.41128	Percent	1.06	13.12	11.24	12/16/11	simon		
Sample	AC63217-005	87	86.68012	Percent	1.05	10.96	9.63	12/16/11	simon		
Sample	AC63217-006	89	88.82303	Percent	1.06	12.87	11.56	12/16/11	simon		
Sample	AC63217-007	75	75.12742	Percent	1.06	10.87	8.42	12/16/11	simon		
Sample	AC63217-008	73	72.50726	Percent	1.07	11.40	8.56	12/16/11	simon		
Sample	AC63218-001	82	82.04668	Percent	1.06	12.20	10.21	12/16/11	simon		
Sample	AC63223-001	86	86.18290	Percent	1.06	11.12	9.72	12/16/11	simon		

\* - Indicates Failed Rpd Criteria

Last Page of Report

**Project: 544 Union Ave**

**Client PO:** 11140128

**Report To:** URS Corp.  
One Penn Plaza  
Suite 600  
New York, NY 10119

Attn: Robert Wolff

**Received Date:** 1/16/2012

**Report Date:** 2/13/2012

**Deliverables:** NYDOH-CatB

**Lab ID:** AC63748

**Lab Project No:** 2011605

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAP Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.



Robin Cousineau - Quality Assurance Director

OR

Stanley Gilewicz - Laboratory Director

NJ (07071)  
PA (68-00463)

NY (ELAP11408)  
KY (90124)

CT (PH-0671)  
WV (353)

USACE





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## **SDG Narrative**

# HCV Case Narrative/Conformance Summary

Client: URS Corporation  
Project: 544 Union Ave

HCV Project: 2011605

Hampton-Clarke/Veritech (HC-V) received the following samples on January 16, 2012:

<u>Client ID</u>	<u>HCV Sample ID</u>	<u>Matrix</u>	<u>Analysis</u>
B_14B	AC63748-001	Aqueous	Metals (6010B/7470A)
B_12B	AC63748-002	Aqueous	Metals (6010B/7470A)
B_2B	AC63748-003	Aqueous	Metals (6010B/7470A)
B_4B	AC63748-004	Aqueous	Metals (6010B/7470A)
FB011412	AC63748-005	Aqueous	Metals (6010B/7470A)
DUP011412	AC63748-006	Aqueous	Metals (6010B/7470A)

*This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.*

## Metals Analysis:

Data conforms to method requirements.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
\_\_\_\_\_  
Robin Cousineau  
Quality Assurance Director

Or

\_\_\_\_\_  
Stanley Gilewicz  
Laboratory Director

2/14/2012  
\_\_\_\_\_  
Date

## **Reporting Limit Definitions**

## HCV Reporting Limit Definitions/Data Qualifiers

### REPORTING DEFINITIONS

**DF** = Dilution Factor

**MDL** = Method Detection Limit

**RL\*** = Reporting Limit

**ND** = Not Detected

**RT** = Retention Time

**NA** = Not Applicable

*\*Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

### DATA QUALIFIERS

- B-** Indicates analyte was present in the Method Blank and sample.
- d-** For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E-** Indicates the concentration exceeded the upper calibration range of the instrument.
- J-** Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.

## **Data Package Summary Forms**

# HCV Report Of Analysis

**Client:** URS Corp.  
**Project:** 544 Union Ave

**HCV Project #:** 2011605

**Sample ID:** B\_14B  
**Lab#:** AC63748-001  
**Matrix:** Aqueous

**Collection Date:** 1/14/2012  
**Receipt Date:** 1/16/2012

## Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.70	ND

## Metals Pair 6010

Analyte	DF	Units	RL	Result
Arsenic	1	ug/l	7.5	ND
Lead	1	ug/l	4.0	ND

Sample ID: B\_12B  
Lab#: AC63748-002  
Matrix: Aqueous

Collection Date: 1/14/2012  
Receipt Date: 1/16/2012

**Mercury (Water) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.70	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	ug/l	7.5	ND
Lead	1	ug/l	4.0	6.8

Sample ID: B\_2B  
Lab#: AC63748-003  
Matrix: Aqueous

Collection Date: 1/14/2012  
Receipt Date: 1/16/2012

**Mercury (Water) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.70	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	ug/l	7.5	ND
Lead	1	ug/l	4.0	ND

<b>Sample ID: B_4B</b> <b>Lab#: AC63748-004</b> <b>Matrix: Aqueous</b>	<b>Collection Date: 1/14/2012</b> <b>Receipt Date: 1/16/2012</b>
--	---

**Mercury (Water) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.70	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	ug/l	7.5	ND
Lead	1	ug/l	4.0	4.4

Sample ID: FB011412  
Lab#: AC63748-005  
Matrix: Aqueous

Collection Date: 1/14/2012  
Receipt Date: 1/16/2012

**Mercury (Water) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.70	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	ug/l	7.5	ND
Lead	1	ug/l	4.0	ND

Sample ID: DUP011412  
Lab#: AC63748-006  
Matrix: Aqueous

Collection Date: 1/14/2012  
Receipt Date: 1/16/2012

**Mercury (Water) 7470A**

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.70	ND

**Metals Pair 6010**

Analyte	DF	Units	RL	Result
Arsenic	1	ug/l	7.5	8.6
Lead	1	ug/l	4.0	ND

### Form1 Inorganic Analysis Data Sheet

Sample ID: AC63748-001	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B_14B	Units: UG/L	Lab Code:	Sdg No:
Matrix: AQUEOUS	Date Rec: 1/16/2012	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	22	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	22	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	18	CV	HGCV2A

Comments: \_\_\_\_\_

**Flag Codes:**

- U or ND - Indicates Compound was not found above the detection/reporting limit
- P - ICP-AES
- CV - ColdVapor
- MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-002	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B_12B	Units: UG/L	Lab Code:	Sdg No:
Matrix: AQUEOUS	Date Rec: 1/16/2012	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	14	P	PEICP2A
7439-92-1	Lead	4.0	6.8	1	50	50	01/17/12	12507	W13495A2	14	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	14	CV	HGCV2A

Comments: \_\_\_\_\_

\_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV - Cold Vapor  
MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63748-003  
 Client Id: B\_2B  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	23	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	23	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Form1**  
**Inorganic Analysis Data Sheet**

Sample ID: AC63748-004  
Client Id: B\_4B  
Matrix: AQUEOUS  
Level: LOW

% Solid: 0  
Units: UG/L  
Date Rec: 1/16/2012

Lab Name: Veritech  
Lab Code:  
Contract:

Nras No:  
Sdg No:  
Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	24	P	PEICP2A
7439-92-1	Lead	4.0	4.4	1	50	50	01/17/12	12507	W13495A2	24	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	20	CV	HGCV2A

Comments: \_\_\_\_\_  
\_\_\_\_\_

Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
P - ICP-AES  
CV -ColdVapor  
MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-005  
 Client Id: FB011412  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	25	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	25	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	23	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-006  
 Client Id: DUP011412  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	8.6	1	50	50	01/17/12	12507	W13495A2	26	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	26	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	24	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## **Chain of Custody Forms**



## CONDITION UPON RECEIPT

Batch Number AC63748

Entered By: Frantz

Date Entered 1/16/2012 2:23:00 PM

- 
- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 Yes Are the COC seals intact?
- 4 Yes Please specify the Temperature inside the container (in degC)  
2.7
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 Yes Do the contents match the COC? If no, specify
- 
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 NA Other comments ...Specify
- 14 NA Corrective actions (Specify item number and corrective action taken).

## PRESERVATION DOCUMENT

Batch Number AC63748

Entered By: Frantz

Date Entered 1/16/2012 2:23:00 PM

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Lab#:	Container Siz	Container Typ	Parameter	Preservative	PH
AC63748-001	1L	P	METALS	HNO3	1
AC63748-002	1L	P	METALS	HNO3	1
AC63748-003	1L	P	METALS	HNO3	1
AC63748-004	1L	P	METALS	HNO3	1
AC63748-005	1L	P	METALS	HNO3	1
AC63748-006	1L	P	METALS	HNO3	1

## Internal Chain of Custody

2011605 0022

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AC63748-001	01/16/12 14:15	FRAN	0	M	Received
AC63748-001	01/16/12 14:23	FRAN	0	M	Login
AC63748-001	01/17/12 09:32	JU	1	A	tdwi-hg
AC63748-001	01/17/12 11:24	R12	1	A	NONE
AC63748-002	01/16/12 14:15	FRAN	0	M	Received
AC63748-002	01/16/12 14:23	FRAN	0	M	Login
AC63748-002	01/17/12 09:32	JU	1	A	tdwi-hg
AC63748-002	01/17/12 11:24	R12	1	A	NONE
AC63748-003	01/16/12 14:15	FRAN	0	M	Received
AC63748-003	01/16/12 14:23	FRAN	0	M	Login
AC63748-003	01/17/12 09:32	JU	1	A	tdwi-hg
AC63748-003	01/17/12 11:24	R12	1	A	NONE
AC63748-004	01/16/12 14:15	FRAN	0	M	Received
AC63748-004	01/16/12 14:23	FRAN	0	M	Login
AC63748-004	01/17/12 09:32	JU	1	A	tdwi-hg
AC63748-004	01/17/12 11:24	R12	1	A	NONE
AC63748-005	01/16/12 14:15	FRAN	0	M	Received
AC63748-005	01/16/12 14:23	FRAN	0	M	Login
AC63748-005	01/17/12 09:32	JU	1	A	tdwi-hg
AC63748-005	01/17/12 11:24	R12	1	A	NONE
AC63748-006	01/16/12 14:15	FRAN	0	M	Received
AC63748-006	01/16/12 14:23	FRAN	0	M	Login
AC63748-006	01/17/12 09:32	JU	1	A	tdwi-hg
AC63748-006	01/17/12 11:24	R12	1	A	NONE

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
-------	-----------	-------------------	-----------	---------	----------

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

## **Metal Data**

**Metal Data  
Sample Data**

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-001  
 Client Id: B\_14B  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	22	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	22	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	18	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-002	% Solid: 0	Lab Name: Veritech	Nras No:
Client Id: B_12B	Units: UG/L	Lab Code:	Sdg No:
Matrix: AQUEOUS	Date Rec: 1/16/2012	Contract:	Case No:
Level: LOW			

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	14	P	PEICP2A
7439-92-1	Lead	4.0	6.8	1	50	50	01/17/12	12507	W13495A2	14	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	14	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-003  
 Client Id: B\_2B  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	23	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	23	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	19	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

## Form1 Inorganic Analysis Data Sheet

Sample ID: AC63748-004  
 Client Id: B\_4B  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	24	P	PEICP2A
7439-92-1	Lead	4.0	4.4	1	50	50	01/17/12	12507	W13495A2	24	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	20	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-005  
 Client Id: FB011412  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	W13495A2	25	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	25	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	23	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

# Form1

## Inorganic Analysis Data Sheet

Sample ID: AC63748-006  
 Client Id: DUP011412  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L  
 Date Rec: 1/16/2012

Lab Name: Veritech  
 Lab Code:  
 Contract:

Nras No:  
 Sdg No:  
 Case No:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7440-38-2	Arsenic	7.5	8.6	1	50	50	01/17/12	12507	W13495A2	26	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	W13495A2	26	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	24	CV	HGCV2A

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV -ColdVapor  
 MS - ICP-MS

**Metal Data**  
**QC Data**

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 01/17/12  
 Data File: SW13495A2  
 Prep Batch: 12507  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 2011605

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV/CC V Amt	ICV V- 132012 (2)-7 Rec	CCV V- 132010- 19 Rec	CCV V- 132010- 29 Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec	Rec
<b>Arsenic</b>	1/.5	1.01659	102	0.49229	98	0.50689	101					
<b>Lead</b>	1/.5	1.01382	101	0.50737	101	0.51350	103					

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

## FORM 2 (ICV/CCV Summary)

Date Analyzed: 01/17/12  
 Data File: H13495SW  
 Prep Batch: 12507  
 Analytical Method: 6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: HGCV2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 2011605

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICV/CCV SOURCE: VHG LABS

Analyte	ICV (2)-9		CCV-21		CCV-25		Rec									
	ICV/CC V Amt	Rec	Rec	Rec	Rec											
Mercury	20/10	19.88000	99	10.12000	101	10.11000	101									

**Notes:** a-indicates analyte failed the ICV limits for 6010B, 6020  
 b-indicates analyte failed the ICV limits for 200.7 or 200.8  
 c-indicates analyte failed the CCV limits for 200.7/200.8/245.1/6010B (Except Hg 7470A,7471A),6020  
 d-indicates analyte failed the CCV limits Hg 7470A/7471A

**Qc Limits:** ICV - 200.7 : 95-105  
 CCV- 200.7/200.8/6010B/245.1 : 90-110 (Except Hg 7470A/ 7471A=80-120)  
 ICV -6010B/6020/200.8 : 90-11

CLP ICP ICV/CCV: 90-110  
 CLP Hg ICV/CCV: 80-120

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 01/17/12  
 Data File: SW13495A2  
 Prep Batch: 12507  
 Reporting Limits Used: AQUEOUS,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 2011605

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:

Analyte	ICB V-132004- 8	CCB-20	CCB-30	MB 12507 (1)- 11				
Arsenic	.0075 U	.0075 U	.0075 U	.0075 U				
Lead	.004 U	.004 U	.004 U	.004 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
 u-indicates result below reporting limit

### FORM 3 (ICB/CCB/MB Summary)

Date Analyzed: 01/17/12

Data File: H13495SW

Prep Batch: 12507

Reporting Limits Used: AQUEOUS,6010B(ICP)/7470A,7471A(Hg),6020

Instrument: HGCV2A

Units: All units in ppm except Hg and icp-ms in ppb

Project Number: 2011605

Lab Name: Veritech

Lab Code:

Contract:

Nras No:

Sdg No:

Case No:

Analyte	ICB-10	CCB-22	CCB-26	MB 12507 (1)- 11				
Mercury	.7 U	.7 U	.7 U	.7 U				

**Notes:** a-indicates absolute value of result found above the reporting limits in CCB/ICB or result found above reporting limit in the MB  
u-indicates result below reporting limit

## FORM 4 (ICSA/ICSAB Summary)

Date Analyzed: 01/17/12  
 Data File: SW13495A2  
 Prep Batch: 12507  
 Reporting Limits Used: AQUEOUS,6010B(ICP)/7470A,7471A(Hg),6020  
 Instrument: PEICP2A  
 Units: All units in ppm except Hg and icp-ms in ppb  
 Project Number: 2011605

Lab Name: Veritech  
 Lab Code:  
 Contract:  
 Nras No:  
 Sdg No:  
 Case No:  
 ICSA/ICSAB: SOURCE: VHG LABS

Analyte	Spk Amt	ICSA V-132014-9		ICSAB V-132016-10		ICSA V-132014-27		ICSAB V-132016-28		Rec	Rec	Rec	Rec
		Rec	Rec	Rec	Rec	Rec	Rec						
Aluminum	500	504.236	101	515.68200	103	502.793	101	505.70900	101				
Arsenic	1	U		1.03024	103	U		1.03898	104				
Calcium	500	483.826	97	497.23000	99	480.51	96	489.50300	98				
Iron	200	182.576	91	187.87800	94	184.834	92	187.87200	94				
Lead	1	.0056892b		0.96629	97	U		0.96034	96				
Magnesium	500	502.319	100	515.50900	103	504.981	101	516.24400	103				

**Notes:** a-indicates absolute value of the concentration > 2 \* Reporting Limits In the ICSA  
 b-indicates absolute value of the concentration above Reporting Limits but < 2 \* Reporting Limits in the ICSA  
 c-indicates the recovery failed the Qc Criteria in the ICSAB  
 u-indicates the absolute value of the concentration was below the reporting limit

**FORM5/FORM7**  
**SPIKE RECOVERY DATA**  
 PREP BATCH: 12507

2011605 0037

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCS      Matrix: AQUEOUS      SampleID: LCSW 12507

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12507	1	SW13495	12	0.4996	0.500	100	75	125	
Lead	12507	1	SW13495	12	0.5077	0.500	102	75	125	
Mercury	12507	1	H13495S	12	10.3700	10	104	75	125	

TxtQcType: LCSMR      Matrix: AQUEOUS      SampleID: LCSW MR 12507

Analyte	BatchId	DF	Data Fil	Seq#:	Spk Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12507	1	SW13495	13	0.4942	0.500	99	75	125	
Lead	12507	1	SW13495	13	0.5062	0.500	101	75	125	
Mercury	12507	1	H13495S	13	10.2400	10	102	75	125	

TxtQcType: MS      Matrix: AQUEOUS      SampleID: AC63748-002

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12507	1	SW13495	16	SW13495	14	0.5412	0.0075U	.5	108	75	125	
Lead	12507	1	SW13495	16	SW13495	14	0.5028	0.0068	.5	99	75	125	
Mercury	12507	1	H13495S	16	H13495S	14	10.0800	.70U	10	101	75	125	

TxtQcType: MSD      Matrix: AQUEOUS      SampleID: AC63748-002

Analyte	BatchId	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	12507	1	SW13495	17	SW13495	14	0.5279	0.0075U	.5	106	75	125	
Lead	12507	1	SW13495	17	SW13495	14	0.4954	0.0068	.5	98	75	125	
Mercury	12507	1	H13495S	17	H13495S	14	10.1200	.70U	10	101	75	125	

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

FORM5/FORM7  
SPIKE RECOVERY DATA  
PREP BATCH: 12507

2011605 0038

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: PS		Matrix: AQUEOUS		SampleID: AC63748-002								
Analyte	DF	Data Fil	Seq#:	NS Data Fil	Seq#	Spk Conc:	NS Conc:	Spk Adde	Recov	Qual	Lo Lim	Hi Lim
Arsenic	1	SW13495	18	SW13495	14	0.5141	0.0075U	.5000	103	75	75	125
Lead	1	SW13495	18	SW13495	14	0.4854	0.0068	.500	96	75	75	125

a-Indicates Recovery Failed the criteria

b-Indicates Recovery Failed the criteria but non spike concentration >4\*spike amount

**FORM6/FORM9**  
**RPD/%Difference Data**  
 PREP BATCH: 12507

2011605 0039

Instrument Type: ICP/HG

Analytical Method(s):6010/200.7/7470A/7471A/245.1

ICP units in ppm, ICPMS and Hg in ppb

TxtQcType: LCSMR		Matrix: AQUEOUS		SampleID: LCSW MR 12507	
------------------	--	-----------------	--	-------------------------	--

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	12507	SW13495	13	SW13495	12	0.4942	0.4996	1.1	20
Lead	12507	SW13495	13	SW13495	12	0.5062	0.5077	.3	20
Mercury	12507	H13495S	13	H13495S	12	10.2400	10.3700	1.3	20

TxtQcType: MR		Matrix: AQUEOUS		SampleID: AC63748-002	
---------------	--	-----------------	--	-----------------------	--

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	12507	SW13495	15	SW13495	14	0.0075U	0.0075U	---	20
Lead	12507	SW13495	15	SW13495	14	0.004U	0.0068	---	20
Mercury	12507	H13495S	15	H13495S	14	.70U	.70U	---	20

TxtQcType: MSD		Matrix: AQUEOUS		SampleID: AC63748-002	
----------------	--	-----------------	--	-----------------------	--

Analyte	BatchId	Data Fil	Seq#:	MS File	Seq#	Result 1	Result 2	RPD	Limit
Arsenic	12507	SW13495	17	SW13495	16	0.5279	0.5412	2.5	20
Lead	12507	SW13495	17	SW13495	16	0.4954	0.5028	1.5	20
Mercury	12507	H13495S	17	H13495S	16	10.1200	10.0800	.4	20

TxtQcType: SD		Matrix: AQUEOUS		SampleID: AC63748-002	
---------------	--	-----------------	--	-----------------------	--

Analyte	BatchId	Data Fil	Seq#:	NS File	Seq#	DF	Result 1	Result 2	%Diff	Limit
Arsenic	12507	SW13495	21	SW13495	14	5	0.0005	0.0002	---	10
Lead	12507	SW13495	21	SW13495	14	5	0.0016	0.0068	---	10

a-Indicates Rpd Failed the criteria

b-Method Rep Out but concentrations < 5\*RL

c-Serial dilution Out but conc < 10 \* IDL

**Metal Data**  
**Verification of Instrument Parameters**

**INTERELEMENT CORRECTION SUMMARY  
PEICP2**

2011605 0041

**Interfering Elements**

	<b>Al</b>	<b>Ca</b>	<b>Fe</b>	<b>Mg</b>	<b>Mn</b>	<b>Mo</b>	<b>Ti</b>	<b>Zn</b>
<b>Interfered Elements</b>								
<b>Al</b>	N/A	0	0	0	0	22.7	-3.1	0
<b>Sb</b>	-0.171	0.00598	-0.16	0	0	-0.379	0.152	0.179
<b>As</b>	0	0.00919	-0.151	0	0	0.809	0	0
<b>Ba</b>	0	0	0	0	0	0	0	0
<b>Be</b>	0	0	0	0	0	0	0.715	0
<b>Cd</b>	0	0	0.0164	0	0	0	0	0
<b>Ca</b>	0	N/A	0	0	0	0	0	0
<b>Cr</b>	0	0	-0.0341	0	-0.624	-6.23	0	0
<b>Co</b>	-0.0142	0	0	0	0	-3.05	1.93	0
<b>Cu</b>	0.0128	0.0115	0	0.013	0	0	0.39	0
<b>Fe</b>	0	0	N/A	-0.4	0	0	0	0
<b>Pb</b>	-0.163	0.00105	0.0724	0.0138	0	-1.28	0	0
<b>Mg</b>	0	0	0	N/A	0	0	0	0
<b>Mn</b>	0	0	-0.0453	0	N/A	-0.256	0	0
<b>Mo</b>	-0.0122	0.0219	0	0	0	N/A	0	0
<b>Ni</b>	0	0	0	0	0	-0.89	0	0
<b>Se</b>	0.11	0.0279	-0.216	-0.00818	0.8	0	0.753	0
<b>Ag</b>	0	-0.00654	-0.0486	0	0.271	0.641	0	0
<b>Sr</b>	0	0.0108	0	0.00248	0	0	0	0
<b>Tl</b>	-0.024	-0.01	-0.0327	0	1.92	1.46	-7.68	0
<b>Sn</b>	0.0201	-0.00191	0.0326	-0.0161	0	0	0.753	0
<b>Ti</b>	0	0	0	0	0	0	N/A	0
<b>V</b>	0	0	0.0272	0.077	0	-1.46	-0.699	0
<b>Zn</b>	0	0	0	0.0313	0	0	0	N/A

**LINEAR RANGES**  
**PE ICP 2**  
**Axial**

<u>ELEMENT</u>	<u>LINEAR RANGE</u>
	(PPM)
Al	900
Sb	18
As	45
Ba	45
Be	4.5
Cd	45
Ca	810
Cr	45
Co	45
Cu	45
Fe	540
Pb	45
Mg	900
Mn	45
Mo	45
Ni	45
Se	45
Ag	1.8
Tl	45
Sn	45
Ti	36
V	45
Zn	45

**Metal Data**  
**Raw Data**

# Form1

## Inorganic Analysis Data Sheet

Sample ID: MB 12507 (1)  
 Client Id: MB 12507 (1)  
 Matrix: AQUEOUS  
 Level: LOW

% Solid: 0  
 Units: UG/L

Lab Name: Veritech  
 Lab Code:

Cas No.	Analyte	RL	Conc	Dil Fact	Initial Wt/Vol	Final Wt/Vol	Analysis Date	Prep Batch	File:	Seq Num	M	Instr
7429-90-5	Aluminum	180	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-36-0	Antimony	12	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-38-2	Arsenic	7.5	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-39-3	Barium	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-41-7	Beryllium	4.0	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-43-9	Cadmium	3.5	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-70-2	Calcium	2000	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-47-3	Chromium	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-48-4	Cobalt	20	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-50-8	Copper	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7439-89-6	Iron	280	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7439-92-1	Lead	4.0	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7439-95-4	Magnesium	2000	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7439-96-5	Manganese	40	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7439-97-6	Mercury	0.70	ND	1	25	25	01/17/12	12507	H13495SW	11	CV	HGCV2A
7439-98-7	Molybdenum	20	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-02-0	Nickel	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7782-49-2	Selenium	40	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-22-4	Silver	20	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-28-0	Thallium	10	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-31-5	Tin	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-32-6	Titanium	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-62-2	Vanadium	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A
7440-66-6	Zinc	50	ND	1	50	50	01/17/12	12507	SW13495A2	11	P	PEICP2A

Comments: \_\_\_\_\_

### Flag Codes:

U or ND - Indicates Compound was not found above the detection/reporting limit  
 P - ICP-AES  
 CV - Cold Vapor  
 MS - ICP-MS

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-132779



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala
Description: Hg Intermediate Standard	BatchNumber: B-11774	ApproveDate: 01/23/12
Prep Date: 1/17/2012	Concentration: .25 ppm	Checked: Yes
Expiration Date: 1/17/2012	Final Volume: 500 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6454	Nitric Acid	12.5 ml	neat neat	
5675	Mercury	.125 ml	1000 mg/l	
6528	DI H2O			

## Veritech Lot Number: V-132780



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala
Description: Hg intermediate Control	BatchNumber: B-11774	ApproveDate: 01/23/12
Prep Date: 1/17/2012	Concentration: 1.0 ppm	Checked: Yes
Expiration Date: 1/17/2012	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6454	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-132781



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala
Description: Hg AQ ICV 20 ppb	BatchNumber: B-11775	ApproveDate: 01/23/12
Prep Date: 1/17/2012	Concentration: 20 ppb	Checked: Yes
Expiration Date: 1/17/2012	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132780	Hg intermediate Control	.5 ml	1.0 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132782



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala
Description: Hg AQ CCV 10 ppb	BatchNumber: B-11775	ApproveDate: 01/23/12
Prep Date: 1/17/2012	Concentration: 10 ppb	Checked: Yes
Expiration Date: 1/17/2012	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132780	Hg intermediate Control	.25 ml	1.0 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132783



Prepared By: Ugljesa, Julijana	Department: Metals	ApprovedBy: shiamala
Description: Hg AQ standard blk	BatchNumber: B-11775	ApproveDate: 01/23/12
Prep Date: 1/17/2012	Concentration: 0 ppb	Checked: Yes
Expiration Date: 1/17/2012	Final Volume: 25 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-132784



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .2 ppb		BatchNumber: B-11775	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: .2 ppb	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132779	Hg Intermediate Standard	.02 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132785



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard .5 ppb		BatchNumber: B-11775	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: .5 ppb	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
V-132779	Hg Intermediate Standard	.05 ml	.25 ppm	

## Veritech Lot Number: V-132786



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 1 ppb		BatchNumber: B-11775	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: 1 ppb	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132779	Hg Intermediate Standard	.1 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132787



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 2 ppb		BatchNumber: B-11775	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: 2 ppb	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132779	Hg Intermediate Standard	.2 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132788



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 5 ppb		BatchNumber: B-11775	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: 5 ppb	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132779	Hg Intermediate Standard	.5 ml	.25 ppm	
6528	DI H2O			

## Veritech Lot Number: V-132789



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 10 ppb		BatchNumber: B-11775	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: 10 ppb	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132779	Hg Intermediate Standard	1 ml	.25 ppm	
6528	DI H2O			

## Veritech Internally Prepared Standard Log

Veritech Lot Number: V-132790



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg AQ standard 25 ppb		BatchNumber: B-11775	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: 25 ppb	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 25 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-132779 6528	Hg Intermediate Standard DI H2O	2.5 ml	.25 ppm	

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 5675											
Description										ApprovedBy: shiamala	
Mercury										ApproveDate: 11/10/11	
										Checked: Yes	
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
SPEX	PLHG4-2X/2Y/2T	16-81HG	03/03/11	03/02/12	Kalin, Gabrielle	2	125ml	1000	mg/L		
Veritech Control/Receipt Number: 5715											
Description										ApprovedBy: shiamala	
Mercury										ApproveDate: 05/04/11	
										Checked: Yes	
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL		
Veritech Control/Receipt Number: 6454											
Description										ApprovedBy: shiamala	
Nitric Acid										ApproveDate: 12/05/11	
										Checked: Yes	
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat		
Veritech Control/Receipt Number: 6528											
Description										ApprovedBy: shiamala	
DI H2O										ApproveDate: 01/06/12	
										Checked: Yes	
Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:		
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1					

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-126648



Prepared By: Aliano, Carmela		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Persulfate		BatchNumber:	ApproveDate: 10/21/11	
Prep Date: 10/17/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 4/16/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
5202	Potassium Persulfate	500 g	neat neat	

## Veritech Lot Number: V-128657



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS 1 INTERMEDIATE		BatchNumber:	ApproveDate: 11/15/11	
Prep Date: 11/14/2011		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6433	Nitric Acid	5 ml	neat neat	
5700	Arsenic	.5 ml	1000 ug/ml	5 mg/l
5703	Beryllium	.3 ml	1000 ug/ml	3 mg/l
5704	Cadmium	.3 ml	1000 ug/ml	3 mg/l
5716	Lead	.4 ml	1000 ug/ml	4 mg/l
5728	Thallium	.5 ml	1000 ug/ml	5 mg/l

## Veritech Lot Number: V-130673



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 1:1 HCl		BatchNumber:	ApproveDate: 12/15/11	
Prep Date: 12/13/2011		Concentration: Reagent	Checked: Yes	
Expiration Date: 3/12/2012		Final Volume: 2000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O	1000 ml		
6507	Hydrochloric Acid	1000 ml	neat neat	

## Veritech Lot Number: V-130865



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS2- Low Std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 500 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	Di H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	.05 ml	NEAT neat	
5404	ICSB	.05 ml	10000 mg/l	
5405	ICSC	.05 ml	100 mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-130867



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS3 - Middle Std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/15/2011		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 3/14/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6373	DI H2O			
6507	Hydrochloric Acid	50 ml	neat neat	
6454	Nitric Acid	50 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-131432



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: Hydroxylamine Hydrochloride		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/21/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 6/20/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6434	Sodium Chloride	1200 g	neat neat	
6421	Hydroxylamine Hydrochloride	1200 g	96 %	

## Veritech Lot Number: V-131852



Prepared By: Patel, Purva		Department: Metals	ApprovedBy: shiamala	
Description: 5% Potassium Permanganate		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 12/29/2011		Concentration: reagent	Checked: Yes	
Expiration Date: 3/28/2012		Final Volume: 10 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6538	POTASSIUM PERMANGANATE	500 g	NEAT neat	

## Veritech Lot Number: V-132004



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICB/CCB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 1/3/2012		Concentration: 0 mg/l	Checked: Yes	
Expiration Date: 4/2/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-132005



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICS1 Lowest std		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 1/3/2012		Concentration: various mg/l	Checked: Yes	
Expiration Date: 2/13/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
	DI Water			
6244	Hydrochloric Acid	50 ml	neat neat	
6433	Nitric Acid	50 ml	neat neat	
v-128657	ICS 1 INTERMEDIATE	1 ml	various mg/l	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-132009



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICS4 - High std	BatchNumber:	ApproveDate: 01/09/12
Prep Date: 1/3/2012	Concentration: MULTI multi	Checked: Yes
Expiration Date: 4/2/2012	Final Volume: 500 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6454	Nitric Acid	25 ml	neat neat	
6507	Hydrochloric Acid	25 ml	neat neat	
5403	ICSA	5 ml	NEAT neat	
5404	ICSB	5 ml	10000 mg/l	
5405	ICSC	5 ml	100 mg/l	

## Veritech Lot Number: V-132010



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: CCV	BatchNumber:	ApproveDate: 01/09/12
Prep Date: 1/3/2012	Concentration: MULTI multi	Checked: Yes
Expiration Date: 4/2/2012	Final Volume: 1000 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6454	Nitric Acid	50 ml	neat neat	
6507	Hydrochloric Acid	50 ml	neat neat	
6495	ICV 1	10 ml	NEAT neat	
6496	ICV 2	10 ml	50 ug/ml	

## Veritech Lot Number: V-132012



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICV	BatchNumber:	ApproveDate: 01/09/12
Prep Date: 1/3/2012	Concentration: MULTI multi	Checked: Yes
Expiration Date: 4/2/2012	Final Volume: 500 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6507	Hydrochloric Acid	25 ml	neat neat	
6454	Nitric Acid	25 ml	neat neat	
6495	ICV 1	10 ml	NEAT neat	
6496	ICV 2	10 ml	50 ug/ml	

## Veritech Lot Number: V-132014



Prepared By: Kalin, Gabrielle	Department: Metals	ApprovedBy: shiamala
Description: ICSA	BatchNumber:	ApproveDate: 01/09/12
Prep Date: 1/3/2012	Concentration: MULTI multi	Checked: Yes
Expiration Date: 4/2/2012	Final Volume: 1000 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
6454	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Internally Prepared Standard Log

## Veritech Lot Number: V-132016



Prepared By: Kalin, Gabrielle		Department: Metals	ApprovedBy: shiamala	
Description: ICSAB		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 1/3/2012		Concentration: MULTI multi	Checked: Yes	
Expiration Date: 4/2/2012		Final Volume: 1000 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6528	DI H2O			
5821	ICSAB	10 ml	NEAT ug/ml	
6454	Nitric Acid	50 ml	neat neat	
6144	ICSA	50 ml	NEAT neat	
6507	Hydrochloric Acid	50 ml	neat neat	

## Veritech Lot Number: V-132262



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: 3% HCL		BatchNumber:	ApproveDate: 01/09/12	
Prep Date: 1/6/2012		Concentration: reagent I	Checked: Yes	
Expiration Date: 6/18/2012		Final Volume: 30 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6507	Hydrochloric Acid	900	neat neat	
6528	DI H2O			

## Veritech Lot Number: V-132780



Prepared By: Ugljesa, Julijana		Department: Metals	ApprovedBy: shiamala	
Description: Hg intermediate Control		BatchNumber: B-11774	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: 1.0 ppm	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6454	Nitric Acid	2.5 ml	neat neat	
6528	DI H2O			
5715	Mercury	.1 ml	1000 ug/ml	

## Veritech Lot Number: V-132841



Prepared By: Adelartey, Olufemi		Department: Metals	ApprovedBy: shiamala	
Description: SnCl2		BatchNumber:	ApproveDate: 01/23/12	
Prep Date: 1/17/2012		Concentration: reagent I	Checked: Yes	
Expiration Date: 1/17/2012		Final Volume: 1 l		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
6140	Stannous Chloride		NEAT neat	13.2 g
V-132262	3% HCL		reagent I	1000 ml

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5202



Description

Potassium Persulfate

ApprovedBy: gael  
ApproveDate: 12/01/10  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	P282-500	092677	08/27/10	08/26/13	Miller, Gael E.	2	500g	neat	neat

## Veritech Control/Receipt Number: 5403



Description

ICSA

ApprovedBy: melissa  
ApproveDate: 01/06/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	NEAT	NEAT

## Veritech Control/Receipt Number: 5404



Description

ICSB

ApprovedBy: melissa  
ApproveDate: 01/06/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	10000	MG/L

## Veritech Control/Receipt Number: 5405



Description

ICSC

ApprovedBy: melissa  
ApproveDate: 01/06/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CPI	4400-070604JC01	10J134	11/08/10	04/21/12	Miller, Gael E.	2	500M	100	MG/L

## Veritech Control/Receipt Number: 5700



Description

Arsenic

ApprovedBy: shiamala  
ApproveDate: 03/24/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	ASP1-1-1	ASP1MR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5703



Description

Beryllium

ApprovedBy: shiamala  
ApproveDate: 03/24/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	BEP1-1-1	BEP1KR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5704



Description

Cadmium

ApprovedBy: shiamala  
ApproveDate: 03/24/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	CDP1-1-1	Z1010CD1E1	03/08/11	03/07/12	Kalin, Gabrielle	1	10mL	1000	ug/mL

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 5715



Description
Mercury

ApprovedBy: shiamala
ApproveDate: 05/04/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	HGP1-1-1	HGP1JR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5716



Description
Lead

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	PBP1-1-1	PBP1NR	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5728



Description
Thallium

ApprovedBy: shiamala
ApproveDate: 03/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
MV LABS	TLP1-1-1	Z1010TL1B1	03/08/11	03/07/12	Kalin, Gabrielle	1	100m	1000	ug/mL

## Veritech Control/Receipt Number: 5821



Description
ICSAB

ApprovedBy: SHIAMALA
ApproveDate: 08/11/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#2	1112290B	04/06/11	04/05/12	Kalin, Gabrielle	1	500m	NEAT	ug/mL

## Veritech Control/Receipt Number: 6140



Description
Stannous Chloride

ApprovedBy: shiamala
ApproveDate: 07/13/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	CAS 10025-69-1	108259	07/11/11	07/10/12	Kalin, Gabrielle	1	3kg	NEAT	NEAT

## Veritech Control/Receipt Number: 6144



Description
ICSA

ApprovedBy: shiamala
ApproveDate: 10/03/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
VHG LABS	ZHAMPTON#1	1115106	07/14/11	07/13/12	Kalin, Gabrielle	4	500m	NEAT	NEAT

## Veritech Control/Receipt Number: 6244



Description
Hydrochloric Acid

ApprovedBy: jean
ApproveDate: 08/16/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K24040	08/16/11	08/15/12	Lopez, Jose	6	2.5L	neat	neat

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 6373



Description
Di H2O

ApprovedBy: shiamala
ApproveDate: 10/18/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	10/10/11	07/16/12	Ugljesa, Julijana	1	ml		

## Veritech Control/Receipt Number: 6421



Description
Hydroxylamine Hydrochloride

ApprovedBy:
ApproveDate:
Checked: No

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CCI (via Lab Sale)	5470-11-1 (LS-2752)	200916837	11/02/11	11/01/12	Kalin, Gabrielle	1	2.5Kg	96	%

## Veritech Control/Receipt Number: 6433



Description
Nitric Acid

ApprovedBy: shiamala
ApproveDate: 11/15/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111070	11/10/11	07/31/14	Lopez, Jose	6	2.5L	neat	neat

## Veritech Control/Receipt Number: 6434



Description
Sodium Chloride

ApprovedBy: bhavin
ApproveDate: 11/10/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	S271-10	113099	11/08/11	11/07/15	Quimby, Richard	3	10KG	neat	neat

## Veritech Control/Receipt Number: 6454



Description
Nitric Acid

ApprovedBy: shiamala
ApproveDate: 12/05/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

## Veritech Control/Receipt Number: 6495



Description
ICV 1

ApprovedBy: shiamala
ApproveDate: 12/15/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

## Veritech Control/Receipt Number: 6496



Description
ICV 2

ApprovedBy: shiamala
ApproveDate: 12/15/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/ML

## Veritech Standard Receipt Log

## Veritech Control/Receipt Number: 6507



Description

Hydrochloric Acid

ApprovedBy: shiamala  
ApproveDate: 12/05/11  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
J.T.Baker	9530-33	K43032	11/30/11	11/29/12	Lopez, Jose	12	2.5L	neat	neat

## Veritech Control/Receipt Number: 6528



Description

DI H2O

ApprovedBy: shiamala  
ApproveDate: 01/06/12  
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Siemens	1	1	12/13/11	09/18/12	Ugljesa, Julijana	1			

## Veritech Control/Receipt Number: 6538



Description

POTASSIUM PERMANGANATE

ApprovedBy:  
ApproveDate:  
Checked: No

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
LABCHEM	T10208	0104-26	12/20/11	12/19/12	Kalin, Gabrielle	1	2.5K	NEAT	NEAT

## Veritech Standard Receipt Log

Veritech Control/Receipt Number: 6386



Description
Sulfuric Acid

ApprovedBy: shiamala
ApproveDate: 10/24/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A510SK-212	3110100	10/19/11	12/30/13	Lopez, Jose	12	2.5L	neat	neat

Veritech Control/Receipt Number: 6454



Description
Nitric Acid

ApprovedBy: shiamala
ApproveDate: 12/05/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Fisher	A509SK-212	1111030	11/17/11	04/30/14	Lopez, Jose	12	2.5L	neat	neat

Veritech Control/Receipt Number: 6495



Description
ICV 1

ApprovedBy: shiamala
ApproveDate: 12/15/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-7	5-38YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	NEAT	NEAT

Veritech Control/Receipt Number: 6496



Description
ICV 2

ApprovedBy: shiamala
ApproveDate: 12/15/11
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
SPEX	XHCV-8	5-39YP	11/29/11	11/28/12	Kalin, Gabrielle	2	500m	50	ug/ML

# Run Log

Data File: W:\METALS.FRM\ICPDATA\New\PEICP2A\SW13495A2.txt

Analysis Date: 01/17/12

Instrument: PEICP2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calib Blk 1 V-132004	1	CAL	16:30	1							V-132004(ICB/CCB)
Calib 1 V-132005	1	CAL	16:34	2							V-132005(ICS1 - Lowest std)
Calib 2 V-130865	1	CAL	16:38	3							V-130865(ICS2- Low Std)
Calib 3 V-130867	1	CAL	16:42	4							V-130867(ICS3 - Middle Std)
Calib 4 V-132009	1	CAL	16:45	5							V-132009(ICS4 - High std)
ICS3 V-130867	1	ICS	16:50	6							V-130867(ICS3 - Middle Std)
ICV V-132012 (2)	1	ICV	16:54	7							V-132012(ICV)
ICB V-132004	1	ICB	16:59	8							V-132004(ICB/CCB)
ICSA V-132014	1	ICSA	17:03	9							V-132014(ICSA)
ICSAB V-132016	1	ICSAB	17:08	10							V-132016(ICSAB)
MB 12507 (1)	1	MB	17:13	11		AQUEO	AQUEO	SW846	12507		0
LCSW 12507	1	LCS	17:17	12		AQUEO	AQUEO	SW846	12507		0
LCSW MR 12507	1	LCS	17:20	13		AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	SMP	17:24	14	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	MR	17:28	15	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	MS	17:32	16	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	MSD	17:36	17	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	PS	17:40	18	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
CCV V-132010	1	CCV	17:44	19							V-132010(CCV)
CCB	1	CCB	17:48	20							0
AC63748-002	5	SD	17:52	21	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-001	1	SMP	17:55	22	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-003	1	SMP	17:59	23	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-004	1	SMP	18:03	24	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-005	1	SMP	18:07	25	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
AC63748-006	1	SMP	18:10	26	MET-2-SOIL	AQUEO	AQUEO	SW846	12507		0
ICSA V-132014	1	ICSA	18:14	27							V-132014(ICSA)
ICSAB V-132016	1	ICSAB	18:20	28							V-132016(ICSAB)
CCV V-132010	1	CCV	18:25	29							V-132010(CCV)
CCB	1	CCB	18:28	30							0

Comments/Reviewed by:

Standard/Batch/SnCl2 Lot #:

Jan 19 2012 10:36:18 AM

OK

*sh* 1/18/12

# Run Log

2011605 0059

Data File: W:\METALS.FRM\ICPDATA\New\HGCV2A\H13495SW.txt

Analysis Date: 01/17/12

Instrument: HGCV2A

Sample Id	DF	Qc Type	Time	Run #	Test Group	Rept Limit Matrix	Qc Matrix	Anal Method	Prep Batch	Comments:	Stds:
Calibration Blank	1	CAL	15:17	1							0
2 PPB	1	CAL	15:18	2							0
5 PPB	1	CAL	15:20	3							0
1 PPB	1	CAL	15:21	4							0
2 PPB	1	CAL	15:23	5							0
5 PPB	1	CAL	15:24	6							0
10 PPB	1	CAL	15:25	7							0
25 PPB	1	CAL	15:27	8							0
ICV (2)	1	ICV	15:28	9							0
ICB	1	ICB	15:30	10							0
MB 12507 (1)	1	MB	15:31	11		AQUEO	AQUEO	SW846	12507		0
LCSW 12507	1	LCS	15:33	12		AQUEO	AQUEO	SW846	12507		0
LCSW MR 12507	1	LCS	15:34	13		AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	SMP	15:36	14	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	MR	15:37	15	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	MS	15:39	16	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
AC63748-002	1	MSD	15:40	17	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
AC63748-001	1	SMP	15:42	18	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
AC63748-003	1	SMP	15:43	19	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
AC63748-004	1	SMP	15:45	20	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
CCV	1	CCV	15:46	21							0
CCB	1	CCB	15:48	22							0
AC63748-005	1	SMP	15:49	23	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
AC63748-006	1	SMP	15:51	24	HG-W-7470	AQUEO	AQUEO	SW846	12507		0
CCV	1	CCV	15:52	25							0
CCB	1	CCB	15:54	26							0

Comments/Reviewedby:

Standard/Batch/SnCl2 Lot #:

olufemi  
192.168.1.89 1/17/2012 4:56:34 PM

V-132841

RUN IS OK

*Sh* 1/17/12

Analyst *L. Blh* 1/18/12

=====  
Analysis Begun

Start Time: 1/17/2012 4:30:07 PM Plasma On Time: 12:00:00 AM  
Logged In Analyst: shiamala Technique: ICP Continuous  
Spectrometer Model: Optima 4300 DV, S/N 077N1030901 Autosampler Model: AS-93plus

Sample Information File: C:\pe\administrator\Sample Information\01.17.12.sif  
Batch ID: 11227  
Results Data Set: SW13495A2  
Results Library: C:\pe\administrator\Results\Results.mdb

*sh* 1/18/12

=====  
Method Loaded

Method Name: PE2 4300DV AXIAL Method Last Saved: 1/17/2012 11:45:46 AM  
IEC File: IEC092611B2.iec MSF File:  
Method Description: 200.706010B

=====  
Sequence No.: 1 Autosampler Location: 1  
Sample ID: Calib Blk 1 V-132004 Date Collected: 1/17/2012 4:30:07 PM  
Analyst: Data Type: Original  
Initial Sample Wt: Initial Sample Vol:  
Dilution: Sample Prep Vol:

=====  
Mean Data: Calib Blk 1 V-132004

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1044236.4	1037.57	0.10%	100 %
Y 371.029	398530.1	154.90	0.04%	100 %
Ag 328.068†	-188.5	48.28	25.62%	[0.00] mg/L
Al 308.215†	5364.0	2.54	0.05%	[0.00] mg/L
As 188.979†	-8.9	2.14	23.92%	[0.00] mg/L
Ba 233.527†	-647.9	14.46	2.23%	[0.00] mg/L
Be 313.107†	-1732.0	19.61	1.13%	[0.00] mg/L
Ca 315.887†	-37878.3	196.70	0.52%	[0.00] mg/L
Cd 228.802†	298.5	1.04	0.35%	[0.00] mg/L
Co 228.616†	26.6	2.92	10.97%	[0.00] mg/L
Cr 267.716†	244.3	3.07	1.26%	[0.00] mg/L
Cu 327.393†	-2558.5	38.37	1.50%	[0.00] mg/L
Fe 273.955†	-2935.1	14.47	0.49%	[0.00] mg/L
K 404.721†	-678.3	57.66	8.50%	[0.00] mg/L
Mg 279.077†	-5989.6	0.02	0.00%	[0.00] mg/L
Mn 257.610†	-1569.0	17.85	1.14%	[0.00] mg/L
Mo 202.031†	3.5	4.14	118.05%	[0.00] mg/L
Na 330.237†	-179.7	28.45	15.83%	[0.00] mg/L
Ni 231.604†	17.7	4.54	25.64%	[0.00] mg/L
Pb 220.353†	4.4	9.93	226.71%	[0.00] mg/L
Sb 206.836†	-42.6	2.76	6.48%	[0.00] mg/L
Se 196.026†	33.7	0.03	0.09%	[0.00] mg/L
Sn 189.927†	4.4	0.15	3.31%	[0.00] mg/L
Ti 334.940†	1670.5	12.30	0.74%	[0.00] mg/L
Tl 190.801†	-12.8	0.40	3.14%	[0.00] mg/L
V 290.880†	2483.3	48.70	1.96%	[0.00] mg/L
Zn 206.200†	-14.6	0.15	1.02%	[0.00] mg/L

13495  
12507

As, Pb reported

=====

Sequence No.: 2	Autosampler Location: 10
Sample ID: Calib 1 V-132005	Date Collected: 1/17/2012 4:34:46 PM
Analyst:	Data Type: Original
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:

-----

## Mean Data: Calib 1 V-132005

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1045563.0	15521.98	1.48%	100 %
Y 371.029	398307.9	5809.15	1.46%	99.9 %
As 188.979†	3.1	0.20	6.22%	[0.005] mg/L
Be 313.107†	7039.9	168.87	2.40%	[0.003] mg/L
Cd 228.802†	95.6	3.65	3.82%	[0.003] mg/L
Pb 220.353†	36.6	10.19	27.86%	[0.004] mg/L
Tl 190.801†	2.5	2.02	80.45%	[0.005] mg/L

Sequence No.: 3

Autosampler Location: 9

Sample ID: Calib 2 V-130865

Date Collected: 1/17/2012 4:38:26 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----  
Mean Data: Calib 2 V-130865

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1041877.5	7957.08	0.76%	99.8	%
Y 371.029	396927.7	3143.15	0.79%	99.6	%
Ag 328.068†	323.8	15.08	4.66%	[0.002]	mg/L
Al 308.215†	2846.4	179.52	6.31%	[0.10]	mg/L
As 188.979†	7.2	0.07	0.99%	[0.010]	mg/L
Ba 233.527†	1067.6	0.07	0.01%	[0.010]	mg/L
Be 313.107†	23402.6	508.51	2.17%	[0.010]	mg/L
Ca 315.887†	92778.6	1477.01	1.59%	[1.0]	mg/L
Cd 228.802†	317.7	0.25	0.08%	[0.010]	mg/L
Co 228.616†	261.8	12.07	4.61%	[0.010]	mg/L
Cr 267.716†	577.3	28.38	4.92%	[0.010]	mg/L
Cu 327.393†	1054.5	37.01	3.51%	[0.010]	mg/L
Fe 273.955†	959.2	27.96	2.91%	[0.10]	mg/L
K 404.721†	180.0	28.62	15.90%	[1.0]	mg/L
Mg 279.077†	11320.6	240.36	2.12%	[1.0]	mg/L
Mn 257.610†	3855.1	59.63	1.55%	[0.010]	mg/L
Mo 202.031†	122.4	0.40	0.32%	[0.010]	mg/L
Na 330.237†	665.7	59.05	8.87%	[1.0]	mg/L
Ni 231.604†	360.0	18.25	5.07%	[0.010]	mg/L
Pb 220.353†	90.8	13.00	14.31%	[0.010]	mg/L
Sb 206.836†	10.7	0.06	0.53%	[0.010]	mg/L
Se 196.026†	5.9	4.45	75.77%	[0.010]	mg/L
Sn 189.927†	19.1	1.07	5.62%	[0.010]	mg/L
Ti 334.940†	5363.0	140.81	2.63%	[0.010]	mg/L
Tl 190.801†	9.1	0.81	8.86%	[0.010]	mg/L
V 290.880†	1273.2	65.36	5.13%	[0.010]	mg/L
Zn 206.200†	237.2	2.93	1.23%	[0.010]	mg/L

Sequence No.: 4

Sample ID: Calib 3 V-130867

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/17/2012 4:42:07 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: Calib 3 V-130867

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1024626.2	20308.75	1.98%	98.1	%
Y 371.029	386307.9	7543.56	1.95%	96.9	%
Ag 328.068†	14756.8	29.94	0.20%	[0.10]	mg/L
Al 308.215†	131261.6	1427.66	1.09%	[5.0]	mg/L
As 188.979†	440.1	9.63	2.19%	[0.50]	mg/L
Ba 233.527†	51585.9	379.85	0.74%	[0.50]	mg/L
Be 313.107†	1231819.7	40622.98	3.30%	[0.50]	mg/L
Ca 315.887†	4641101.9	158865.88	3.42%	[50]	mg/L
Cd 228.802†	16336.0	161.64	0.99%	[0.50]	mg/L
Co 228.616†	12785.3	75.67	0.59%	[0.50]	mg/L
Cr 267.716†	29435.0	210.44	0.71%	[0.50]	mg/L
Cu 327.393†	56515.7	446.33	0.79%	[0.50]	mg/L
Fe 273.955†	44718.6	281.62	0.63%	[5.0]	mg/L
K 404.721†	4712.8	111.87	2.37%	[50]	mg/L
Mg 279.077†	538921.1	18087.30	3.36%	[50]	mg/L
Mn 257.610†	183123.5	1327.51	0.72%	[0.50]	mg/L
Mo 202.031†	6264.9	112.05	1.79%	[0.50]	mg/L
Na 330.237†	43118.5	418.78	0.97%	[50]	mg/L
Ni 231.604†	17089.3	113.21	0.66%	[0.50]	mg/L
Pb 220.353†	4216.4	54.59	1.29%	[0.50]	mg/L
Sb 206.836†	521.6	12.70	2.43%	[0.50]	mg/L
Se 196.026†	388.4	6.44	1.66%	[0.50]	mg/L
Sn 189.927†	784.8	19.00	2.42%	[0.50]	mg/L
Ti 334.940†	273013.3	8971.62	3.29%	[0.50]	mg/L
Tl 190.801†	344.1	3.43	1.00%	[0.50]	mg/L
V 290.880†	65860.8	639.97	0.97%	[0.50]	mg/L
Zn 206.200†	12004.4	187.18	1.56%	[0.50]	mg/L

Sequence No.: 5  
 Sample ID: Calib 4 V-132009  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 1/17/2012 4:45:51 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: Calib 4 V-132009

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	992094.2	15482.57	1.56%	95.0	%
Y 371.029	373357.5	5821.17	1.56%	93.7	%
Ag 328.068†	29233.9	398.99	1.36%	[0.20]	mg/L
Al 308.215†	262335.0	4126.44	1.57%	[10]	mg/L
As 188.979†	850.3	13.57	1.60%	[1.0]	mg/L
Ba 233.527†	100401.6	1390.01	1.38%	[1.0]	mg/L
Be 313.107†	2383774.5	24210.53	1.02%	[1.0]	mg/L
Ca 315.887†	8905891.4	83879.72	0.94%	[100]	mg/L
Cd 228.802†	32388.5	484.19	1.49%	[1.0]	mg/L
Co 228.616†	24739.3	375.91	1.52%	[1.0]	mg/L
Cr 267.716†	57674.4	960.56	1.67%	[1.0]	mg/L
Cu 327.393†	112265.8	1617.93	1.44%	[1.0]	mg/L
Fe 273.955†	87296.1	1344.16	1.54%	[10]	mg/L
K 404.721†	9972.8	167.47	1.68%	[100]	mg/L
Mg 279.077†	1029863.8	8981.87	0.87%	[100]	mg/L
Mn 257.610†	358524.9	5476.42	1.53%	[1.0]	mg/L
Mo 202.031†	12288.7	184.72	1.50%	[1.0]	mg/L
Na 330.237†	92229.4	1344.63	1.46%	[100]	mg/L
Ni 231.604†	32872.8	434.83	1.32%	[1.0]	mg/L
Pb 220.353†	8045.2	115.77	1.44%	[1.0]	mg/L
Sb 206.836†	1018.0	11.36	1.12%	[1.0]	mg/L
Se 196.026†	762.0	5.84	0.77%	[1.0]	mg/L
Sn 189.927†	1524.3	19.35	1.27%	[1.0]	mg/L
Ti 334.940†	528560.8	6002.16	1.14%	[1.0]	mg/L
Tl 190.801†	656.6	11.37	1.73%	[1.0]	mg/L
V 290.880†	128032.7	2030.67	1.59%	[1.0]	mg/L
Zn 206.200†	23160.7	378.38	1.63%	[1.0]	mg/L

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 Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin, Calc Int	39.7	146200	0.00000	0.999989	
Al 308.215	3	Lin, Calc Int	118.4	26220	0.00000	1.000000	
As 188.979	4	Lin, Calc Int	1.1	855.0	0.00000	0.999846	
Ba 233.527	3	Lin, Calc Int	281.0	100600	0.00000	0.999901	
Be 313.107	4	Lin, Calc Int	4805.1	2394000	0.00000	0.999868	
Ca 315.887	3	Lin, Calc Int	35933.5	89380	0.00000	0.999765	
Cd 228.802	4	Lin, Calc Int	15.2	32430	0.00000	0.999991	
Co 228.616	3	Lin, Calc Int	82.2	24810	0.00000	0.999852	
Cr 267.716	3	Lin, Calc Int	109.1	57780	0.00000	0.999943	
Cu 327.393	3	Lin, Calc Int	38.7	112400	0.00000	0.999993	
Fe 273.955	3	Lin, Calc Int	234.0	8744	0.00000	0.999923	
K 404.721	3	Lin, Calc Int	-13.3	98.80	0.00000	0.999502	
Mg 279.077	3	Lin, Calc Int	4830.0	10340	0.00000	0.999718	
Mn 257.610	3	Lin, Calc Int	825.3	359100	0.00000	0.999940	
Mo 202.031	3	Lin, Calc Int	21.7	12310	0.00000	0.999949	
Na 330.237	3	Lin, Calc Int	-661.8	918.3	0.00000	0.999452	
Ni 231.604	3	Lin, Calc Int	133.0	32970	0.00000	0.999795	
Pb 220.353	4	Lin, Calc Int	28.8	8088	0.00000	0.999734	
Sb 206.836	3	Lin, Calc Int	2.5	1020	0.00000	0.999920	
Se 196.026	3	Lin, Calc Int	0.5	764.3	0.00000	0.999942	
Sn 189.927	3	Lin, Calc Int	5.9	1526	0.00000	0.999889	
Ti 334.940	3	Lin, Calc Int	1624.6	530100	0.00000	0.999855	
Tl 190.801	4	Lin, Calc Int	2.5	659.9	0.00000	0.999729	
V 290.880	3	Lin, Calc Int	332.5	128400	0.00000	0.999889	
Zn 206.200	3	Lin, Calc Int	79.7	23230	0.00000	0.999823	

Sequence No.: 6

Sample ID: ICS3 V-130867

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 1/17/2012 4:50:44 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICS3 V-130867

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1042258.3	99.8 %		0.21			0.21%
Y 371.029	392078.4	98.4 %		0.31			0.31%
Ag 328.068†	14627.3	0.0998869 mg/L		0.00063438	0.0998869 mg/L	0.00063438	0.64%
QC value within limits for Ag		328.068	Recovery = 99.89%				
Al 308.215†	130138.2	4.94828 mg/L		0.052382	4.94828 mg/L	0.052382	1.06%
QC value within limits for Al		308.215	Recovery = 98.97%				
As 188.979†	434.4	0.506728 mg/L		0.0049073	0.506728 mg/L	0.0049073	0.97%
QC value within limits for As		188.979	Recovery = 101.35%				
Ba 233.527†	51257.5	0.506640 mg/L		0.0046100	0.506640 mg/L	0.0046100	0.91%
QC value within limits for Ba		233.527	Recovery = 101.33%				
Be 313.107†	1214460.8	0.504942 mg/L		0.0040801	0.504942 mg/L	0.0040801	0.81%
QC value within limits for Be		313.107	Recovery = 100.99%				
Ca 315.887†	4551760.6	50.5252 mg/L		0.41178	50.5252 mg/L	0.41178	0.82%
QC value within limits for Ca		315.887	Recovery = 101.05%				
Cd 228.802†	16263.3	0.500987 mg/L		0.0042735	0.500987 mg/L	0.0042735	0.85%
QC value within limits for Cd		228.802	Recovery = 100.20%				
Co 228.616†	12690.6	0.508915 mg/L		0.0051620	0.508915 mg/L	0.0051620	1.01%
QC value within limits for Co		228.616	Recovery = 101.78%				
Cr 267.716†	29250.4	0.507992 mg/L		0.0039667	0.507992 mg/L	0.0039667	0.78%
QC value within limits for Cr		267.716	Recovery = 101.60%				
Cu 327.393†	56053.3	0.496974 mg/L		0.0043161	0.496974 mg/L	0.0043161	0.87%
QC value within limits for Cu		327.393	Recovery = 99.39%				
Fe 273.955†	44647.3	5.09954 mg/L		0.037217	5.09954 mg/L	0.037217	0.73%
QC value within limits for Fe		273.955	Recovery = 101.99%				
K 404.721†	4625.8	46.9538 mg/L		1.26822	46.9538 mg/L	1.26822	2.70%
QC value within limits for K		404.721	Recovery = 93.91%				
Mg 279.077†	531451.1	50.9486 mg/L		0.43395	50.9486 mg/L	0.43395	0.85%
QC value within limits for Mg		279.077	Recovery = 101.90%				
Mn 257.610†	182325.4	0.505826 mg/L		0.0042003	0.505826 mg/L	0.0042003	0.83%
QC value within limits for Mn		257.610	Recovery = 101.17%				
Mo 202.031†	6248.7	0.504776 mg/L		0.0026119	0.504776 mg/L	0.0026119	0.52%
QC value within limits for Mo		202.031	Recovery = 100.96%				
Na 330.237†	42727.0	47.2499 mg/L		0.64805	47.2499 mg/L	0.64805	1.37%
QC value within limits for Na		330.237	Recovery = 94.50%				
Ni 231.604†	16946.0	0.510344 mg/L		0.0061805	0.510344 mg/L	0.0061805	1.21%
QC value within limits for Ni		231.604	Recovery = 102.07%				
Pb 220.353†	4202.9	0.516425 mg/L		0.0008465	0.516425 mg/L	0.0008465	0.16%
QC value within limits for Pb		220.353	Recovery = 103.29%				
Sb 206.836†	523.2	0.511818 mg/L		0.0028644	0.511818 mg/L	0.0028644	0.56%
QC value within limits for Sb		206.836	Recovery = 102.36%				
Se 196.026†	383.1	0.499646 mg/L		0.0025854	0.499646 mg/L	0.0025854	0.52%
QC value within limits for Se		196.026	Recovery = 99.93%				
Sn 189.927†	795.5	0.517617 mg/L		0.0030488	0.517617 mg/L	0.0030488	0.59%
QC value within limits for Sn		189.927	Recovery = 103.52%				
Ti 334.940†	268680.2	0.503791 mg/L		0.0043017	0.503791 mg/L	0.0043017	0.85%
QC value within limits for Ti		334.940	Recovery = 100.76%				
Tl 190.801†	341.9	0.517282 mg/L		0.0000428	0.517282 mg/L	0.0000428	0.01%
QC value within limits for Tl		190.801	Recovery = 103.46%				
V 290.880†	65397.5	0.503888 mg/L		0.0030840	0.503888 mg/L	0.0030840	0.61%
QC value within limits for V		290.880	Recovery = 100.78%				
Zn 206.200†	11970.1	0.510169 mg/L		0.0009338	0.510169 mg/L	0.0009338	0.18%
QC value within limits for Zn		206.200	Recovery = 102.03%				

All analyte(s) passed QC.

Sequence No.: 7

Autosampler Location: 11

Sample ID: ICV V-132012 (2)

Date Collected: 1/17/2012 4:54:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICV V-132012 (2)

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1020497.8	97.7 %	0.83			0.84%
Y 371.029	383423.9	96.2 %	0.83			0.86%
Ag 328.068†	28659.0	0.195960 mg/L	0.0043620	0.195960 mg/L	0.0043620	2.23%
QC value within limits for Ag		328.068	Recovery = 97.98%			
Al 308.215†	261997.7	9.96666 mg/L	0.242105	9.96666 mg/L	0.242105	2.43%
QC value within limits for Al		308.215	Recovery = 99.67%			
As 188.979†	870.5	1.01659 mg/L	0.003388	1.01659 mg/L	0.003388	0.33%
QC value within limits for As		188.979	Recovery = 101.66%			
Ba 233.527†	101536.6	1.00635 mg/L	0.022037	1.00635 mg/L	0.022037	2.19%
QC value within limits for Ba		233.527	Recovery = 100.63%			
Be 313.107†	2386543.4	0.994198 mg/L	0.0072714	0.994198 mg/L	0.0072714	0.73%
QC value within limits for Be		313.107	Recovery = 99.42%			
Ca 315.887†	8993940.5	100.226 mg/L	0.8058	100.226 mg/L	0.8058	0.80%
QC value within limits for Ca		315.887	Recovery = 100.23%			
Cd 228.802†	32500.1	1.00163 mg/L	0.023544	1.00163 mg/L	0.023544	2.35%
QC value within limits for Cd		228.802	Recovery = 100.16%			
Co 228.616†	25159.4	1.01223 mg/L	0.024314	1.01223 mg/L	0.024314	2.40%
QC value within limits for Co		228.616	Recovery = 101.22%			
Cr 267.716†	57677.3	1.00361 mg/L	0.022598	1.00361 mg/L	0.022598	2.25%
QC value within limits for Cr		267.716	Recovery = 100.36%			
Cu 327.393†	111290.3	0.987065 mg/L	0.0204617	0.987065 mg/L	0.0204617	2.07%
QC value within limits for Cu		327.393	Recovery = 98.71%			
Fe 273.955†	87253.3	9.99173 mg/L	0.229520	9.99173 mg/L	0.229520	2.30%
QC value within limits for Fe		273.955	Recovery = 99.92%			
K 404.721†	9686.3	98.1730 mg/L	2.59571	98.1730 mg/L	2.59571	2.64%
QC value within limits for K		404.721	Recovery = 98.17%			
Mg 279.077†	1040686.9	100.215 mg/L	0.8423	100.215 mg/L	0.8423	0.84%
QC value within limits for Mg		279.077	Recovery = 100.22%			
Mn 257.610†	358753.0	0.997516 mg/L	0.0230028	0.997516 mg/L	0.0230028	2.31%
QC value within limits for Mn		257.610	Recovery = 99.75%			
Mo 202.031†	12484.6	1.01030 mg/L	0.020946	1.01030 mg/L	0.020946	2.07%
QC value within limits for Mo		202.031	Recovery = 101.03%			
Na 330.237†	90430.7	99.1986 mg/L	2.31632	99.1986 mg/L	2.31632	2.34%
QC value within limits for Na		330.237	Recovery = 99.20%			
Ni 231.604†	33305.7	1.00694 mg/L	0.024423	1.00694 mg/L	0.024423	2.43%
QC value within limits for Ni		231.604	Recovery = 100.69%			
Pb 220.353†	8222.8	1.01382 mg/L	0.001655	1.01382 mg/L	0.001655	0.16%
QC value within limits for Pb		220.353	Recovery = 101.38%			
Sb 206.836†	1035.0	1.01502 mg/L	0.000450	1.01502 mg/L	0.000450	0.04%
QC value within limits for Sb		206.836	Recovery = 101.50%			
Se 196.026†	784.1	1.02344 mg/L	0.004747	1.02344 mg/L	0.004747	0.46%
QC value within limits for Se		196.026	Recovery = 102.34%			
Sn 189.927†	1606.0	1.04888 mg/L	0.000143	1.04888 mg/L	0.000143	0.01%
QC value within limits for Sn		189.927	Recovery = 104.89%			
Ti 334.940†	528157.0	0.993285 mg/L	0.0061823	0.993285 mg/L	0.0061823	0.62%
QC value within limits for Ti		334.940	Recovery = 99.33%			
Tl 190.801†	690.8	1.04880 mg/L	0.000042	1.04880 mg/L	0.000042	0.00%
QC value within limits for Tl		190.801	Recovery = 104.88%			
V 290.880†	128216.4	0.990405 mg/L	0.0226850	0.990405 mg/L	0.0226850	2.29%
QC value within limits for V		290.880	Recovery = 99.04%			
Zn 206.200†	23611.4	1.00967 mg/L	0.024424	1.00967 mg/L	0.024424	2.42%
QC value within limits for Zn		206.200	Recovery = 100.97%			

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB V-132004  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 1/17/2012 4:59:23 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: ICB V-132004

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1063663.4	102 %		0.0			0.04%
Y 371.029	405663.0	102 %		0.1			0.14%
Ag 328.068†	50.3	0.0000702 mg/L		0.00015004	0.0000702 mg/L	0.00015004	213.63%
QC value within limits for Ag 328.068							Recovery = Not calculated
Al 308.215†	-50.1	-0.0064034 mg/L		0.00070311	-0.0064034 mg/L	0.00070311	10.98%
QC value within limits for Al 308.215							Recovery = Not calculated
As 188.979†	-0.5	-0.0018886 mg/L		0.00238819	-0.0018886 mg/L	0.00238819	126.45%
QC value within limits for As 188.979							Recovery = Not calculated
Ba 233.527†	24.8	-0.0025457 mg/L		0.00014529	-0.0025457 mg/L	0.00014529	5.71%
QC value within limits for Ba 233.527							Recovery = Not calculated
Be 313.107†	54.3	-0.0019823 mg/L		0.00000631	-0.0019823 mg/L	0.00000631	0.32%
QC value within limits for Be 313.107							Recovery = Not calculated
Ca 315.887†	321.2	-0.398447 mg/L		0.0013718	-0.398447 mg/L	0.0013718	0.34%
QC value within limits for Ca 315.887							Recovery = Not calculated
Cd 228.802†	2.9	-0.0003807 mg/L		0.00021572	-0.0003807 mg/L	0.00021572	56.66%
QC value within limits for Cd 228.802							Recovery = Not calculated
Co 228.616†	4.2	-0.0031423 mg/L		0.00006662	-0.0031423 mg/L	0.00006662	2.12%
QC value within limits for Co 228.616							Recovery = Not calculated
Cr 267.716†	-14.9	-0.0021569 mg/L		0.00010730	-0.0021569 mg/L	0.00010730	4.97%
QC value within limits for Cr 267.716							Recovery = Not calculated
Cu 327.393†	-140.7	-0.0015849 mg/L		0.00028730	-0.0015849 mg/L	0.00028730	18.13%
QC value within limits for Cu 327.393							Recovery = Not calculated
Fe 273.955†	61.5	-0.0199042 mg/L		0.00018730	-0.0199042 mg/L	0.00018730	0.94%
QC value within limits for Fe 273.955							Recovery = Not calculated
K 404.721†	89.6	1.04227 mg/L		0.104110	1.04227 mg/L	0.104110	9.99%
QC value within limits for K 404.721							Recovery = Not calculated
Mg 279.077†	220.7	-0.445931 mg/L		0.0072856	-0.445931 mg/L	0.0072856	1.63%
QC value within limits for Mg 279.077							Recovery = Not calculated
Mn 257.610†	40.8	-0.0021860 mg/L		0.00002101	-0.0021860 mg/L	0.00002101	0.96%
QC value within limits for Mn 257.610							Recovery = Not calculated
Mo 202.031†	4.1	-0.0014210 mg/L		0.00042810	-0.0014210 mg/L	0.00042810	30.13%
QC value within limits for Mo 202.031							Recovery = Not calculated
Na 330.237†	-86.8	0.626166 mg/L		0.0310262	0.626166 mg/L	0.0310262	4.95%
QC value within limits for Na 330.237							Recovery = Not calculated
Ni 231.604†	1.6	-0.0039857 mg/L		0.00028739	-0.0039857 mg/L	0.00028739	7.21%
QC value within limits for Ni 231.604							Recovery = Not calculated
Pb 220.353†	15.1	-0.0016787 mg/L		0.00121540	-0.0016787 mg/L	0.00121540	72.40%
QC value within limits for Pb 220.353							Recovery = Not calculated
Sb 206.836†	3.1	0.0005955 mg/L		0.00429143	0.0005955 mg/L	0.00429143	720.64%
QC value within limits for Sb 206.836							Recovery = Not calculated
Se 196.026†	-5.7	-0.0081066 mg/L		0.00128911	-0.0081066 mg/L	0.00128911	15.90%
QC value within limits for Se 196.026							Recovery = Not calculated
Sn 189.927†	7.4	0.0009933 mg/L		0.00257237	0.0009933 mg/L	0.00257237	258.96%
QC value within limits for Sn 189.927							Recovery = Not calculated
Ti 334.940†	-36.9	-0.0031343 mg/L		0.00001608	-0.0031343 mg/L	0.00001608	0.51%
QC value within limits for Ti 334.940							Recovery = Not calculated
Tl 190.801†	1.2	-0.0020005 mg/L		0.00534160	-0.0020005 mg/L	0.00534160	267.01%
QC value within limits for Tl 190.801							Recovery = Not calculated
V 290.880†	-68.2	-0.0030903 mg/L		0.00042794	-0.0030903 mg/L	0.00042794	13.85%
QC value within limits for V 290.880							Recovery = Not calculated
Zn 206.200†	2.1	-0.0033261 mg/L		0.00026821	-0.0033261 mg/L	0.00026821	8.06%
QC value within limits for Zn 206.200							Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 7

Sample ID: ICSA V-132014

Date Collected: 1/17/2012 5:03:02 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: ICSA V-132014

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	936741.1	89.7	%	1.01				1.12%
Y 371.029	351810.9	88.3	%	0.95				1.08%
Ag 328.068†	-1491.7	0.0015452	mg/L	0.00051847	0.0015452	mg/L	0.00051847	33.55%
Al 308.215†	13222762.2	504.236	mg/L	1.3900	504.236	mg/L	1.3900	0.28%
QC value within limits for Al 308.215 Recovery = 100.85%								
As 188.979†	-24.3	-0.0067039	mg/L	0.00346787	-0.0067039	mg/L	0.00346787	51.73%
Ba 233.527†	418.8	0.0013700	mg/L	0.00007422	0.0013700	mg/L	0.00007422	5.42%
Be 313.107†	-1703.5	-0.0027168	mg/L	0.00000768	-0.0027168	mg/L	0.00000768	0.28%
Ca 315.887†	43279241.6	483.826	mg/L	2.8145	483.826	mg/L	2.8145	0.58%
QC value within limits for Ca 315.887 Recovery = 96.77%								
Cd 228.802†	127.9	0.0004859	mg/L	0.00042086	0.0004859	mg/L	0.00042086	86.62%
Co 228.616†	-108.8	-0.0004877	mg/L	0.00016174	-0.0004877	mg/L	0.00016174	33.17%
Cr 267.716†	25.5	0.0048254	mg/L	0.00003719	0.0048254	mg/L	0.00003719	0.77%
Cu 327.393†	265.2	-0.0165372	mg/L	0.00019082	-0.0165372	mg/L	0.00019082	1.15%
Fe 273.955†	1594966.4	182.576	mg/L	0.1149	182.576	mg/L	0.1149	0.06%
QC value within limits for Fe 273.955 Recovery = 91.29%								
K 404.721†	-1017.5	-10.1630	mg/L	0.70585	-10.1630	mg/L	0.70585	6.95%
Mg 279.077†	5196961.8	502.319	mg/L	0.0454	502.319	mg/L	0.0454	0.01%
QC value within limits for Mg 279.077 Recovery = 100.46%								
Mn 257.610†	-3471.3	-0.0037063	mg/L	0.00004051	-0.0037063	mg/L	0.00004051	1.09%
Mo 202.031†	141.9	0.0053299	mg/L	0.00041595	0.0053299	mg/L	0.00041595	7.80%
Na 330.237†	-299.5	0.394508	mg/L	0.0454659	0.394508	mg/L	0.0454659	11.52%
Ni 231.604†	25.4	-0.0032540	mg/L	0.00016172	-0.0032540	mg/L	0.00016172	4.97%
Pb 220.353†	-422.0	0.0056892	mg/L	0.00208879	0.0056892	mg/L	0.00208879	36.72%
Sb 206.836†	-105.9	0.0059802	mg/L	0.00750992	0.0059802	mg/L	0.00750992	125.58%
Se 196.026†	4.8	-0.0197256	mg/L	0.00926977	-0.0197256	mg/L	0.00926977	46.99%
Sn 189.927†	4.0	-0.0083415	mg/L	0.00197240	-0.0083415	mg/L	0.00197240	23.65%
Ti 334.940†	96.1	-0.0028833	mg/L	0.00017484	-0.0028833	mg/L	0.00017484	6.06%
Tl 190.801†	-17.0	-0.0066754	mg/L	0.00570899	-0.0066754	mg/L	0.00570899	85.52%
V 290.880†	6001.7	0.0005272	mg/L	0.00033625	0.0005272	mg/L	0.00033625	63.78%
Zn 206.200†	123.4	-0.0138534	mg/L	0.00055314	-0.0138534	mg/L	0.00055314	3.99%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: ICSAB V-132016

Date Collected: 1/17/2012 5:08:12 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: ICSAB V-132016

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	939856.4	90.0 %		0.42			0.47%
Y 371.029	353890.9	88.8 %		0.92			1.04%
Ag 328.068†	154387.2	1.06788 mg/L		0.014573	1.06788 mg/L	0.014573	1.36%
QC value within limits for Ag		328.068	Recovery = 106.79%				
Al 308.215†	13522923.3	515.682 mg/L		1.7297	515.682 mg/L	1.7297	0.34%
QC value within limits for Al		308.215	Recovery = 103.14%				
As 188.979†	861.7	1.03024 mg/L		0.007437	1.03024 mg/L	0.007437	0.72%
QC value within limits for As		188.979	Recovery = 103.02%				
Ba 233.527†	51835.1	0.512381 mg/L		0.0078353	0.512381 mg/L	0.0078353	1.53%
QC value within limits for Ba		233.527	Recovery = 102.48%				
Be 313.107†	1203971.5	0.500922 mg/L		0.0000183	0.500922 mg/L	0.0000183	0.00%
QC value within limits for Be		313.107	Recovery = 100.18%				
Ca 315.887†	44477185.9	497.230 mg/L		2.7996	497.230 mg/L	2.7996	0.56%
QC value within limits for Ca		315.887	Recovery = 99.45%				
Cd 228.802†	33751.5	1.03731 mg/L		0.005512	1.03731 mg/L	0.005512	0.53%
QC value within limits for Cd		228.802	Recovery = 103.73%				
Co 228.616†	11673.6	0.474649 mg/L		0.0025019	0.474649 mg/L	0.0025019	0.53%
QC value within limits for Co		228.616	Recovery = 94.93%				
Cr 267.716†	28349.0	0.495490 mg/L		0.0072734	0.495490 mg/L	0.0072734	1.47%
QC value within limits for Cr		267.716	Recovery = 99.10%				
Cu 327.393†	60057.9	0.515088 mg/L		0.0065163	0.515088 mg/L	0.0065163	1.27%
QC value within limits for Cu		327.393	Recovery = 103.02%				
Fe 273.955†	1641282.3	187.878 mg/L		0.0382	187.878 mg/L	0.0382	0.02%
QC value within limits for Fe		273.955	Recovery = 93.94%				
K 404.721†	-1078.0	-10.7758 mg/L		0.87092	-10.7758 mg/L	0.87092	8.08%
Mg 279.077†	5333298.8	515.509 mg/L		0.0269	515.509 mg/L	0.0269	0.01%
QC value within limits for Mg		279.077	Recovery = 103.10%				
Mn 257.610†	174265.7	0.491520 mg/L		0.0072101	0.491520 mg/L	0.0072101	1.47%
QC value within limits for Mn		257.610	Recovery = 98.30%				
Mo 202.031†	131.2	0.0043110 mg/L		0.00043857	0.0043110 mg/L	0.00043857	10.17%
Na 330.237†	-65.3	0.649560 mg/L		0.0159185	0.649560 mg/L	0.0159185	2.45%
Ni 231.604†	30963.2	0.935008 mg/L		0.0038898	0.935008 mg/L	0.0038898	0.42%
QC value within limits for Ni		231.604	Recovery = 93.50%				
Pb 220.353†	7337.0	0.966292 mg/L		0.0062130	0.966292 mg/L	0.0062130	0.64%
QC value within limits for Pb		220.353	Recovery = 96.63%				
Sb 206.836†	931.7	1.02584 mg/L		0.008866	1.02584 mg/L	0.008866	0.86%
QC value within limits for Sb		206.836	Recovery = 102.58%				
Se 196.026†	785.9	1.00138 mg/L		0.000819	1.00138 mg/L	0.000819	0.08%
QC value within limits for Se		196.026	Recovery = 100.14%				
Sn 189.927†	-8.7	-0.0168720 mg/L		0.00190347	-0.0168720 mg/L	0.00190347	11.28%
Ti 334.940†	337.3	-0.0024284 mg/L		0.00012261	-0.0024284 mg/L	0.00012261	5.05%
Tl 190.801†	615.5	0.951453 mg/L		0.0110563	0.951453 mg/L	0.0110563	1.16%
QC value within limits for Tl		190.801	Recovery = 95.15%				
V 290.880†	67586.0	0.479112 mg/L		0.0082424	0.479112 mg/L	0.0082424	1.72%
QC value within limits for V		290.880	Recovery = 95.82%				
Zn 206.200†	22527.6	0.950020 mg/L		0.0045424	0.950020 mg/L	0.0045424	0.48%
QC value within limits for Zn		206.200	Recovery = 95.00%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MB 12507 (1)  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 95  
 Date Collected: 1/17/2012 5:13:26 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: MB 12507 (1)

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1080562.2	103	%	0.7				0.64%
Y 371.029	411355.6	103	%	0.6				0.62%
Ag 328.068†	69.8	0.0002050	mg/L	0.00026519	0.0002050	mg/L	0.00026519	129.34%
Al 308.215†	191.9	0.0028230	mg/L	0.00226455	0.0028230	mg/L	0.00226455	80.22%
As 188.979†	-2.4	-0.0040547	mg/L	0.00760512	-0.0040547	mg/L	0.00760512	187.56%
Ba 233.527†	37.0	-0.0024242	mg/L	0.00012571	-0.0024242	mg/L	0.00012571	5.19%
Be 313.107†	108.9	-0.0019594	mg/L	0.00002407	-0.0019594	mg/L	0.00002407	1.23%
Ca 315.887†	2605.2	-0.372892	mg/L	0.0069940	-0.372892	mg/L	0.0069940	1.88%
Cd 228.802†	-2.7	-0.0005518	mg/L	0.00008757	-0.0005518	mg/L	0.00008757	15.87%
Co 228.616†	-3.0	-0.0034337	mg/L	0.00001318	-0.0034337	mg/L	0.00001318	0.38%
Cr 267.716†	4.5	-0.0018198	mg/L	0.00006379	-0.0018198	mg/L	0.00006379	3.51%
Cu 327.393†	-27.3	-0.0005770	mg/L	0.00053435	-0.0005770	mg/L	0.00053435	92.61%
Fe 273.955†	244.7	0.0010587	mg/L	0.00130736	0.0010587	mg/L	0.00130736	123.49%
K 404.721†	67.1	0.814542	mg/L	0.9844056	0.814542	mg/L	0.9844056	120.85%
Mg 279.077†	518.1	-0.417161	mg/L	0.0075958	-0.417161	mg/L	0.0075958	1.82%
Mn 257.610†	127.4	-0.0019439	mg/L	0.00003833	-0.0019439	mg/L	0.00003833	1.97%
Mo 202.031†	4.6	-0.0013863	mg/L	0.00028319	-0.0013863	mg/L	0.00028319	20.43%
Na 330.237†	-47.4	0.669055	mg/L	0.0105592	0.669055	mg/L	0.0105592	1.58%
Ni 231.604†	-0.2	-0.0040408	mg/L	0.00006212	-0.0040408	mg/L	0.00006212	1.54%
Pb 220.353†	5.2	-0.0029115	mg/L	0.00001901	-0.0029115	mg/L	0.00001901	0.65%
Sb 206.836†	3.3	0.0007482	mg/L	0.00018822	0.0007482	mg/L	0.00018822	25.16%
Se 196.026†	-4.2	-0.0061996	mg/L	0.00140363	-0.0061996	mg/L	0.00140363	22.64%
Sn 189.927†	3.7	-0.0014035	mg/L	0.00068798	-0.0014035	mg/L	0.00068798	49.02%
Ti 334.940†	-99.8	-0.0032529	mg/L	0.00000493	-0.0032529	mg/L	0.00000493	0.15%
Tl 190.801†	0.8	-0.0026283	mg/L	0.00198533	-0.0026283	mg/L	0.00198533	75.54%
V 290.880†	-15.5	-0.0026829	mg/L	0.00000953	-0.0026829	mg/L	0.00000953	0.36%
Zn 206.200†	511.2	0.0185857	mg/L	0.00009088	0.0185857	mg/L	0.00009088	0.49%

Sequence No.: 12  
 Sample ID: LCSW 12507  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 96  
 Date Collected: 1/17/2012 5:17:08 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW 12507

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1062614.4	102	%	0.1				0.10%
Y 371.029	400010.8	100	%	0.2				0.19%
Ag 328.068†	14241.8	0.0972442	mg/L	0.00044948	0.0972442	mg/L	0.00044948	0.46%
Al 308.215†	128356.6	4.88026	mg/L	0.015396	4.88026	mg/L	0.015396	0.32%
As 188.979†	428.3	0.499572	mg/L	0.0012481	0.499572	mg/L	0.0012481	0.25%
Ba 233.527†	50972.7	0.503810	mg/L	0.0018268	0.503810	mg/L	0.0018268	0.36%
Be 313.107†	1191426.5	0.495322	mg/L	0.0079968	0.495322	mg/L	0.0079968	1.61%
Ca 315.887†	4534496.9	50.3320	mg/L	0.83384	50.3320	mg/L	0.83384	1.66%
Cd 228.802†	16029.9	0.493790	mg/L	0.0008168	0.493790	mg/L	0.0008168	0.17%
Co 228.616†	12653.0	0.507416	mg/L	0.0028268	0.507416	mg/L	0.0028268	0.56%
Cr 267.716†	28832.3	0.500766	mg/L	0.0009806	0.500766	mg/L	0.0009806	0.20%
Cu 327.393†	55955.0	0.496115	mg/L	0.0009179	0.496115	mg/L	0.0009179	0.19%
Fe 273.955†	43627.4	4.98258	mg/L	0.014674	4.98258	mg/L	0.014674	0.29%
K 404.721†	4641.2	47.1101	mg/L	0.25926	47.1101	mg/L	0.25926	0.55%
Mg 279.077†	522855.3	50.1170	mg/L	0.20370	50.1170	mg/L	0.20370	0.41%
Mn 257.610†	179013.8	0.496599	mg/L	0.0014654	0.496599	mg/L	0.0014654	0.30%
Mo 202.031†	6286.6	0.507854	mg/L	0.0021960	0.507854	mg/L	0.0021960	0.43%
Na 330.237†	42240.3	46.7198	mg/L	0.11727	46.7198	mg/L	0.11727	0.25%
Ni 231.604†	16678.1	0.502224	mg/L	0.0012102	0.502224	mg/L	0.0012102	0.24%
Pb 220.353†	4132.0	0.507671	mg/L	0.0002501	0.507671	mg/L	0.0002501	0.05%
Sb 206.836†	514.9	0.503674	mg/L	0.0030490	0.503674	mg/L	0.0030490	0.61%
Se 196.026†	372.7	0.486018	mg/L	0.0037871	0.486018	mg/L	0.0037871	0.78%
Sn 189.927†	794.3	0.516833	mg/L	0.0033183	0.516833	mg/L	0.0033183	0.64%
Ti 334.940†	266647.1	0.499956	mg/L	0.0016587	0.499956	mg/L	0.0016587	0.33%
Tl 190.801†	348.2	0.526749	mg/L	0.0037716	0.526749	mg/L	0.0037716	0.72%
V 290.880†	64822.7	0.499480	mg/L	0.0023549	0.499480	mg/L	0.0023549	0.47%
Zn 206.200†	12205.0	0.520308	mg/L	0.0018376	0.520308	mg/L	0.0018376	0.35%

Sequence No.: 13  
 Sample ID: LCSW MR 12507  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 97  
 Date Collected: 1/17/2012 5:20:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: LCSW MR 12507

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1050994.0	101	%	1.0				0.98%
Y 371.029	396430.4	99.5	%	0.86				0.86%
Ag 328.068†	14109.3	0.0963369	mg/L	0.00365917	0.0963369	mg/L	0.00365917	3.80%
Al 308.215†	127352.1	4.84201	mg/L	0.214909	4.84201	mg/L	0.214909	4.44%
As 188.979†	423.7	0.494179	mg/L	0.0035834	0.494179	mg/L	0.0035834	0.73%
Ba 233.527†	50405.4	0.498172	mg/L	0.0175384	0.498172	mg/L	0.0175384	3.52%
Be 313.107†	1185586.7	0.492889	mg/L	0.0084983	0.492889	mg/L	0.0084983	1.72%
Ca 315.887†	4502775.8	49.9771	mg/L	0.83085	49.9771	mg/L	0.83085	1.66%
Cd 228.802†	15873.2	0.488960	mg/L	0.0188309	0.488960	mg/L	0.0188309	3.85%
Co 228.616†	12512.9	0.501772	mg/L	0.0193997	0.501772	mg/L	0.0193997	3.87%
Cr 267.716†	28496.5	0.494927	mg/L	0.0177664	0.494927	mg/L	0.0177664	3.59%
Cu 327.393†	55576.5	0.492760	mg/L	0.0194139	0.492760	mg/L	0.0194139	3.94%
Fe 273.955†	43210.7	4.93475	mg/L	0.173417	4.93475	mg/L	0.173417	3.51%
K 404.721†	4610.1	46.7949	mg/L	2.03452	46.7949	mg/L	2.03452	4.35%
Mg 279.077†	518387.9	49.6848	mg/L	0.83861	49.6848	mg/L	0.83861	1.69%
Mn 257.610†	177326.8	0.491898	mg/L	0.0171866	0.491898	mg/L	0.0171866	3.49%
Mo 202.031†	6240.8	0.504145	mg/L	0.0074952	0.504145	mg/L	0.0074952	1.49%
Na 330.237†	41932.3	46.3845	mg/L	2.15025	46.3845	mg/L	2.15025	4.64%
Ni 231.604†	16507.5	0.497046	mg/L	0.0176555	0.497046	mg/L	0.0176555	3.55%
Pb 220.353†	4119.9	0.506171	mg/L	0.0069093	0.506171	mg/L	0.0069093	1.37%
Sb 206.836†	508.6	0.497514	mg/L	0.0075543	0.497514	mg/L	0.0075543	1.52%
Se 196.026†	379.8	0.495352	mg/L	0.0062424	0.495352	mg/L	0.0062424	1.26%
Sn 189.927†	786.8	0.511888	mg/L	0.0053454	0.511888	mg/L	0.0053454	1.04%
Ti 334.940†	262272.3	0.491703	mg/L	0.0182669	0.491703	mg/L	0.0182669	3.72%
Tl 190.801†	349.1	0.528055	mg/L	0.0134288	0.528055	mg/L	0.0134288	2.54%
V 290.880†	64259.5	0.495116	mg/L	0.0175582	0.495116	mg/L	0.0175582	3.55%
Zn 206.200†	12092.6	0.515482	mg/L	0.0075479	0.515482	mg/L	0.0075479	1.46%

Sequence No.: 14  
 Sample ID: 63748-002  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 98  
 Date Collected: 1/17/2012 5:24:37 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63748-002

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1003551.9	96.1	%	0.57				0.60%
Y 371.029	378538.2	95.0	%	0.49				0.51%
Ag 328.068†	-47.6	0.0016487	mg/L	0.00031256	0.0016487	mg/L	0.00031256	18.96%
Al 308.215†	1059.8	0.0355539	mg/L	0.00039137	0.0355539	mg/L	0.00039137	1.10%
As 188.979†	1.5	0.0002401	mg/L	0.00509390	0.0002401	mg/L	0.00509390	>999.9%
Ba 233.527†	15995.7	0.156184	mg/L	0.0009537	0.156184	mg/L	0.0009537	0.61%
Be 313.107†	-718.9	-0.0023051	mg/L	0.00005341	-0.0023051	mg/L	0.00005341	2.32%
Ca 315.887†	24806076.3	277.140	mg/L	0.0356	277.140	mg/L	0.0356	0.01%
Cd 228.802†	3.7	-0.0006142	mg/L	0.00016988	-0.0006142	mg/L	0.00016988	27.66%
Co 228.616†	70.6	-0.0004163	mg/L	0.00019089	-0.0004163	mg/L	0.00019089	45.86%
Cr 267.716†	-43.4	-0.0012591	mg/L	0.00015839	-0.0012591	mg/L	0.00015839	12.58%
Cu 327.393†	-196.6	-0.0059859	mg/L	0.00038146	-0.0059859	mg/L	0.00038146	6.37%
Fe 273.955†	138567.9	15.8418	mg/L	0.07271	15.8418	mg/L	0.07271	0.46%
K 404.721†	3978.2	40.4001	mg/L	0.21845	40.4001	mg/L	0.21845	0.54%
Mg 279.077†	567258.5	54.4128	mg/L	0.25252	54.4128	mg/L	0.25252	0.46%
Mn 257.610†	430844.7	1.19830	mg/L	0.005652	1.19830	mg/L	0.005652	0.47%
Mo 202.031†	203.4	0.0086980	mg/L	0.00048333	0.0086980	mg/L	0.00048333	5.56%
Na 330.237†	77100.5	84.6822	mg/L	0.49462	84.6822	mg/L	0.49462	0.58%
Ni 231.604†	41.1	-0.0027747	mg/L	0.00016369	-0.0027747	mg/L	0.00016369	5.90%
Pb 220.353†	101.0	0.0067657	mg/L	0.00032840	0.0067657	mg/L	0.00032840	4.85%
Sb 206.836†	1.9	0.0002278	mg/L	0.00285009	0.0002278	mg/L	0.00285009	>999.9%
Se 196.026†	10.2	0.0077398	mg/L	0.00847248	0.0077398	mg/L	0.00847248	109.47%
Sn 189.927†	-4.0	-0.0055513	mg/L	0.00216065	-0.0055513	mg/L	0.00216065	38.92%
Ti 334.940†	-122.2	-0.0032952	mg/L	0.00013692	-0.0032952	mg/L	0.00013692	4.16%
Tl 190.801†	-0.2	-0.0032264	mg/L	0.00121574	-0.0032264	mg/L	0.00121574	37.68%
V 290.880†	2887.5	0.0153017	mg/L	0.00009798	0.0153017	mg/L	0.00009798	0.64%
Zn 206.200†	1251.9	0.0487472	mg/L	0.00081686	0.0487472	mg/L	0.00081686	1.68%

Sequence No.: 15  
 Sample ID: 62748-002 MR  
 Analyst: 3  
 Initial Sample Wt:  
 Dilution: SB 1/18

Autosampler Location: 99  
 Date Collected: 1/17/2012 5:28:31 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 62748-002 MR

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1057130.0	101	%	0.5				0.46%
Y 371.029	398607.4	100	%	0.4				0.36%
Ag 328.068†	-71.2	0.0013102	mg/L	0.00028782	0.0013102	mg/L	0.00028782	21.97%
Al 308.215†	1285.5	0.0441927	mg/L	0.00042802	0.0441927	mg/L	0.00042802	0.97%
As 188.979†	6.4	0.0060520	mg/L	0.00219716	0.0060520	mg/L	0.00219716	36.30%
Ba 233.527†	14761.3	0.143916	mg/L	0.0001814	0.143916	mg/L	0.0001814	0.13%
Be 313.107†	-754.1	-0.0023198	mg/L	0.00001724	-0.0023198	mg/L	0.00001724	0.74%
Ca 315.887†	22799396.9	254.688	mg/L	0.8138	254.688	mg/L	0.8138	0.32%
Cd 228.802†	3.3	-0.0006075	mg/L	0.00062485	-0.0006075	mg/L	0.00062485	102.86%
Co 228.616†	59.7	-0.0008594	mg/L	0.00029412	-0.0008594	mg/L	0.00029412	34.22%
Cr 267.716†	-55.6	-0.0015783	mg/L	0.00006944	-0.0015783	mg/L	0.00006944	4.40%
Cu 327.393†	-297.3	-0.0065754	mg/L	0.00112088	-0.0065754	mg/L	0.00112088	17.05%
Fe 273.955†	128249.8	14.6603	mg/L	0.02991	14.6603	mg/L	0.02991	0.20%
K 404.721†	3526.5	35.8281	mg/L	0.39036	35.8281	mg/L	0.39036	1.09%
Mg 279.077†	528137.4	50.6280	mg/L	0.09545	50.6280	mg/L	0.09545	0.19%
Mn 257.610†	396665.7	1.10306	mg/L	0.001790	1.10306	mg/L	0.001790	0.16%
Mo 202.031†	186.6	0.0078257	mg/L	0.00038809	0.0078257	mg/L	0.00038809	4.96%
Na 330.237†	69325.5	76.2153	mg/L	0.07328	76.2153	mg/L	0.07328	0.10%
Ni 231.604†	31.6	-0.0030631	mg/L	0.00017348	-0.0030631	mg/L	0.00017348	5.66%
Pb 220.353†	70.4	0.0031385	mg/L	0.00103699	0.0031385	mg/L	0.00103699	33.04%
Sb 206.836†	-0.6	-0.0022630	mg/L	0.00168680	-0.0022630	mg/L	0.00168680	74.54%
Se 196.026†	11.4	0.0098357	mg/L	0.00661013	0.0098357	mg/L	0.00661013	67.21%
Sn 189.927†	-1.6	-0.0040675	mg/L	0.00016289	-0.0040675	mg/L	0.00016289	4.00%
Ti 334.940†	-200.2	-0.0034423	mg/L	0.00001921	-0.0034423	mg/L	0.00001921	0.56%
Tl 190.801†	-4.0	-0.0090152	mg/L	0.00011606	-0.0090152	mg/L	0.00011606	1.29%
V 290.880†	2808.4	0.0150073	mg/L	0.00000024	0.0150073	mg/L	0.00000024	0.00%
Zn 206.200†	1175.1	0.0455628	mg/L	0.00154930	0.0455628	mg/L	0.00154930	3.40%

Sequence No.: 16

Autosampler Location: 100

Sample ID: 63748-002 MS 1

Date Collected: 1/17/2012 5:32:23 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63748-002 MS 1

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	1015335.4	97.2	%	1.38				1.42%
Y 371.029	381915.4	95.8	%	1.37				1.43%
Ag 328.068†	14301.2	0.0997873	mg/L	0.00099432	0.0997873	mg/L	0.00099432	1.00%
Al 308.215†	132552.4	5.04002	mg/L	0.020026	5.04002	mg/L	0.020026	0.40%
As 188.979†	464.1	0.541214	mg/L	0.0187355	0.541214	mg/L	0.0187355	3.46%
Ba 233.527†	66556.7	0.658695	mg/L	0.0033177	0.658695	mg/L	0.0033177	0.50%
Be 313.107†	1199636.5	0.498756	mg/L	0.0011055	0.498756	mg/L	0.0011055	0.22%
Ca 315.887†	28096329.1	313.953	mg/L	4.7330	313.953	mg/L	4.7330	1.51%
Cd 228.802†	16342.7	0.503190	mg/L	0.0023957	0.503190	mg/L	0.0023957	0.48%
Co 228.616†	12471.6	0.500144	mg/L	0.0040775	0.500144	mg/L	0.0040775	0.82%
Cr 267.716†	28573.5	0.497596	mg/L	0.0018216	0.497596	mg/L	0.0018216	0.37%
Cu 327.393†	56516.4	0.497389	mg/L	0.0025686	0.497389	mg/L	0.0025686	0.52%
Fe 273.955†	176258.7	20.1717	mg/L	0.11794	20.1717	mg/L	0.11794	0.58%
K 404.721†	9248.6	93.7432	mg/L	1.52768	93.7432	mg/L	1.52768	1.63%
Mg 279.077†	1073302.9	103.371	mg/L	0.3031	103.371	mg/L	0.3031	0.29%
Mn 257.610†	598746.5	1.66622	mg/L	0.003485	1.66622	mg/L	0.003485	0.21%
Mo 202.031†	6408.3	0.511984	mg/L	0.0119171	0.511984	mg/L	0.0119171	2.33%
Na 330.237†	124972.8	136.815	mg/L	0.4497	136.815	mg/L	0.4497	0.33%
Ni 231.604†	16463.7	0.495728	mg/L	0.0029074	0.495728	mg/L	0.0029074	0.59%
Pb 220.353†	4109.6	0.502820	mg/L	0.0114378	0.502820	mg/L	0.0114378	2.27%
Sb 206.836†	536.7	0.525964	mg/L	0.0070637	0.525964	mg/L	0.0070637	1.34%
Se 196.026†	403.1	0.521193	mg/L	0.0108654	0.521193	mg/L	0.0108654	2.08%
Sn 189.927†	834.3	0.543898	mg/L	0.0100485	0.543898	mg/L	0.0100485	1.85%
Ti 334.940†	263951.6	0.494871	mg/L	0.0025687	0.494871	mg/L	0.0025687	0.52%
Tl 190.801†	331.6	0.502430	mg/L	0.0084249	0.502430	mg/L	0.0084249	1.68%
V 290.880†	66349.4	0.506869	mg/L	0.0016545	0.506869	mg/L	0.0016545	0.33%
Zn 206.200†	12490.2	0.530912	mg/L	0.0030285	0.530912	mg/L	0.0030285	0.57%

Sequence No.: 17

Autosampler Location: 101

Sample ID: 63748-002 MS 2

Date Collected: 1/17/2012 5:36:28 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63748-002 MS 2

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD	
	Intensity	Conc.			Conc.	Units		Std.Dev.
Sc 361.383	990303.1	94.8	%	0.93			0.99%	
Y 371.029	373148.3	93.6	%	0.90			0.96%	
Ag 328.068†	14591.5	0.101823	mg/L	0.0022672	0.101823	mg/L	0.0022672	2.23%
Al 308.215†	136271.9	5.18201	mg/L	0.110764	5.18201	mg/L	0.110764	2.14%
As 188.979†	452.6	0.527898	mg/L	0.0010560	0.527898	mg/L	0.0010560	0.20%
Ba 233.527†	67967.7	0.672718	mg/L	0.0117240	0.672718	mg/L	0.0117240	1.74%
Be 313.107†	1197634.2	0.497911	mg/L	0.0032288	0.497911	mg/L	0.0032288	0.65%
Ca 315.887†	28426618.9	317.648	mg/L	2.3244	317.648	mg/L	2.3244	0.73%
Cd 228.802†	16622.0	0.511792	mg/L	0.0086465	0.511792	mg/L	0.0086465	1.69%
Co 228.616†	12652.7	0.507408	mg/L	0.0095789	0.507408	mg/L	0.0095789	1.89%
Cr 267.716†	29011.1	0.505169	mg/L	0.0084218	0.505169	mg/L	0.0084218	1.67%
Cu 327.393†	58040.8	0.510902	mg/L	0.0105979	0.510902	mg/L	0.0105979	2.07%
Fe 273.955†	181349.6	20.7540	mg/L	0.33136	20.7540	mg/L	0.33136	1.60%
K 404.721†	9562.5	96.9202	mg/L	1.26573	96.9202	mg/L	1.26573	1.31%
Mg 279.077†	1075877.2	103.620	mg/L	0.5301	103.620	mg/L	0.5301	0.51%
Mn 257.610†	605001.5	1.68366	mg/L	0.010001	1.68366	mg/L	0.010001	0.59%
Mo 202.031†	6348.0	0.507006	mg/L	0.0053652	0.507006	mg/L	0.0053652	1.06%
Na 330.237†	130326.4	142.645	mg/L	2.9224	142.645	mg/L	2.9224	2.05%
Ni 231.604†	16665.7	0.501852	mg/L	0.0072232	0.501852	mg/L	0.0072232	1.44%
Pb 220.353†	4050.2	0.495443	mg/L	0.0035382	0.495443	mg/L	0.0035382	0.71%
Sb 206.836†	529.9	0.519346	mg/L	0.0073732	0.519346	mg/L	0.0073732	1.42%
Se 196.026†	390.1	0.504174	mg/L	0.0060433	0.504174	mg/L	0.0060433	1.20%
Sn 189.927†	814.3	0.530788	mg/L	0.0046859	0.530788	mg/L	0.0046859	0.88%
Ti 334.940†	270194.0	0.506647	mg/L	0.0090472	0.506647	mg/L	0.0090472	1.79%
Tl 190.801†	332.2	0.503524	mg/L	0.0050664	0.503524	mg/L	0.0050664	1.01%
V 290.880†	67663.9	0.517075	mg/L	0.0086187	0.517075	mg/L	0.0086187	1.67%
Zn 206.200†	12495.5	0.531133	mg/L	0.0027443	0.531133	mg/L	0.0027443	0.52%

Sequence No.: 18  
 Sample ID: 63748-002 PS  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 102  
 Date Collected: 1/17/2012 5:40:32 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63748-002 PS

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	997045.3		95.5 %	1.54				1.61%
Y 371.029	374876.4		94.1 %	1.53				1.62%
Ag 328.068†	14149.1	0.0987519	mg/L	0.00165756	0.0987519	mg/L	0.00165756	1.68%
Al 308.215†	130175.7	4.94967	mg/L	0.082537	4.94967	mg/L	0.082537	1.67%
As 188.979†	440.9	0.514117	mg/L	0.0143198	0.514117	mg/L	0.0143198	2.79%
Ba 233.527†	65493.6	0.648129	mg/L	0.0091115	0.648129	mg/L	0.0091115	1.41%
Be 313.107†	1155378.3	0.480272	mg/L	0.0135312	0.480272	mg/L	0.0135312	2.82%
Ca 315.887†	28007437.5	312.958	mg/L	8.7299	312.958	mg/L	8.7299	2.79%
Cd 228.802†	15951.0	0.491112	mg/L	0.0072422	0.491112	mg/L	0.0072422	1.47%
Co 228.616†	12161.7	0.487624	mg/L	0.0070389	0.487624	mg/L	0.0070389	1.44%
Cr 267.716†	27880.3	0.485493	mg/L	0.0066822	0.485493	mg/L	0.0066822	1.38%
Cu 327.393†	55789.2	0.490974	mg/L	0.0072756	0.490974	mg/L	0.0072756	1.48%
Fe 273.955†	175217.5	20.0514	mg/L	0.25574	20.0514	mg/L	0.25574	1.28%
K 404.721†	9221.5	93.4689	mg/L	1.80130	93.4689	mg/L	1.80130	1.93%
Mg 279.077†	1039802.2	100.130	mg/L	2.8297	100.130	mg/L	2.8297	2.83%
Mn 257.610†	586658.1	1.63254	mg/L	0.044637	1.63254	mg/L	0.044637	2.73%
Mo 202.031†	6250.1	0.499147	mg/L	0.0061134	0.499147	mg/L	0.0061134	1.22%
Na 330.237†	125235.4	137.101	mg/L	2.2521	137.101	mg/L	2.2521	1.64%
Ni 231.604†	15992.1	0.481414	mg/L	0.0086089	0.481414	mg/L	0.0086089	1.79%
Pb 220.353†	3968.2	0.485363	mg/L	0.0054771	0.485363	mg/L	0.0054771	1.13%
Sb 206.836†	518.7	0.508271	mg/L	0.0042350	0.508271	mg/L	0.0042350	0.83%
Se 196.026†	383.6	0.495744	mg/L	0.0049195	0.495744	mg/L	0.0049195	0.99%
Sn 189.927†	806.8	0.525823	mg/L	0.0052182	0.525823	mg/L	0.0052182	0.99%
Ti 334.940†	260724.2	0.488782	mg/L	0.0074928	0.488782	mg/L	0.0074928	1.53%
Tl 190.801†	327.1	0.495717	mg/L	0.0112167	0.495717	mg/L	0.0112167	2.26%
V 290.880†	65196.7	0.498120	mg/L	0.0064366	0.498120	mg/L	0.0064366	1.29%
Zn 206.200†	12152.8	0.516493	mg/L	0.0053517	0.516493	mg/L	0.0053517	1.04%

Sequence No.: 19

Autosampler Location: 6

Sample ID: CCV V-132010

Date Collected: 1/17/2012 5:44:36 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: CCV V-132010

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1023494.2	98.0 %	0.01			0.01%
Y 371.029	384633.8	96.5 %	0.04			0.04%
Ag 328.068†	14449.3	0.0986663 mg/L	0.00003294	0.0986663 mg/L	0.00003294	0.03%
	QC value within limits for Ag	328.068 Recovery = 98.67%				
Al 308.215†	129591.0	4.92749 mg/L	0.026626	4.92749 mg/L	0.026626	0.54%
	QC value within limits for Al	308.215 Recovery = 98.55%				
As 188.979†	422.1	0.492294 mg/L	0.0001449	0.492294 mg/L	0.0001449	0.03%
	QC value within limits for As	188.979 Recovery = 98.46%				
Ba 233.527†	51117.0	0.505244 mg/L	0.0023112	0.505244 mg/L	0.0023112	0.46%
	QC value within limits for Ba	233.527 Recovery = 101.05%				
Be 313.107†	1197492.4	0.497860 mg/L	0.0025678	0.497860 mg/L	0.0047026	0.94%
	QC value within limits for Be	313.107 Recovery = 99.57%				
Ca 315.887†	4513258.2	50.0944 mg/L	0.43513	50.0944 mg/L	0.43513	0.87%
	QC value within limits for Ca	315.887 Recovery = 100.19%				
Cd 228.802†	16142.0	0.497248 mg/L	0.0025678	0.497248 mg/L	0.0025678	0.52%
	QC value within limits for Cd	228.802 Recovery = 99.45%				
Co 228.616†	12661.1	0.507732 mg/L	0.0036910	0.507732 mg/L	0.0036910	0.73%
	QC value within limits for Co	228.616 Recovery = 101.55%				
Cr 267.716†	28867.9	0.501338 mg/L	0.0039316	0.501338 mg/L	0.0039316	0.78%
	QC value within limits for Cr	267.716 Recovery = 100.27%				
Cu 327.393†	56328.6	0.499441 mg/L	0.0030207	0.499441 mg/L	0.0030207	0.60%
	QC value within limits for Cu	327.393 Recovery = 99.89%				
Fe 273.955†	43770.6	4.99905 mg/L	0.029151	4.99905 mg/L	0.029151	0.58%
	QC value within limits for Fe	273.955 Recovery = 99.98%				
K 404.721†	4644.1	47.1394 mg/L	0.19161	47.1394 mg/L	0.19161	0.41%
	QC value within limits for K	404.721 Recovery = 94.28%				
Mg 279.077†	525279.5	50.3515 mg/L	0.30154	50.3515 mg/L	0.30154	0.60%
	QC value within limits for Mg	279.077 Recovery = 100.70%				
Mn 257.610†	180034.8	0.499441 mg/L	0.0029264	0.499441 mg/L	0.0029264	0.59%
	QC value within limits for Mn	257.610 Recovery = 99.89%				
Mo 202.031†	6194.5	0.500381 mg/L	0.0006796	0.500381 mg/L	0.0006796	0.14%
	QC value within limits for Mo	202.031 Recovery = 100.08%				
Na 330.237†	42752.6	47.2777 mg/L	0.28598	47.2777 mg/L	0.28598	0.60%
	QC value within limits for Na	330.237 Recovery = 94.56%				
Ni 231.604†	16829.4	0.506803 mg/L	0.0037906	0.506803 mg/L	0.0037906	0.75%
	QC value within limits for Ni	231.604 Recovery = 101.36%				
Pb 220.353†	4129.7	0.507373 mg/L	0.0009884	0.507373 mg/L	0.0009884	0.19%
	QC value within limits for Pb	220.353 Recovery = 101.47%				
Sb 206.836†	509.7	0.498591 mg/L	0.0082375	0.498591 mg/L	0.0082375	1.65%
	QC value within limits for Sb	206.836 Recovery = 99.72%				
Se 196.026†	378.1	0.493141 mg/L	0.0031531	0.493141 mg/L	0.0031531	0.64%
	QC value within limits for Se	196.026 Recovery = 98.63%				
Sn 189.927†	797.4	0.518884 mg/L	0.0041781	0.518884 mg/L	0.0041781	0.81%
	QC value within limits for Sn	189.927 Recovery = 103.78%				
Ti 334.940†	263681.9	0.494362 mg/L	0.0032321	0.494362 mg/L	0.0032321	0.65%
	QC value within limits for Ti	334.940 Recovery = 98.87%				
Tl 190.801†	350.3	0.529959 mg/L	0.0047565	0.529959 mg/L	0.0047565	0.90%
	QC value within limits for Tl	190.801 Recovery = 105.99%				
V 290.880†	65046.3	0.501189 mg/L	0.0035783	0.501189 mg/L	0.0035783	0.71%
	QC value within limits for V	290.880 Recovery = 100.24%				
Zn 206.200†	11675.7	0.497518 mg/L	0.0009510	0.497518 mg/L	0.0009510	0.19%
	QC value within limits for Zn	206.200 Recovery = 99.50%				

All analyte(s) passed QC.

Sequence No.: 20  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 1/17/2012 5:48:19 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	1072986.8	103 %		0.1				0.08%
Y 371.029	408322.4	102 %		0.0				0.03%
Ag 328.068†	92.2	0.0003573 mg/L		0.00038195	0.0003573 mg/L		0.00038195	106.90%
QC value within limits for Ag								Recovery = Not calculated
Al 308.215†	-154.1	-0.0103634 mg/L		0.00312271	-0.0103634 mg/L		0.00312271	30.13%
QC value within limits for Al								Recovery = Not calculated
As 188.979†	0.2	-0.0011027 mg/L		0.00007195	-0.0011027 mg/L		0.00007195	6.52%
QC value within limits for As								Recovery = Not calculated
Ba 233.527†	35.2	-0.0024423 mg/L		0.00017034	-0.0024423 mg/L		0.00017034	6.97%
QC value within limits for Ba								Recovery = Not calculated
Be 313.107†	167.7	-0.0019350 mg/L		0.00000169	-0.0019350 mg/L		0.00000169	0.09%
QC value within limits for Be								Recovery = Not calculated
Ca 315.887†	880.7	-0.392187 mg/L		0.0002617	-0.392187 mg/L		0.0002617	0.07%
QC value within limits for Ca								Recovery = Not calculated
Cd 228.802†	1.4	-0.0004258 mg/L		0.00023476	-0.0004258 mg/L		0.00023476	55.14%
QC value within limits for Cd								Recovery = Not calculated
Co 228.616†	1.4	-0.0032582 mg/L		0.00009390	-0.0032582 mg/L		0.00009390	2.88%
QC value within limits for Co								Recovery = Not calculated
Cr 267.716†	-8.5	-0.0020478 mg/L		0.00018579	-0.0020478 mg/L		0.00018579	9.07%
QC value within limits for Cr								Recovery = Not calculated
Cu 327.393†	-140.5	-0.0015832 mg/L		0.00040233	-0.0015832 mg/L		0.00040233	25.41%
QC value within limits for Cu								Recovery = Not calculated
Fe 273.955†	114.1	-0.0138806 mg/L		0.00024366	-0.0138806 mg/L		0.00024366	1.76%
QC value within limits for Fe								Recovery = Not calculated
K 404.721†	85.0	0.994929 mg/L		0.0497743	0.994929 mg/L		0.0497743	5.00%
QC value within limits for K								Recovery = Not calculated
Mg 279.077†	317.3	-0.436590 mg/L		0.0007283	-0.436590 mg/L		0.0007283	0.17%
QC value within limits for Mg								Recovery = Not calculated
Mn 257.610†	104.5	-0.0020083 mg/L		0.00001740	-0.0020083 mg/L		0.00001740	0.87%
QC value within limits for Mn								Recovery = Not calculated
Mo 202.031†	1.0	-0.0016782 mg/L		0.00015668	-0.0016782 mg/L		0.00015668	9.34%
QC value within limits for Mo								Recovery = Not calculated
Na 330.237†	-19.2	0.699771 mg/L		0.0265360	0.699771 mg/L		0.0265360	3.79%
QC value within limits for Na								Recovery = Not calculated
Ni 231.604†	5.3	-0.0038736 mg/L		0.00013625	-0.0038736 mg/L		0.00013625	3.52%
QC value within limits for Ni								Recovery = Not calculated
Pb 220.353†	18.5	-0.0012614 mg/L		0.00070775	-0.0012614 mg/L		0.00070775	56.11%
QC value within limits for Pb								Recovery = Not calculated
Sb 206.836†	5.5	0.0029176 mg/L		0.00202143	0.0029176 mg/L		0.00202143	69.29%
QC value within limits for Sb								Recovery = Not calculated
Se 196.026†	-3.7	-0.0055152 mg/L		0.00295161	-0.0055152 mg/L		0.00295161	53.52%
QC value within limits for Se								Recovery = Not calculated
Sn 189.927†	8.3	0.0015537 mg/L		0.00028142	0.0015537 mg/L		0.00028142	18.11%
QC value within limits for Sn								Recovery = Not calculated
Ti 334.940†	26.6	-0.0030144 mg/L		0.00006700	-0.0030144 mg/L		0.00006700	2.22%
QC value within limits for Ti								Recovery = Not calculated
Tl 190.801†	1.9	-0.0010141 mg/L		0.00035671	-0.0010141 mg/L		0.00035671	35.17%
QC value within limits for Tl								Recovery = Not calculated
V 290.880†	-118.8	-0.0034859 mg/L		0.00017381	-0.0034859 mg/L		0.00017381	4.99%
QC value within limits for V								Recovery = Not calculated
Zn 206.200†	2.2	-0.0033213 mg/L		0.00003251	-0.0033213 mg/L		0.00003251	0.98%
QC value within limits for Zn								Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 21  
 Sample ID: 63748-002 SD  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 103  
 Date Collected: 1/17/2012 5:52:00 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63748-002 SD

Analyte	Mean Corrected Intensity	Conc. Units	Calib Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	1050548.3	101 %	%	1.5			1.52%
Y 371.029	395383.0	99.2 %	%	1.36			1.37%
Ag 328.068†	36.2	0.0004376	mg/L	0.00017819	0.0004376	0.00017819	40.72%
Al 308.215†	399.8	0.0105761	mg/L	0.00276385	0.0105761	0.00276385	26.13%
As 188.979†	1.5	0.0004779	mg/L	0.00107747	0.0004779	0.00107747	225.47%
Ba 233.527†	3369.4	0.0306953	mg/L	0.00051498	0.0306953	0.00051498	1.68%
Be 313.107†	-214.3	-0.0020942	mg/L	0.00003576	-0.0020942	0.00003576	1.71%
Ca 315.887†	5106993.8	56.7374	mg/L	1.19608	56.7374	1.19608	2.11%
Cd 228.802†	-8.6	-0.0007914	mg/L	0.00032956	-0.0007914	0.00032956	41.64%
Co 228.616†	-1.1	-0.0033310	mg/L	0.00016386	-0.0033310	0.00016386	4.92%
Cr 267.716†	-36.1	-0.0022007	mg/L	0.00012434	-0.0022007	0.00012434	5.65%
Cu 327.393†	-183.0	-0.0027721	mg/L	0.00202960	-0.0027721	0.00202960	73.22%
Fe 273.955†	29706.9	3.37512	mg/L	0.034406	3.37512	0.034406	1.02%
K 404.721†	763.0	7.85751	mg/L	0.421832	7.85751	0.421832	5.37%
Mg 279.077†	122699.7	11.4034	mg/L	0.11631	11.4034	0.11631	1.02%
Mn 257.610†	91725.7	0.253306	mg/L	0.0024377	0.253306	0.0024377	0.96%
Mo 202.031†	99.9	0.0051095	mg/L	0.00035507	0.0051095	0.00035507	6.95%
Na 330.237†	13873.1	15.8283	mg/L	0.20913	15.8283	0.20913	1.32%
Ni 231.604†	9.7	-0.0037353	mg/L	0.00002776	-0.0037353	0.00002776	0.74%
Pb 220.353†	45.6	0.0016286	mg/L	0.00056615	0.0016286	0.00056615	34.76%
Sb 206.836†	3.6	0.0013128	mg/L	0.00413048	0.0013128	0.00413048	314.64%
Se 196.026†	-4.0	-0.0069644	mg/L	0.00612659	-0.0069644	0.00612659	87.97%
Sn 189.927†	-0.7	-0.0041233	mg/L	0.00096400	-0.0041233	0.00096400	23.38%
Ti 334.940†	-218.2	-0.0034763	mg/L	0.00001822	-0.0034763	0.00001822	0.52%
Tl 190.801†	0.6	-0.0027542	mg/L	0.00337449	-0.0027542	0.00337449	122.52%
V 290.880†	941.4	0.0037807	mg/L	0.00066969	0.0037807	0.00066969	17.71%
Zn 206.200†	370.3	0.0121482	mg/L	0.00003107	0.0121482	0.00003107	0.26%

Sequence No.: 22

Sample ID: 63748-001

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 1/17/2012 5:55:45 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: 63748-001

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1076588.2		103 %	2.8				2.72%
Y 371.029	406279.6		102 %	2.8				2.75%
Ag 328.068†	9.0	0.0006693	mg/L	0.00001810	0.0006693	mg/L	0.00001810	2.70%
Al 308.215†	631.2	0.0192868	mg/L	0.00840755	0.0192868	mg/L	0.00840755	43.59%
As 188.979†	7.0	0.0063882	mg/L	0.00285865	0.0063882	mg/L	0.00285865	44.75%
Ba 233.527†	9218.3	0.0888253	mg/L	0.00250405	0.0888253	mg/L	0.00250405	2.82%
Be 313.107†	-405.9	-0.0021741	mg/L	0.00002542	-0.0021741	mg/L	0.00002542	1.17%
Ca 315.887†	11964950.9	133.467	mg/L	4.5830	133.467	mg/L	4.5830	3.43%
Cd 228.802†	-8.4	-0.0008062	mg/L	0.00013905	-0.0008062	mg/L	0.00013905	17.25%
Co 228.616†	75.4	-0.0002337	mg/L	0.00033674	-0.0002337	mg/L	0.00033674	144.08%
Cr 267.716†	-50.8	-0.0020307	mg/L	0.00012059	-0.0020307	mg/L	0.00012059	5.94%
Cu 327.393†	-229.6	-0.0041754	mg/L	0.00006096	-0.0041754	mg/L	0.00006096	1.46%
Fe 273.955†	42009.4	4.78531	mg/L	0.135724	4.78531	mg/L	0.135724	2.84%
K 404.721†	1441.6	14.7258	mg/L	0.46273	14.7258	mg/L	0.46273	3.14%
Mg 279.077†	207175.6	19.5762	mg/L	0.48043	19.5762	mg/L	0.48043	2.45%
Mn 257.610†	290027.4	0.805629	mg/L	0.0208580	0.805629	mg/L	0.0208580	2.59%
Mo 202.031†	160.2	0.0083266	mg/L	0.00073307	0.0083266	mg/L	0.00073307	8.80%
Na 330.237†	6653.5	7.96624	mg/L	0.205970	7.96624	mg/L	0.205970	2.59%
Ni 231.604†	12.4	-0.0036473	mg/L	0.00028288	-0.0036473	mg/L	0.00028288	7.76%
Pb 220.353†	65.2	0.0037621	mg/L	0.00061133	0.0037621	mg/L	0.00061133	16.25%
Sb 206.836†	1.6	-0.0008922	mg/L	0.00004526	-0.0008922	mg/L	0.00004526	5.07%
Se 196.026†	10.9	0.0103654	mg/L	0.01524426	0.0103654	mg/L	0.01524426	147.07%
Sn 189.927†	5.6	0.0002569	mg/L	0.00410766	0.0002569	mg/L	0.00410766	>999.9%
Ti 334.940†	-346.7	-0.0037186	mg/L	0.00002671	-0.0037186	mg/L	0.00002671	0.72%
Tl 190.801†	-0.1	-0.0040414	mg/L	0.00200531	-0.0040414	mg/L	0.00200531	49.62%
V 290.880†	1341.2	0.0062343	mg/L	0.00021046	0.0062343	mg/L	0.00021046	3.38%
Zn 206.200†	682.9	0.0253493	mg/L	0.00049686	0.0253493	mg/L	0.00049686	1.96%

Sequence No.: 23  
 Sample ID: 63748-003  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 105  
 Date Collected: 1/17/2012 5:59:42 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: 63748-003

Analyte	Mean Corrected		Calib Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sc 361.383	1038596.0	99.5	%	0.36			0.37%
Y 371.029	391154.5	98.1	%	0.33			0.34%
Ag 328.068†	-86.3	0.0011709	mg/L	0.00028618	0.0011709	mg/L	0.00028618 24.44%
Al 308.215†	864.7	0.0281745	mg/L	0.00110817	0.0281745	mg/L	0.00110817 3.93%
As 188.979†	0.4	0.0002922	mg/L	0.00049249	0.0002922	mg/L	0.00049249 168.52%
Ba 233.527†	61848.8	0.611905	mg/L	0.0026619	0.611905	mg/L	0.0026619 0.44%
Be 313.107†	-567.7	-0.0022420	mg/L	0.00000412	-0.0022420	mg/L	0.00000412 0.18%
Ca 315.887†	16664011.3	186.043	mg/L	2.2325	186.043	mg/L	2.2325 1.20%
Cd 228.802†	7.2	-0.0005531	mg/L	0.00021891	-0.0005531	mg/L	0.00021891 39.58%
Co 228.616†	30.2	-0.0020525	mg/L	0.00012955	-0.0020525	mg/L	0.00012955 6.31%
Cr 267.716†	-42.1	-0.0017130	mg/L	0.00015290	-0.0017130	mg/L	0.00015290 8.93%
Cu 327.393†	-305.0	-0.0057802	mg/L	0.00016187	-0.0057802	mg/L	0.00016187 2.80%
Fe 273.955†	163500.9	18.6894	mg/L	0.09996	18.6894	mg/L	0.09996 0.53%
K 404.721†	4013.2	40.7541	mg/L	0.49694	40.7541	mg/L	0.49694 1.22%
Mg 279.077†	469645.4	44.9691	mg/L	0.21724	44.9691	mg/L	0.21724 0.48%
Mn 257.610†	110244.3	0.305574	mg/L	0.0013996	0.305574	mg/L	0.0013996 0.46%
Mo 202.031†	171.3	0.0080785	mg/L	0.00000432	0.0080785	mg/L	0.00000432 0.05%
Na 330.237†	56937.3	62.7247	mg/L	0.28757	62.7247	mg/L	0.28757 0.46%
Ni 231.604†	23.6	-0.0033069	mg/L	0.00000701	-0.0033069	mg/L	0.00000701 0.21%
Pb 220.353†	65.1	0.0023465	mg/L	0.00017168	0.0023465	mg/L	0.00017168 7.32%
Sb 206.836†	2.8	0.0021503	mg/L	0.00274831	0.0021503	mg/L	0.00274831 127.81%
Se 196.026†	8.0	0.0086986	mg/L	0.00640887	0.0086986	mg/L	0.00640887 73.68%
Sn 189.927†	2.8	-0.0015378	mg/L	0.00326453	-0.0015378	mg/L	0.00326453 212.29%
Ti 334.940†	-141.0	-0.0033307	mg/L	0.00001666	-0.0033307	mg/L	0.00001666 0.50%
Tl 190.801†	-0.7	-0.0029936	mg/L	0.00439127	-0.0029936	mg/L	0.00439127 146.69%
V 290.880†	2676.2	0.0143018	mg/L	0.00001651	0.0143018	mg/L	0.00001651 0.12%
Zn 206.200†	751.4	0.0275017	mg/L	0.00008837	0.0275017	mg/L	0.00008837 0.32%

Sequence No.: 24

Autosampler Location: 106

Sample ID: 63748-004

Date Collected: 1/17/2012 6:03:29 PM

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Mean Data: 63748-004

Analyte	Mean Corrected		Calib Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc. Units			
Sc 361.383	1013559.6		97.1 %	0.45				0.46%
Y 371.029	382304.4		95.9 %	0.46				0.48%
Ag 328.068†	-151.2	0.0007141	mg/L	0.00005387	0.0007141	mg/L	0.00005387	7.54%
Al 308.215†	1724.5	0.0609895	mg/L	0.00116562	0.0609895	mg/L	0.00116562	1.91%
As 188.979†	2.7	0.0033401	mg/L	0.00208328	0.0033401	mg/L	0.00208328	62.37%
Ba 233.527†	16654.8	0.162735	mg/L	0.0003733	0.162735	mg/L	0.0003733	0.23%
Be 313.107†	-518.3	-0.0022217	mg/L	0.00000460	-0.0022217	mg/L	0.00000460	0.21%
Ca 315.887†	16013855.6	178.768	mg/L	1.8975	178.768	mg/L	1.8975	1.06%
Cd 228.802†	1.7	-0.0007559	mg/L	0.00032887	-0.0007559	mg/L	0.00032887	43.51%
Co 228.616†	28.0	-0.0021457	mg/L	0.00034222	-0.0021457	mg/L	0.00034222	15.95%
Cr 267.716†	-23.3	-0.0011976	mg/L	0.00003670	-0.0011976	mg/L	0.00003670	3.06%
Cu 327.393†	-217.5	-0.0048892	mg/L	0.00039597	-0.0048892	mg/L	0.00039597	8.10%
Fe 273.955†	179945.8	20.5691	mg/L	0.01813	20.5691	mg/L	0.01813	0.09%
K 404.721†	3171.7	32.2364	mg/L	0.41039	32.2364	mg/L	0.41039	1.27%
Mg 279.077†	445682.7	42.6508	mg/L	0.05236	42.6508	mg/L	0.05236	0.12%
Mn 257.610†	186771.0	0.518780	mg/L	0.0002090	0.518780	mg/L	0.0002090	0.04%
Mo 202.031†	157.9	0.0071525	mg/L	0.00011977	0.0071525	mg/L	0.00011977	1.67%
Na 330.237†	34331.3	38.1070	mg/L	0.03109	38.1070	mg/L	0.03109	0.08%
Ni 231.604†	24.8	-0.0032726	mg/L	0.00015824	-0.0032726	mg/L	0.00015824	4.84%
Pb 220.353†	82.1	0.0043573	mg/L	0.00070498	0.0043573	mg/L	0.00070498	16.18%
Sb 206.836†	0.4	0.0001995	mg/L	0.00629480	0.0001995	mg/L	0.00629480	>999.9%
Se 196.026†	5.1	0.0053451	mg/L	0.00151188	0.0053451	mg/L	0.00151188	28.29%
Sn 189.927†	9.9	0.0029899	mg/L	0.00439770	0.0029899	mg/L	0.00439770	147.09%
Ti 334.940†	131.4	-0.0028167	mg/L	0.00056002	-0.0028167	mg/L	0.00056002	19.88%
Tl 190.801†	-1.4	-0.0044519	mg/L	0.00061743	-0.0044519	mg/L	0.00061743	13.87%
V 290.880†	2551.5	0.0134570	mg/L	0.00003348	0.0134570	mg/L	0.00003348	0.25%
Zn 206.200†	725.6	0.0264654	mg/L	0.00012237	0.0264654	mg/L	0.00012237	0.46%

Sequence No.: 25  
 Sample ID: 63748-005  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 107  
 Date Collected: 1/17/2012 6:07:17 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 63748-005

Analyte	Mean Corrected Intensity	Conc. Units	Calib Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1104011.6	106	%	0.4			0.34%
Y 371.029	419973.0	105	%	0.4			0.39%
Ag 328.068†	40.2	0.0000040	mg/L	0.00010043	0.0000040 mg/L	0.00010043	>999.9%
Al 308.215†	37.8	-0.0030452	mg/L	0.00099044	-0.0030452 mg/L	0.00099044	32.52%
As 188.979†	0.2	-0.0010505	mg/L	0.00068610	-0.0010505 mg/L	0.00068610	65.31%
Ba 233.527†	55.7	-0.0022387	mg/L	0.00011824	-0.0022387 mg/L	0.00011824	5.28%
Be 313.107†	105.6	-0.0019608	mg/L	0.00001094	-0.0019608 mg/L	0.00001094	0.56%
Ca 315.887†	7597.1	-0.317041	mg/L	0.0045733	-0.317041 mg/L	0.0045733	1.44%
Cd 228.802†	-9.8	-0.0007740	mg/L	0.00002793	-0.0007740 mg/L	0.00002793	3.61%
Co 228.616†	-4.0	-0.0034751	mg/L	0.00013095	-0.0034751 mg/L	0.00013095	3.77%
Cr 267.716†	0.4	-0.0018919	mg/L	0.00006730	-0.0018919 mg/L	0.00006730	3.56%
Cu 327.393†	-106.2	-0.0012793	mg/L	0.00033437	-0.0012793 mg/L	0.00033437	26.14%
Fe 273.955†	416.0	0.0206433	mg/L	0.00011125	0.0206433 mg/L	0.00011125	0.54%
K 404.721†	56.3	0.705148	mg/L	0.1459627	0.705148 mg/L	0.1459627	20.70%
Mg 279.077†	519.2	-0.417054	mg/L	0.0002380	-0.417054 mg/L	0.0002380	0.06%
Mn 257.610†	348.3	-0.0013278	mg/L	0.00004568	-0.0013278 mg/L	0.00004568	3.44%
Mo 202.031†	1.6	-0.0016300	mg/L	0.00018568	-0.0016300 mg/L	0.00018568	11.39%
Na 330.237†	27.6	0.750730	mg/L	0.0623653	0.750730 mg/L	0.0623653	8.31%
Ni 231.604†	6.2	-0.0038469	mg/L	0.00014882	-0.0038469 mg/L	0.00014882	3.87%
Pb 220.353†	4.3	-0.0030198	mg/L	0.00073700	-0.0030198 mg/L	0.00073700	24.41%
Sb 206.836†	2.7	0.0002056	mg/L	0.00049520	0.0002056 mg/L	0.00049520	240.87%
Se 196.026†	-4.8	-0.0069846	mg/L	0.00280411	-0.0069846 mg/L	0.00280411	40.15%
Sn 189.927†	4.5	-0.0009204	mg/L	0.00079988	-0.0009204 mg/L	0.00079988	86.91%
Ti 334.940†	-75.7	-0.0032074	mg/L	0.00002637	-0.0032074 mg/L	0.00002637	0.82%
Tl 190.801†	2.4	-0.0002151	mg/L	0.00122284	-0.0002151 mg/L	0.00122284	568.42%
V 290.880†	-62.1	-0.0030467	mg/L	0.00012755	-0.0030467 mg/L	0.00012755	4.19%
Zn 206.200†	573.2	0.0212527	mg/L	0.00024519	0.0212527 mg/L	0.00024519	1.15%

Sequence No.: 26  
 Sample ID: 63748-006  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 108  
 Date Collected: 1/17/2012 6:10:59 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 63748-006

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	996699.4	95.4 %		1.61				1.69%
Y 371.029	377356.5	94.7 %		1.55				1.64%
Ag 328.068†	-116.8	0.0012237 mg/L		0.00029706	0.0012237 mg/L		0.00029706	24.28%
Al 308.215†	1566.0	0.0548858 mg/L		0.00078962	0.0548858 mg/L		0.00078962	1.44%
As 188.979†	8.6	0.0086250 mg/L		0.00134800	0.0086250 mg/L		0.00134800	15.63%
Ba 233.527†	16961.2	0.165780 mg/L		0.0000484	0.165780 mg/L		0.0000484	0.03%
Be 313.107†	-750.5	-0.0023187 mg/L		0.00002337	-0.0023187 mg/L		0.00002337	1.01%
Ca 315.887†	24957127.3	278.830 mg/L		0.4820	278.830 mg/L		0.4820	0.17%
Cd 228.802†	-0.2	-0.0007457 mg/L		0.00015037	-0.0007457 mg/L		0.00015037	20.17%
Co 228.616†	51.2	-0.0012024 mg/L		0.00026948	-0.0012024 mg/L		0.00026948	22.41%
Cr 267.716†	-52.0	-0.0014195 mg/L		0.00008929	-0.0014195 mg/L		0.00008929	6.29%
Cu 327.393†	-327.2	-0.0071729 mg/L		0.00108072	-0.0071729 mg/L		0.00108072	15.07%
Fe 273.955†	143389.9	16.3934 mg/L		0.06784	16.3934 mg/L		0.06784	0.41%
K 404.721†	3955.7	40.1716 mg/L		0.50556	40.1716 mg/L		0.50556	1.26%
Mg 279.077†	571082.2	54.7827 mg/L		0.34564	54.7827 mg/L		0.34564	0.63%
Mn 257.610†	418452.0	1.16381 mg/L		0.002592	1.16381 mg/L		0.002592	0.22%
Mo 202.031†	189.2	0.0075062 mg/L		0.00073533	0.0075062 mg/L		0.00073533	9.80%
Na 330.237†	76835.7	84.3939 mg/L		0.38069	84.3939 mg/L		0.38069	0.45%
Ni 231.604†	29.6	-0.0031227 mg/L		0.00015540	-0.0031227 mg/L		0.00015540	4.98%
Pb 220.353†	71.4	0.0030683 mg/L		0.00020875	0.0030683 mg/L		0.00020875	6.80%
Sb 206.836†	2.6	0.0010611 mg/L		0.00330341	0.0010611 mg/L		0.00330341	311.32%
Se 196.026†	6.8	0.0034219 mg/L		0.01872459	0.0034219 mg/L		0.01872459	547.19%
Sn 189.927†	-4.0	-0.0055929 mg/L		0.00138381	-0.0055929 mg/L		0.00138381	24.74%
Ti 334.940†	112.7	-0.0028521 mg/L		0.00008546	-0.0028521 mg/L		0.00008546	3.00%
Tl 190.801†	-2.2	-0.0060506 mg/L		0.00526066	-0.0060506 mg/L		0.00526066	86.94%
V 290.880†	2950.8	0.0157500 mg/L		0.00026207	0.0157500 mg/L		0.00026207	1.66%
Zn 206.200†	1170.6	0.0452349 mg/L		0.00007625	0.0452349 mg/L		0.00007625	0.17%

Sequence No.: 27  
 Sample ID: ICSA V-132014  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 1/17/2012 6:14:52 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSA V-132014

Analyte	Mean Corrected Intensity	Conc. Units	Calib Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	930829.6	89.1	%	0.13			0.15%
Y 371.029	348494.9	87.4	%	0.10			0.11%
Ag 328.068†	-1572.3	0.0010821	mg/L	0.00036273	0.0010821 mg/L	0.00036273	33.52%
Al 308.215†	13184934.3	502.793	mg/L	8.0453	502.793 mg/L	8.0453	1.60%
QC value within limits for Al 308.215 Recovery = 100.56%							
As 188.979†	-23.2	-0.0050564	mg/L	0.00235623	-0.0050564 mg/L	0.00235623	46.60%
Ba 233.527†	444.9	0.0016294	mg/L	0.00001400	0.0016294 mg/L	0.00001400	0.86%
Be 313.107†	-1665.8	-0.0027009	mg/L	0.00002628	-0.0027009 mg/L	0.00002628	0.97%
Ca 315.887†	42982808.6	480.510	mg/L	7.5694	480.510 mg/L	7.5694	1.58%
QC value within limits for Ca 315.887 Recovery = 96.10%							
Cd 228.802†	142.2	0.0008886	mg/L	0.00043646	0.0008886 mg/L	0.00043646	49.12%
Co 228.616†	-114.6	-0.0007432	mg/L	0.00012812	-0.0007432 mg/L	0.00012812	17.24%
Cr 267.716†	31.0	0.0049940	mg/L	0.00023453	0.0049940 mg/L	0.00023453	4.70%
Cu 327.393†	83.4	-0.0181328	mg/L	0.00012391	-0.0181328 mg/L	0.00012391	0.68%
Fe 273.955†	1614699.1	184.834	mg/L	1.1263	184.834 mg/L	1.1263	0.61%
QC value within limits for Fe 273.955 Recovery = 92.42%							
K 404.721†	-931.1	-9.28875	mg/L	1.715760	-9.28875 mg/L	1.715760	18.47%
Mg 279.077†	5224480.1	504.981	mg/L	3.0931	504.981 mg/L	3.0931	0.61%
QC value within limits for Mg 279.077 Recovery = 101.00%							
Mn 257.610†	-3524.8	-0.0037532	mg/L	0.00008400	-0.0037532 mg/L	0.00008400	2.24%
Mo 202.031†	135.3	0.0048531	mg/L	0.00024334	0.0048531 mg/L	0.00024334	5.01%
Na 330.237†	-281.5	0.414180	mg/L	0.0029623	0.414180 mg/L	0.0029623	0.72%
Ni 231.604†	20.7	-0.0033983	mg/L	0.00006385	-0.0033983 mg/L	0.00006385	1.88%
Pb 220.353†	-456.8	0.0009437	mg/L	0.00236379	0.0009437 mg/L	0.00236379	250.48%
Sb 206.836†	-102.5	0.0094552	mg/L	0.00212601	0.0094552 mg/L	0.00212601	22.49%
Se 196.026†	23.6	0.0056586	mg/L	0.00390202	0.0056586 mg/L	0.00390202	68.96%
Sn 189.927†	-1.6	-0.0120232	mg/L	0.00442326	-0.0120232 mg/L	0.00442326	36.79%
Ti 334.940†	49.2	-0.0029719	mg/L	0.00002955	-0.0029719 mg/L	0.00002955	0.99%
Tl 190.801†	-13.9	-0.0019316	mg/L	0.00703544	-0.0019316 mg/L	0.00703544	364.23%
V 290.880†	5984.5	0.0001258	mg/L	0.00023815	0.0001258 mg/L	0.00023815	189.30%
Zn 206.200†	107.8	-0.0146075	mg/L	0.00061461	-0.0146075 mg/L	0.00061461	4.21%

All analyte(s) passed QC.

Sequence No.: 28

Sample ID: ICSAB V-132016

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 1/17/2012 6:20:02 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: ICSAB V-132016

Analyte	Mean Corrected Intensity	Conc. Units	Calib	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	953207.8	91.3 %		1.06			1.16%
Y 371.029	356157.2	89.4 %		0.98			1.10%
Ag 328.068†	154222.1	1.06671 mg/L		0.013544	1.06671 mg/L	0.013544	1.27%
QC value within limits for Ag		328.068	Recovery =	106.67%			
Al 308.215†	13261411.4	505.709 mg/L		3.7422	505.709 mg/L	3.7422	0.74%
QC value within limits for Al		308.215	Recovery =	101.14%			
As 188.979†	869.1	1.03898 mg/L		0.030832	1.03898 mg/L	0.030832	2.97%
QC value within limits for As		188.979	Recovery =	103.90%			
Ba 233.527†	50935.0	0.503435 mg/L		0.0066910	0.503435 mg/L	0.0066910	1.33%
QC value within limits for Ba		233.527	Recovery =	100.69%			
Be 313.107†	1193617.1	0.496597 mg/L		0.0059949	0.496597 mg/L	0.0059949	1.21%
QC value within limits for Be		313.107	Recovery =	99.32%			
Ca 315.887†	43786637.6	489.503 mg/L		4.7600	489.503 mg/L	4.7600	0.97%
QC value within limits for Ca		315.887	Recovery =	97.90%			
Cd 228.802†	33507.1	1.02977 mg/L		0.017776	1.02977 mg/L	0.017776	1.73%
QC value within limits for Cd		228.802	Recovery =	102.98%			
Co 228.616†	11514.2	0.468084 mg/L		0.0077271	0.468084 mg/L	0.0077271	1.65%
QC value within limits for Co		228.616	Recovery =	93.62%			
Cr 267.716†	27968.6	0.488906 mg/L		0.0060721	0.488906 mg/L	0.0060721	1.24%
QC value within limits for Cr		267.716	Recovery =	97.78%			
Cu 327.393†	58948.0	0.505418 mg/L		0.0060009	0.505418 mg/L	0.0060009	1.19%
QC value within limits for Cu		327.393	Recovery =	101.08%			
Fe 273.955†	1641221.9	187.872 mg/L		2.1835	187.872 mg/L	2.1835	1.16%
QC value within limits for Fe		273.955	Recovery =	93.94%			
K 404.721†	-1053.6	-10.5286 mg/L		0.14765	-10.5286 mg/L	0.14765	1.40%
Mg 279.077†	5340900.1	516.244 mg/L		6.0421	516.244 mg/L	6.0421	1.17%
QC value within limits for Mg		279.077	Recovery =	103.25%			
Mn 257.610†	172502.3	0.486609 mg/L		0.0057373	0.486609 mg/L	0.0057373	1.18%
QC value within limits for Mn		257.610	Recovery =	97.32%			
Mo 202.031†	136.6	0.0047938 mg/L		0.00062139	0.0047938 mg/L	0.00062139	12.96%
Na 330.237†	-93.5	0.618880 mg/L		0.0026369	0.618880 mg/L	0.0026369	0.43%
Ni 231.604†	30363.4	0.916819 mg/L		0.0098871	0.916819 mg/L	0.0098871	1.08%
QC value within limits for Ni		231.604	Recovery =	91.68%			
Pb 220.353†	7302.0	0.960341 mg/L		0.0173135	0.960341 mg/L	0.0173135	1.80%
QC value within limits for Pb		220.353	Recovery =	96.03%			
Sb 206.836†	946.5	1.03865 mg/L		0.015188	1.03865 mg/L	0.015188	1.46%
QC value within limits for Sb		206.836	Recovery =	103.86%			
Se 196.026†	783.8	1.00003 mg/L		0.007144	1.00003 mg/L	0.007144	0.71%
QC value within limits for Se		196.026	Recovery =	100.00%			
Sn 189.927†	-5.0	-0.0142302 mg/L		0.00698871	-0.0142302 mg/L	0.00698871	49.11%
Ti 334.940†	299.0	-0.0025006 mg/L		0.00003684	-0.0025006 mg/L	0.00003684	1.47%
Tl 190.801†	601.6	0.930104 mg/L		0.0158638	0.930104 mg/L	0.0158638	1.71%
QC value within limits for Tl		190.801	Recovery =	93.01%			
V 290.880†	66504.7	0.470632 mg/L		0.0057818	0.470632 mg/L	0.0057818	1.23%
QC value within limits for V		290.880	Recovery =	94.13%			
Zn 206.200†	22396.1	0.944336 mg/L		0.0170133	0.944336 mg/L	0.0170133	1.80%
QC value within limits for Zn		206.200	Recovery =	94.43%			

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: CCV V-132010  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 1/17/2012 6:25:07 PM  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Mean Data: CCV V-132010

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1010857.7	96.8 %	1.62			1.67%
Y 371.029	379141.5	95.1 %	1.67			1.75%
Ag 328.068†	14595.9	0.0996770 mg/L	0.00020970	0.0996770 mg/L	0.00020970	0.21%
QC value within limits for Ag	328.068	Recovery = 99.68%				
Al 308.215†	129730.4	4.93267 mg/L	0.014143	4.93267 mg/L	0.014143	0.29%
QC value within limits for Al	308.215	Recovery = 98.65%				
As 188.979†	434.6	0.506892 mg/L	0.0102129	0.506892 mg/L	0.0102129	2.01%
QC value within limits for As	188.979	Recovery = 101.38%				
Ba 233.527†	50769.7	0.501792 mg/L	0.0023909	0.501792 mg/L	0.0023909	0.48%
QC value within limits for Ba	233.527	Recovery = 100.36%				
Be 313.107†	1225348.4	0.509503 mg/L	0.0127408	0.509503 mg/L	0.0127408	2.50%
QC value within limits for Be	313.107	Recovery = 101.90%				
Ca 315.887†	4649717.5	51.6212 mg/L	1.35892	51.6212 mg/L	1.35892	2.63%
QC value within limits for Ca	315.887	Recovery = 103.24%				
Cd 228.802†	16187.1	0.498637 mg/L	0.0008862	0.498637 mg/L	0.0008862	0.18%
QC value within limits for Cd	228.802	Recovery = 99.73%				
Co 228.616†	12554.6	0.503471 mg/L	0.0020676	0.503471 mg/L	0.0020676	0.41%
QC value within limits for Co	228.616	Recovery = 100.69%				
Cr 267.716†	28819.6	0.500534 mg/L	0.0024668	0.500534 mg/L	0.0024668	0.49%
QC value within limits for Cr	267.716	Recovery = 100.11%				
Cu 327.393†	56030.5	0.496759 mg/L	0.0023210	0.496759 mg/L	0.0023210	0.47%
QC value within limits for Cu	327.393	Recovery = 99.35%				
Fe 273.955†	44040.9	5.03043 mg/L	0.031383	5.03043 mg/L	0.031383	0.62%
QC value within limits for Fe	273.955	Recovery = 100.61%				
K 404.721†	4618.9	46.8839 mg/L	1.14889	46.8839 mg/L	1.14889	2.45%
QC value within limits for K	404.721	Recovery = 93.77%				
Mg 279.077†	537476.9	51.5315 mg/L	1.35026	51.5315 mg/L	1.35026	2.62%
QC value within limits for Mg	279.077	Recovery = 103.06%				
Mn 257.610†	180497.8	0.500733 mg/L	0.0017106	0.500733 mg/L	0.0017106	0.34%
QC value within limits for Mn	257.610	Recovery = 100.15%				
Mo 202.031†	6252.6	0.505066 mg/L	0.0072302	0.505066 mg/L	0.0072302	1.43%
QC value within limits for Mo	202.031	Recovery = 101.01%				
Na 330.237†	42510.7	47.0144 mg/L	0.08524	47.0144 mg/L	0.08524	0.18%
QC value within limits for Na	330.237	Recovery = 94.03%				
Ni 231.604†	16780.1	0.505312 mg/L	0.0012773	0.505312 mg/L	0.0012773	0.25%
QC value within limits for Ni	231.604	Recovery = 101.06%				
Pb 220.353†	4179.4	0.513504 mg/L	0.0087725	0.513504 mg/L	0.0087725	1.71%
QC value within limits for Pb	220.353	Recovery = 102.70%				
Sb 206.836†	514.5	0.503282 mg/L	0.0117822	0.503282 mg/L	0.0117822	2.34%
QC value within limits for Sb	206.836	Recovery = 100.66%				
Se 196.026†	380.9	0.496784 mg/L	0.0086641	0.496784 mg/L	0.0086641	1.74%
QC value within limits for Se	196.026	Recovery = 99.36%				
Sn 189.927†	799.0	0.519944 mg/L	0.0076430	0.519944 mg/L	0.0076430	1.47%
QC value within limits for Sn	189.927	Recovery = 103.99%				
Ti 334.940†	258956.5	0.485448 mg/L	0.0026413	0.485448 mg/L	0.0026413	0.54%
QC value within limits for Ti	334.940	Recovery = 97.09%				
Tl 190.801†	345.6	0.522672 mg/L	0.0081633	0.522672 mg/L	0.0081633	1.56%
QC value within limits for Tl	190.801	Recovery = 104.53%				
V 290.880†	65043.5	0.501075 mg/L	0.0016686	0.501075 mg/L	0.0016686	0.33%
QC value within limits for V	290.880	Recovery = 100.22%				
Zn 206.200†	11768.3	0.501466 mg/L	0.0081969	0.501466 mg/L	0.0081969	1.63%
QC value within limits for Zn	206.200	Recovery = 100.29%				

All analyte(s) passed QC.

Sequence No.: 30

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 1/17/2012 6:28:49 PM

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1044173.2	100.0 %	1.15			1.15%
Y 371.029	396176.0	99.4 %	1.02			1.03%
Ag 328.068†	41.9	0.0000130 mg/L	0.00007679	0.0000130 mg/L	0.00007679	589.57%
QC value within limits for Ag 328.068						Recovery = Not calculated
Al 308.215†	57.2	-0.0023045 mg/L	0.00462781	-0.0023045 mg/L	0.00462781	200.82%
QC value within limits for Al 308.215						Recovery = Not calculated
As 188.979†	1.7	0.0006665 mg/L	0.00395812	0.0006665 mg/L	0.00395812	593.84%
QC value within limits for As 188.979						Recovery = Not calculated
Ba 233.527†	34.7	-0.0024475 mg/L	0.00009610	-0.0024475 mg/L	0.00009610	3.93%
QC value within limits for Ba 233.527						Recovery = Not calculated
Be 313.107†	144.7	-0.0019445 mg/L	0.00002579	-0.0019445 mg/L	0.00002579	1.33%
QC value within limits for Be 313.107						Recovery = Not calculated
Ca 315.887†	-354.7	-0.406009 mg/L	0.0122749	-0.406009 mg/L	0.0122749	3.02%
QC value within limits for Ca 315.887						Recovery = Not calculated
Cd 228.802†	-3.2	-0.0005694 mg/L	0.00020179	-0.0005694 mg/L	0.00020179	35.44%
QC value within limits for Cd 228.802						Recovery = Not calculated
Co 228.616†	0.8	-0.0032794 mg/L	0.00012842	-0.0032794 mg/L	0.00012842	3.92%
QC value within limits for Co 228.616						Recovery = Not calculated
Cr 267.716†	6.1	-0.0017957 mg/L	0.00005952	-0.0017957 mg/L	0.00005952	3.31%
QC value within limits for Cr 267.716						Recovery = Not calculated
Cu 327.393†	-127.6	-0.0014685 mg/L	0.00020097	-0.0014685 mg/L	0.00020097	13.69%
QC value within limits for Cu 327.393						Recovery = Not calculated
Fe 273.955†	100.2	-0.0154773 mg/L	0.00157516	-0.0154773 mg/L	0.00157516	10.18%
QC value within limits for Fe 273.955						Recovery = Not calculated
K 404.721†	59.7	0.739050 mg/L	0.2469520	0.739050 mg/L	0.2469520	33.41%
QC value within limits for K 404.721						Recovery = Not calculated
Mg 279.077†	337.4	-0.434644 mg/L	0.0034936	-0.434644 mg/L	0.0034936	0.80%
QC value within limits for Mg 279.077						Recovery = Not calculated
Mn 257.610†	62.2	-0.0021262 mg/L	0.00004495	-0.0021262 mg/L	0.00004495	2.11%
QC value within limits for Mn 257.610						Recovery = Not calculated
Mo 202.031†	0.2	-0.0017371 mg/L	0.00013285	-0.0017371 mg/L	0.00013285	7.65%
QC value within limits for Mo 202.031						Recovery = Not calculated
Na 330.237†	-123.7	0.585956 mg/L	0.0627115	0.585956 mg/L	0.0627115	10.70%
QC value within limits for Na 330.237						Recovery = Not calculated
Ni 231.604†	-3.0	-0.0041249 mg/L	0.00026953	-0.0041249 mg/L	0.00026953	6.53%
QC value within limits for Ni 231.604						Recovery = Not calculated
Pb 220.353†	16.9	-0.0014639 mg/L	0.00138377	-0.0014639 mg/L	0.00138377	94.53%
QC value within limits for Pb 220.353						Recovery = Not calculated
Sb 206.836†	2.7	0.0001629 mg/L	0.00075762	0.0001629 mg/L	0.00075762	465.01%
QC value within limits for Sb 206.836						Recovery = Not calculated
Se 196.026†	-7.2	-0.0101195 mg/L	0.01128388	-0.0101195 mg/L	0.01128388	111.51%
QC value within limits for Se 196.026						Recovery = Not calculated
Sn 189.927†	4.9	-0.0006322 mg/L	0.00179116	-0.0006322 mg/L	0.00179116	283.31%
QC value within limits for Sn 189.927						Recovery = Not calculated
Ti 334.940†	-53.8	-0.0031662 mg/L	0.00001812	-0.0031662 mg/L	0.00001812	0.57%
QC value within limits for Ti 334.940						Recovery = Not calculated
Tl 190.801†	1.6	-0.0014067 mg/L	0.00354479	-0.0014067 mg/L	0.00354479	251.99%
QC value within limits for Tl 190.801						Recovery = Not calculated
V 290.880†	-11.5	-0.0026508 mg/L	0.00052170	-0.0026508 mg/L	0.00052170	19.68%
QC value within limits for V 290.880						Recovery = Not calculated
Zn 206.200†	4.1	-0.0032408 mg/L	0.00003324	-0.0032408 mg/L	0.00003324	1.03%
QC value within limits for Zn 206.200						Recovery = Not calculated

All analyte(s) passed QC.



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Date: 1/17/2012 3:28:56 PM

1	[1]	0.0057	0.0219	0.0057	15:22:27	Yes
2	[1]	0.0058	0.0248	0.0058	15:22:59	Yes
Mean:	[1]	0.0057				
SD:	0	0.0001				
%RSD:	0	1.59				

Standard number 3 applied. [1]  
Correlation Coef.: 0.999931 Slope: 0.00572 Intercept: 0.00003

Sequence No.: 5 Autosampler Location: 5  
Sample ID: 2 PPB Date Collected: 1/17/2012 3:23:00 PM  
Analyst: Data Type: Original

## Replicate Data: 2 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0115	0.0454	0.0116	15:23:56	Yes
2		[2]	0.0115	0.0442	0.0115	15:24:28	Yes
Mean:		[2]	0.0115				
SD:		0	0.0001				
%RSD:		0	0.53				

Standard number 4 applied. [2]  
Correlation Coef.: 0.999984 Slope: 0.00573 Intercept: 0.00002

Sequence No.: 6 Autosampler Location: 6  
Sample ID: 5 PPB Date Collected: 1/17/2012 3:24:29 PM  
Analyst: Data Type: Original

## Replicate Data: 5 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0297	0.1161	0.0298	15:25:25	Yes
2		[5]	0.0295	0.1143	0.0295	15:25:57	Yes
Mean:		[5]	0.0296				
SD:		0	0.0002				
%RSD:		0	0.60				

Standard number 5 applied. [5]  
Correlation Coef.: 0.999917 Slope: 0.00592 Intercept: -0.00009

Sequence No.: 7 Autosampler Location: 7  
Sample ID: 10 PPB Date Collected: 1/17/2012 3:25:59 PM  
Analyst: Data Type: Original

## Replicate Data: 10 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.0597	0.2270	0.0597	15:26:54	Yes
2		[10]	0.0591	0.2263	0.0591	15:27:26	Yes
Mean:		[10]	0.0594				
SD:		0	0.0004				
%RSD:		0	0.69				

Standard number 6 applied. [10]  
Correlation Coef.: 0.999978 Slope: 0.00595 Intercept: -0.00012

Sequence No.: 8 Autosampler Location: 8  
Sample ID: 25 PPB Date Collected: 1/17/2012 3:27:27 PM  
Analyst: Data Type: Original

## Replicate Data: 25 PPB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[25]	0.1424	0.5564	0.1424	15:28:23	Yes
2		[25]	0.1429	0.5553	0.1429	15:28:55	Yes
Mean:		[25]	0.1426				
SD:		0	0.0004				
%RSD:		0	0.25				

Standard number 7 applied. [25]  
Correlation Coef.: 0.999855 Slope: 0.00572 Intercept: 0.00036

## Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calibration Blank	0.0000	0	-0.063	0.00	0.5
.2 PPB	0.0012	0.2	0.143	0.00	2.8
.5 PPB	0.0029	0.5	0.448	0.00	0.0
1 PPB	0.0057	1.0	0.938	0.00	1.6
2 PPB	0.0115	2.0	1.946	0.00	0.5
5 PPB	0.0296	5.0	5.110	0.00	0.6
10 PPB	0.0594	10.0	10.318	0.00	0.7
25 PPB	0.1426	25.0	24.859	0.00	0.2

Correlation Coef.: 0.999855 Slope: 0.00572 Intercept: 0.00036

Sequence No.: 9  
Sample ID: ICV (2)  
Analyst:

Autosampler Location: 10  
Date Collected: 1/17/2012 3:28:57 PM  
Data Type: Original

## Replicate Data: ICV (2)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	19.81	19.81	0.1137	0.4413	0.1137	15:29:55	Yes
2	19.95	19.95	0.1145	0.4397	0.1145	15:30:28	Yes
Mean:	19.88	19.88	0.1141				
SD:	0.096	0.096	0.0005				
%RSD:	0.481	0.481	0.48				

QC value within limits for Hg 253.7 Recovery = 99.39%  
All analyte(s) passed QC.

Sequence No.: 10  
Sample ID: ICB  
Analyst:

Autosampler Location: 1  
Date Collected: 1/17/2012 3:30:29 PM  
Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	0.0001	0.0005	0.0001	15:31:25	Yes
2	-0.054	-0.054	0.0000	0.0003	0.0001	15:31:58	Yes
Mean:	-0.052	-0.052	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	5.261	5.261	26.01				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 11  
Sample ID: MB 12507 (1)  
Analyst:

Autosampler Location: 11  
Date Collected: 1/17/2012 3:31:59 PM  
Data Type: Original

## Replicate Data: MB 12507 (1)

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	0.0002	0.0016	0.0002	15:32:56	Yes
2	-0.037	-0.037	0.0002	0.0015	0.0002	15:33:28	Yes
Mean:	-0.036	-0.036	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.413	2.413	3.22				

Sequence No.: 12  
Sample ID: LCSW 12507  
Analyst:

Autosampler Location: 12  
Date Collected: 1/17/2012 3:33:29 PM  
Data Type: Original

## Replicate Data: LCSW 12507

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.42	10.42	0.0600	0.2268	0.0600	15:34:24	Yes
2	10.31	10.31	0.0593	0.2251	0.0594	15:34:57	Yes
Mean:	10.37	10.37	0.0597				

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SD: 0.080 0.080 0.0005  
 %RSD: 0.775 0.775 0.77

Sequence No.: 13  
 Sample ID: LCSW MR 12507  
 Analyst:

Autosampler Location: 13  
 Date Collected: 1/17/2012 3:34:58 PM  
 Data Type: Original

Replicate Data: LCSW MR 12507

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.28	10.28	0.0592	0.2270	0.0592	15:35:54	Yes
2	10.20	10.20	0.0587	0.2230	0.0587	15:36:26	Yes
Mean:	10.24	10.24	0.0589				
SD:	0.056	0.056	0.0003				
%RSD:	0.550	0.550	0.55				

Sequence No.: 14  
 Sample ID: 63748-002  
 Analyst:

Autosampler Location: 14  
 Date Collected: 1/17/2012 3:36:27 PM  
 Data Type: Original

Replicate Data: 63748-002

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	0.0001	-0.0002	0.0001	15:37:23	Yes
2	-0.052	-0.052	0.0001	-0.0002	0.0001	15:37:55	Yes
Mean:	-0.051	-0.051	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.833	1.833	7.70				

Sequence No.: 15  
 Sample ID: 63748-002 MR  
 Analyst:

Autosampler Location: 15  
 Date Collected: 1/17/2012 3:37:57 PM  
 Data Type: Original

Replicate Data: 63748-002 MR

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.055	-0.055	0.0000	-0.0004	0.0001	15:38:52	Yes
2	-0.059	-0.059	0.0000	-0.0008	0.0000	15:39:25	Yes
Mean:	-0.057	-0.057	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	5.493	5.493	51.63				

Sequence No.: 16  
 Sample ID: 63748-002 MS1  
 Analyst:

Autosampler Location: 16  
 Date Collected: 1/17/2012 3:39:26 PM  
 Data Type: Original

Replicate Data: 63748-002 MS1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.16	10.16	0.0585	0.2203	0.0585	15:40:22	Yes
2	10.01	10.01	0.0576	0.2170	0.0576	15:40:54	Yes
Mean:	10.08	10.08	0.0581				
SD:	0.109	0.109	0.0006				
%RSD:	1.079	1.079	1.07				

Sequence No.: 17  
 Sample ID: 63748-002 MS2  
 Analyst:

Autosampler Location: 17  
 Date Collected: 1/17/2012 3:40:55 PM  
 Data Type: Original

Replicate Data: 63748-002 MS2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.19	10.19	0.0587	0.2166	0.0587	15:41:51	Yes
2	10.05	10.05	0.0579	0.2142	0.0579	15:42:23	Yes
Mean:	10.12	10.12	0.0583				
SD:	0.094	0.094	0.0005				

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%RSD: 0.933 0.933 0.93

Sequence No.: 18 Autosampler Location: 18  
 Sample ID: 63748-001 Date Collected: 1/17/2012 3:42:25 PM  
 Analyst: Data Type: Original

## Replicate Data: 63748-001

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	0.0001	-0.0003	0.0001	15:43:20	Yes
2	-0.055	-0.055	0.0000	-0.0004	0.0001	15:43:53	Yes
Mean:	-0.052	-0.052	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	6.659	6.659	32.92				

Sequence No.: 19 Autosampler Location: 19  
 Sample ID: 63748-003 Date Collected: 1/17/2012 3:43:54 PM  
 Analyst: Data Type: Original

## Replicate Data: 63748-003

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	0.0001	0.0000	0.0001	15:44:53	Yes
2	-0.055	-0.055	0.0000	-0.0006	0.0001	15:45:26	Yes
Mean:	-0.054	-0.054	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	4.701	4.701	26.23				

Sequence No.: 20 Autosampler Location: 20  
 Sample ID: 63748-004 Date Collected: 1/17/2012 3:45:27 PM  
 Analyst: Data Type: Original

## Replicate Data: 63748-004

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	0.0001	0.0005	0.0001	15:46:22	Yes
2	-0.052	-0.052	0.0001	-0.0001	0.0001	15:46:55	Yes
Mean:	-0.049	-0.049	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	10.39	10.39	34.73				

Sequence No.: 21 Autosampler Location: 9  
 Sample ID: CCV Date Collected: 1/17/2012 3:46:56 PM  
 Analyst: Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.09	10.09	0.0581	0.2208	0.0581	15:47:52	Yes
2	10.15	10.15	0.0584	0.2227	0.0584	15:48:24	Yes
Mean:	10.12	10.12	0.0583				
SD:	0.042	0.042	0.0002				
%RSD:	0.416	0.416	0.41				

QC value within limits for Hg 253.7 Recovery = 101.17%  
 All analyte(s) passed QC.

Sequence No.: 22 Autosampler Location: 1  
 Sample ID: CCB Date Collected: 1/17/2012 3:48:25 PM  
 Analyst: Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0001	0.0013	0.0001	15:49:21	Yes
2	-0.052	-0.052	0.0001	0.0006	0.0001	15:49:53	Yes
Mean:	-0.047	-0.047	0.0001				

SD: 0.008 0.008 0.0000  
 %RSD: 16.78 16.78 47.31

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 21

Sample ID: 63748-005

Date Collected: 1/17/2012 3:49:55 PM

Analyst:

Data Type: Original

Replicate Data: 63748-005

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	0.0001	0.0013	0.0002	15:50:52	Yes
2	-0.040	-0.040	0.0001	0.0009	0.0002	15:51:24	Yes
Mean:	-0.039	-0.039	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.312	2.312	3.83				

Sequence No.: 24

Autosampler Location: 22

Sample ID: 63748-006

Date Collected: 1/17/2012 3:51:25 PM

Analyst:

Data Type: Original

Replicate Data: 63748-006

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0000	-0.0016	0.0000	15:52:21	Yes
2	-0.062	-0.062	0.0000	-0.0012	0.0000	15:52:54	Yes
Mean:	-0.064	-0.064	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	3.937	3.937	238.59				

Sequence No.: 25

Autosampler Location: 9

Sample ID: CCV

Date Collected: 1/17/2012 3:52:55 PM

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.12	10.12	0.0582	0.2208	0.0583	15:53:51	Yes
2	10.11	10.11	0.0582	0.2194	0.0582	15:54:24	Yes
Mean:	10.11	10.11	0.0582				
SD:	0.005	0.005	0.0000				
%RSD:	0.052	0.052	0.05				

QC value within limits for Hg 253.7 Recovery = 101.13%  
 All analyte(s) passed QC.

Sequence No.: 26

Autosampler Location: 1

Sample ID: CCB

Date Collected: 1/17/2012 3:54:25 PM

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.062	-0.062	0.0000	-0.0007	0.0000	15:55:21	Yes
2	-0.057	-0.057	0.0000	0.0000	0.0001	15:55:53	Yes
Mean:	-0.059	-0.059	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	6.142	6.142	92.46				

QC value within limits for Hg 253.7 Recovery = Not calculated  
 All analyte(s) passed QC.

**Metal Data**  
**Digestion Logbook Data**

**ICP SAMPLE PREPARATION LOG**

ANALYTICAL METHOD: 3010A 3005A 3050B (6020) 200.2 OTHER \_\_\_\_\_  
 Batch No.: 13495 Analyst: JY  
 QC Number: 12507 Prep Date: 1/17/12  
 Matrix: SW846 Reviewed By: SB

LAB ID#	ICP		ICP-MS (Secondary dil)		TCLP		COMMENTS
	Initial	Final	Aliquot	Final	Eff	TCLP	
Method blank	50ml	50ml				--	
LCS						--	
LCSD						--	
1. AC 63748-002							
MR 63748-002							
MS 63748-002							
MSD 63748-002							
2. 63748-001							
3. 63748-003							
4. 63748-004							
5. 63748-005							
6. 63748-006							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

Hot Plate Temperature: 93.2 C (90-95° C)

	Volume mL	Lot #
LCS, LCSD	0.5ml	V-6495, 6496
LLCS, LLLCSD		V-
MS, MSD	0.5ml	V-6495, 6496
LLMS, LLMSD		V-

Acid	Vol mL	Lot#
HNO <sub>3</sub>	3ml	V-6454
HCl		V-
H <sub>2</sub> O <sub>2</sub>		V-

Acid	Vol mL	Lot#
1:1 HNO <sub>3</sub>		V-
1:1 HCl	5	V-130673

Relinquished By JY Date 1/17/12  
 Received By SB Date 1/17/12

HG SAMPLE PREPARATION LOG

ANALYTICAL METHOD: 245.1 7470A 7471A OTHER \_\_\_\_\_

Batch No.:\* 13495

Analyst: JH

QC Number: 12507

Prep Date: 1/17/12

Matrix: SW846

Review By: JA

LAB ID#	MERCURY		COMMENTS
	INITIAL	FINAL	
Method blank	25ml	25ml	
LCS			
LCS D			
1 AC 63748-002			
MR 63748-002			
MS 63748-002			
MSD 63748-002			
2 63748-001			
3 63748-003			
4 63748-004			
5 63748-005			
6 63748-006			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Lot Numbers	Acid	Volume (mL)	Lot #
KmnO <sub>4</sub> : V- 131852	HNO <sub>3</sub>	0.625ml	V- 6454
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : V- 126648	HCl		V-
NH <sub>2</sub> OH: V- 131432	H <sub>2</sub> SO <sub>4</sub>	1.25 ml	V- 6386
	Aqua Regia		V-

**Block Temp.: 91.9 C
Time In Block: 11:50
Time Out of Block: 13:50
** Required range = 90-95°

Spike Volume & Lot #

LCS v. 132780 0.15v (0.25 ml)

MS v. 132780 0.250 ml

Standards/Control Batch B- 11775

Relinquished By: JH

\*25 mLs of each standard was digested with this batch using the same reagents and at the same time as the above samples. The preparation of each standard may be referenced in Veriproq using the standard batch number and the corresponding V #s.

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